

# RCT of a Mentoring and Skills Group Program: Placement and Permanency Outcomes for Foster Youth

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## KEY WORDS

foster care, child abuse and neglect, child welfare, clinical trial

## ABBREVIATIONS

CI—confidence interval  
 FHF—Fostering Healthy Futures  
 OR—odds ratio  
 RTC—residential treatment center  
 TPR—termination of parental rights

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**WHAT'S KNOWN ON THIS SUBJECT:** Children in foster care are at elevated risk for adverse outcomes. Placement instability and failure to achieve timely permanence exacerbate that risk. A handful of studies have found that parent-management training is effective in promoting placement stability and timely permanence.



**WHAT THIS STUDY ADDS:** Unlike parent-management training, youth focused interventions have not been systematically evaluated for their impact on placement and permanency outcomes. A mentoring and skills group intervention for preadolescents in foster care demonstrated better placement and permanency outcomes, especially for high-risk subgroups.

## abstract



**OBJECTIVE:** To examine the impact of a mentoring and skills group intervention for preadolescent children in foster care on placement stability and permanence at 1-year postintervention.

**METHODS:** A randomized controlled trial was conducted with 9- to 11-year-old children who were maltreated and placed in foster care ( $n = 54$  control;  $n = 56$  intervention). State child welfare records provided information on number of placement changes, placement in residential treatment, and case closure (ie, permanency). Rates of adoption and reunification were also examined. Analysis was by intention to treat.

**RESULTS:** After controlling for baseline functioning and preintervention placement history, intervention youth were 71% less likely to be placed in residential treatment (odds ratio [OR] = 0.29, 95% confidence interval [CI] 0.09–0.98). There were no significant treatment differences in predicting placement changes or permanency for the total sample. Among a subsample of children living in nonrelative foster care at baseline, intervention youth had 44% fewer placement changes (incidence ratio = 0.56, 95% CI 0.34–0.93), were 82% less likely to be placed in a residential treatment center (OR = 0.18, 95% CI 0.03–0.96), and were 5 times more likely to have attained permanency at 1 year postintervention (OR = 5.14, 95% CI 1.55–17.07). More intervention youth had reunified 1-year postintervention [ $\chi^2(1, N = 78) = 3.99; P < .05$ ], and the pattern of findings suggested that intervention youth had higher rates of adoption. A significant interaction [ $\chi^2(1, N = 110) = 5.43; P = .02$ ] demonstrated that the intervention attenuated the impact of baseline behavior problems on placement changes.

**CONCLUSIONS:** The findings suggest that participation in a 9-month mentoring and skills group intervention leads to greater placement stability and permanence, especially for children in nonrelative foster care. *Pediatrics* 2012;130:e33–e39

In the United States in 2009, 6 million children were referred to Child Protective Services, and maltreatment was substantiated for 702 000 of these children (almost 1% of the US child population).<sup>1</sup> On September 30, 2009, 423 773 children were living in foster care and had been in care for an average of 26.7 months. Almost half (48%) were living in nonrelative foster care, 24% were living in foster homes with relatives, 4% were in preadoptive homes, and the remainder were in group homes, institutions, supervised independent living, on a trial home visit, or on the run. The children's mean age was 9.6, and African American and multiracial children were overrepresented.<sup>2</sup>

Legislation has prioritized permanency, safety, and well-being for children with child welfare involvement, but many children who enter foster care do not experience placement stability or achieve permanence (defined as reunification, adoption, or guardianship) in a timely manner.<sup>3</sup> Research has identified several child, family, and system characteristics that predict placement instability and failure to achieve timely permanence for children in foster care: being older, being placed in care with a nonrelative (versus a relative), and having a prior history of removal, placement instability, and/or residential treatment.<sup>4–13</sup> One of the most robust predictors of negative placement and permanency outcomes is a child's behavioral and mental health problems.<sup>7–10,12,13</sup>

Although it is widely believed that placement changes are harmful and that permanency is beneficial for children involved in the child welfare system, it has been difficult to establish empirically the relationship between placement characteristics and child well-being, in part because many studies have not controlled for children's baseline functioning. A handful of studies that have controlled for baseline functioning have found that placement

instability increases behavior problems, especially for children with high numbers of placement changes,<sup>12,14</sup> but that early behavior problems also predict later behavior problems, after controlling for placement changes.<sup>5,14</sup>

Most of the preventive interventions that have been effective in increasing placement stability and permanency have incorporated parent management training for foster and biological parents. Studies have found that participation in these interventions is associated with fewer negative exits from foster placements and greater permanency.<sup>8,15–17</sup> Interestingly, 2 of these studies found that the interventions moderated the association between placement instability and permanency outcomes.<sup>15,17</sup> Another study found that placement changes predicted dysregulation in cortisol for the control group only.<sup>18</sup>

Our study adds to the growing body of literature by examining the impact of a child-focused intervention on permanency and placement outcomes. The Fostering Healthy Futures (FHF) program is a 9-month preventive intervention for preadolescent children aged 9 to 11 who were recently placed in foster care because of child maltreatment. FHF includes 2 major components: skills groups and mentoring. Skills groups, which have been used effectively with other high-risk preadolescent populations, were designed to bring children in foster care together to reduce stigma and provide opportunities for them to learn skills in a supportive environment. Mentoring, which has demonstrated short-term efficacy in some studies, was designed to provide children in foster care with an additional supportive adult who could serve as a role model and advocate.

It was hypothesized that youth randomized to the intervention would have fewer placement changes, be less likely to be placed in a residential treatment setting, and be more likely to attain permanency 1 year postintervention. It

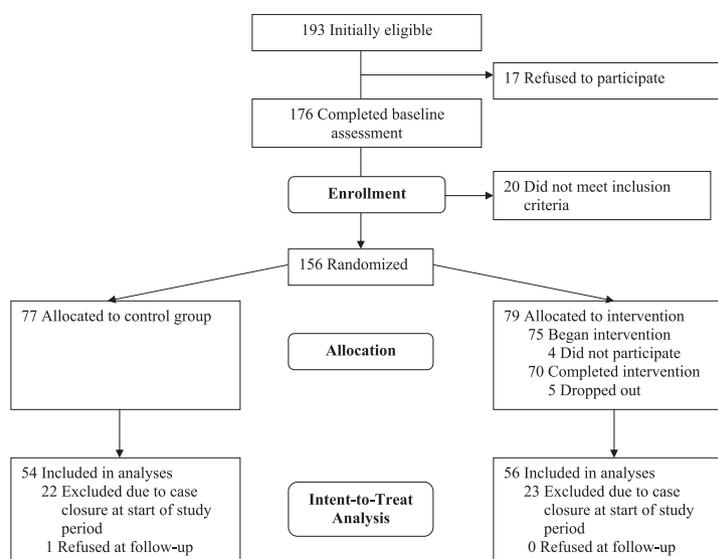
was also hypothesized that participation in the intervention would attenuate the well-documented relationship between behavior problems and placement instability.

## METHODS

### Participants

This randomized controlled study was conducted from July 2002 to November 2010 in 2 participating Colorado counties. Participants were recruited in 5 cohorts over 5 consecutive summers from a comprehensive list of children aged 9 to 11 who had been placed in foster care in the participating counties. Children were recruited if they (1) had been placed in foster care by court order because of maltreatment within the preceding year, (2) currently resided in foster care within a 35-minute drive to skills groups sites, (3) had lived with their substitute caregiver for at least 3 weeks, and (4) were not monolingual Spanish speaking (although their caregivers could be). When multiple members of a sibling group were eligible, 1 sibling was randomly selected to participate in the study. Participation was voluntary and could not be court ordered. We hypothesized, a priori, that the intervention would take a few months to affect behavioral and mental health functioning and that changes in placements and permanency would not be realized before then. For this reason, we examined outcomes within a study time frame that began 3 months into the 9-month intervention. Because the current study's outcomes include placement changes and permanency outcomes, only children who had open cases at the start of the study time frame were included in analyses.

As the Consolidated Standards of Reporting Trials diagram in Fig 1 shows, 91% percent of eligible children and their substitute caregivers agreed to participate. After the baseline interview and before randomization, 13.3% of the



**FIGURE 1**  
Consolidated Standards of Reporting Trials diagram.

participants were deemed ineligible for  $\geq 1$  of the following reasons: they had information on their child welfare records (obtained postinterview) that made them ineligible (eg, incorrect birth date), they were developmentally delayed, and/or they were not proficient enough in English to participate in the skills groups. Of the remaining 156 who were randomized to treatment and control groups, 45 were excluded from the current analyses ( $n = 22$  control and  $n = 23$  intervention) because they did not have open child welfare cases at the start of the study time frame (ie, 3 months after the intervention began). In addition, 1 child withdrew from the study. Therefore, for the study's analyses, there were 54 control participants and 56 intervention participants.

### Study Protocol and Randomization

The study protocol was internal review board–approved, and informed consent and assent were obtained. After the baseline interview, children were randomized to control and intervention groups after stratifying on gender and county. All children were manually randomized, by cohort, in a single block. Child welfare records were obtained at

baseline and 1 year after the last cohort completed the intervention.

### Intervention

The 9-month FHF preventive intervention consisted of 2 components: (1) manualized skills groups and (2) one-on-one mentoring.<sup>19</sup> The program was designed to be “above and beyond treatment as usual;” both children in the control and intervention groups should have received any services that would typically be provided to them through social services (eg, therapy, visitation). Although eligibility criteria required that children be in foster care at the start of the intervention, their participation continued (with appropriate consent) if they reunified or changed placements during the intervention. The intervention was mainly child focused because the skills groups were for children only, and mentoring activities involved one-on-one activities in the community. The interventionists (ie, mentors and program staff) never made recommendations to social services regarding placements or permanency goals, although mentors and program staff did report all suspected maltreatment.

### Skills Groups

FHF skills groups met for 30 weeks for 1.5 hours per week during the academic year and included 8 to 10 children and 2 group facilitators. The FHF skills groups followed a manualized curriculum that combined traditional cognitive-behavioral skills group activities with process-oriented material. Units addressed topics including emotion recognition, perspective taking, problem solving, anger management, cultural identity, change and loss, healthy relationships, peer pressure, abuse prevention, and future orientation.<sup>19</sup> The skills group curriculum was based on materials from evidence-based skills group programs, including Promoting Alternative Thinking Strategies<sup>20</sup> and Second Step,<sup>21</sup> which were supplemented with project-designed exercises from multicultural sources.

### Mentoring

The mentoring component of the FHF program provided 30 weeks of one-on-one mentoring for each child. Mentors were graduate students in social work who received course credit for their work on the project. Mentors were each paired with 2 children with whom they spent 2 to 4 hours of individual time each week. Mentors received weekly individual and group supervision and attended a weekly didactic seminar, all of which were designed to support mentors as they (1) created empowering relationships with children, serving as positive examples for future relationships; (2) advocated for appropriate services; (3) helped children generalize skills learned in group by completing weekly activities; (4) engaged children in a range of extracurricular, educational, social, cultural, and recreational activities; and (5) promoted attitudes to foster a positive future orientation.

### Sources of Data

Data were obtained from (1) baseline interviews with children and their

caregivers, (2) social histories completed by caseworkers at intake, (3) legal petitions filed in the dependency and neglect court that led to foster care placement, and (4) administrative case and placement records from the statewide administrative database. There were no missing records. Placement and permanency outcomes were examined within an 18-month period beginning 3 months into the intervention and ending 1-year postintervention or at case closure (whichever came first).

### Baseline Control Variables

On the basis of the literature review, baseline control variables (covariates) included (1) number of foster care placements before the start of the intervention, (2) whether a child had ever experienced placement in a residential treatment before the start of the intervention, (3) type of baseline placement (with nonrelative, with relative, or in residential treatment), and (4) externalizing (ie, rule-breaking, aggressive) behavior problems (as rated by the child's caregiver on the Child Behavior Checklist at the baseline interview).

### Outcome Measures

The primary outcome measures included number of placement changes over the 18-month study period, whether a child had experienced a new placement in a residential treatment center (RTC) during the 18-month period, and whether a child had attained permanency by 1-year postintervention. Case closure was used as the index of permanency. Secondary outcomes included 2 types of permanence: adoption and reunification with biological parents.

### Statistical Analyses

Intervention effects on the count of placement changes were estimated by using generalized linear models with negative binomial error assumptions, and intervention effects on the dichotomous

variables indexing RTC placement and permanency were estimated by using logistic linear models. In all cases, the core statistical models included the 2-level treatment factor (treatment versus control) and were tested both with and without the 4 covariates described above. To test the hypothesis that participation in the intervention would attenuate the relationship between behavior problems and placement instability, interaction terms (treatment status  $\times$  baseline externalizing behavior problems) were added to core statistical models of placement changes and permanency but not to models of RTC placement because of the low event rate. Finally, intervention effects on adoption and reunification were examined within the subset of youth eligible for these outcomes.

As shown in Table 1, descriptive analyses suggested that most children living with a relative (called "kinship care") at baseline did not have many placement changes, were not subsequently placed in an RTC, and achieved permanence within the 18-month period. For these reasons, the core statistical models were conducted within the subsample of youth living in nonrelative foster homes at baseline (subsequently referred to as the "foster care subgroup"). The subsample of youth living in an RTC at baseline ( $n = 9$ ) was too small to permit similar analyses. All analyses were conducted with the intent-to-treat sample by using SAS, version 9.2 (SAS Institute Inc, Cary, NC).

## RESULTS

Sample characteristics are shown in Table 2. Randomization worked well to balance characteristics by intervention status with the exception of maternal criminal history and moral neglect (which differed between groups at  $P < .05$ ). These characteristics, however, were not associated with any of the dependent variables (data not shown) and were therefore not included as covariates in the models. Intervention effects on number of placement changes, new RTC placement, and permanency for the total sample and the foster care subgroup are summarized in Table 3. For the total sample, the intervention group was 71% less likely to have a new RTC placement over the 18-month time frame. Within the foster care subgroup, intervention youth experienced 44% fewer placement changes than control youth, were 82% less likely to experience a new RTC placement, and were 5 times more likely to have achieved permanency 1-year postintervention.

As shown in Fig 2, tests of the treatment  $\times$  behavior problems interaction term with the full sample suggested that the association between baseline behavior problems and placement changes was attenuated by participation in the intervention,  $\chi^2(1, N = 110) = 5.43$ ;  $P = .02$ . The interaction was not significant in analyses that modeled placement changes for the foster care subgroup or in the analyses that modeled permanency, although the pattern of results was similar (data not shown).

**TABLE 1** Descriptive Statistics for the Primary Outcome Variables

Primary Outcome Variables	Total Sample ( $N = 110$ )	Placement Type at Baseline		
		Foster ( $n = 61$ )	Kinship ( $n = 40$ )	Residential ( $n = 9$ )
No. of placement changes, mean (SD)	0.91 (1.37)	1.10 (1.31)	0.33 (0.94)	2.22 (2.11)
Any new RTC placement, %	17.3	21.3	5.0	44.4
Permanency, %	50.9	32.8	77.5	55.6

RTC, residential treatment center; SD, standard deviation.

**TABLE 2** Baseline Characteristics

	Control (n = 54)	Intervention (n = 56)	Total (n = 110)
<b>Child characteristics</b>			
Age, mean (SD)	10.54 (0.91)	10.38 (0.85)	10.46 (0.88)
Male, %	51.9	51.8	51.8
Hispanic, %	52.0	40.4	46.1
African American, %	26.9	42.3	34.6
Caucasian, %	55.8	52.8	54.3
IQ scores, mean (SD)	93.56 (12.44)	98.00 (12.93)	95.82 (12.83)
Externalizing problems, mean T score (SD)	64.04 (11.51)	64.21 (11.13)	64.13 (11.27)
<b>Maternal characteristics</b>			
Controlled substance use history, %	55.6	69.6	62.7
Criminal history, %	44.4	64.3	54.5
Mental illness, %	35.2	41.1	38.2
Maltreatment history, %	16.7	23.2	20.0
<b>Maltreatment type</b>			
Physical abuse, %	25.9	39.3	32.7
Sexual abuse, %	16.7	12.5	14.5
Neglect—failure to provide, %	51.9	48.2	50.0
Neglect—lack of supervision, %	72.2	78.6	75.5
Emotional maltreatment, %	70.4	58.9	64.5
Moral neglect (exposure to illegal activity), %	24.1	42.9	33.6
<b>Child welfare and placement history</b>			
Referrals preintervention, mean (SD)	2.87 (2.27)	3.18 (2.31)	3.03 (2.28)
D in current episode of foster care, mean (SD)	235 (108)	250 (111)	242 (109)
D in current placement, mean (SD)	223 (134)	212 (131)	217 (132)
Placements preintervention, mean (SD)	3.17 (2.67)	3.20 (2.55)	3.18 (2.60)
Any RTC placement preintervention, %	22.2	26.8	24.5
Prior episode of foster care, %	38.9	35.7	37.3
<b>Placement type</b>			
Placement in nonrelative foster care at baseline, %	57.4	53.6	55.5
Placement in kinship (ie, relative) care at baseline, %	35.2	37.5	36.4
Placement in RTC at baseline, %	7.4	8.9	8.2

RTC, residential treatment center; SD, standard deviation.

Treatment effects on adoption were estimated for the subsample of youth with termination of parental rights (TPR;  $n = 32$ ) and who were therefore “freed” for adoption. Although numbers were too small for conventional statistical tests, 5 of 19 (26%) intervention children had been adopted 1-year postintervention, compared with 1 of 13 (8%) control children. Among children who started in foster care, 2 of 9 (22%) intervention youth had been adopted, compared with none of the 10 control children with TPR. Finally, treatment effects on reunification were estimated for the subsample of youth whose parental rights had not been terminated ( $n = 78$ ) and could therefore reunify. Among children without

TPR, 19 of the 37 (51%) intervention youth had reunified 1-year postintervention, compared with 12 of 41 (29%) of the control youth [ $\chi^2(1, N = 78) = 3.99; P < .05$ ]. Within the foster care subsample, 12 of 21 (57%) intervention youth had reunified, compared with 5 of 21 (24%) control youth [ $\chi^2(1, N = 42) = 4.96; P = .03$ ].

## DISCUSSION

This rigorous randomized controlled trial demonstrated the positive impact of a mentoring and skills group preventive intervention on placement and permanency outcomes 1-year postintervention. After controlling for baseline externalizing behavior problems, as

well as preintervention placement history, children who were randomized to the treatment condition evidenced fewer placements in RTCs. Among the subgroup of children living in nonrelative foster care at baseline, those in the intervention had fewer placement changes, were less likely to be placed in an RTC, and were more likely to have attained permanency 1 year postintervention. Furthermore, more intervention youth had reunified 1-year postintervention, and the pattern of findings suggested that intervention youth had higher rates of adoption.

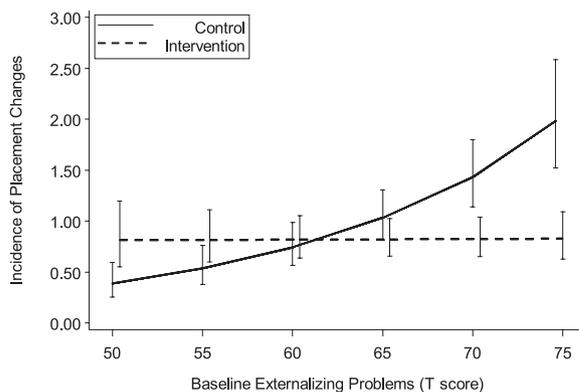
Although these findings are consistent with the small but growing body of literature on the efficacy of interventions for child welfare outcomes, this study strengthens these findings in several important ways. First, child welfare administrative records were used to code a number of permanency and placement records, thereby reducing any biases associated with self- or caregiver-report data. Second, the study was able to control for baseline behavioral functioning, a powerful predictor of placement instability and residential treatment. Finally, this is the first known study to demonstrate the positive effects of a child-focused intervention (without a parent/caregiver training component) on placement and permanency outcomes. The study also found that participation in the intervention attenuated the association between baseline behavior problems and placement instability, suggesting that intervention effects on placement outcomes might be explained by a reduction in emotional and behavioral problems. A prior investigation of FHF demonstrated that the treatment group had fewer mental health problems 6-months' postintervention.<sup>22</sup>

The current study's results suggest that there may be substantial cost savings associated with the FHF program. For example, in a study of a dozen Colorado

**TABLE 3** Impact of the FHF Intervention on the Primary Outcome Variables for the Total and Foster Care Samples

Primary Outcomes	Without Covariates			With Covariates				
	Actual Incidence/%		IR/OR (95% CI)	P	Adjusted Incidence/%		IR/OR (95% CI)	P
	Control	Treatment			Control	Treatment		
<b>Placement Changes</b>								
Total	1.11	0.71	0.64 (0.35–1.19)	.16	1.08	0.73	0.68 (0.40–1.16)	.17
Foster Care	1.45	0.73	0.51 (0.27–0.95)	.04	1.21	0.67	0.56 (0.34–0.93)	.03
<b>Any RTC Placement</b>								
Total	24.1%	10.7%	0.38 (0.13–1.08)	.06	23.5%	8.2%	0.29 (0.09–0.98)	.04
Foster Care	32.3%	10.0%	0.23 (0.06–0.96)	.03	20.7%	4.4%	0.18 (0.03–0.96)	.03
<b>Permanency</b>								
Total	44.4%	57.1%	1.67 (0.78–3.54)	.18	50.6%	65.0%	1.81 (0.77–4.22)	.17
Foster Care	16.1%	50.0%	5.20 (1.57–17.18)	.004	16.2%	49.8%	5.14 (1.55–17.07)	.005

Covariates included number of foster care placements before the intervention, whether a child had been placed in a RTC before the intervention, type of baseline placement, and baseline externalizing behavior problems. CI, confidence interval; Foster Care, subsample placed in nonrelative foster care at baseline ( $n = 31$  control,  $n = 30$  treatment); IR, incidence ratio; OR, odds ratio; RTC, residential treatment center; SD, standard deviation; Total, total sample ( $n = 54$  control,  $n = 56$  treatment).



**FIGURE 2**

Interaction between intervention status and externalizing behavior problems in predicting number of placement changes, after adjusting for baseline placement characteristics. Figure shows covariate adjusted incidence estimates  $\pm$  1 SE by intervention status for 6 levels of behavior problems.

counties in 2008, the average length of stay in an RTC was 177 days at a cost of \$30 329. For foster care (through child placement agencies), the average length of stay was 227 days, costing \$12 485.<sup>23</sup> Although there may be a cost savings associated with the FHF program, we must caution that these improved placement and permanency outcomes may not translate to better child well-being. Although the pattern of results suggests that improvements in childhood functioning may be driving intervention effects on placement and permanency outcomes, the resulting impact on child functioning is not yet known. A recent study of infants in foster

care found better outcomes for children who reunified or were adopted, compared with children who remained in foster care.<sup>24</sup> Evidence from other studies, however, suggests that permanency does not always lead to favorable outcomes. For example, studies have found that reunification may place children at risk for adverse outcomes.<sup>25,26</sup> Therefore, although the current study's findings are encouraging, it will be important to understand the implications of these placement and permanency outcomes through longitudinal research that examines child well-being over time.<sup>27</sup> Although the study sample size was moderate and the study was conducted

in only 2 US counties, the methodology strengthens the study's generalizability. The study recruited 91% of all eligible children in participating counties, and only 1 participant was lost at follow-up. The study was not, however, without limitations. As stated earlier, because each of the placement and permanency outcomes could have occurred at any point within the study time frame, the study was unable to assess whether concurrent mental health and behavioral functioning mediated the impact of the intervention on these outcomes. The study was also unable to assess whether placement changes occurred because of a positive (eg, moving from RTC to foster care, moving to be with siblings) or negative (eg, behavioral problems) reason. In fact, because all moves were counted as placement changes (including moves to adoptive homes), our findings may actually be conservative. Finally, although some interventions that have targeted permanency have demonstrated effects in lowering child abuse recidivism and rates of reentry,<sup>17,28</sup> our intervention was not designed to target this outcome.

## CONCLUSIONS

Increasing placement stability and permanence are long-standing goals of the child welfare system, and studies have demonstrated that stability can lead to improved child well-being.<sup>29</sup> Although most methods to achieve these goals have included working with biological and substitute parents, often times the permanency plan is unclear for months and may depend on the child's functioning. Targeting positive youth development may empower preadolescent children in foster care to contribute to their own placement stability and help them attain a permanent home more quickly, thereby enabling them to foster their own healthy futures.

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