

Impact of a Mentoring and Skills Group Program on Mental Health Outcomes for Maltreated Children in Foster Care

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Objective: To evaluate the efficacy of the Fostering Healthy Futures program in reducing mental health problems and associated problems.

Design: Randomized controlled trial.

Setting: Denver metropolitan area.

Participants: Children aged 9 to 11 years who were maltreated and placed in foster care.

Intervention: Children in the control group (n=77) received an assessment of their cognitive, educational, and mental health functioning. Children in the intervention group (n=79) received the assessment and participated in a 9-month mentoring and skills group program.

Main Outcome Measures: Children and caregivers were interviewed at baseline prior to randomization, immediately following the intervention, and 6 months after the intervention. Teachers were interviewed 2 times after baseline. Measures included a multi-informant index of mental health problems, youth-reported symptoms of posttraumatic stress, dissociation, and quality of life, and caregiver- and youth-reported use of mental health services and psychotropic medications.

Results: After adjusting for covariates, intent-to-treat analyses demonstrated that the treatment group had fewer mental health problems on a multi-informant factor 6 months after the intervention (mean difference, -0.51 ; 95% confidence interval, -0.84 to -0.19), reported fewer symptoms of dissociation 6 months after the intervention (mean difference, -3.66 ; 95% confidence interval, -6.58 to -0.74), and reported better quality of life immediately following the intervention (mean difference, 0.11 ; 95% confidence interval, 0.03 to 0.19). Fewer youths in the intervention group than in the control group had received recent mental health therapy 6 months after the intervention according to youth report (53% vs 71%, respectively; relative risk=0.75; 95% confidence interval, 0.57 to 0.98).

Conclusions: A 9-month mentoring and skills group intervention for children in foster care can be implemented with fidelity and high uptake rates, resulting in improved mental health outcomes.

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IN THE UNITED STATES IN 2007, 5.8 million children were referred to Child Protective Services and maltreatment was substantiated for 794 000 of them (approximately 1% of the child population).¹ In the same year, 496 000 children were in foster care on September 30 (approximately 0.7% of the child population).^{1,2} African American and multiracial children were overrepresented among children in foster care.³

Children who have been maltreated and placed in foster care are at risk for significant mental health problems including depression, posttraumatic stress, dissociation, social problems, suicidal behavior, attention-deficit/hyperactivity disorder,

and conduct disorders.⁴⁻⁷ In a large study of children receiving child welfare services, 42% met diagnostic criteria for a *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition) diagnosis.⁶ Studies of Medicaid claims suggest that as many as 57% of youths in foster care meet criteria for a mental disorder.⁸

Rates of service use are also higher among children placed in foster care.⁹ One California study found that children in foster care, who represented less than 4% of Medi-Cal-eligible children, accounted for 41% of all users of Medi-Cal mental health services.¹⁰ Another study found that children in foster care used more mental health services (including hospitalizations) than did children in the Aid to Families With

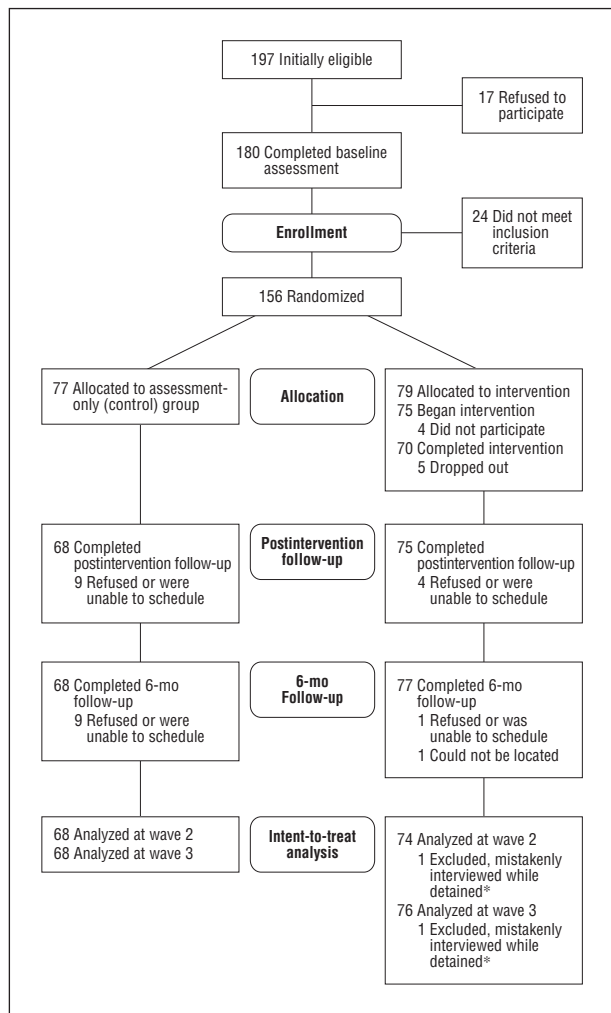


Figure. Consolidated Standards of Reporting Trials (CONSORT) diagram. *At both follow-up times, 1 child was mistakenly interviewed while detained (the interviewers were told by the child's legal guardian, who provided consent, that the child was in a residential treatment facility). Because the study had not yet obtained an approved prisoner protocol through our institutional review board and the Office for Human Research Protections, these data were unable to be analyzed.

Dependent Children program or children receiving Supplemental Security Income.^{8,11} Although children in foster care are significant consumers of mental health services, some evidence suggests that many children do not receive needed services. In a recent, nationally representative study, between 37% and 44% of youths with child welfare service involvement scored in the borderline or clinical ranges on measures of mental health functioning, but only 11% of these youths were receiving outpatient mental health services.¹²

Despite the need for contextually sensitive, evidence-based prevention and intervention efforts for this high-risk population, few rigorous trials have been conducted. The Fostering Healthy Futures (FHF) 9-month preventive intervention was designed for preadolescent children aged 9 to 11 years recently placed in foster care due to child maltreatment. The FHF intervention includes 2 major components: skills groups and mentoring. Skills groups, which have been used effectively with other high-risk preadolescent populations, were de-

signed 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 youths randomized to the intervention would evidence better self-esteem, social support, social acceptance, and coping skills immediately following the program and that these improvements would be associated with better mental health functioning and improved quality of life 6 months after the program.

METHODS

PARTICIPANTS

The study was conducted from July 2002 to January 2009 in 2 participating Colorado counties. Participants were recruited in 5 cohorts over 5 consecutive summers from a list of all children aged 9 to 11 years who were placed in foster care in participating counties. Children were recruited if they met the following criteria: (1) had been placed in foster care by court order due to maltreatment within the preceding year; (2) currently resided in foster care within a 35-minute drive to skills group sites; (3) had lived with their current caregiver for at least 3 weeks; and (4) demonstrated adequate proficiency in English (although their caregivers could be monolingual Spanish speaking). When multiple members of a sibling group were eligible, 1 sibling was randomly selected to participate in the randomized controlled trial. Letters explaining the study were sent to families, followed by recruitment calls a week later. Participation was voluntary and could not be court ordered.

As the Consolidated Standards of Reporting Trials (CONSORT) diagram in the **Figure** shows, 91% of eligible children and their caregivers agreed to participate. After the baseline interview and prior to randomization (T1), 13% of the participants were deemed ineligible for the following reasons: 6 were no longer in foster care, 7 had information on their child welfare records (obtained after the interview) that made them ineligible (eg, incorrect birth date), 9 were developmentally delayed, and 2 were not proficient enough in English to participate in the skills groups. Of the remaining 156 who were randomized to treatment and control groups, 8% were lost to follow-up immediately following the intervention (T2) and 7% were lost to follow-up 6 months after the intervention (T3).

STUDY PROTOCOL

The study protocol was approved by the institutional review board, and informed consent and assent were obtained. All children who participated in the baseline interview ($n=180$) were screened for cognitive, educational, and mental health problems using standardized tests of intellectual ability¹³ and academic achievement¹⁴ as well as normed caregiver- and child-report measures of psychological functioning. The findings and accompanying recommendations were summarized in reports provided to children's caseworkers, who were encouraged to use the reports to advocate for educational and mental health evaluation and services.

Eligible children in both the assessment-only group (hereafter referred to as the control group) and the assessment-plus-intervention group (hereafter referred to as the intervention group) were assessed 3 times: (1) baseline (2-3 months prior to the start of the intervention); (2) T2, immediately follow-

ing the intervention (11-13 months after baseline); and (3) T3, 6 months after the intervention (17-20 months after baseline). At each interview, children and their current caregivers were interviewed by separate interviewers, typically at the child's residence. Interviewers were masked to the participants' condition, although some participants spontaneously disclosed their treatment condition. Children and caregivers were paid \$40.00 for their participation. Teachers of participating children were also surveyed during the spring of 2 consecutive years—at 10 months after baseline and 1 year later. At 10 months after baseline, 92% of children's teachers were interviewed; 1 year later, 89% of children's teachers were interviewed. Following the baseline interview, children were randomized after stratifying by sex and county. All children were manually randomized, by cohort, in a single block.

INTERVENTION

The 9-month FHF preventive intervention consisted of 2 components: (1) manualized skills groups; and (2) one-on-one mentoring by graduate students in social work (FHF is described in detail elsewhere¹⁵). The program was designed to be above and beyond treatment as usual. Although eligibility criteria required that children be in foster care at the start of the intervention, if they reunified or changed placements during the intervention, their participation continued following appropriate consent.

Skills Groups

The FHF skills groups met for 30 weeks for 1.5 h/wk during the academic year and included 8 to 10 children and 2 group facilitators (licensed clinicians and graduate student trainees). 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.¹⁵ The skills group curriculum was based on materials from evidence-based skills group programs, including Promoting Alternative Thinking Strategies^{16,17} and Second Step,¹⁸ which were supplemented with project-designed exercises from multicultural sources. The skills group curriculum included weekly activities that encouraged children to practice newly learned skills with their mentors in their communities.

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. They also transported children to and from skills groups and joined the skills groups for dinner. Mentors received weekly individual and group supervision and attended a 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) ensured that children received appropriate services in multiple domains and served as a support for children as they faced challenges within various systems; (3) helped children generalize skills learned in group to the "real world" 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 ori-

entation. All of the mentoring activities used by mentors were individually tailored for each child based on the children's presenting problems, strengths, and interests as well as their family and placement characteristics.¹⁵

PROGRAM UPTAKE AND FIDELITY

Children attended a mean (SD) of 25.0 (5.8) of the 30 skills groups (median, 26.5) and a mean (SD) of 26.7 (6.2) of the 30 targeted mentoring visits (median, 28.0). These numbers include data from children who withdrew from the program (n=5). The 30 skills group sessions included 108 discrete activities.¹⁵ Across 11 groups, a mean (SD) of 103.8 (5.2) of the 108 group activities (median, 105.5) were completed.

PRIMARY OUTCOME MEASURES

Mental health functioning was assessed using the following: (1) child self-report on the posttraumatic stress and dissociation scales of the Trauma Symptom Checklist for Children,¹⁹ a widely used symptom-oriented measure of mental health problems; and (2) a multi-informant index of mental health problems. The mental health index was created based on principal components factor analysis of the children's mean scores on the Trauma Symptom Checklist for Children and the internalizing scales of the Child Behavior Checklist²⁰ and the Teacher Report Form,²⁰ completed by children's caregivers and teachers. The Child Behavior Checklist and Teacher Report Form are well-normed measures of child emotional and behavior problems. The factor score explained 42% of the variance in these measures, and factor loadings ranged from 0.59 to 0.70. Children also completed the Life Satisfaction Survey,²¹ a quality-of-life measure that asks respondents to rate satisfaction in several different domains (eg, school, home, health, friendships). Children's use of mental health services and psychotropic medications was assessed based on the following: (1) caregiver report of services and medications used within the past month; and (2) child report of services and medications used within the past 9 months at T2 and the past 6 months at T3.

SECONDARY OUTCOME MEASURES

Other constructs related to mental health functioning were also examined. These included the following (all child self-report measures): (1) positive and negative coping scales from the Coping Inventory,²² which includes 42 strategies for coping with problems; (2) the social acceptance and global self-worth scales of the Self-Perception Profile for Children,^{23,24} a widely used measure of perceived self-competence; and (3) a social support factor score, created based on principal components factor analysis of scale scores from the People in My Life–Short Form^{25,26} used to assess social support from caregivers, peers, and mentors (each in a separate scale). The social support factor score explained 45% of the variance in these 3 scales; factor loadings ranged from 0.63 to 0.74.

STATISTICAL ANALYSES

Equivalence between intervention and control groups on baseline characteristics and outcome measures was assessed using χ^2 tests for categorical variables and 1-way analysis of variance for continuous variables. Attrited and nonattrited youths were compared on all baseline measures. We also used χ^2 tests to assess whether the rate of attrition varied by treatment condition (the child whose data were excluded from analyses was included in the noninterviewed group in attrition analyses).

Table 1. Baseline Differences

Characteristic	No. (%)	
	Control (n=77)	Intervention (n=79)
Baseline characteristic		
Child characteristic		
Age, mean (SD), y	10.4 (0.9)	10.4 (0.9)
Male	38 (49)	41 (52)
Race/ethnicity		
Hispanic	43 (56)	35 (44)
African American	19 (25)	27 (34)
White	34 (44)	33 (42)
IQ score, mean (SD)	94.0 (12.5)	98.3 (12.8) ^a
Maternal characteristic		
Controlled substance use history	45 (58)	56 (72)
Criminal history	34 (44)	51 (65) ^a
Mental illness	29 (38)	31 (39)
Maltreatment history	15 (20)	19 (24)
Maltreatment characteristic		
Family referrals to social services, mean (SD), No.	3.2 (3.4)	4.2 (4.8)
Time in foster care, mean (SD), y	0.6 (0.4)	0.6 (0.3)
Physical abuse	19 (25)	31 (39) ^a
Sexual abuse	11 (14)	7 (9)
Failure-to-provide neglect	40 (52)	37 (47)
Lack-of-supervision neglect	57 (74)	61 (77)
Emotional abuse	51 (66)	45 (57)
Moral neglect, exposure to illegal activity	21 (27)	32 (40) ^b
Outcome measure		
Primary variable		
MH factor score, multi-informant, mean (SD)	0.03 (1.0)	-0.03 (1.0)
Youth report		
Posttraumatic symptoms <i>t</i> score, mean (SD)	48.0 (9.5)	47.7 (9.1)
Dissociation symptoms <i>t</i> score, mean (SD)	48.5 (9.7)	48.7 (9.5)
Quality-of-life score, mean (SD)	2.7 (0.3)	2.7 (0.3)
Received MH therapy ever	55 (71)	56 (71)
Received medication for MH problems ever	11 (14)	13 (17)
Caregiver report		
Received MH therapy in past month	47 (64)	50 (63)
Received medication for MH problems in past month	9 (12)	9 (11)
Secondary variable, youth report, mean (SD)		
Positive coping	1.9 (0.4)	2.0 (0.4) ^b
Negative coping	1.2 (0.2)	1.2 (0.2)
Global self-worth	3.4 (0.6)	3.5 (0.6)
Social acceptance	3.0 (0.8)	3.2 (0.8)
Social support factor score	-0.14 (1.0)	0.13 (1.0) ^b

Abbreviation: MH, mental health.

^a $P < .05$.^b $P < .10$.

Linear regression was used to estimate effect sizes for continuous outcome variables, adjusting for baseline scores on the outcome measures and those variables that differed between conditions at baseline. Effect sizes were estimated with Cohen *d*, calculated as the difference between the adjusted means for the intervention and control conditions divided by the pooled standard deviation. Poisson regression with robust error variance was used to estimate relative risks for dichotomous outcomes, adjusting for baseline scores on corresponding out-

come measures and those covariates that differed at baseline. Effect sizes were estimated as relative risks. All analyses used the intent-to-treat sample. The sample size for each analysis varied slightly due to missing data on outcome variables. All analyses were conducted using SAS version 9.2 statistical software (SAS Institute, Inc, Cary, North Carolina).

RESULTS

DIFFERENCES ON BASELINE CHARACTERISTICS

Youths in the intervention group (as compared with those in the control group) were more likely to have higher IQ scores ($F_{1,155}=4.52$; $P=.04$), to have been physically abused ($n=156$; $\chi^2_1=3.80$; $P=.05$), and to have mothers with criminal histories ($n=156$; $\chi^2_1=6.54$; $P=.01$) (**Table 1**). A trend suggested that youths in the intervention group (as compared with those in the control group) were more frequently exposed to illegal activity ($n=156$; $\chi^2_1=3.04$; $P=.08$). All 4 of these variables were used as covariates in linear and Poisson regression models.

ATTRITION

Those interviewed at follow-up were compared with non-interviewed children on all baseline characteristics and outcome measures. At T2 and T3, those not interviewed had lower IQ scores (at T2: $F_{1,155}=9.99$; $P=.002$; at T3: $F_{1,155}=16.34$; $P<.001$). Those not interviewed at T3 scored higher on the mental health factor score ($F_{1,156}=4.72$; $P=.03$). The χ^2 analyses suggested that rates of attrition did not differ by treatment condition at either T2 ($n=156$; $\chi^2_1=1.37$; $P=.24$) or T3 ($n=156$; $\chi^2_1=3.42$; $P=.06$).

OUTCOME ANALYSES

Intervention effects on primary and secondary outcomes at T2 and T3 are summarized in **Table 2** and **Table 3**, respectively. All analyses controlled for the corresponding T1 score and those covariates that differed between groups at baseline.

PRIMARY OUTCOMES

At T2 there were no group differences on mental health symptoms, but at T3 the youths in the intervention group scored lower on the multi-informant mental health factor (mean difference, -0.51 ; 95% confidence interval [CI], -0.84 to -0.19). At T3 the youths in the intervention group also reported fewer symptoms of dissociation than did control youths (mean difference, -3.66 ; 95% CI, -6.58 to -0.74), and there was a trend suggesting that they were less likely to report symptoms of posttraumatic stress (mean difference, -2.79 ; 95% CI, -5.77 to 0.19). At T2 the groups did not differ on self- or caregiver-reported use of mental health services or psychotropic medication. At T3, however, youths in the intervention group were less likely than those in the control group to report receiving recent mental health therapy (53% vs 71%, respectively; relative risk=0.75; 95% CI, 0.57 to 0.98). At T2 the youths in the intervention group scored higher on a self-report scale measuring quality of life (mean difference, 0.11; 95% CI, 0.03 to 0.19).

Table 2. Impact of the Fostering Healthy Futures Intervention on Outcome Variables Immediately Following the Intervention

Outcome	Participants, No.	Mean (SE)				Adjusted Mean Difference (95% CI)	Cohen <i>d</i> or RR (95% CI) ^a	<i>P</i> Value
		Actual		Adjusted				
		Control	Intervention	Control	Intervention			
Primary outcome								
MH symptoms factor, youth, caregiver, and teacher report	127	-0.06 (0.13)	0.05 (0.12)	-0.04 (0.11)	0.04 (0.11)	0.07 (-0.25 to 0.39)	0.07 (-0.25 to 0.39)	.66
Youth report								
Trauma symptoms	140	45.44 (1.25)	44.18 (1.17)	45.33 (1.19)	44.28 (1.12)	-1.05 (-4.33 to 2.33)	-0.10 (-0.43 to 0.22)	.53
Dissociation	140	46.23 (1.21)	45.76 (1.21)	46.64 (1.14)	45.39 (1.07)	-1.24 (-4.39 to 1.90)	-0.13 (-0.45 to 0.19)	.44
Quality of life	140	2.66 (0.03)	2.78 (0.03)	2.66 (0.03)	2.78 (0.03)	0.11 (0.03 to 0.19)	0.42 (0.12 to 0.71)	.006
Recent MH therapy, %	139	71	66	71	63	NA	0.88 (0.70 to 1.11)	.28
Recent MH psychotropic medications, %	140	21	19	14	9	NA	0.65 (0.33 to 1.29)	.22
Caregiver report								
Current MH therapy, %	133	70	57	68	55	NA	0.81 (0.62 to 1.06)	.12
Current MH psychotropic medications, %	132	22	19	12	13	NA	1.07 (0.59 to 1.94)	.83
Secondary outcome, youth report								
Positive coping	140	1.89 (0.05)	1.99 (0.04)	1.93 (0.04)	1.96 (0.04)	0.03 (-0.08 to 0.14)	0.09 (-0.22 to 0.39)	.59
Negative coping	140	1.23 (0.02)	1.21 (0.02)	1.22 (0.02)	1.21 (0.02)	-0.01 (-0.07 to 0.04)	-0.08 (-0.41 to 0.25)	.64
Global self-worth	140	3.42 (0.08)	3.49 (0.07)	3.44 (0.07)	3.47 (0.06)	0.03 (-0.15 to 0.21)	0.05 (-0.25 to 0.34)	.76
Social acceptance	140	3.03 (0.09)	3.25 (0.09)	3.08 (0.09)	3.20 (0.08)	0.12 (-0.12 to 0.36)	0.16 (-0.15 to 0.48)	.32
Social support factor	140	-0.23 (0.13)	0.21 (0.11)	-0.13 (0.11)	0.12 (0.10)	0.25 (-0.05 to 0.54)	0.25 (-0.05 to 0.54)	.10

Abbreviations: CI, confidence interval; MH, mental health; NA, not applicable; RR, relative risk.

^aCohen *d* is calculated as the difference between the adjusted means divided by the pooled standard deviation.

SECONDARY OUTCOMES

There were no statistically significant differences between groups on any of the scales measuring secondary outcomes at T2 or T3, although a trend suggested that youths in the intervention group were more likely than those in the control group to report receiving social support at T2 (mean difference, 0.25; 95% CI, -0.05 to 0.54).

COMMENT

To our knowledge, this is the first study to test, in a rigorous randomized controlled trial, the impact of a mentoring and skills group preventive intervention on the mental health outcomes of preadolescent maltreated children placed in foster care. The intervention demonstrated a significant effect in reducing mental health symptoms, especially those associated with trauma, anxiety, and depression, in this high-risk population. These findings are strengthened because the study controlled for baseline functioning and because multiple informants reported on children's mental health functioning. In addition, the pattern of results suggested that program participants were less likely to use mental health therapy and psychotropic medication.

Although mental health functioning improved among program participants relative to those in the control group, the effect was not apparent until 6 months after the intervention. Group differences on primary outcomes were not expected at T2 for several reasons. First, we hypothesized that improved functioning on primary outcomes would follow improved functioning on secondary out-

comes. It was also hypothesized that short-term mental health functioning among program participants might be adversely affected by participants' need to say goodbye to mentors and program staff on completion of the program, which corresponded with the T2 follow-up. Although study hypotheses about mental health effects and their timing were supported, hypotheses about short-term effects on secondary outcomes were not. The overall pattern of results on short-term effects, however, was in the expected direction, and a trend suggested that program participation was associated with higher perceived social support at T2.

Findings of program efficacy are consistent with a large body of evidence suggesting that skills training curricula are effective in reducing risk and promoting mental health. Skills groups have demonstrated efficacy in multiple contexts and with diverse populations, including maltreated youth.²⁷⁻²⁹ Social skills groups may be particularly useful for children in foster care as they often lack critical social skills, may have recently changed schools and peer groups, and may know no other children in foster care.

On the other hand, our study's findings provide valuable information to inform the evidence base for mentoring, which has much less empirical support despite its ideological promise.^{30,31} Although some studies suggest that mentoring can have a positive effect on youth functioning,³²⁻³⁵ there is reason for caution. Experimental studies of mentoring programs, particularly randomized controlled trials, are rare, and some studies fail to produce evidence of efficacy.³⁶⁻³⁹ Two recent large-scale evaluations of programs with a mentoring component

Table 3. Impact of the Fostering Healthy Futures Intervention on Outcome Variables 6 Months After the Intervention

Outcome	Participants, No.	Mean (SE)				Adjusted Mean Difference (95% CI)	Cohen <i>d</i> or RR (95% CI) ^a	<i>P</i> Value
		Actual		Adjusted				
		Control	Intervention	Control	Intervention			
Primary outcome								
MH symptoms factor, youth, caregiver, and teacher report	132	0.22 (0.14)	-0.20 (0.10)	0.27 (0.12)	-0.25 (0.11)	-0.51 (-0.84 to -0.19)	-0.51 (-0.84 to -0.19)	.003
Youth report								
Trauma symptoms	144	43.71 (1.16)	41.76 (1.02)	44.15 (1.08)	41.36 (1.02)	-2.79 (-5.77 to 0.19)	-0.30 (-0.63 to 0.02)	.07
Dissociation	144	45.51 (1.30)	42.70 (0.92)	45.96 (1.06)	42.30 (1.00)	-3.66 (-6.58 to -0.74)	-0.39 (-0.70 to -0.08)	.02
Quality of life	143	2.74 (0.04)	2.78 (0.03)	2.74 (0.03)	2.78 (0.03)	0.04 (-0.05 to 0.13)	0.14 (-0.17 to 0.45)	.38
Recent MH therapy, %	142	71	54	71	53	NA	0.75 (0.57 to 0.98)	.04
Recent MH psychotropic medications, %	142	22	17	15	10	NA	0.67 (0.34 to 1.31)	.25
Caregiver report								
Current MH therapy, %	135	57	50	58	48	NA	0.82 (0.59 to 1.12)	.21
Current MH psychotropic medications, %	135	24	14	17	10	NA	0.61 (0.30 to 1.27)	.18
Secondary outcome, youth report								
Positive coping	143	1.90 (0.04)	2.02 (0.04)	1.92 (0.04)	2.00 (0.04)	0.09 (-0.03 to 0.20)	0.25 (-0.09 to 0.58)	.15
Negative coping	143	1.24 (0.02)	1.21 (0.02)	1.25 (0.02)	1.20 (0.02)	-0.04 (-0.10 to 0.02)	-0.21 (-0.51 to 0.08)	.16
Global self-worth	143	3.50 (0.07)	3.58 (0.06)	3.48 (0.06)	3.58 (0.06)	0.10 (-0.06 to 0.27)	0.19 (-0.12 to 0.50)	.23
Social acceptance	143	3.16 (0.08)	3.34 (0.07)	3.20 (0.07)	3.30 (0.07)	0.11 (-0.10 to 0.31)	0.17 (-0.15 to 0.48)	.30
Social support factor	142	-0.05 (0.12)	0.03 (0.11)	-0.02 (0.12)	0.00 (0.11)	0.02 (-0.31 to 0.36)	0.02 (-0.31 to 0.36)	.89

Abbreviations: CI, confidence interval; MH, mental health; NA, not applicable; RR, relative risk.

^aCohen *d* is calculated as the difference between the adjusted means divided by the pooled standard deviation.

failed to demonstrate effectiveness, and one of the studies produced iatrogenic effects.^{40,41} Although there has been little empirical research, there has been enormous public and private investment in mentoring programs. More than \$100 million in federal dollars annually since 2004 has been dedicated to mentoring programs nationally.^{42,43} A 2006 social policy report by the Society for Research in Child Development on mentoring research concluded, "There are few other areas where the research-program/policy connection is as badly needed."⁴⁴

The FHF program is one of the first randomized clinical trials with a high-risk population to demonstrate the efficacy of a mentoring program on mental health outcomes. Although the FHF program uses a fairly traditional community-based mentoring model, the fact that it is paired with skills groups may make it particularly effective. Furthermore, FHF mentoring incorporates those practices that appear to enhance the effectiveness of mentoring. A meta-analysis of mentoring programs found that program effects were significantly enhanced when programs targeted high-risk youth and incorporated several best practices. Programs that used mentors with prior experience in a helping role or profession, those that provided for ongoing training of mentors, and those that provided structured activities for mentors and participating youths had the most beneficial effect on youths identified as being at high risk.⁴⁵

The study's methodological approach also speaks to the generalizability of the study findings. All eligible children in participating counties were recruited, and the high recruitment, retention, and program uptake rates suggest that this intervention was contextually sensitive and

well received. Despite the fact that the participants were extremely heterogeneous on sociodemographic factors, maltreatment history, current living situation, and cognitive, academic, emotional, and behavioral functioning, there were important program main effects. The generalizability of the findings is also strengthened by the fact that participants did not self-select into the program (as is the case with most community-based mentoring programs in which participants sign up).

The study also demonstrates that it is possible to conduct a rigorous randomized controlled trial with intent-to-treat analyses in a child welfare population and to obtain information from multiple informants, including teachers. There are many barriers to conducting trials with a foster care population, including changes in legal guardianship, ongoing court processes, multiple system involvement, and the need to report all suspected maltreatment. The ability to conduct this important research speaks to the strength of the collaboration between researchers and participating counties. Despite all the challenges to program completion, all but 5 children who began the 9-month prevention program graduated. In addition, more than 80% of those who either refused the prevention program or dropped out were interviewed at follow-up and included in intent-to-treat analyses. Success in recruitment and retention may be due to the fact that there were small cohorts as we developed and tested the FHF intervention. Such formative work is critical in the development of novel interventions, especially those at risk for iatrogenic effects.⁴⁶ A full-scale efficacy trial is currently under way, which will enable us to test whether the program remains efficacious on a larger scale.

The study was not without limitations. Despite randomization, there were a few key variables on which the 2 groups differed at baseline. Although analyses controlled for these differences, there may have been other, unmeasured factors that affected the baseline equivalence of groups. In addition, those lost to follow-up had lower IQs and more mental health problems than those interviewed, which may limit the generalizability of the findings. Finally, the fact that children are in foster care presents some unique methodological challenges that may have influenced the results. Caregivers of children in foster care are not static; some children had different caregivers at each of the 3 interviews, while other children had the same caregiver. Because caregivers parented these children for variable amounts of time, their knowledge of the children's current functioning and psychosocial histories varied greatly. To minimize the effect of the variability in caregiver familiarity with their children, which was not expected to differ between treatment conditions, the study asked questions of caregivers that focused on current functioning and recent mental health treatment. The addition of teacher reports, in which the informant is expected to vary each year, also mitigates concerns about reporter bias.

Despite study limitations, findings suggest that the FHF mentoring and skills group protocol holds promise and that future work examining program efficacy is warranted. Longer-term follow-up (currently under way) is needed to determine whether effects are sustained and/or whether new effects emerge. Despite the cluster of risks associated with maltreatment, including poverty, high-risk neighborhoods, parental psychopathology, substance use, and domestic violence, this study suggests that the FHF intervention promotes greater life satisfaction and better mental health functioning among maltreated youths placed in foster care. These are important findings given the dearth of evidence-based treatments for this vulnerable population. Although this study needs replication, it may be a promising model, not only for children in foster care but for other high-risk youth populations as well.

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