Children Who Return Home From Foster Care: A 6-Year Prospective Study of Behavioral Health Outcomes in Adolescence

Heather N. Taussig, PhD*; Robert B. Clyman, MD*; and John Landsverk, PhD‡

ABSTRACT. *Objective.* **Returning children to their biological families after placement in foster care (ie, reunification) has been prioritized with legislation. Comprehensive studies of child behavioral health functioning after reunification, however, have not been conducted. This study examined outcomes for youth who were reunified after placement in foster care as compared with youth who did not reunify.**

Design. **Prospective cohort.**

Setting. **Children who entered foster care in San Diego, California, and who remained in foster care for at least 5 months.**

Participants. **A cohort of 149 ethnically diverse youth, 7 to 12 years old, who entered foster care between May 1990, and October 1991. Seventy-five percent of those interviewed at Time 1 were interviewed at Time 2 (6 years later).**

Outcome Measures. **1) Risk behaviors: delinquent, sexual, self-destructive, substance use, and total risk behaviors; 2) Life-course outcomes: pregnancy, tickets/arrests, suspensions, dropping out of school, and grades; 3) Current symptomatology: externalizing, internalizing, total behavior problems, and total competence.**

Results. **Compared with youth who were not reunified, reunified youth showed more self-destructive behavior (0.15 vs −0.11), substance use (0.16 vs −0.11), and total risk behavior problem standardized scores (0.12 vs −0.09). Reunified youth were more likely to have received a ticket or have been arrested (49.2% vs 30.2%), to have dropped out of school (20.6% vs 9.4%), and to have received lower grades (6.5 vs 7.4). Reunified youth reported more current problems in internalizing behaviors (56.6 vs 53.0), and total behavior problems (59.5 vs 55.7), and lower total competence (41.1 vs 45.0). There were no statistically significant differences between the groups on delinquency, sexual behaviors, pregnancy, suspensions, or externalizing behaviors. Reunification status was a significant predictor of negative outcomes in 8 of the 9 regression equations after controlling for Time 1 behavior problems, age, and gender.**

Conclusions. **These findings suggest that youth who reunify with their biological families after placement in foster care have more negative outcomes than youth who do not reunify. The implications of these findings for policy and practice are discussed.** *Pediatrics* **2001;108(1). URL: http://www.pediatrics.org/cgi/content/full/108/1/e10; *foster care, risk behaviors, child abuse, adolescence.***

From the *Kempe Children's Center, Department of Pediatrics, University of Colorado Health Sciences Center, Denver, Colorado, and the ‡School of Social Work, San Diego State University, San Diego, California.

Received for publication Nov 14, 2000; accepted Feb 22, 2001.

Reprint requests to (H.N.T.) Kempe Children's Center, University of Colorado Health Sciences Center, 1825 Marion St, Denver, CO 80218. E-mail: taussig.heather@tchden.org

ABBREVIATIONS. SD, standard deviation; CBCL, Child Behavior Checklist.

Children entering foster care have high rates of emotional, behavioral, developmental, and physical health problems and are in need of many specialized services.[1–6] In one California study, children in foster care comprised <4% of Medi-Cal–eligible children, but accounted for 41% of all children who used Medi-Cal mental health services.[7] The limited long-term research on children in foster care suggests that they are at risk for continued difficulties, including not finishing high school, incarceration, and chronic problems with employment and housing.[8–13]

In 1980, Public Law 96–272, the Adoption Assistance and Child Welfare Act, was passed because of the increase in the number of children entering foster care and concerns about child welfare practices.[14,15] The goals of this law were to decrease the number of children in foster care, decrease the length of time children spent in foster care, and increase permanent placements.[16] This legislation directed child welfare policy toward reunification (defined as the physical reunion of children in foster care with their families of origin[17]) for almost 2 decades.[9] After the passage of Public Law 96–272, the number of children in foster care and the length of time they spent in foster care initially decreased.[15,16] By the mid-1980s, however, the number of children entering foster care was rising and increased dramatically by 95.3% (280 000–547 000) from 1986 to 1999.[18,19]

The outcome literature examining the effects of Public Law 96–272 has primarily focused on descriptive data, reporting that between 50% and 75% of children placed in out-of-home care eventually reunify, and between 20% and 40% of those reunified subsequently reenter foster care.[16,20–26] Research has also examined those factors that predict the likelihood of reunification for children in foster care. The child factors associated with lower rates of reunification include being either an infant or adolescent, being black, and having been removed for neglect.[21,27–33] The 2 family-of-origin factors associated with lower rates of reunification include lack of parental visitation while children are in foster care and family poverty.[21,26–32,34,35] Finally, the child welfare variables associated with lower rates of reunification include longer time in out-of-home care and having been placed with a relative.[21,34–36] Gender has con-

sistently been found not to influence the likelihood of reunification.[21,28,33,35,36]

Although the correlates of reunification have been studied, research has not focused on exploring child functioning as an outcome of reunification. The assumption is often made that reunification is the optimal outcome for children placed in out-of-home care,[14,15] yet there has been no empirical research to support this assertion.[37,38] Reunification is believed to be the most favorable because 1) youth who do not reunify have less contact with their biological families, believed by many to be necessary for optimal development;[15,38,39] and 2) youth who remain in foster care experience more placement changes, and therefore less stability, than youth who reunify. Additionally, there is evidence that youth who have fewer mental health and developmental problems are more likely to reunify.[6,31]

Despite these arguments and beliefs, there is no coherent evidence that maltreated children who are reunified after placement in foster care do better than children who are not reunified. Although studies have not systematically explored this question, 3 studies have found better outcomes for children who were not reunified including gains in intelligence scores,[40] greater overall well-being,[41] and less criminal recidivism[8] than children who were reunified with their families of origin.[9,20] These studies, however, did not control for previous behavioral functioning at entry to foster care or comprehensively examine children's behavioral health outcomes.

Using a prospective cohort design, the current study represents the first attempt to systematically compare the behavioral and emotional functioning of children who were reunified from foster care with children who were not reunified, controlling for functioning and symptoms at entry to foster care. Youth entering foster care over an 18-month period were interviewed 6 months and then 6 years after their removal from their homes. Those who were ever reunified over the 6-year period were compared with those who were not reunified on measures of emotional and behavioral health functioning, 6 years after their initial placement.

METHODS

Participants

Time 1

Children between the ages of 7 and 12 who entered the foster care system between May 1990 and October 1991 in San Diego, California were recruited for the Time 1 interview if they met 3 criteria: 1) they were a new referral to the child welfare system, 2) they became legal dependents of the court as a result of substantiated maltreatment, and 3) they remained in foster care for at least 5 months.[42] Thirty-seven (11.4%) of the 324 youth who were placed in foster care during this period reunified within 5 months, and were therefore ineligible for the study. Of the 287 youth who met the recruitment criteria, 214 (74.6%) youth were registered for the Time 1 study, which consisted of interviewing the children and their current caregivers approximately 6 months after their removal from home.[42] Those who were registered did not differ from those who were not registered (N = 73, 25.4%) on age, sex, ethnicity, or type of maltreatment.

Time 2

Of the 214 youth interviewed at Time 1, 200 were eligible for the Time 2 interview, which was conducted 6 years subsequent to the children entering out-of-home care. Fourteen participants were ineligible because of their either missing relevant Time 1 data (N = 3), residing outside the United States (N = 6), or having significant developmental delays (N = 5). Of the 200 eligible participants, 13 to 17 years old at the Time 2 interview, 149 (74.5%) were located, recruited, and interviewed at Time 2 (only youth were interviewed at Time 2). Forty-two (21.0%) participants were not located, and 9 (4.5%) participants refused participation.

The average length of time between the participants' entering out-of-home care and their Time 2 interviews was 6.03 (standard deviation [SD]: 0.46) years. Slightly more than half (57.0%) of the interviewed sample at Time 2 was female. The mean age of the interviewed sample was 15.1 (SD: 0.40) years. The sample was 43.0% white, 31.5% black, 20.1% Hispanic, and 5.4% other ethnicities (primarily Asian). The types of maltreatment these children had sustained were determined in the Time 1 study from a review of case record data, including the legal petitions and narratives.[43] Of the 149 participants, 59.1% had substantiated neglect, 28.2% physical abuse, 18.1% sexual abuse, and 8.1% emotional abuse (nonexclusive categorization). The categories "other ethnicities" and "emotional abuse" were not included in the analyses because of the small number of participants in these groups.

The analyses below focus on comparing those youth who were reunified over the 6-year period (n= 63, 42.3%) with nonreunified youth (n = 86, 57.7%). Of the youth who were reunified, the mean number of years from entry to reunification was 2.2 (SD: 1.6). At the Time 2 interview, the reunified group had been reunified an average of 4.1 years (SD: 1.6). Only 1 participant had been reunified and subsequently reentered foster care. She was included in the reunified group. Two individuals were reunified during our Time 2 recruitment phase. Because they had not been living with their biological parents for >2 weeks, they were included in the nonreunified group. The reunified group had experienced an average of 4.7 (SD: 5.1) placements (eg, foster, kinship, group home, crisis shelter) during their episode of out-of-home care, before reunification.

The majority (81.4%) of nonreunified youth still had open child welfare cases an average of 6 years after they were removed from their homes. Of the 70 youth with open cases, 37 were in nonrelative foster care, 22 were in relative foster care, and the remaining 11 were in some type of group placement at the Time 2 interview. Of the 16 nonreunified youth with closed child welfare cases, 6 had been adopted, 4 permanently placed with guardians, and the remaining cases closed because of running away (N = 3), incarceration (N = 2), or emancipation (N = 1). The nonreunified group had experienced an average of 8.0 (SD: 6.1) placements between their first out-of-home placement and the Time 2 interview, significantly more (P = .001) than the reunified group.

Attrition Analyses

A greater percentage ($P < .001$) of nonreunified youth (86.9%) were recruited and interviewed at Time 2 than reunified youth (62.4%). We conducted a series of comparisons to determine if there were differences between the interviewed/noninterviewed groups, and whether these differences varied by reunification status. A series of 1-way analysis of variance (with planned comparisons) and χ^2 analyses were conducted to compare 4 groups: reunified/interviewed, reunified/not interviewed, nonreunified/interviewed and nonreunified/not interviewed. Of the 30 statistical tests conducted, comparing the samples on demographic factors, maltreatment types, and Time 1 adaptive, cognitive, and behavioral functioning (as rated by both youth and their caregivers), only 1 attained statistical significance ($P < .05$). Youth in the reunified/noninterviewed group had higher scores on a measure of receptive vocabulary (the Peabody Picture Vocabulary Test) at Time 1 than did children in the nonreunified/interviewed group. Scores on the Peabody Picture Vocabulary Test, however, were unrelated to any of the outcome measures.

Measures

The current study analyzes data collected at both the Time 1 and Time 2 interviews. All questions were administered in a confidential interview format to the youth and their caregivers.

Institutional review board approval was obtained from all institutions involved in the study, and informed consent and assent were obtained.

Time 1 Data

Demographic and Maltreatment Information

Birthdate, gender, ethnicity, and maltreatment data were obtained from chart abstraction of child welfare records and administrative databases.

Time 1 Emotional and Behavioral Symptomatology

The Child Behavior Checklist (CBCL)[44] was completed by each youth's current caretaker at the Time 1 interview. The children had been living with their current caregivers an average of 6.3 (SD: 4.7) months at the time the interview was conducted. The CBCL is a well-normed and validated instrument that is comprised of behavior problem and competency items. The *t*-score for the Total Behavior Problems Scale was used in the analyses described below. Almost half (43.6%) of the sample scored above the clinical cutpoint (*t*-score >63) on the CBCL Total Behavior Problems scale. In normative samples, 10.0% of youth score above the clinical cutpoint on the Total Behavior Problems scale.

Time 2 Data

Lifetime Risk Behaviors

The Adolescent Risk Behavior Survey is a compilation of scales from 3 adolescent risk behavior measures that have shown adequate reliability and validity.[45–47] This self-report instrument contains questions about lifetime engagement in risk behaviors in 4 domains: sexual, substance use, self-destructive/suicidal, and delinquent/violent behaviors. In constructing the Risk Behavior Scales, the frequency of each behavior was used as the unit of measurement. Scores on each item were ranked and standardized to a mean of zero. Items were then added to create the 4 risk behavior scales, resulting in scale means of zero. This transformation process served to remediate the undue influence of outliers, and to reflect the severity of behaviors relative to this cohort's norms.[48]

Seven items comprise the Sexual Behaviors Scale (α = 0.85); they consist of questions regarding number of sexual partners, frequency of intercourse, and use of protection to avoid sexually transmitted diseases and pregnancy. The Delinquency Scale (α = 0.85) consists of 17 items ranging in severity from truancy, starting a fist fight, and shoplifting, to stealing a motor vehicle, being paid for sex, and using a weapon to attack someone. The Substance Use Scale (α = 0.85) consists of 11 items, each of which asks about the frequency of various illicit drug use, ranging from use of marijuana to use of cocaine and heroin. The Self-Destructive Behavior Scale (α = 0.76) consists of 5 items, including lifetime engagement in self-injurious behavior, as well as the frequency of suicide plans and attempts, and whether the suicide attempts required medical attention. In addition to the 4 domains of risk behavior, a Total Risk Behavior Scale was developed by averaging the 4 domain risk behavior scale scores for each participant. The mean and median ages of reported onset of these behaviors were in the 12- to 14-year-old age range, suggesting that these behaviors generally began several years postinitial placement.

Life-Course Outcomes

The Adolescent Risk Behavior Survey also includes questions about life-course outcomes. The variable pregnancy was a dichotomous variable, used to indicate whether a female had ever become pregnant, or if a male had impregnated a female. Seventeen youth (11.4%) reported either becoming pregnant or impregnating someone. The variable tickets/arrests was used to indicate whether a youth had ever received a ticket or had been arrested. Over a third of the total sample (38.3%) reported at least 1 such occurrence, with the offenses ranging from curfew violation and chronic truancy (which result in tickets), to auto theft, armed robbery, and murder. The final 3 life-course outcomes were school-related. Over half of the total sample (55.4%) reported having been suspended from school at least 1 time, and 14.2% reported having dropped out of school. Finally, grades were assessed on a continuous scale from 1 to 11, with a score of 1, representing mostly D's and F's, to a score of 11, representing mostly A's.

Current Emotional and Behavioral Symptomatology

The Youth Self-Report[44] is a parallel version of the CBCL, which assesses behavior problems and competencies. All youth completed this well-validated and normed instrument at Time 2. The *t*-scores from the broad-band scales of Externalizing Behaviors (consisting of the Delinquent and Aggressive Behavior subscales), Internalizing Behaviors (consisting of Anxious/Depressed, Withdrawn, and Somatic Complaints subscales), Total Behavior Problems, and Total Competence (consisting of Activities, Social, and School Performance) were used as dependent measures. According to the youths' self-reports, 18.1% were above the clinical cutpoint on the Internalizing scale, 26.2% on the Externalizing scale, and 24.8% on the Total Behavior Problems scale (*t*-scores >63). On the Total Competence scale, lower scores represent worse functioning, and 10.1% of the Time 2 sample scored below the clinical cutpoint (*t*-scores <37). In normative samples, 10.0% of youth score above the clinical cutpoint on these Youth Self-Report scales.

Statistical Models and Methods of Analysis

χ^2 and *t* test analyses were conducted to examine the bivariate relationships between reunification status and 1) Time 1 variables, and 2) Time 2 outcome variables (ie, lifetime risk behaviors, life-course outcomes, and current symptomatology) for those participants with Time 2 data (N = 149). A series of multiple and logistic regression equations were then constructed to explore the independent effect of reunification status over and above the control variables. The control variables consisted of Time 2 age, gender, and Time 1 total behavior problems. All variables were entered simultaneously into the regression equations.

RESULTS

Comparisons Between Nonreunified and Reunified Youth on Time 1 Variables

Analyses were conducted to determine if there were differences between the reunified and nonreunified youth in age, gender, ethnicity, types of maltreatment, or behavior problems at Time 1. Table 1 displays the descriptive statistics and the results of the χ^2 and *t* test analyses. As shown, there were no statistically significant differences among the reunified and nonreunified groups on any Time 1 variables.

Comparisons Between Nonreunified and Reunified Youth on Time 2 Outcome Variables

As Table 2 indicates, the reunified youth reported more engagement in self-destructive (0.15 vs −0.11; P = .04), substance use (0.16 vs −0.11; P = .02), and total risk behavior problems (0.12 vs −0.09; P = .03) than did nonreunified youth. There was also a trend (P = .11) for the reunified youth to engage in more delinquent behaviors (0.09 vs −0.06). There was no statistically significant difference between the groups on sexual behaviors, although the reports of sexual risk behaviors were in the same direction (0.08 vs −0.06). Reunified youth were also more likely to have received a ticket or have been arrested (49.2% vs 30.2%; P = .02), to have dropped out of school (20.6% vs 9.4%; P = .05), and to have received lower grades (6.5 vs 7.4; P = .03). There was no difference between the groups on pregnancy or suspensions. Reunified youth reported more current problems in internalizing behaviors (56.6 vs 53.0; P = .04), total behavior problems (59.5 vs 55.7; P = .04), and total competence (41.1 vs 45.0; P = .04) than nonreunified

TABLE 1. Comparisons Between Nonreunified and Reunified Youth on Time 1 Variables

Variable	Nonreunified		Reunified		*P* Value
	n	%/M	*n*	%/M	
Age, mean (SD)	86	9.7 (1.6)	63	9.7 (1.5)	.56
Gender, %					
Female	50	58.1%	35	55.6%	
Male	36	41.9%	28	44.4%	.75
Ethnicity, %					
White	34	41.5%	30	50.8%	
Hispanic	17	20.7%	13	22.0%	
Black	31	37.8%	16	27.1%	.39
Type of maltreatment, %					
Sexual abuse	13	15.1%	14	22.2%	.27
Physical abuse	21	24.4%	21	33.3%	.23
Neglect	54	62.8%	34	54.0%	.28
Time 1 CBCL					
Total Behavior Problems, mean *t*-score (SD)	86	59.0 (13.9)	63	60.4 (13.1)	.62

%/M = Percentiles are shown with corresponding *n* values for all variables except age and Time 1 Behavior Problems, where mean values are displayed.

TABLE 2. Comparisons Between Nonreunified and Reunified Youth on Time 2 Outcome Variables

Variable	Nonreunified		Reunified		*P* Value
	n	%/M	*n*	%/M	
Lifetime risk behaviors, mean (SD)					
Delinquency	86	−0.06 (0.46)	63	0.09 (0.63)	.11
Sexual	86	−0.06 (0.68)	63	0.08 (0.79)	.23
Self-Destructive	86	−0.11 (0.57)	63	0.15 (0.86)	.04
Substance Use	86	−0.11 (0.43)	63	0.16 (0.82)	.02
Total Risk Behaviors	86	−0.09 (0.38)	63	0.12 (0.66)	.03
Life-course outcomes, % for all except grades					
Pregnancy	11	12.8%	6	9.5%	.53
Tickets/arrests	26	30.2%	31	49.2%	.02
Suspensions	49	57.6%	33	52.4%	.52
Dropping out of school	8	9.4%	13	20.6%	.05
Grades, mean (SD)	86	7.4 (2.5)	63	6.5 (2.6)	.03
Current Symptomatology (YSR), mean t-score (SD)					
Externalizing	86	57.1 (11.3)	63	59.2 (11.3)	.26
Internalizing	86	53.0 (9.2)	63	56.6 (11.9)	.04
Total behavior problems	86	55.7 (10.2)	63	59.5 (11.9)	.04
Total competence	86	45.0 (11.3)	63	41.1 (10.5)	.04

%/M = Percentiles are shown with corresponding *n* values for the first 4 life-course outcomes. All other values shown are means with accompanying SDs.

youth. There was no statistically significant difference between the 2 groups on externalizing behavior problems.

Overall, the results of this set of bivariate analyses suggested that reunified youth self-reported more risk behaviors, negative life-course outcomes, and greater current symptomatology on 9 of the 14 indices examined. These 9 outcome variables were used as dependent variables in regression analyses.

Multivariate Regression Analyses

Table 3 displays the β coefficients or odds ratio coefficients, and total R^2 and χ^2 values for each of the models constructed. The first 3 rows display the β coefficients for models predicting lifetime risk behaviors. In the model predicting self-destructive behaviors, gender, Time 1 behavior problems and reunification status were significant predictors over and above the others in the model. Specifically, females were more like to engage in self-destructive behaviors, as were those who had higher Time 1 behavior problems, and those who were reunified. In examining the coefficients for the regression equations predicting substance use and total risk behaviors, we find that age, Time 1 behavior problems, and reunification status are independent predictors. Older youth reported greater use of substances and higher total risk behaviors, as did those with higher Time 1 behavior problems, and those who were reunified. Gender was not a significant predictor of substance use or total risk behaviors, after controlling for the other variables in the model.

In examining the life course outcomes (odds ratios shown in the table for all variables except grades), older age and reunification status predicted ever having been arrested or given a ticket. Specifically, reunified youth had twice the odds of being arrested or receiving a ticket as nonreunified youth, after controlling for age, gender, and Time 1 behavior problems. Older age and being female were independent predictors of dropping out of school. Reunification status was not significantly related to dropping

TABLE 3. Multivariate Regression Equations

Dependent Variables	T2 Age β/OR	Gender β/OR	T1 BP β/OR	Reunification β/OR	R^2/χ^2
Lifetime Risk Behaviors					
Self-Destructive	0.12	0.17*	0.19*	0.16*	0.11*
Substance Use	0.33*	−0.10	0.17*	0.17*	0.19*
Total Risk Behavior	0.36*	−0.02	0.25*	0.14*	0.23*
Life-Course Outcomes					
Tickets/Arrests (95% CI)	1.8* (1.4 to 2.4)	0.72 (0.35 to 1.5)	1.0 (0.97 to 1.3)	2.1* (1.0 to 4.3)	26.2*
Dropping Out of School (95% CI)	2.1* (1.3 to 3.3)	5.2* (1.5 to 18.2)	1.0 (1.0 to 1.1)	2.2 (0.77 to 6.5)	28.0*
Grades	0.11	0.02	−0.04	−0.18*	0.04
Current Symptomatology (YSR)					
Internalizing	0.02	0.17*	0.09	0.17*	0.06*
Total Behavior Problems	−0.01	0.23*	0.13	0.17*	0.09*
Total Competence	−0.08	−0.22*	−0.12	−0.16*	0.10*

T1 BP = Time 1 CBCL Total Behavior Problems; Gender: 0 = male, 1 = female. Reunification: 0 = nonreunified and 1 = reunified.
β/OR = Beta or Odds Ratio, depending on the type of dependent variable. Values shown for Tickets/Arrests and Dropout are odds ratios, all other values are beta coefficients.
R^2/χ^2 = R^2 values are for all overall models except Tickets/Arrests and Dropout, where the chi square values are given.
* $P \leq .05$

out of school ($P = .13$). Finally, the continuous variable, grades, was predicted by reunification status, such that reunified youth had lower self-reported grades than nonreunified youth.

In examining the results of the equations predicting Current Symptomatology, being female and reunified were independent predictors of greater internalizing problems, greater Time 2 total behavior problems, and lower total competence. Age and Time 1 behavior problems were not significant independent predictors.

Being reunified was a significant predictor of negative outcomes in the regression models for each dependent variable except dropping out of school (which approached significance). All of the overall models, except for the one predicting grades, were significant, with R^2 ranging from 0.06 to 0.23, and χ^2 values at 26.2 and 28.0.

DISCUSSION

The current study's findings suggest that youth who reunify with their biological families after placement in foster care have more behavioral and emotional health problems than youth who do not reunify. These findings were consistent across the range of outcomes examined: engagement in risk behaviors, life-course outcomes, and current emotional and behavioral symptomatology. Reunified youth had higher problem scores on 9 of the 14 indices examined, and reunification status was a significant predictor of negative outcomes after controlling for age, gender, and Time 1 behavior problems in 8 of the 9 regression equations. These findings are strengthened by the study design, as children were followed prospectively for 6 years, they had been reunified for a lengthy period of time (4 years on average) before the Time 2 assessment, and we controlled for initial behavioral functioning.

Multiple explanations are possible for these findings. One hypothesis is that the factors that led to the youths' initial removal (eg, inadequate parenting) were still present when the youth returned home. In theory, the decision to reunify is based on the remediation of problems that led to the child's initial removal,[26,49] yet studies have found high rates of reabuse and neglect among those returning home.[20,25,50–52] It is also possible that stressors associated with reunification (such as renegotiating relationships), or the sequelae of this stress, led to the negative outcomes observed. Finally, differences between biological parents and substitute parents in risk factors, such as socioeconomic status or the nature of services received, could account for the findings. The current data set does not permit a detailed exploration of these factors.

Researchers and practitioners have argued that there is the need for more intensive (eg, mental health, substance abuse, casework) prereunification services and longer (2–3 years) postreunification services.[16,17,20,41] Little is known about the types of services, if any, families receive after reunification. It is critical to know if better child and family outcomes can be achieved with intensive services. A few studies have implemented intensive reunification services for families, but the outcomes examined have generally focused on the rates of reunification, rather than the child or family functioning after those intensive efforts.[49,53–56] A qualitative study found that reunified families were difficult to locate and recruit for intervention efforts, and that parents were reluctant to admit problems out of fear that their children would be removed again.[50] Clearly any successful intervention program will have to address such complex issues.

Although random assignment to reunification is not possible, no Time 1 variables distinguished those youth who eventually reunified from those who did not. Other unmeasured factors, such as biological parent factors (eg, psychopathology, criminal activity, substance abuse, poverty) or type and length of services received by families might have predicted reunification. Another limitation of the current study is the fact that we were able to locate and interview more nonreunified youth (87%) at Time 2 than reunified youth (62%). There is the possibility that those reunified children whom we were unable to find or

recruit were functioning better than those we were able to find. The current study is also limited in terms of generalizability, as it was conducted in 1 county with youth transitioning into adolescence who remained in out-of-home care for >5 months. A final limitation of the study is that the results are based on youth self-report only. Studies of the validity of self-report data, however, have concluded that self-report data, if collected properly, are generally valid.[57–59]

There was, and continues to be, a pervasive belief that reunification is best for children,[14,15] despite the lack of research to support this assertion.[37,38] Although the current findings are consistent with the limited previous research, additional research is needed to replicate or dispute the current study's findings, to broaden the range of behavioral and emotional health outcomes examined, and to explore why some children who are reunified are functioning well, whereas others are having difficulty. Evaluation of child welfare policy and practice should be based not only on system outcomes (eg, rates of reunification), but also on the impact of such policy and practice directives on behavioral health outcomes for children.[35,38] Indeed, if one had examined only child welfare system outcomes in the current study, reunification would have been found to be a success, because of the low rate of reentry into foster care.

The current study's results should not be misconstrued as an argument against reunification. Rather, the study's findings strongly caution us against presuming that children who return to live with their birth parents have achieved positive outcomes.[24] Too often legislation goes into effect based on ideology, without a strong research basis, and without necessary resources for implementation and evaluation. Recent legislation, the Adoption and Safe Families Act (ASFA, Pl.105–89, 1997),[60] requires states to expedite permanent placement decisions for children in foster care. Although the implications of AFSA are not yet fully understood (and may vary by region), anecdotal reports indicate that social workers and judges are feeling pressure to reunify children swiftly, rather than begin proceedings to terminate parental rights. Although the current study has its limitations, the effects are consistent across different domains, and should give pause to those pressing for prompt reunification. These results should also serve to heighten pediatric monitoring of the behavioral health of children who have returned home from foster care.

Finally, an often missed voice in the debate about what is in the best interest for children in foster care is the voice of the youth themselves.[61] Studies that have interviewed current and former foster children report that the youth generally had positive feelings about being placed in foster care.[61,62] Most youth thought it was in their best interest and reported that things would have gotten worse at home without child welfare intervention.[10,63] On the other hand, children reported missing their biological families, and had many suggestions for improving the foster care system.[10,61–63] These studies perhaps best underscore the mixed emotions, concerns, and perspectives that need to be balanced by all in making weighty decisions that so pervasively affect the lives of children and families.

ACKNOWLEDGMENTS

This research was supported by grants from the National Institute of Mental Health (1 R03 MH56781–01 and K01 MH01972, H. Taussig, PI; K20 MH10279, R. Clyman, PI), as well as grants 1 R01 MH46078, National Institutes of Mental Health, and 90-CA-1458, NCCAN (J. Landsverk, PI).

Several individuals read earlier drafts of this manuscript and provided insightful comments. They include Rick Barth, Sara Culhane, Patrick Curtis, Janice McIntosh, David Olds, Gail Ryan, and Mary Bruce Webb.

We thank the project staff and the youth and families who made this work possible.

REFERENCES

1. Reams R. Children birth to three entering the state's custody. *Infant Ment Health J*. 1999;20:166–174
2. Landsverk J, Garland A. Foster care and pathways to mental health services. In: Curtis P, Dale G, Jr, eds. *The Foster Care Crisis: Translating Research into Practice and Policy*. Lincoln, NE: University of Nebraska Press; 1999
3. Clausen JM, Landsverk J, Ganger W, Chadwick D, Litrownik A. Mental health problems of children in foster care. *J Child Fam Stud*. 1998;7:283–296
4. Halfon N, Mendonca A, Berkowitz G. Health status of children in foster care: The experience of the Center for the Vulnerable Child. *Arch Pediatr Adolesc Med*. 1995;149:386–392
5. Hochstadt NJ, Jaudes PK, Zimo DA, Schachter J. The medical and psychosocial needs of children entering foster care. *Child Abuse Negl*. 1987;11:53–62
6. Horwitz SM, Simms MD, Farrington R. Impact of developmental problems on young children's exits from foster care. *J Develop Behav Pediatr*. 1994;15:105–110
7. Halfon N, Berkowitz G, Klee L. Mental health service utilization by children in foster care in California. *Pediatrics*. 1992;89:1238–1244
8. Jonson-Reid M, Barth R. From placement to prison: The path to adolescent incarceration from child welfare supervised foster or group care. *Child Youth Serv Rev*. 2000;22:493–496
9. McDonald TP, Allen RI, Westerfelt A, Piliavin I. Assessing the long-term effects of foster care: a research synthesis. Washington, DC: Child Welfare League of America; 1996
10. Barth RP. On their own: the experiences of youth after foster care. *Child Adolesc Soc Work*. 1990;7:419–440
11. Cook RJ. Are we helping foster care youth prepare for their future? In: Berrick JD, Barth RP, Gilbert N, eds. *Child Welfare Research Review: Volume 2*. New York, NY: Columbia University Press; 1994:202–218
12. Cook R. *A National Evaluation of Title IV-E Foster Care Independent Living Programs for Youth: Phase 2 Final Report*. Rockville, MD: Westat; 1991
13. Widom CS. The role of placement experiences in mediating the criminal consequences of early childhood victimization. *Am J Orthopsychiatry*. 1991;61:195–209
14. Maluccio AN, Pine BA, Warsh R. Protecting children by preserving their families. *Child Youth Serv Rev*. 1994;16:295–307
15. Maluccio AN, Abramczyk LW, Thomlison B. Family reunification of children in out-of-home care: Research perspectives. *Child Youth Serv Rev*. 1996;18:287–305
16. Fein E, Maluccio AN. Permanency planning: Another remedy in jeopardy? *Soc Serv Rev*. 1992;66:335–348
17. Barth R. Family reunification. In: Berrick JD, Barth RP, Gilbert N, eds. *Child Welfare research review: Volume 2*. New York: Columbia University Press; 1994;219–228
18. US Department of Health and Human Services Children's Bureau Administration on Children Youth and Families. The AFCARS Report: Current estimates as of January 2000. www.acf.dhhs.gov/programs/cb; Accessed May 14, 2001
19. Petit MR, Curtis PA. *Child Abuse and Neglect: A Look at the States*. Washington, DC: Child Welfare League of America Press; 1997
20. Barth RP, Berry M. Implications of research on the welfare of children under permanency planning. In: Barth R, Berrick JD, Gilbert N, eds. *Child Welfare Research Review: Volume 1*. New York, NY: Columbia University Press; 1994

21. Courtney ME. Factors associated with the reunification of foster children with their families. *Soc Serv Rev*. 1994;68:81–108
22. Berrick JD, Needell B, Barth RP, Jonson-Reid M. *The Tender Years: Toward Developmentally Sensitive Child Welfare Services for Very Young Children*. New York, NY: Oxford University Press; 1998
23. Courtney ME. Reentry to foster care of children returned to their families. *Soc Serv Rev*. 1995:226–241
24. Festinger T. *Returning to Care: Discharge and Reentry in Foster Care*. Washington, DC: Child Welfare League of America; 1994
25. Terling T. The efficacy of family reunification practices: Reentry rates and correlates of reentry for abused and neglected children reunited with their families. *Child Abuse Negl*. 1999;23:1359–1370
26. Fraser MW, Walton E, Lewis RE, Pecora PJ, Walton WK. An experiment in family reunification: correlates of outcomes at one year follow up. *Child Youth Serv Rev*. 1996;18:335–361
27. Barth RP, Snowden LR, Broeck ET, Clancy T, Jordan C, Barusch AS. Contributors to reunification or permanent out-of-home care for physically abused children. *J Soc Serv Res*. 1987;9:31–45
28. Benedict MI, White RB. Factors associated with foster care length of stay. *Child Welfare*. 1991;70:45–58
29. Davis IP, Landsverk J, Newton R, Ganger W. Parental visiting and foster care reunification. *Child Youth Serv Rev*. 1996;18:363–382
30. Finch SJ, Fanshel D, Grundy JF. Factors associated with the discharge of children from foster care. *Soc Work Res Abstr*. 1986;22:10–18
31. Landsverk J, Davis I, Ganger W, Newton R, Johnson I. Impact of child psychosocial functioning on reunification from out-of-home placement. *Child Youth Serv Rev*. 1996;18:447–467
32. McMurty SL, Lie G. Differential exit rates of minority children in foster care. *Soc Work Res Abstr*. 1992;28:42–48
33. Davis IP, Landsverk JA, Newton RR. Duration of foster care for children reunified within the first year of care. In: Berrick JD, Barth RP, Gilbert N, eds. *Child Welfare Research Review*. New York, NY: Columbia University Press; 1997
34. Courtney ME, Barth RP. Pathways of older adolescents out of foster care: implications for independent living services. *Soc Work*. 1996;41:75–83
35. Courtney ME, Wong YI. Comparing the timing of exits from substitute care. *Child Youth Serv Rev*. 1996;18:307–334
36. Goerge RM. The reunification process in substitute care. *Soc Serv Rev*. 1990;64:422–457
37. Berliner L. Is family preservation in the best interest of children? *J Interpersonal Violence*. 1993;8:556–557
38. Gelles RJ. Family reunification/family preservation: are children really being protected? *J Interpersonal Violence*. 1993;8:557–562
39. Minty B. Annotation: Outcomes in long-term foster family care. *J Child Psychol Psychiatry*. 1999;40:991–999
40. Fanshel D, Shinn EB. *Children in Foster Care: A Longitudinal Investigation*. New York: Columbia University Press; 1978
41. Lahti J. A follow-up study of foster children in permanent placements. *Soc Serv Rev*. 1982:556–571
42. Landsverk J, Litrownik A, Newton R, Ganger W, Remmer J. *Psychological Impact of Child Maltreatment*. Washington, DC: National Center on Child Abuse and Neglect, Department of Health and Human Services; 1996
43. Garland AF, Landsverk JL, Hough RL, Ellis-MacLeod E. Type of maltreatment as a predictor of mental health service use for children in foster care. *Child Abuse Negl*. 1996;20:675–688
44. Achenbach TM. *Integrative Guide for the 1991 CBCL/4–18, YSR, and TRF profiles*. Burlington, VT: University of Vermont Department of Psychiatry; 1991
45. Huizinga D, Esbensen F. *Scales and Measures of the Denver Youth Survey*. Boulder, CO: Institute of Behavioral Science, University of Colorado; 1990
46. Jessor R, J. E. D, Costa FM. *The Problem Behavior Survey*. Boulder, CO: Institute of Behavioral Science, University of Colorado; 1992
47. American School Health Association. *The National Adolescent Student Health Survey: A Report on the Health of America's Youth*. Oakland, CA: Third Party; 1989
48. Taussig HN. *Risk Behaviors in Maltreated Adolescents* [dissertation]. San Diego, CA: San Diego State University/University of California, San Diego, Joint Doctoral Program in Clinical Psychology; 1998
49. Lewis RE, Walton E, Fraser MW. Examining family reunification services: a process analysis of a successful experiment. *Res Soc Work Pract*. 1995;5:259–282
50. Farmer E. Family reunification with high risk children: lessons from research. *Child Youth Serv Rev*. 1996;18:403–424
51. Runyan DK, Gould CL. Foster care for child maltreatment: impact on delinquent behavior. *Pediatrics*. 1985;75:562–568
52. Wald MS, Carlsmith JM, Leiderman PH. *Protecting Abused and Neglected Children*. Stanford, CA: Stanford University Press; 1988
53. Landy S, Munro S. Shared parenting: assessing the success of a foster parent program aimed at family reunification. *Child Abuse Negl*. 1998;22:305–318
54. Rzepnicki TL, Schuerman JR, Johnson PR. Facing uncertainty: reuniting high-risk families. In: Berrick JD, Barth RP, Gilbert N, eds. *Child Welfare Research Review: Volume 2*. New York, NY: Columbia University Press; 1994:229–251
55. Fein E, Staff I. Last best chance: findings from a reunification services program. *Child Welfare*. 1993;72:25–40
56. Walton E, Fraser MW, Lewis RE, Pecora PJ, Walton WK. In-home family-focused reunification: an experimental study. *Child Welfare*. 1993;72:473–487
57. Dembo R, Williams L, Schmeidler J, Wish E, Getreu A, Berry E. Juvenile crime and drug abuse: a prospective study of high risk youth. *J Addict Dis*. 1991;11:5–31
58. Elliot DS, Huizinga D, Menard S. *Multiple Problem Youth: Delinquency, Substance Use, and Mental Health Problems*. New York, NY: Springer-Verlag; 1989
59. Allen JP, Leadbeater BJ, Aber JL. The development of problem behavior syndromes in at-risk adolescents. *Develop Psychopathol*. 1994;6:323–342
60. McCarthy J, Meyers J, Jackson V. *The Adoption and Safe Families Act: Exploring the Opportunity for Collaboration Between Child Mental Health and Child Welfare Service Systems*. Washington, DC: The National Technical Assistance Center for Children's Mental Health; 1999
61. Curran MC, Pecora PJ. Incorporating the perspectives of youth placed in family foster care: selected research findings and methodological challenges. In: Curtis PA, Dale G, Jr, Kendall JC, eds. *The Foster Care Crisis: Translating Research into Policy and Practice*. Lincoln, NE: University of Nebraska Press; 1999:99–125
62. Festinger T. *No One Ever Asked Us: A Postscript to Foster Care*. New York, NY: Columbia University Press; 1983
63. Johnson PR, Yoken C, Voss R. Family foster care placement: the child's perspective. *Child Welfare*. 1995;74:960–974

Children Who Return Home From Foster Care: A 6-Year Prospective Study of Behavioral Health Outcomes in Adolescence

Heather N. Taussig, Robert B. Clyman and John Landsverk

Pediatrics 2001;108;e10
DOI: 10.1542/peds.108.1.e10

PEDIATRICS®
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Children Who Return Home From Foster Care: A 6-Year Prospective Study of Behavioral Health Outcomes in Adolescence

Heather N. Taussig, Robert B. Clyman and John Landsverk

Pediatrics 2001;108;e10
DOI: 10.1542/peds.108.1.e10