



Published in final edited form as:

*Child Abuse Negl.* 2011 January ; 35(1): 78–86. doi:10.1016/j.chiabu.2010.09.001.

## The relationship between time spent living with kin and adolescent functioning in youth with a history of out-of-home placement

Heather N. Taussig\* and Robert B. Clyman

The Kempe Center for the Prevention and Treatment of Child Abuse and Neglect, Department of Pediatrics, School of Medicine, University of Colorado Denver, Aurora, CO, USA

### Abstract

**Objective**—Many children in the US who are court-ordered to live in out-of-home care are placed with kinship caregivers. Few studies have examined the impact of living with kin on child well-being. This study examined the relationship between length of time living with kin and indices of adolescent well-being in a cohort of children who were initially court-ordered into out-of-home care.

**Methods**—Prospective cohort design with 148 youth, ages 7–12, who entered out-of-home care between May, 1990, and October, 1991. Seventy-five percent of those interviewed at T1 (6 months following placement) were interviewed at T2 (5 years later).

**Results**—Bivariate analyses did not demonstrate significant relationships between length of time living with kin and the outcome variables. In multivariate analyses, longer length of time living with kin was related to: 1) Greater involvement in risk behaviors including: delinquency ( $\beta = .22$ ,  $p < .05$ ), sexual risk behaviors ( $\beta = .31$ ,  $p < .05$ ), substance use ( $\beta = .26$ ,  $p < .05$ ), and total risk behaviors ( $\beta = .27$ ,  $p < .05$ ), and 2) Poorer life-course outcomes including: tickets/arrests ( $OR=1.4$ ,  $p < .05$ ) and lower grades ( $\beta = -.24$ ,  $p < .05$ ). Time living with kin was not related to total competence, or self-destructive, internalizing, externalizing, or total behavior problems. There were trends ( $p < .10$ ) for time living with kin to predict greater trauma symptomatology ( $\beta = .17$ ) and suspensions ( $OR=1.1$ ).

**Conclusions**—There were no significant bivariate findings. The multivariate findings suggested a pattern of poorer functioning for youth who spent more time living with kin. No differences were found in current symptomatology.

**Practice implications**—Although findings from a single study should not dictate changes in practice or policy, the current study's findings do suggest that the field needs to conduct more methodologically-sophisticated research on the impact of kinship care.

### Introduction

Kinship care is a common placement type for children who are removed from their biological parents by social services. On a single day in the United States in 2004, there

---

Corresponding author address: Kempe Center, UCDSOM, The Gary Pavilion, Children's Hospital, Anschutz Medical Campus, 13123 E. 16<sup>th</sup> Ave, B390, Aurora, CO 80045, USA.

**Publisher's Disclaimer:** This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

were 122,528 children living in licensed kinship care (US DHHS, 2006). Economic incentives, the decreasing availability of foster homes, and ideology that values placement with extended family, have supported placing children in kinship care (Berrick, 1998; National Commission on Family Foster Care, 1991) In addition, both common law and federal law support this shift (i.e., *Miller v. Youakim*, 1979, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, and The Adoption and Safe Families Act of 1997). In this paper, we examine the impact of time spent living with kin (both during and after child welfare supervision) on behavioral outcomes for children who were court-ordered into out-of-home care 6 years earlier.

Limited empirical research has examined psychosocial outcomes for abused and neglected youth as a function of living with kin (Urban Institute, 2000). Because of this, we review studies of behavioral functioning in children in kinship care compared to those who are not in out-of-home placement, as well as studies comparing children in kinship care to those in non-relative foster care. A few studies have compared the well-being of children in kinship care to that of children not placed in out-of-home care. They found that children placed in kinship care have more behavior problems, mental health problems, and lower competence (Dubowitz, Zuravin, Starr, Feigelman, & Harrington, 1993; Shore, Sim, LeProhn, & Keller, 2002; Keller et al., 2001). Another study that compared adolescents in kinship care to norm-referenced data found few differences in health functioning. Adolescents in kinship care were, however, doing better in their perceptions of health/well-being, levels of physical discomfort, fewer limitations of activities, and problem-solving abilities, but they reported greater influence of deviant peers and lower work performance (Altshuler & Poertner, 2003).

Other studies have compared children who were placed in kinship care to children who were placed in traditional non-relative foster care. Findings have been mixed, with some studies indicating few or no differences on indices of behavioral, cognitive, educational, medical, and interpersonal functioning (Berrick, Barth, & Needell, 1994; Barth, Guo, Green, & McCrae, 2007; Dubowitz et al., 1994; Tripp de Robertis & Litrownik, 2004). Other studies have found that children in kinship care appear to fare better in terms of behavioral, educational, mental health, and social functioning (Berrick et al., 1994; Dubowitz et al., 1994; Holtan, Ronning, Handegard, & Sourander, 2005; Iglehart, 1994; Keller et al., 2001; Lawrence, Carlson, & Eglund, 2006; Rubin, Downes, O'Reilly, Mekonnen, Luan, & Localio, 2008; Timmer, Sedlar, & Urquiza, 2004). Finally, two studies have found more negative outcomes for children in kinship care. One cross-sectional study found that children in kinship care were engaging in more delinquent behaviors than children in foster care (Shore et al., 2002). Another study found that cocaine-exposed children in foster/adoptive care had verbal, performance and full scale IQ scores that were equivalent to non-exposed children, while cocaine-exposed children in kinship and biological parent homes had lower full scale and performance IQ scores than non-exposed children (Singer et al., 2004). Studies of the adult functioning of individuals who, as children, spent time living with kin compared with adults who spent time in non-relative foster care have also found no differences or mixed findings (Benedict, Zuravin, & Stallings, 1996; Carpenter & Clyman, 2004; Carpenter, Clyman, Davidson, & Steiner, 2001).

Based on the literature reviewed, the effect of kinship care on child well-being is still largely unknown. Methodological problems have hampered interpretation of these studies' findings. For example, operationalized definitions of kinship care vary. Some studies categorized children in the "kinship care group" if they were living with a relative at the time the study was conducted; other studies have examined outcomes as a function of whether participants were *ever* in a kinship placement.

Most studies did not report (or control for) the length of time the children had lived with kin. The duration of living with kin for children in these studies likely varied dramatically. In the current study, length of time living with kin varied from 14 days to 6.8 years. In order to assess the impact of placement in kinship care on functioning, it is important to examine the relationship between *length of time* living with kin and psychosocial outcomes, especially if there are highly variable lengths of stay. In one study, longer duration of kinship care predicted lower graduation rates, but no other studies of the effect of the duration of kinship care were found (Benedict et al., 1996).

Another major issue that affects the interpretability of these findings is the lack of control for baseline functioning. In studies that have not controlled for baseline functioning, one cannot tease apart whether kinship placements led to better functioning, or whether higher functioning youth were more likely to be placed with kin (Iglehart, 1994). There has been some suggestion that children who are placed in kinship care come from less dysfunctional families than those in foster care (Dubowitz et al., 1993). Others have suggested that children with fewer behavioral or emotional problems are more likely to be placed in kinship care homes (Beeman, Kim, & Bulleridick, 2000; Benedict et al., 1996; Iglehart, 1994; Landsverk, Davis, Ganger, Newton, & Johnson, 1996). Evidence of this possible differential placement comes from a longitudinal study of babies exposed to cocaine in utero. This study found that babies placed in foster care had twice the severity of cocaine exposure than babies placed in kinship care (Singer et al., 2004). Another recent study found that compared with children placed in kinship care, those placed in foster care had more behavior problems, were more likely to take medications and use mental health services, and had a caregiver with serious mental health problems (Rubin et al., 2008).

Additionally, in some of the studies reviewed, caseworkers were the only informants regarding child functioning. This is problematic if these same caseworkers played a role in the selection of the placement. In several studies, ethnicity was not controlled for, although non-White youth are more likely to be placed with kin (Beeman et al., 2000). Finally, many of the studies reviewed above lacked representative samples.

In sum, there is a need for methodologically-sound longitudinal studies that are able to control for baseline functioning and other potential confounds (e.g., age, ethnicity) to better understand the impact of living with kin on the well-being of youth. The current study sought to overcome many of these limitations. We adopted an exposure model to test if length of time living with kin, both during and after child welfare involvement, was related to adolescents' well-being, after controlling for multiple possible confounds.

## Methods

### Participants

**Time 1 (T1)**—Children between the ages of 7–12 years who entered court-ordered out-of-home care between May, 1990 and October, 1991 in a large US county were recruited for the T1 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 out-of-home care for at least 5 months, so as to be able to assess the impact of out-of-home care placement (Landsverk, Litrownik, Newton, Ganger, & Remmer, 1996). Thirty-seven (11.4%) of the 324 youth who met the first 2 inclusion criteria for the study and were placed in out-of-home 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 enrolled in the T1 study, which consisted of interviewing the children and their current caregivers approximately 6 months following their removal from home (Landsverk et al., 1996). Those who were interviewed

did not differ from those who were not interviewed ( $n = 73$ , 25.4%) on age, sex, ethnicity, or type of maltreatment.

**Time 2 (T2)**—Of the 214 youth interviewed at T1, 200 were eligible for the T2 interview which was conducted approximately 6 years after the children entered out-of-home care. Fourteen subjects were ineligible due to their either missing relevant T1 data ( $n=3$ ), residing outside the United States ( $n=6$ ), or having significant developmental delays ( $n=5$ ). Of the 200 eligible subjects, who were 13–17 years old at the T2 interview, 149 (74.5%) were located, recruited, and interviewed at T2 (only youth were interviewed at T2). Forty-two (21.0%) subjects were not located and 9 (4.5%) participants refused participation (Taussig, Clyman, & Landsverk, 2001). One subject was excluded from the analyses due to incomplete placement data.

The average length of time between the subjects' T1 and T2 interviews was 5.4 ( $SD=.58$ ) years. Slightly over half (57.0%) of the interviewed sample at T2 was female. The mean age of the interviewed sample was 15.1 ( $SD=1.4$ ) years. The sample was 42.6% Caucasian, 31.8% African American, 20.3% Hispanic, and 5.4% other ethnicities (primarily Asian). The types of maltreatment these children had sustained were coded in the T1 study from a review of child welfare records, including the legal petitions and narratives (Garland, Landsverk, Hough, & Ellis-MacLeod, 1996). Of the 149 subjects, 58.8% had substantiated neglect, 27.7% physical abuse, 17.6% sexual abuse, and 8.1% emotional abuse (non-exclusive categorization). About half (46%) of the youth had open child welfare cases at the T2 interview.

The analyses below focus on examining the impact of time spent in living with kin (through both court-ordered placements and following case closure) on outcomes for youth. At the T1 Interview, 31% ( $n=46$ ) of the youth were placed with relatives. Over the 5.5-year timeframe, 54% ( $n=80$ ) of the youth had spent some time living with kin. Of those who were placed in kinship care, the mean length of time living with kin was 2.6 ( $SD=2.0$ ) years. For the entire sample (including those who had not spent any time living with kin) the mean length of time living with kin was 1.4 ( $SD=2.0$ ) years. Youth in the study had experienced an average of 6.6 ( $SD=5.9$ ) placements over the 6-year timeframe.

### Attrition analyses

Those participants who were located and interviewed at T2 ( $n=149$ ) did not differ from those who were not interviewed ( $n=51$ ) on 25 indices collected at the T1 interview (e.g., demographic factors, maltreatment types, and psychosocial predictor variables). We then compared the interviewed and non-interviewed groups on length of time spent living with kin. Children who participated at T2 had spent significantly ( $p < .05$ ) more time living with kin ( $M=1.4$  years) than children who were not interviewed at T2 ( $M=.57$  years). Further analyses indicated that this was the result of being able to locate more children who had longer case open times (which was positively correlated with length of time living with kin).

### Measures

This study analyzes data collected at the T1 and T2 interviews. Questions were administered in a confidential interview format to youth and caregivers. Institutional Review Board approval was obtained from all institutions involved in the study, and informed consent and assent were obtained for all participants.

**T1 Data: a) Demographic and maltreatment information**—Birthdate, gender, and ethnicity data were obtained from chart abstraction of child welfare records and administrative databases.

**T1 Data: b) Emotional and behavioral symptomatology**—The Child Behavior Checklist (CBCL) (Achenbach, Howell, Quay, & Conners, 1991) was completed by each youth's current caregiver at the T1 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 (43.2%) of the sample scored above the clinical cutpoint (t-score>63) on the Total Behavior Problems scale.

**T2 Data: a) Lifetime risk behaviors**—The Adolescent Risk Behavior Survey (ARBS) is a compilation of scales from 3 adolescent risk behavior measures that have shown adequate reliability and validity (Huizinga & Esbensen, 1993; Jessor & Costa, 1990; American School Health Association, 1989). This self-report instrument contains questions about lifetime engagement in risk behaviors in four domains: sexual, substance use, self-destructive/suicidal, and delinquent/violent behaviors, with scores standardized to a mean of zero, and a standard deviation of one (Taussig et al., 2001). Higher scores indicate greater involvement in risk behaviors. Seven items comprise the Sexual Behaviors Scale ( $\alpha=.85$ ); 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 ( $\alpha=.85$ ) 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 ( $\alpha=.85$ ) consists of 11 items, each of which asks about the frequency of use of various illicit drugs, ranging from marijuana to cocaine and heroin. The Self-Destructive Behavior Scale ( $\alpha=.76$ ) 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 subject, after a factor analysis indicated that all 4 scales loaded on a single factor. 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 post-initial placement.

**T2 Data: b) Life-course outcomes**—The ARBS also includes questions about life-course outcomes. 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 (38.5%) reported at least one such occurrence, with the offenses ranging from curfew violation and chronic truancy, to auto theft, armed robbery and murder. The second life-course outcome evaluated was suspensions. Over half of the total sample (55.4%) reported having been suspended from school at least once. Finally, grades were assessed on a continuous scale from 1 (*Mostly D's and F's*) to 11 (*Mostly A's*).

**T2 Data: c) Current emotional and behavioral symptomatology**—The Youth Self-Report (YSR) (Achenbach et al., 1991) is a parallel version of the CBCL which assesses behavior problems and competencies. All youth completed this well-validated and normed instrument at T2. The t-scores from the broad-band scales of *Externalizing*, *Internalizing*, *Total Behavior Problems* and *Total Competence* 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 T2 sample scored *below* the clinical cutpoint (t-scores<37).

As a measure of trauma symptoms, youth were administered the Trauma Symptom Checklist for Children (TSCC; Briere, 1996). The TSCC is a well-normed, 54-item self-



report measure of trauma-based symptoms and is comprised of 6 clinical subscales: dissociation, post-traumatic stress symptoms, anxiety, depression, anger, and sexual concerns. For each item, participants were asked to indicate “how often each thing happens to you,” with responses scored on a 4-point scale (0 = “never” to 3 = “almost all of the time”). In the current study we used the mean TSCC score on responses to all 54 items to assess overall trauma-related symptomatology.

**T2 Data d) Placement information**—Number of placements, length of time in each placement, placement types, and total years in out-of-home care were abstracted from child welfare records and administrative databases. The analyses below include four placement variables: 1) *T1 Placement Type*: distinguishes youth who were and were not placed with kin by a court-order at T1, 2) *Total Years in Care*: the length of time from T1 placement in out-of-home care until a youth’s child welfare case was closed (this was correlated  $r = .84$  with reunification status, a predictor of outcomes in a previous study using the same sample; Taussig et al., 2001), 3) *Number of Placements*: a count of each placement where a child had lived (including shelter placements, psychiatric hospitals, etc.) while in out-of-home care, and 4) *Time Living with Kin*: the number of days a youth spent with relatives divided by the number of days from the child’s entry in out-of-home care until the T2 interview (calculated as a percentage). Children who did not spend any time living with kin were given a value of zero and included in the analyses. We constructed “time living with kin” as a percentage because those children who entered out-of-home care earlier had the opportunity to spend a greater number of days living with kin, as the T2 end date was a particular day in time. Days living with kin and percent time living with kin, however, are nearly identical variables, as they are correlated  $r = .996$ . Length of time living with kin included time with relatives regardless of whether: (1) the case was open or closed, (2) relatives received payment for caring for the child, or (3) the child was in the relatives’ custody. All children who spent some time living with kin had lived with kin under child welfare supervision for at least part of their out-of-home placement. If the child welfare case closed and children continued to live with kin, those days of living with kin post case-closure (as determined by a match between placement records pre-case closure and current residence at T2 interview) were included in calculating the overall percent of time living with kin.

### Statistical models and methods of analysis

First, chi-square and t-test analyses were used to examine the bivariate relationships between T1 placement type and demographic and behavior problem variables assessed at T1. A second set of bivariate analyses examined the relationship between time living with kin and the control variables, using t-tests and correlations. The control variables consisted of gender, ethnicity, age at T2, number of placements, total years in care and T1 CBCL total behavior problems. Finally, multiple and logistic regression equations were estimated to examine the independent effect of time living with kin over and above the control variables in predicting the 13 outcome variables. Outlier analyses were run univariately, bivariate, and multivariately, and no influential outliers were identified. Because 8 youth were missing data for ethnicity, all analyses consist of 140 youth. All control and predictor variables were entered simultaneously into the regression equations, and the effect of each variable, after controlling for the others in the model, is shown in Table 3.

## Results

### Comparisons between youth in kinship care and those in non-kinship placements at T1

As shown in Table 1, gender, ethnicity and age were not significantly associated with T1 placement type (i.e., kin vs. non-kin placement) at T1, but youth who were displaying fewer

problems according to their caregivers' reports were more likely to be in kinship care at T1 ( $ES=.42$ ).

### **Associations between time in kinship care and control variables**

As Table 2 indicates, time living with kin was unrelated to gender, but was related to ethnicity. African Americans spent 37.3% of their time in kinship care, whereas Caucasian and Hispanic youth spent about two-thirds less time living with kin. Post hoc Tukey analyses found that African American youth spent significantly more time living with kin than either Caucasian or Hispanic youth, who did not differ. Therefore, Caucasian and Hispanic youth were combined in subsequent analyses.

In examining the continuous control variables, there was a trend for older age to be associated with less time living with kin. Longer length of time living with kin was associated with fewer numbers of placements over the study period. Total years in care was positively correlated with time living with kin. Finally, we found that those children who had fewer behavior problems at T1, as rated by their caregivers, spent more time living with kin.

### **Bivariate associations between time in kinship care and outcome variables**

Correlations and t-tests were used to explore the bivariate relationships between time living with kin and the 13 T2 outcome variables. None attained statistical significance, and are therefore not shown.

### **Multivariate relations between time living with kin and youth outcomes**

Table 3 displays the beta coefficients or odds ratios and total  $R^2$ s or chi-square values for each of the models estimated. For every 1-year increase in age, there was a 140% increase in the odds of getting a ticket or being arrested and a 40% increase in the odds of being suspended. Males were more likely to engage in delinquent and sexual risk behaviors and being male increased a youth's odds of being suspended by 3.8. Females were more likely to report higher levels of symptomatology. African American youth (relative to Caucasian/Hispanic youth) were less likely to engage in self-destructive behaviors, but African American youth had 2.4 greater odds of having been suspended from school than Caucasian/Hispanic youth.

Controlling for the other variables in the models, T1 behavior problems predicted greater risk behavior involvement at T2. Longer time in out-of-home care predicted fewer problems in almost all of the domains assessed, as previously found in a study using the same sample (Taussig et al., 2001). Greater number of placements predicted more risk behavior problems such that each additional placement increased the odds of getting a ticket or being arrested by 10%.

Longer time living with kin was associated with more delinquent, sexual, substance use, and total risk behaviors. In terms of life course outcomes, for every 10% increase in time living with kin, there was a 40% increase in the odds of being arrested or given a ticket. There was also a trend ( $p < .10$ ) for greater time living with kin to be associated with more suspensions, such that each 10% increase in time lived with kin predicted a 10% increase in the odds of having been suspended. Longer time living with kin also predicted worse grades at T2.

Length of time living with kin was not a significant predictor of the symptomatology variables, although there was a trend for greater time living with kin to be associated with more trauma symptomatology.

## Discussion

Kinship care has been prioritized as a placement for maltreated children who enter out-of-home care. This study found that longer length of time living with kin (through both court-ordered placements and following case closure) was significantly associated with more delinquency, sexual risk behaviors, substance use, total risk behaviors, ticket/arrests, and poorer grades, after adjustments for relevant covariates. There was also a trend in these analyses for longer length of time living with kin to predict more suspensions and trauma symptomatology.

The current study's finding should not be misinterpreted to represent a comparison of the impact of foster and kinship placements. Almost all (84%) of the children who had lived with their kin also spent time in foster care, and therefore we examined *duration of time living with kin* as opposed to comparing children who had experienced kinship versus foster care. Echoing the findings of other studies, we found that examining kinship care as a dichotomous variable (e.g. ever/never) produced very few differences.

While we found that children who spent more time living with kin had worse behavioral outcomes after adjusting for multiple covariates, there were no statistically significant correlations between length of time living with kin and outcomes at the bivariate level. An examination of the bivariate analyses (shown in Table 2) suggests that longer time living with kin was associated with younger age (trend), fewer placement changes, and more years in care. In the multivariate analyses that included these three variables as controls (presented in Table 3), we found that they served as robust protective factors, improving the children's chances of having positive outcomes. This suggests that length of time living with kin, if associated with these protective factors, may not have a detrimental effect on adolescent outcomes.

Why would longer length of time living with kin (after controlling for covariates) be associated with more adverse outcomes for adolescents? Unfortunately, research has not examined risk and protective factors that are associated with longer length of time in kinship care. One hypothesis for the current study's finding is that exposure to risk factors that are associated with longer time living with kin may deleteriously impact children over time, over and above the influence of associated protective factors. Although the current study did not compare kinship and foster care, research has shown that risk and protective factors differ between kinship and foster caregivers. In terms of risk factors, kinship caregivers are older, less well educated, less likely to be married, report more problematic parenting attitudes, receive fewer non-child welfare services, and have less caseworker oversight (Berrick et al., 1994; Leslie et al., 2000; Brooks & Barth, 1998; Carpenter et al., 2004; Ehrle & Geen, 2002; Gebel, 1996; Jones Harden, Clyman, Kriebel, & Lyons, 2004); In terms of protective factors, however, research has shown that children in kinship care are less likely to be maltreated and experience fewer placement changes (relative to children in foster care), both of which are associated with better behavioral outcomes (Courtney, 1995; National Research Council, 1993; Courtney & Needell, 1997; Newton, Litrownik, & Landsverk, 2000; Taussig & Culhane, 2002).

Interestingly, we did not find that length of time living with kin was related to the scales on the Youth Self-Report (YSR), a measure of current functioning. The ARBS assessed lifetime risk behaviors as opposed to current risk behaviors, because if a child was currently living in a RCT or detention facility, risk behaviors would be limited. It is possible that the different timeframes, scales, and/or content of the measures used, accounted for differences in findings. Further research is needed to disentangle these discrepant outcomes.



An important finding was that total years in out-of-home care was negatively associated with all of the risk behavior variables and most of the measures of symptomatology, suggesting that the longer the child was in out-of-home care, the better the child's outcomes. This is consistent with prior findings using the same sample (Taussig et al., 2001).

### Limitations

There are some limitations to the current study. First, this study did not examine the impact of licensure, foster care payments, services for kinship care providers, neighborhoods, or other contextual factors which affect outcomes for children. The study was unable to disentangle the effects of child-welfare-supervised kinship care from the effects of children living with kin post-child welfare case closure. The sample size and data collected also did not permit an examination of more fine-grained analyses of living with kin (e.g., whether a child's total time living with kin was with the same or different caregiver, or whether it was a continuous period or multiple discontinuous placements). In addition, children could have been detained or have run away during the period of time they were presumed to have been living with kin. Recruitment and retention rates, as well as the fact that youth who spent a longer time living with kin were more likely to be located and interviewed at T2, suggest caution in generalizing these findings. In addition, the study was conducted over a decade ago in one county, and with one age group, further limiting generalizability. The outcome data were based on youth self-report only; subsequent studies should employ data from multiple informants. Finally, although the study found that lifetime measures of risk behaviors and associated outcomes were associated with longer time living with kin, we cannot be sure of the temporal relationship. While this warrants caution in the interpretation of the findings, youth reported that the onset of these behaviors was typically between 12 and 14 years, most likely after they had spent time in kinship care.

Despite these limitations, this longitudinal study has many strengths including controlling for baseline functioning and other key possible confounds, measures of multiple domains of adolescents' functioning, as well as examining the impact of the *duration* of living with kin.

### Conclusion

This study's findings do not suggest that that we should avoid placing maltreated children in kinship care for extended periods of time. They do suggest that we should not *presume* that spending more time living with kin is beneficial for youth. Rather, we need to look at the factors that will promote well-being among youth who live long-term with kin both during and following child welfare involvement. More systematic research addressing the long-term well-being of children who enter the child welfare system across multiple international settings is necessary to enable policymakers to make more informed decisions, to help child welfare agencies better their practice, to accurately inform the public, and most importantly, to improve the lives of children in out-of-home care.

### Acknowledgments

The research reported herein was supported by grants from NIMH (1 R03 MH56781 & 1 K01 MH01972, H. Taussig, PI) and grants 1 R01 MH46078, NIMH, and 90-CA-1458, NCCAN (J. Landsverk, PI), and funding from the Kempe Foundation for the Prevention and Treatment of Child Abuse and Neglect.

### References

Achenbach TM, Howell CT, Quay CT, Conners CK. National survey of problems and competencies among four to sixteen-year-olds: Parents' reports from normative and clinical samples. Monographs of the Society for Research Development. 1991; 56

- Altshuler S, Poertner J. Assessment of the well-being of adolescents in three substitute care placement types. *Journal of Family Social Work*. 2003; 7:73–86.
- American School Health Association. *The National Adolescent Student Health Survey: A report on the health of America's youth*. Oakland, CA: Third Party; 1989.
- Barth, RP.; Guo, S.; Green, RL.; McCrae, JS. Kinship care and nonkinship foster care: Informing the new debate. In: Haskins, R.; Wulczyn, F.; Webb, MB., editors. *Child protection: Using research to improve policy and practice*. Washington, DC: The Brookings Institution; 2007. p. 187-206.
- Beeman SK, Kim H, Bulleridick SK. Factors affecting placement of children in kinship and nonkinship foster care. *Children and Youth Services Review*. 2000; 22:37–54.
- Benedict MI, Zuravin S, Stallings RY. Adult functioning of children who lived in kin versus nonrelative family foster homes. *Child Welfare*. 1996; 75:529–549. [PubMed: 8795284]
- Berrick JD. When children cannot remain home: Foster family care and kinship care. *The Future of Children*. 1998; 8:72–87. [PubMed: 9676001]
- Berrick JD, Barth RP, Needell B. A comparison of kinship foster homes and foster family homes: Implications for kinship foster care as family preservation. *Children & Youth Services Review*. 1994; 16:33–64.
- Briere, J. *Trauma Symptom Checklist for Children – Professional manual*. Odessa, FL: Psychological Assessment Resources, Inc; 1996.
- Brooks D, Barth RP. Characteristics and outcomes of drug-exposed and non drug-exposed children in kinship and non-relative foster care. *Children and Youth Services Review*. 1998; 20:475–501.
- Carpenter S, Clyman R, Davidson A, Steiner J. The association of foster care or kinship care with adolescent sexual behavior and first pregnancy. *Pediatrics*. 2001; 108:1–6. [PubMed: 11433046]
- Carpenter SC, Clyman RB. The long-term emotional and physical wellbeing of women who have lived in kinship care. *Children and Youth Services Review*. 2004; 26:673–686.
- Courtney ME. Re-entry to foster care of children returned to their families. *Social Service Review*. 1995; 69:226–241.
- Courtney, ME.; Needell, B. Outcomes of kinship care: Lessons from California. In: Berrick, JD.; Barth, RP.; Gilbert, N., editors. *Child welfare research review*. Vol. 2. New York: Columbia University Press; 1997. p. 130-149.
- Dubowitz H, Feigelman S, Harrington D, Starr R, Zuravin S, Sawyer R. Children in kinship care: How do they fare? *Children and Youth Services Review*. 1994; 16:85–106.
- Dubowitz H, Zuravin S, Starr RH, Feigelman S, Harrington D. Behavior problems of children in kinship care. *Developmental and Behavioral Pediatrics*. 1993; 14:386–393.
- Ehrle J, Geen R. Kin and non-kin foster care-findings from a national survey. *Children and Youth Services Review*. 2002; 24:15–35.
- 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 & Neglect*. 1996; 20:675–688. [PubMed: 8866114]
- Gebel TJ. Kinship care and non-relative family foster care: A comparison of caregiver attributes and attitudes. *Child Welfare*. 1996; 75:5–18.
- Holtan A, Ronning JA, Handegard BH, Sourander A. A comparison of mental health problems in kinship and nonkinship foster care. *European Child and Adolescent Psychiatry*. 2005; 14:200–207. [PubMed: 15981131]
- Huizinga, D.; Esbensen, F. *Scales and measures of the Denver Youth Survey*. Boulder, CO: Institute of Behavioral Science, University of Colorado; 1993.
- Iglehart AP. Kinship foster care: Placement, service, and outcome issues. *Children and Youth Services Review*. 1994; 16:107–122.
- Jessor, RJ.; Costa, FM. *The Problem Behavior Survey*. Boulder, CO: Institute of Behavioral Science, University of Colorado; 1990.
- Jones Harden B, Clyman RB, Kriebel DK, Lyons ME. Kith and kin care: Parental attitudes and resources of foster and relative caregivers. *Children and Youth Services Review*. 2004; 26:657–671.

- Keller TE, Wetherbee K, LeProhn NS, Payne V, Sim K, Lamont ER. Competencies and problem behaviors of children in family foster care: Variations by kinship placement status and race. *Children and Youth Services Review*. 2001; 23:915–940.
- Landsverk J, Davis I, Ganger W, Newton R, Johnson I. Impact of child psychosocial functioning on reunification from out-of-home placement. *Child and Youth Services Review*. 1996; 18:447–462.
- Landsverk, J.; Litrownik, A.; Newton, R.; Ganger, W.; Remmer, J. Psychological impact of child maltreatment. National Center on Child Abuse and Neglect; 1996.
- Lawrence CR, Carlson EA, Egeland B. The impact of foster care on development. *Development and Psychopathology*. 2006; 18:57–76. [PubMed: 16478552]
- Leslie LK, Landsverk J, Ezzet-Lofstrom R, Tschann JM, Slymen DJ, Garland AF. Children in foster care: Factors influencing outpatient mental health service use. *Child Abuse & Neglect*. 2000; 24:465–476. [PubMed: 10798837]
- National Commission on Family Foster Care. A blueprint for fostering infants, children and youth in the 1990's. Washington, DC: Child Welfare League of America; 1991.
- National Research Council. Understanding child abuse and neglect. Washington, DC: National Academy Press; 1993.
- Newton RR, Litrownik AJ, Lansverk JA. Children and youth in foster care: Disentangling the relationship between problem behaviors and number of placements. *Child Abuse & Neglect*. 2000; 24:1363–1374. [PubMed: 11075702]
- Rubin DM, Downes KJ, O'Reilly ALR, Mekonnen R, Luan X, Localio R. Impact of kinship care on behavioral well-being for children in out-of-home care. *Archives of Pediatric and Adolescent Medicine*. 2008; 162:550–556.
- Shore N, Sim KE, LeProhn NS, Keller TE. Foster parent and teacher assessments of youth in kinship and non-kinship foster care placements: Are behaviors perceived differently across settings? *Children and Youth Services Review*. 2002; 24:109–134.
- Singer LT, Minnes S, Short E, Arendt R, Farkas K, Lewis B, Klein N, Russ S, Min MO, Kirchner HL. Cognitive outcomes of preschool children with prenatal cocaine exposure. *Journal of the American Medical Association*. 2004; 291:2448–2456. [PubMed: 15161895]
- Taussig HN, Clyman RB, Landsverk J. Children who return home from foster care: A 6-year prospective study of behavioral health outcomes in adolescence. *Pediatrics*. 2001; 108:e1–e10. [PubMed: 11433080]
- Taussig, HN.; Culhane, SE. Contextual influences on mental health and behavioral outcomes of children in foster care. Poster Session Presented at the 15th International Conference on Mental Health Services Research, National Institute of Mental Health; Washington, DC. 2002.
- Timmer SG, Sedlar G, Urquiza AJ. Challenging children in kin versus nonkin foster care: Perceived costs and benefits to caregivers. *Child Maltreatment*. 2004; 9:251–262. [PubMed: 15245678]
- Tripp de Robertis M, Litrownik AJ. The experience of foster care: Relationship between foster parent disciplinary approaches and aggression in a sample of young foster children. *Child Maltreatment*. 2004; 9:92–102. [PubMed: 14871000]
- US Department of Health and Human Services. The AFCARS Report: Preliminary FY 2004 estimates as of June 2006. 2006. Retrieved September 29, 2006, from [http://www.acf.hhs.gov/programs/cb/stats\\_research/afcars/tar/report11.htm](http://www.acf.hhs.gov/programs/cb/stats_research/afcars/tar/report11.htm)
- Urban Institute. Report to the Congress on kinship foster care. Washington: US Department of Health and Human Services for Children and Families Administration on Children, Youth and Families Children's Bureau; 2000.

**Table 1**

Comparisons between Children in Non-Kinship and Kinship Care at Time 1

Variable	Time 1 Placement			
	Non-Kinship Care		Kinship Care	
	<i>n</i>	%/ <i>M</i>	<i>n</i>	%/ <i>M</i>
Gender, %				
Male	42	43.3%	21	48.8%
Female	55	56.7%	22	51.2%
Ethnicity, %				
Caucasian	46	47.4%	17	39.5%
Hispanic	23	23.7%	7	16.3%
African American	28	28.9%	19	44.2%
Age, mean ( <i>SD</i> )	97	9.2 (1.5)	43	8.8 (1.5)
Time 1 CBCL Total Behavior Problems, mean t-score ( <i>SD</i> )				
	97	61.6 (12.3)	43	55.1 (15.0)*

*Note.* %/*M* = Percentages are shown with corresponding *n* values for all variables except age and Time 1 Behavior Problems, where mean values with standard deviations in parentheses are displayed.

\*  $p < .05$

**Table 2**

## Bivariate Relations between Time in Kinship Care and Control Variables

Percent Time Living With Kin	
<b>Categorical Control Variables</b>	
Gender	
Males (n=63)	18.3%
Females (n=77)	24.0%
Ethnicity	
Caucasian (n=63)	14.2%*
Hispanic (n=30)	11.7%
African American (n=47)	37.3%
Correlation Coefficients	
<b>Continuous Control Variables</b>	
Age	-.25*
Number of Placements	-.18*
Total Years in Care	.33*
Time 1 CBCL Total Behavior Problems	-.18*

\*  $p < .05$ .<sup>t</sup>  $p < .10$



**Table 3**  
Multivariate Relations Between Time Living with Kin and Youth Outcomes

Dependent Variables	T2 Age	Gender (M vs. F)	Ethnicity C/H vs. AA	Time 1 Beh. Probs.	Total years in care	No. of placements	Time in Kin Care	$R^2/\chi^2$
	$\beta/OR$	$\beta/OR$	$\beta/OR$	$\beta/OR$	$\beta/OR$	$\beta/OR$	$\beta/OR$	
<b>Risk Behaviors</b>								
Delinquency	.32*	-.22*	.04	.14 <sup>†</sup>	-.32*	.38*	.22*	.31*
Sexual	.54*	-.06	.01	.21*	-.26*	.29*	.31*	.43*
Self-Destructive	.05	.11	-.19*	.15 <sup>†</sup>	-.19*	.24*	.07	.15*
Substance Use	.35*	-.15*	-.12	.15 <sup>†</sup>	-.33*	.28*	.26*	.28*
Total Risk Behavior	.45*	-.11	-.06	.21*	-.34*	.31*	.27*	.38*
<b>Life-Course Outcomes</b>								
Tickets/Arrests	2.4* (1.7-3.3)	1.4 (0.6-3.2)	1.7 (0.7-4.2)	1.0 (0.97-1.0)	.69* (0.5-0.9)	1.1* (1.0-1.2)	1.4* (1.1-1.6)	46.0*
Suspensions	1.4* (1.0-1.8)	3.8* (1.7-8.2)	2.4* (1.0-5.5)	1.0 (0.98-1.0)	.92 (0.8-1.1)	1.0 (0.97-1.1)	1.1 <sup>†</sup> (0.98-1.3)	25.2*
Grades	.10	.04	.07	-.04	.31*	-.07	-.24*	.10
<b>Symptomatology</b>								
Externalizing Problems	-.03	.25*	.11	.10	-.18 <sup>†</sup>	.03	.15	.13*
Internalizing Problems	.01	.15 <sup>†</sup>	.02	.07	-.19 <sup>†</sup>	.07	.07	.06
Total Behavior Problems	-.03	.21*	.05	.13	-.21*	.03	.12	.10
Total Competence	-.10	-.19*	.13	-.10	.17	-.15	-.13	.11*
Trauma Symptomatology	-.00	.22*	-.05	.03	-.20*	.09	.17 <sup>†</sup>	.09

Note. Gender: 0 = male, 1 = female; Ethnicity: 0 = Caucasian and Hispanic, 1 = African American

<sup>†</sup> OR estimated for 10% difference

$\beta/OR$  = Beta or Odds Ratio, depending on the type of dependent variable. Values shown for Tickets/Arrests and Suspensions are odds ratios, all other values are beta coefficients.

$R^2/\chi^2 = R^2$  values are for all overall models except Tickets/Arrests and Suspensions where the chi square values are given.

\*  $p < .05$ ;

<sup>†</sup>  $p < .10$