Published in final edited form as:

Child Fam Soc Work. 2015 February ; 20(1): 72–82. doi:10.1111/cfs.12057.

Intergenerational pathways leading to foster care placement of foster care alumni's children

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Abstract

This study examined a path model that postulated intergenerational relationships between biological parent psychosocial functioning and foster care alumni mental health, economic status, and social support; and from these to the likelihood of children of foster care alumni being placed in foster care. The sample included 742 adults who spent time in foster care as children with a private foster care agency and who reported having at least one biological child. A full pathway was found between poorer father's functioning to greater alumni depression, which was in turn associated with negative social support, and then a greater likelihood of child out of home placement. Other parent to alumni paths were that poorer father functioning was associated with alumni anxiety and PTSD, and poorer mother's mental health was associated with PTSD; however, anxiety and PTSD were not implicated as precursors of foster care placement of the child. Findings support the need for increased practice and policy support to address the mental health needs of parents of children in or at risk of foster care, as well as the children themselves, as family history may have a lasting influence on quality of life, even when children are raised apart from biological parents.

Youth in foster care, and alumni (individuals who spent time in foster care as children), face a number of psychosocial risks related to a history of adverse childhood experiences. Most have experienced child abuse or neglect and for many, being removed from their biological families is an additional enduring trauma (Bruskas, 2008; McMillen et al., 2004). These individuals are at greater risk for subsequent mental health and behavioral problems, bearing a long-term burden of conditions such as post-traumatic stress disorder (PTSD), depression, and anxiety (Brandford & English, 2004; Courtney, Dworsky, Lee, & Raap 2010; Harris, Jackson, O'Brien, & Pecora, 2010; Jackson, Pecora, & O'Brien, 2011; Pecora, 2010). Less well-known is that foster care alumni are also at risk of early pregnancy, being more likely

to become pregnant or cause pregnancy as teenagers (Coleman-Cowger, Green, & Clark, 2011; Courtney et al., 2010; National Campaign to Prevent Teen and Unplanned Pregnancy, 2011; Pecora et al., 2003). In the Midwest Evaluation of the Adult Functioning of Former Foster Youth (Midwest Study), more than three-quarters of women and 61% of men aged 23–24 had ever been pregnant/impregnated their partner. This compares to 40% of young women and 28% of young men in the National Longitudinal Study of Adolescent Health Study (Courtney et al., 2010).

The higher psychosocial risks for foster care alumni appear to carry forward to their own children. Research has begun to identify a particular risk for children of alumni to themselves be placed in foster care. Whereas approximately 1.1% of children in the U. S. enter foster care each year, the Casey Family Programs (Casey) Northwest Foster Care Alumni Study found that 8% of alumni with children had a child placed in foster care (Pecora et al., 2010). In the Midwest Study, 22% of mothers with a non-resident child had a child in foster care (fathers had no children in foster care) (Courtney et al., 2010). In the Casey National Foster Care Alumni Study (NFCAS) from which the present study data are drawn, 9% of alumni with children reported having a child in foster care.

Given that these higher risks appear to persist across generations, it is important to understand what factors serve as pathways to this transfer. However, only recently have the child welfare and mental health fields begun investigating important indicators of quality of life in foster care populations. Lacking is research to examine intergenerational patterns of functioning between alumni and their biological parents and children, and how these patterns may increase risk for foster care placement among their children.

Alumni Factors Mediating Foster Care Placement Risk

Little work has been done to conceptualize whether and how parental problems operate to ultimately lead to foster care placement in subsequent generations. Figure 1 proposes an intergenerational conceptualization of how alumni outcomes may mediate the relationship between their parent's psychosocial functioning to ultimately influence risk for foster care placement among the alumni's children. Specifically, the model proposes that mental health problems and low income among alumni lead to poorer social support (e.g., perceived ability to depend on relatives/friends, feeling understood by relatives/friends), and that poorer support increases risk for foster placement of their children. In this conceptualization, alumni's mental health and income operate as mediating mechanisms between their parents' functioning and their children's foster care risk. The proposed model places findings from previous research into a path model that conceptualizes how factors influence each other across generations.

This model is similar to a recent study that found that mothers involved with child welfare with a child placed in foster care were more likely to have financial hardship (low income, unemployment) than mothers whose children remained in the home. They also had a higher rate of mental health conditions and were more likely to need but not have adequate social or emotional support (Marcenko, Lyons, and Courtney, 2011). Bishop and Leadbetter (1999)

found that child maltreatment was predicted by maternal depression, relationship quality, and social support from friends.

While alumni income, social support, and mental health appear to be important factors in predicting foster care placement risk for their children, it is unclear how they may affect each other to do so (Clapp & Beck, 2009). For instance, social support has been shown to increase risk for depression (Dingfelder, Jaffe, & Mandell, 2010; Salazar, Keller, & Courtney, 2011) as well as moderate and partially mediate the relationship between depression and child maltreatment (Salazar et al., 2011). However, depression and PTSD are often marked by social withdrawal, sadness, irritability, and angry outbursts, which can make relationships difficult (American Psychiatric Association, 2000). In a study investigating the relationship between social support and PTSD in male veterans, PTSD negatively impacted social support (King, Taft, King, Hammond, & Stone, 2006). Clapp & Beck (2009) also found a significant indirect relationship between PTSD and social support through negative network orientation (i.e., attitudes and expectations regarding how useful social networks will be in the time of need). Other research shows that poverty predicts weaker social support in terms of financial support, housing, child care, and emotional support from others, and that low-income and depression significantly predict less social support in each of these areas except emotional support (Harknett & Hartnett, 2011).

Social support does indeed appear related to child maltreatment and foster care placement. One study found that mothers who had maltreated their children reported having fewer friends, less contact with friends, and more negative perceptions of their friendships than mothers who had not abused or neglected their children (Bishop & Leadbeater, 1999). A study that examined outcomes of children born to mothers who abused drugs found that certain characteristics of social support, namely, the number of people available to mothers and the adequacy of the support they give, were associated with children's subsequent child placement in foster care (Nair et al., 1997). Compared to mothers who had not lost their children to foster care, mothers whose children were removed reported significantly fewer people available for social support and were significantly less likely to perceive those supports as adequate (Nair et al., 1997). Terling (1999) found that low social support (i.e., social isolation and family discord) was significantly related to children's reentry into foster care.

Given that these alumni factors may influence their children's foster care placement risk, the proposed theory adds an intergenerational component suggesting that alumni's mental health and income may result from their own parent's functioning. The idea that poor parent functioning may transfer to their children is well established by previous research. A number of studies show heightened risk of mental health problems among children of parents with post-traumatic stress (Baranowsky, Young, Johnson-Douglas, Williams-Keeler, & McCarrey, 1998; Frazier, West-Olatunji, St. Juste, & Goodman, 2009; Wiseman, Metzl, & Barber, 2006), depression or other psychological problems (Birmaher, 2011; Garber et al., 2009; Weissman et al., 2006), and aggression (Dubow, Huesmann, & Boxer, 2003). In a 20-year follow-up comparing mental health outcomes of adult children (mean age 35) of depressed and non-depressed parents, adult children of depressed parents had three times higher risk for anxiety disorders and depression (Weissman et al., 2006). Additionally, adult

children of depressed mothers had comparatively greater social impairment (e.g., work, social and leisure, extended family, marital, parental, and family) (Weissman et al., 2006).

Study Purpose

The present study sought to contribute to the sparse literature on foster care alumni by examining whether certain alumni factors (mental health; poverty) influenced positive and negative social support from relatives and friends, and whether this process served as a mediating pathway between their own parent's functioning and their children's risk for foster care placement. We tested an intergenerational model to see: (1) if risk for foster child placement can be traced back to characteristics of an earlier generation, (2) if the second generation's mental health and social support were sufficient explanatory mechanisms of how this might happen, and (3) whether the availability of positive and negative support could fully explain the relationship between parent mental health and their children's foster placement risk.

Method

Overview: Sample and Procedures

Data for this analysis were drawn from the Casey National Foster Care Alumni Study (NFCAS). The NFCAS assessed outcomes among adults who as children were placed in foster care with Casey (Casey Family Programs) from the public child welfare system. Casey is a private foster care agency that had 23 field offices in 13 states. Until 2003, Casey contracted with state or county public child welfare agencies to provide long-term family foster care services to older maltreated children unable to live with their parents and for whom adoption or reunification was not a viable alternative. Nearly all of the children served by Casey had been previously served in public child welfare (Pecora et al., 2003). The NFCAS was comprised of case record reviews for 1,582 alumni and in-person interviews with a sub-sample of those alumni (n=1,068). Alumni ranged in age from 20 to 51 (average age 30.5) (Pecora et al., 2003) and as children, were in foster care with Casey between 1966 and 1998. Data was collected between 2000 and 2002 by the University of Michigan Survey Research Group. The study was approved by the Casey Family Programs, University of Washington, and University of Michigan Human Subjects Committees. To be eligible for the NFCAS participants had to have been in Casey care for at least 12 months as a youth and exited Casey care at least one year prior to being interviewed. About 8% of alumni were ineligible because they were deceased, in prison, or in a mental institution at the time of the study. Four percent of eligible alumni refused to participate and 21% could not be located (75% response rate). A sample weight variable was created to account for differences between participants and non-participants based on alumni age, race/ethnicity, and gender (Pecora et al., 2003).

The current examination included data from the 742 alumni who reported having "any biological children". Females accounted for 53% of the sample and males 47%. Race/ethnicity was 14% African Americans, 14% Hispanic/Latinos, 23% other races (American Indian/Alaska Native, Chinese, Japanese, Korean, Native Hawaiian, Filipino, other Pacific Islander, Samoan, and Vietnamese), and 49% White. Alumni ranged in age from 20 to 49. A

large proportion had a high school diploma/GED and household income at or above the poverty line (83% and 74%, respectively). Fifty one percent of sample was unmarried and 49% was married. Nine percent (N=82) of alumni reported having at least one child in foster care, while the majority of the sample (89%) did not have a child in foster care.

Measures

Generation 1: Biological parent factors—Data regarding parental functioning were adapted from the Substance Abuse and Mental Health Administration Starting Early Starting Smart project Intake Module (EMT Associates, 1999) and administered during alumni interviews. Alumni were asked to retrospectively recall what their biological parents' status was when the alumni were children. Questions included in the present study were: Did your birth father/mother ever have: problems with mental health; problems with alcohol; problems with drugs; Was your birth father/mother ever in the criminal justice system; Did your birth father/mother work full-time or part-time.

Three variables were used to create a latent variable indicating biological father functioning including mental health problems, criminal involvement, and employment status. Each variable (i.e., father had a mental health problem; father was involved in criminal activity; father had a job), was dichotomized to assess its absence (0) or presence (1). Two dichotomously measured variables were used as indicators of mothers' functioning: mother had a mental health problem; mother was involved in criminal activity. Employment status was included for fathers but not mothers given that in U.S. culture unemployment is more likely to be an indicator of under-functioning in men (given the traditional male role of breadwinner) than for women (whose unemployment may reflect taking the traditional role of homemaking and childrearing). Preliminary confirmatory factor analyses showed poor fit when including parental substance abuse, criminality, and mental health as indicators of functioning, apparently due to high overlap between substance use and criminality. Therefore, substance abuse was excluded as an indicator of parental functioning. Criminal involvement was retained because it is substantively and socially more distinct from mental health (hence, achieving the desired goal of a more broadly measured construct).

Generation 2: Alumni factors

Psychological distress: Psychiatric diagnoses were determined by the Composite International Diagnostic Interview (CIDI), which was administered in face-to-face interviews. The CIDI was designed for use by non-clinicians to assess mental health problems categorized in the Diagnostic and Statistical Manual of Mental Disorders (IV) and was used in the National Comorbidity Survey (NCS), NCS-Replication, and many other epidemiological studies (Kessler et al., 2003). Three mental disorders that are highly prevalent among foster care alumni (Courtney et al., 2010; Pecora et al., 2003; 2010) were included in this study: lifetime depression, lifetime PTSD, and other lifetime anxiety (a composite of panic, social phobia, or generalized anxiety disorder). All diagnoses were coded as either present (1) or absent (0).

Poverty: Poverty status was determined by asking alumni for their total household income in the past 12 months from all sources for themselves and those living with them whom they

consider to be family. This included wages, stipends, pensions, investments, and any other financial assistance or income. A dichotomous variable was created to indicate alumni at/above poverty (1) or below poverty (0).

Social support and negative interactions: Alumni perceptions of support from and negative interactions with relatives and friends (i.e., positive and negative social support) were collected via alumni interviews. Using a 7-point Likert type scale, alumni rated the degree to which relatives (other than husbands, wives, or intimate partners) and friends understand their feelings and can be relied upon when serious problems arise; how much alumni can open up to them; and how much they make demands, argue, and let them down. Each individual item was dichotomized for use in indicators of four latent variables: Positive (+) Relative Support, Negative (–) Relative Support, Positive (+) Friend Support, Negative (–) Friend Support.

Analytic Approach

Structural equation modeling (SEM) (Mplus Version 6) was used to test our intergenerational theory of biological parent and alumni psychosocial influences on alumni social support and foster care continuity (shown in Figure 1). SEM allows for the analysis of complex relationships between variables, including observable measures such as mother's criminal involvement, and variables more appropriately considered latent constructs because they are better represented by a combination of factors, such as father's functioning (Kline, 2005; Schreiber, Nora, Stage, Barlow, & King, 2006). In doing so, SEM is advantageous because it can estimate multiple regression equations while simultaneously accounting for measurement error and correlations between variables in the model (Schreiber et al., 2006). All analyses included the sample weight variable mentioned earlier.

The first step in testing the hypothesized model was using confirmatory factor analysis (CFA) to examine whether the presumed factor structure had adequate fit to the data. Next, the structural model was examined to determine the fit of the data to the hypothesized path model. Paths from parent functioning constructs to the mental health and poverty constructs, the mental health and poverty constructs to the social support constructs, and the social support constructs to foster child placement were estimated, as were the three correlations between mental health disturbance terms. The estimation method used was a variance-adjusted weighted least squares estimator (WLSMV), a distribution-free estimator that is recommended when at least some of the indicators and outcomes are categorical (Kline, 2005). Fit between the theoretical model and actual data were calculated by the model chi-square, Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA). Fit indices were considered acceptable when the chi-square divided by the degrees of freedom was less than three (Kline), CFI and TLI were greater than or equal to .95, and the RMSEA was less than .06 (Yu, 2002).

Results

Measurement Model

After freeing one correlated error term (between the items “relatives argue” and “relatives make demands,” fit indices for the CFA indicated acceptable fit ($\chi^2_{df} = 232.76_{150}$, CFI = .97, TLI = .96, RMSEA = .027). Results (shown in Table 1) indicated that the measured variables represented the latent constructs well. All factor loadings were statistically significant and in the expected direction.

Structural Model

The intergenerational structural model at first showed inadequate fit to the data ($\chi^2_{df} = 358.81_{179}$, CFI = .94, TLI = .92, RMSEA = .037). Based on modification indices, we freed the disturbance term between the positive and negative friend support latent variables, and the correlated disturbance term between negative and positive relative support. The final structural model (shown in Figure 2) had acceptable fit: $\chi^2_{df} = 291.69_{177}$, CFI = .96, TLI = .95, RMSEA = .030. As hypothesized, poor functioning by fathers in Generation 1 had a mediated influence on foster care placement of children in Generation 3—alumni’s children. Specifically, biological father’s poor functioning increased the likelihood of alumni depression which, in turn, increased negative social support. Negative relative social support was then predictive of foster care placement. Additionally, the poor functioning of biological fathers had a significant negative effect on all other types of alumni social support: Alumni who were depressed perceived greater “negative” friend support and less “positive” support from relatives and friends. However, these types of support were not related to foster child placement.

Some other hypotheses were not borne out by the data. While mental health problems among the mothers of foster care alumni were associated with significantly higher alumni PTSD, mothers’ involvement in criminal activity did not appear to affect other factors analyzed in the model. This is surprising in that a substantial number of children placed in foster care have parents who are incarcerated. (See, for example the National Resource Center for Permanency and Family Connections at http://www.hunter.cuny.edu/socwork/nrcfcpp/info_services/children-of-incarcerated-parents.html). Other than depression, alumni mental health did not influence social support, and hence their child’s placement in foster care. Additionally, alumni income at or above poverty level was not associated with biological parent functioning, and was only related to higher levels of positive relative social support.

Discussion

The present study sought to identify the influence of mental and behavioral factors across two generations (i.e., foster care alumni and their biological parents), hypothesized to affect alumni social support and placement of their children in foster care. Results provide some support for a model of intergenerational continuity of psychosocial functioning and foster care placement. Specifically, fathers’ functioning predicted one of the mental health factors, alumni depression, which was in turn associated with social support. One hypothesis tested

in the model was that social support would fully explain the association between alumni's mental health and risk of their children being placed in foster care. Indeed, the findings suggest that one aspect of alumni support – negative social support from relatives – is an important link in the pathway starting with father functioning, and then moves through alumni depression to predict foster care risk.

Our findings regarding intergenerational risk are partially consistent with theories of intergenerational transmission, at least as concerns the influence of fathers. While mothers are often the ones living with their children (Courtney et al., 2007), the emotional connection between fathers and children also has significant bearing on long-term well-being and family functioning. Thus, while efforts to increase father involvement are needed, enhancing the quality and safety of father involvement is also a chief concern. Preventive interventions and evidence-based, culturally competent programs that promote mental health and well-being as well as treat substance use should be tailored for nonresident and underserved resident fathers. Additionally, providing fathers with education and employment services may address other important needs associated with child maltreatment, namely, low income and poverty.

The broader child welfare field is slowly beginning to recognize the positive influences fathers and paternal relatives can have on children (Huebner, Werner, Hartwig, White & Shewa, 2008). Some father involvement groups show increased rates of reunification, shortened foster care stays, and lower risk of repeat maltreatment (Coakley, 2008; Malm, Murray, & Geen, 2006). Yet there are many barriers to father engagement in the child welfare system, such as locating nonresident fathers, paternity and legal issues, few caseworkers trained to work with fathers (Huebner et al., 2008), and more relationship strain between child welfare workers and fathers (O'Donnell, Johnson, D'Aunno, & Thornton, 2005). In addition, fathers' persistent risk factors (including drug/alcohol use, unemployment, emotional problems) predict lower levels of paternal engagement, especially among nonresident fathers (Farrie et al, 2011). Strained mother-father relationships also present barriers to engaging fathers (Corwin, 2011).

Tools like the Federal Parent Locator Service are being used to find identified fathers. These fathers often need increased access and notification of legal proceedings regarding their children and a decreased burden of child support, possibly through providing credit for in-kind contributions. Fathers' in-kind support (e.g., clothing, diapers, food) can reduce mothers' material hardship (Kalil & Ryan, 2010) and activities such as time and caregiving potentially improves child well-being (Roy, 1999). The Fostering Connections to Success Act and Increasing Adoptions Act of 2008, which require states to identify and notify relatives if a child is placed in foster care, is positive recognition of the importance of father involvement, and hopefully will encourage participation by identified fathers in matters regarding their children (Crane, 2010). Providing fathers with the same services provided to mothers, and concurrent planning, may also increase their engagement (Garcia & Myslewicz, 2009).

Recent attempts have been made at the state level to encourage fathers' involvement with child welfare services and promote a culture of father engagement among child welfare

workers. Specifically, the Massachusetts Department of Children and Families is now reviewing case work policies around working with both parents, establishing fatherhood education leadership teams, developing a framework for engaging fathers, and training staff with tools and resources for working with fathers (USDHHS, 2010). One of the key issues however, is the extent to which substance abuse or other forms of mental health treatment are integrated within or closely linked to these kinds of programs. Just encouraging involvement without attending to father's psychosocial needs may be problematic, ideally both should occur.

Fatherhood programs that effectively involve fathers with their children and families share these characteristics: cultural appropriateness, facilitators who believe in the program, high staff-to-participant ratios, clear goals, theory-based approaches, personalized information, sufficient time, one-on-one relationships with staff, participant incentives, and curriculum fidelity (Bronte-Tinkew, Horowitz, & Metz, 2008). Three promising programs are Lifetime Dads (Garcia & Myslewicz, 2009), Fathers in Training (Virginia Beach Department of Human Services, 2011), and DADS (Garcia & Myslewicz, 2009). Each provides critical services to engage fathers with the child welfare system, yet research is needed on the effectiveness of these and similar programs (Corwin, 2011).

Less consistent with intergenerational transmission theory, the only statistically significant path from mother's mental health to alumni mental health was found for PTSD. Still, our preliminary results found for mothers and fathers may be important. As mentioned briefly in the measures section, substance abuse and criminal activity were so highly interconnected as to possibly be co-occurring. Hence, the father's functioning predictor may to some degree reflect the functioning of both parents in terms of these psychosocial problems. An unpublished literature review by Wilson (2007) reported that the dramatic influx of children into foster care in the 1980s was due in large part to substance abuse and child neglect. Thus there is a possibility that the criminal behavior of alumni's biological parents involved substance use and may have been used to cope with their own socioemotional problems.

Implications

The finding concerning the influence of fathers has practical implications. Specifically, the role of fathers' functioning on alumni mental health and negative relative/friend social support highlights the need to address the psychosocial needs of fathers of children in/at risk of child welfare involvement. Strengthening fathers' mental health and improving their employability and employment opportunities may reduce their criminal involvement (Weinman, Smith, & Buzi, 2002; Widelman & Western, 2010; Woldoff & Cina, 2007). Addressing each of these issues may clear the path for interventions that improve the quality of paternal involvement with children (Bronte-Tinkew, Moore, Matthews, & Carrano, 2007; Lerman, 2010; Weinman et al., 2002) and perhaps prevent or reduce the need for foster care.

Interventions attempting to enhance fathers' involvement with their offspring might profitably capitalize on the inherent desires of those fathers. Regarding the meaning of fatherhood, fathers of children in a low-income Head Start program expressed desires to (1) be there for their children physically and emotionally, (2) be active in traditional fatherhood roles such as teaching, providing resources, and protecting their children, and (3) co-parent

their children in ways they felt were more contemporary. This included activities such as nurturing (feeding, diapering), playing together, and providing emotional support and affection (Shears, Summers, Boller, & Barclay-McLaughlin, 2006).

It should be noted though that while parents and alumni are often reunited after the youth's emancipation from foster care, relational challenges may exist. These relationships can be highly conflicted because of past maltreatment, unfamiliarity, inexperience with positive relationships, and familial mental health problems (Terling, 1999). Hence, simply facilitating family reconnection may not be enough or may even be counterproductive: Interventions should also focus on resolving barriers to the reestablishment of positive family functioning.

Improved mental health literacy in foster care and the general population is also needed (Munson, Narendorf, & McMillen, 2011), as evidenced by low rates of mental health service use among the most vulnerable adolescents and adults (Merikangas et al., 2011). Mental health literacy is the ability to recognize a mental disorder, knowledge about risk factors and causes, knowledge of and beliefs about helpful resources, positive attitudes toward help-seeking, and knowledge of how to seek mental health information (Jorn et al., 1997). Youth in care and alumni may benefit from understanding their parents' challenges with mental health and behavioral functioning, the potential intergenerational consequences, and ways to decrease their risk and improve resilience and healing. This could empower youth and adults to be more proactive in addressing early signs of emotional distress.

The findings of our study also suggest the importance of integrating content on depression and positive relationship functioning in interventions for youth in foster care and alumni. Both can have bearing on the long-term well-being of alumni and their families. Having poor relationships with those closest to them may cause them to spiral into deeper depression, particularly if depression is accompanied by other disorders or social isolation. Given the serious implications and sometimes chronic and comorbid (co-occurring with other health and mental health conditions) nature of depression, thorough assessment and some combination of interventions are warranted. Evidence-based treatment, medication, and programs/activities that build community—in addition to support from friends and family members—may equip youth in care and alumni to take the best care of themselves and their children.

Some recent efforts in the areas of mentorship, educational support, independent living skills training, and systems navigation, medical benefits, and extended foster care are positively influencing youth and adult problem-solving and emotional functioning (Ahrens, 2008; Courtney et al., 2007; Pecora et al., 2010; DiLorenzo et al., 2006; Werner, 2005). Agencies and community groups should provide opportunities for individuals and families to voluntarily participate in activities that involve relationship-building, problem-solving skills, and healing of emotional wounds.

Limitations

This study focused on families in which all participants had experienced childhood trauma and foster care, not the general population. However, children, across their lifespan, can be

affected by their parents' mental status and behavior. Thus, similar studies should be undertaken in other foster care populations and the general population. Additionally, these analyses included both females and males and, hence, the relationships between variables may differ between the two. Future research could profit by testing whether gender moderates the relationships we observed.

When considering the results of this study, other parameters and limitations should be kept in mind. Although our study was limited to foster placement risk factors related to parent and alumni functioning, a number of other circumstances are important to alumni's success as parents. The present sample also differed from other alumni in that they were older, which likely had implications for parent and child psychosocial functioning. For instance, 83% of the sample had a high school diploma or GED compared to 76% in the Midwest Study of alumni ages 23–24; 74% had an income at/above poverty level compared to 52% of Midwest alumni who were "currently working" (poverty status was not reported); and 49% of alumni in the current study were married compared to 13% married and 40% married or cohabiting in the Midwest Study (Courtney et al., 2010). Thus, outcomes may differ between these alumni and others.

An additional limitation is that data were drawn from interviews with alumni and not based on formal parent assessments, professional/official (e.g., medical, child welfare, criminal justice) records, or multiple informants. While many of the alumni were placed as older children (mean age at time of first placement: 8.9 years (SD: 4.6), Median: 9.4 years), information on parental functioning was based solely on the knowledge foster care alumni had about their parents, and is additionally subject to recall bias (memory). Alumni were asked about how their parents were functioning during the alumni's childhood. Further, parenting was not measured and the parenting variables used (e.g., criminal involvement, mental health problems) do not provide parents' specific disorders, crimes, or when these situations occurred. More specificity could lead to better hypotheses about the most influential mechanisms of intergenerational risk. A number of other factors likely to be associated with second-generation placement in foster care that were not studied include quality of the relationship between alumni and their parents and quality of foster care received. There is also no indication why the alumni's children were placed in foster care or whether the alumni's parents had ever been in foster care.

Acknowledgments

Funded in part by NIMH Grant T32MH20010; NIMH Grant T32MH20; and Casey Family Programs; Special thanks to Tyler W. Corwin of the Northwest Social Research Group for his expert review of the father involvement research in child welfare.

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Figure 1.
Conceptual model of alumni mental health and income as mediators of their parents functioning on their children's foster care placement risk

Figure 2.
Intergenerational structural model

Table 1

Factor loadings for latent constructs in the intergenerational model

Construct	Indicator	Factor Loadings
Father Functioning (G1)		
	Father criminal involvement	.93
	Father mental health	.69
	Father employment	.69
Social Support		
Relative Social Support		
Positive (+) Support	Open up to relatives	.92
	Rely on relatives	.86
	Relatives understand	.81
Negative (–) Support	Relatives let down	.95
	Relatives argue	.59
	Relatives make demands	.41
Friend Social Support		
Positive (+) Support	Open up to friends	.93
	Friends understand	.87
	Rely on friends	.85
Negative (–) Support	Friends let down	.88
	Friends make demands	.68
	Friends argue	.40

All factor loadings were statistically significant at $p < .001$; see text for measurement model fit statistics.