



Research article

## Father involvement in child welfare: Associations with changes in externalizing behavior<sup>☆</sup>



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### ABSTRACT

Nonresident fathers can have a significant impact on children's behavioral outcomes. Unfortunately, the impact of nonresident father involvement on the behavioral outcomes of children with child welfare involvement has received scant attention in the literature, a limitation the current study sought to address. A sample of 333 children in state custody in Illinois between the ages of six and 13 participated and were assessed using the externalizing behavior scale of the Child and Adolescent Needs and Strengths (CANS) at regular intervals throughout their time in care. Father involvement was measured through a review of case files and interviews with child welfare workers. Growth trajectories were fit to children's externalizing behavior across time and were predicted using Time 1 characteristics. Father involvement, total non-father relative involvement, and gender (girls) was associated with lower baseline externalizing behavior and the African American children in the sample experienced higher baseline externalizing behavior. However, only Time 1 father involvement predicted slope trajectories after controlling for Time 1 externalizing behavior; more father involvement was associated with lower externalizing behavior trajectories. These results suggest that even in the unique and stressful context of child welfare, father involvement can be protective regarding children's externalizing behaviors.

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Fathers can have a significant impact on children's adjustment (Cookston and Finlay, 2006; Sarkadi, Kristiansson, Oberklaid, & Bremberg, 2008). Further, not only resident father involvement but also noncustodial "nonresident" father involvement has been shown to be positively associated with adjustment. In a meta-analysis of nonresident father involvement, Amato and Gilbreth (1999) found that all four involvement categories studied – provision of child support, contact (e.g., visits), feelings of closeness, and authoritative parenting – were modestly associated with fewer externalizing behavior problems, but were not significantly associated with internalizing behavior. Amato and Gilbreth (1999) findings are encouraging for advocates of father involvement in families with child welfare involvement (Zanoni, Warburton, Bussey, & McMaugh, 2013), since the overwhelming majority of fathers of children with child welfare involvement are obviously nonresident fathers.

Unfortunately, the putative benefits to children of father involvement have not spawned much research on the subject in child welfare samples, but the literature that does exist points to the benefits fathers can confer. In terms of permanency outcomes, Malm and Zielewski (2009) found that children with fathers who provided both financial and non-financial

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support (e.g., visits, childcare) were three times as likely to be reunified as children who received neither form of support. In a 2008 Urban Institute report of father involvement in four states, [Malm, Zielewski, and Chen \(2008\)](#) found that children with highly involved fathers were discharged from foster care an average of five months sooner, and that children with nonresident father involvement were less than half as likely to experience another maltreatment allegation when the goal was reunification (32% versus 12%).

We are aware of just one study that has examined the effects of fathers or father figures on behavioral outcomes among children with child welfare involvement. [Marshall, English, and Stewart \(2001\)](#) studied 182 children with Child Protection Services (CPS) involvement at ages four and six using Longitudinal Studies of Child Abuse and Neglect (LONGSCAN) data. Their results indicated that it was only the presence or absence of a father figure, and not level of engagement or stability, that was associated with lower aggression scores on the Child Behavior Checklist (CBCL). However, this effect was only present for six year olds, not four year olds, and only for families in which the primary caregiver was African American ([Marshall et al., 2001](#)). The LONGSCAN data used by [Marshall et al. \(2001\)](#) included children with both CPS contact and children who had been taken into state custody (officially removed from the home of a biological parent, with certain legal parenting rights suspended) and therefore did not examine the potential effects of father involvement only among children in the unique context of the child welfare custody. Further, [Marshall et al.'s \(2001\)](#) study was cross-sectional, which limits interpretation of any findings. For example, if a positive association between father involvement and externalizing behavior is found in a cross-sectional study, one cannot rule out the possibility that fathers are less involved when their children exhibit externalizing behavior, versus the conclusion that fathers might help to protect against and decrease externalizing behavior over time. The former conclusion is less tenable with longitudinal data, because any cross-sectional association is controlled for before assessing whether or not father involvement is associated with changes in externalizing behavior over time. The current study offers the first examination of the potential longitudinal association between father involvement and changes in externalizing behavior in a child welfare sample.

Fathers of children with child welfare involvement have not only been neglected in the empirical literature but also in actual child welfare practice. Prior research suggests that the child welfare system favors mothers and devotes less attention to the needs of fathers ([Franck, 2001](#); [O'Donnell, Johnson, D'Aunno, & Thornton, 2005](#)). For instance, workers report placing less value on fathers' involvement, exhibit passivity in their attempts to find and engage fathers, and devote little effort to acquiring information on uninvolved fathers ([O'Donnell, 2001](#); [O'Donnell et al., 2005](#)). Workers may have particularly little motivation to pursue fathers' involvement in families with children born to multiple fathers, due to the increased effort that may be required ([O'Donnell, 2001](#); [O'Donnell et al., 2005](#)). Though some evidence indicates that caseworkers hold generally positive attitudes toward fathers ([English, Brummel, & Martens, 2009](#)), they may have higher expectations for and more positive attitudes toward mothers, which could also influence fathers' lack of participation in their children's cases ([Bellamy, 2009](#); [Franck, 2001](#); [O'Donnell et al., 2005](#)). Further, Interpersonal Violence (IPV) is common in the overall population and in families of children in the child welfare system ([Centers for Disease Control, 2003](#)), which may create concerns among caseworkers about the safety of involving fathers. Additionally, caseworkers seem to emphasize fathers' potential as either financial providers or primary caregivers. By ignoring intermediate forms of involvement, such as visitation or phone calls, workers may miss important opportunities to engage fathers ([O'Donnell et al., 2005](#)).

Of course, there are notable concerns and barriers regarding many fathers of children in child welfare. In terms of engagement with the system, caseworkers often report that they have had difficulties in terms of receiving a return call from fathers, not having valid contact information, fathers' conflict with biological mothers and fathers not showing up to scheduled visitations (e.g., [Coakley, Kelley, & Bartlett, 2014](#)). In a report commissioned by the Children's Bureau ([Malm, Murray, & Geen, 2006](#)), a survey of over 1000 child welfare specialists revealed the following primary barriers to involving fathers in case planning: substance abuse (58%); criminal justice involvement (52%); inadequate housing (42%); unemployment (41%); domestic violence (33%); and prior finding of abuse/neglect (30%). However, in the same study, mothers experienced similar barriers and with higher frequencies, the only exception being criminal justice involvement; fathers experienced a higher percentage of criminal justice involvement. Therefore, many of the same barriers to father involvement exist regarding mothers' involvement (e.g., substance abuse, abuse and neglect, incarceration) among children in foster care, and yet the default permanency goal for children when they enter foster care is reunification, a goal that in the majority of cases involves reunification with the mother. In other words, the barriers and concerns that exist to involving fathers may be given more weight than the barriers involving mothers, which could represent a systemic bias against father involvement with possible consequences for children's well-being.

Without research support for the contexts in which fathers might be a benefit, any potential systemic bias or apathy regarding father involvement becomes difficult to challenge. The current study seeks to fill a need in the literature by studying the effects of father involvement on externalizing symptoms in a sample of children in foster care, representing just the second study to do so with this population after [Marshall et al. \(2001\)](#). We hypothesize that father involvement will be associated with more rapid declines in externalizing behavior over time. Given that the father involvement literature has on occasion found benefits only for either boys or girls ([Sarkadi et al., 2008](#)), and that the only study of father involvement and externalizing behavior in a foster care sample found an effect for race/ethnicity (African American father involvement was more associated with fewer externalizing problems, [Marshall et al., 2001](#)), we seek to determine if any benefit of father involvement is moderated by the child's gender or the child's race/ethnicity. However, these are exploratory aims rather than hypotheses because the broader non-resident father involvement literature has not consistently found a moderating effect of race or gender on the association between father involvement and behavioral outcomes ([Amato & Gilbreth, 1999](#)).

## 1. Method

### 1.1. Participants

Children and adolescents between the ages of six and 13, who entered the care of the Illinois Department of Children and Family Services (DCFS) in Cook and Will Counties between October 1st, 2011 and October 1st, 2014, were eligible for the present study. Reasons for removal from the home and entry into DCFS included neglect (70.2%), physical abuse (32.7%), dependency (e.g., severe mental illness, parental death; 12.9%), and sexual abuse (7.0%).

### 1.2. Procedures

This study was part of an overall project designed to identify and promote the involvement of extended kin and fictive kin in the lives of children once they enter the child welfare system. A list of eligible participants for the study was provided by the Illinois DCFS to the research team at Loyola University Chicago. A research team at Loyola University Chicago reviewed information on the Illinois DCFS Statewide Automated Child Welfare Information System (SACWIS) database to collect data on the child's demographics and family (see below). The primary section of the SACWIS record reviewed by the team was the psycho-social history developed as part of the Integrated Assessment (IA). As required by the state of Illinois, the IA is completed within 45 days of entry into DCFS care through Temporary Custody. An IA screener, a licensed mental health professional, conducts in-person interviews with each youth and his or her parent(s) and foster parent(s) to examine the medical, social, developmental, mental health, familial, and educational domains of both the child and the adults involved in rearing the child. The main objective of the IA is to make appropriate placement decisions and to develop a service plan that meets needs of families. The IA also provides information on the youth's family composition, history of abuse or neglect, and placement history. After reviewing the IA for each participant, research assistants conducted phone interviews with child welfare workers to confirm the information collected from the SACWIS database and make any changes based on an ongoing understanding of the family. The Institutional Review Boards at both DCFS and Loyola University Chicago approved this study.

### 1.3. Materials

**1.3.1. Demographic and family information.** A tool developed for this study, the Kin Identification and Level of Engagement (KILE) Form was used to obtain information regarding participants' race/ethnicity, gender, age, family composition, and extended family members (e.g., maternal grandmother, maternal great-aunt, paternal aunt, maternal cousin), and the type of kinship involvement provided to youth by each of the identified kin. The categories of kinship involvement included visitation, phone calls, childcare, homework help, mentoring, transportation assistance, coaching, sending birthday cards or letters, invitations to family events, attendance at important events, and providing respite as well as support to biological parents and foster parents.

The completion of the KILE Form occurred in two phases. In Phase I, the Loyola evaluator searched the Illinois DCFS SACWIS system to identify kin and record information regarding their support to the youth. In Phase II, the research team contacted the child's child welfare worker to conduct a 30-min interview to review and (a) confirm the kin and fictive kin identified by the file review and (b) determine if the worker was aware of any kin/fictive kin not identified through the SACWIS file review or aware of any family involvement in the child's life among those already identified. Although created for this study, the KILE has already been shown to demonstrate concurrent validity. In a study estimating whether children would enter foster care with an emergency shelter placement versus a kinship foster placement, the KILE was used to measure total family involvement (composite of all family member's involvement). The total family involvement variable was the strongest predictor of group membership (shelter versus kinship placement; [Leon, Jhe Bai, & Fuller, 2016](#)), above baseline clinical and demographic variables. In another study, the KILE total family involvement variable was found to moderate the association between a measure of family dysfunction and the CANS externalizing behavior subscale used in the current study (see below).

**1.3.2. Father involvement.** On the basis of data gained from the KILE Form, we created a composite variable of father involvement from the following dichotomous (involved/not involved) categories described earlier: visits, childcare, phone calls, childcare, homework help, birthday cards, attendance at important events, support to biological mother, and support to foster parent. The composite produced a Cronbach's  $\alpha$  of .63. To control for the possible confound between father involvement and non-father family involvement, we computed a composite variable of all family involvement other than father involvement. This variable was only modestly correlated with father involvement, suggesting that multicollinearity did not adversely impact the study results.

**1.3.3. Child and Adolescent Needs and Strengths (CANS).** Externalizing behavior was evaluated using the Child and Adolescent Needs and Strengths (CANS; [Lyons, Griffin, Fazio, & Lyons, 2008](#)). The CANS was completed as a part of the IA during the first 45 days upon entering DCFS care. The CANS version used in this study was a 105-item structured instrument to assess the needs and strengths of a youth across seven areas of youth functioning, including Trauma Experience, Traumatic Stress

Symptoms, Youth Strengths, Life Domain Functioning, Acculturation, Youth Behavioral/Emotional Needs, and Youth Risk Behaviors. For each item on the CANS, severity ratings are reported on a four-point Likert scale of "0" to "3", where a score of "0" indicates no evidence of any needs or the presence of significant strengths, a score of "1" indicates a need for monitoring or preventive activities, a score of "2" indicates a need for addressing the problem, and a score of "3" indicates a need for immediate or intensive action. In order to complete the CANS as part of the IA and based on a consensus from the IA worker and the caseworker, workers must first establish a reliability of 85% rating accuracy (State of Illinois DCFS). Through a principal components analysis, seven items loaded onto an externalizing behavior problems scale: oppositional behavior, conduct, attention deficit/impulse control, anger control, danger to others, sexual aggression, and delinquency;  $\alpha = .84$ . Subsequent CANS are completed by caseworkers at regular intervals throughout their time in care.

We also collected Child Behavior Checklist (CBCL; [Achenbach & Rescorla, 2001](#)) data for a subsample of the children in the current sample at three time points through reports from the children's foster parents. Unfortunately, the attrition across the three time points prevented us from having the necessary power to determine if father involvement had a longitudinal impact on the externalizing subscale of the CBCL. Nonetheless, we were able to compare the Time 1 CANS externalizing behavior subscale with Time 1 CBCL externalizing behavior scores. Despite differences in method (the CANS measure was collected through IA workers and the CBCL measure was collected from foster parents), the CANS externalizing behavior and CBCL externalizing behavior correlation for the subsample of children ( $n = 158$ ) was .453 ( $p < .001$ ).

#### *1.4. Statistical analyses*

Multi-level modeling via Hierarchical Linear Modeling (HLM; [Bryk & Raudenbush, 1992](#)) was employed to account for siblings in the data. The fact that siblings frequently come into care from the same family and are housed in the same foster home clearly violates the independence assumption of traditional multiple regression techniques (e.g., Ordinary Least Squares Regression). By applying a 3-level multi-level model to the data, we were able to nest time within CANS assessments, CANS assessments within children, and children within families. Of primary interest, level 2 Time 1 (i.e., time invariant) predictors (e.g., father involvement) were used to predict externalizing behavior slope trajectories. While HLM is a different technique than more traditional regression tools such as Ordinary Least Squares Regression, generally the statistics (e.g., beta weights) and interpretations (positive or negative values representing associations with dependent variables) are similar. The variable time was measured in quarter (three month) intervals. Quarter was chosen as the interval of time because CANS assessments are required to be conducted quarterly. However, as is the case in many naturalistic study settings, CANS assessments were frequently not completed on a regular quarterly basis. Further, children with longer stays in Illinois' foster care system received more CANS assessments. Fortunately, as long as the time variable is measured and modeled, HLM can handle unbalanced data such as was used in this study.

The outcome, externalizing behavior, was positively skewed with a large number of zeros. Data transformations such as a log-transformation are often insufficient to ensure that the assumptions of the test are met, most notably the assumption of normality of residuals. This can lead to biased parameter estimates and an increased likelihood of Type I errors. As a result, we recoded the CANS items into dichotomous count data by recoding a "0" or a "1" into "0" (absence of a problem), and "2" or "3" into a "1" (presence of a problem). The items were then summed, allowing us to use HLM with a Poisson distributed outcome consisting of count data. Since the mean and standard deviation of the externalizing behavior scale were equivalent, we ran the model using the over-dispersion feature in HLM. We chose to use a "2" or "3" to indicate the presence of an externalizing behavior problem based on the item anchorings and how the CANS is used in practice. For all items on the CANS, a "2" or a "3" rating indicates the need to address the problem, whereas a "1" indicates that "watchful waiting" may be appropriate and of course a zero indicates that no concern is present. In terms of practice, caseworkers are only required to address a problem on the service plan if an item on the CANS is rated as a "2" or a "3".

Overall, 149 (44.7%) children were singletons in the sample (i.e., were the only children taken into custody or other children in the family were not part of the sample). Even with approximately one half of the sample consisting of singletons in the study, prior simulation research suggests that level 2 coefficients and standard errors, parameters of primary interest in our study, are not significantly altered under these conditions ([Bell, Morgan, Kromrey, & Ferron, 2010](#)).

## **2. Results**

### *2.1. Descriptives*

**Table 1** presents means, frequencies and correlations for our sample. The mean age at entry into foster care was 10.13 years ( $SD = 2.38$ ), and females composed slightly more of the sample than males (53.2%). A majority of the sample was African American (64.5%), followed by Latino (14.9%), multi-ethnic or bi-racial (12.9%) and Caucasian (7.7%). Reasons for removal from the home and entry into DCFS included neglect (70.2%), physical abuse (32.7%), dependency (12.9%), and sexual abuse (7.0%). Externalizing behavior had a small positive correlation with age and race (African American) and a small negative association with father involvement and non-father relative involvement. Age had a small negative correlation with father involvement and non-father family involvement. Father involvement was only moderately correlated with non-father kin/fictive kin involvement ( $r = .358$ ), suggesting that including both variables in the analyses did not produce multi-collinearity.

**Table 1**

Descriptive statistics among study variables.

	Mean (SD)	%	1	2	3	4	5	6
1. Externalizing behavior (CANS)	.31 (.29)		—	—	—	—	—	—
2. Age	10.13 (2.38)		.237 **	—	—	—	—	—
3. Father involvement	.82 (1.44)		-.168 *	-.117 *	—	—	—	—
4. Non-father relative involvement	7.43 (7.13)		-.219 **	-.195 **	.358 **	—	—	—
5. Gender (female)		53.20%	-.094	.077	.023	-.049	—	—
6. Race (African-American)		64.50%	.109 *	.068	-.017	-.051	-.037	—

Note. CANS, Child and Adolescent Needs and Strengths.

\*  $p < .05$ .\*\*  $p < .01$ .**Table 2**

Multi-level Poisson model (population-average) for CANS externalizing behavior trajectories.

Fixed effects	Coefficient	SE	p	Event rate ratio	95% confidence interval
<i>Intercept terms</i>					
Intercept, $\beta_{00}$	-1.468	.155	<.001	.230	.170, .312
CANS externalizing Time 1, $\beta_{01}$	.673	.044	<.001	1.96	1.798, 2.137
Age, $\beta_{02}$	.025	.034	.463	1.025	.959, 1.096
Gender (female), $\beta_{03}$	-.275	.139	.048	.759	.578, .998
Race/ethnicity (African-American), $\beta_{04}$	.348	.151	.022	1.416	1.053, 1.904
Non-father kinship involvement, $\beta_{05}$	-.024	.012	.041	.976	.953, .999
Father involvement, $\beta_{06}$	-.326	.155	.037	.722	.532, .980
Father $\times$ gender, $\beta_{07}$	.056	.126	.655	1.058	.826, 1.355
Race/ethnicity (African-American) $\times$ father involvement, $\beta_{08}$	.318	.171	.064	1.374	.982, 1.924
<i>Slope terms</i>					
Intercept, $\beta_{10}$	.084	.025	.001	1.087	1.035, 1.142
CANS externalizing Time 1, $\beta_{11}$	-.027	.006	<.001	.973	.962, .984
Age, $\beta_{12}$	.006	.005	.194	1.006	.997, 1.016
Gender (female), $\beta_{13}$	-.027	.019	.159	.973	.937, 1.011
Race/ethnicity (African-American), $\beta_{14}$	.011	.023	.641	1.011	.966, 1.058
Non-father kinship involvement, $\beta_{15}$	.001	.002	.954	1.000	.997, 1.003
Father involvement, $\beta_{16}$	-.075	.032	.023	.973	.870, .990
Father $\times$ gender, $\beta_{17}$	.029	.020	.153	1.029	.989, 1.072
Race/ethnicity (African-American) $\times$ father involvement, $\beta_{18}$	.058	.034	.093	1.060	.990, 1.134

Note. CANS, Child and Adolescent Needs and Strengths.

Father involvement scores ranged from zero to nine with a mean of .82 ( $SD = 1.44$ ). In terms of types of involvement, the most common form of involvement among the sample of fathers were visits (24.2%), followed by phone calls (16.5%) and support (financial/emotional) to the biological mother (8.1%). Fathers were far less likely to be involved by assisting with homework (1.7%), childcare (1.7%), or giving/sending birthday cards (.7%). Finally, it could not be established with our methods that any of the fathers in our sample attended important events or assisted with transportation needs.

## 2.2. Hierarchical Linear Model (HLM) results

Unconditional growth curve analyses indicated that the mean trajectories for externalizing behavior had a nonzero intercept and a nonzero slope. The variances of the intercepts and slopes were also significant, indicating significant variability in children's Time 1 externalizing behavior and in changes in externalizing behavior over time. For the conditional model, eight variables were used to estimate externalizing problems intercepts, and the same eight variables were used to estimate externalizing slopes (see Table 2). In terms of intercepts, Time 1 externalizing behavior was, not surprisingly, significantly associated with intercept values of externalizing behavior ( $\beta_{01} = .67, p < .001$ ). However, four additional variables were significantly associated with baseline externalizing behavior: father involvement ( $\beta_{06} = -.33, p = .037$ ), with higher father involvement associated with lower baseline externalizing behavior; race/ethnicity ( $\beta_{04} = .35, p = .022$ ), with African Americans exhibiting more externalizing behavior; gender ( $\beta_{03} = -.27, p = .048$ ), with females exhibiting less externalizing behavior at baseline; and total non-father family involvement ( $\beta_{05} = -.02, p = .041$ ), with more total non-father family involvement associated with lower baseline externalizing behavior. In terms of slope effects, Time 1 externalizing behavior was again negatively associated with the slope of externalizing behavior over time ( $\beta_{11} = -.03, p < .001$ ). The only other variable associated with changes in externalizing behavior was father involvement ( $\beta_{16} = -.07, p = .023$ ); higher levels of father involvement at Time 1 were associated with lower externalizing behavior slope trajectories across time. Since the intercept of the slope is positive and significant (.084), it suggests that externalizing behavior increased over time in the sample. And, since the co-efficient of the effect slope effect for father involvement was negative and approximated the co-efficient for

the intercept of the slope (.084 versus -.075), it suggests that children with father involvement at or above one standard deviation do not experience the same increase in externalizing behavior over time as children with less father involvement.

### 3. Discussion

This study examined the effect of a composite measure of father involvement (e.g., visits, phone calls) on externalizing behavior among children in the child welfare system. Nonresident father involvement has been shown to be protective regarding externalizing behavior (Amato & Gilbreth, 1999) and the involvement of nonresident fathers, particularly African American fathers, has increased over the past 25 years (Amato, Meyers, & Emery, 2009). Unfortunately, these promising findings and trends have not spawned much research on the subject in child welfare samples, a gap the current study attempted to address. After controlling for demographic and non-father family involvement, father involvement was associated with lower slope trajectories in externalizing behavior.

Results also suggest that informal contact (visits, phone calls) is the primary means by which nonresident fathers of children in the child welfare system are involved. Far fewer fathers were involved in more traditional domains of parenting, such as help with homework and childcare, and none of the fathers were reported to have attended important events (e.g., graduations, extra-curricular events). Taken together, the results suggest that fathers are not as involved as fathers in samples outside of child welfare but that the father involvement that does occur might nonetheless be protective for children. These results may support efforts in child welfare to better engage fathers (Zanoni et al., 2013). Some work in this area shows promise for increasing father involvement. These include: (a) early involvement; (b) making involvement a necessary and embedded part of practice; and (c) engaging around specific activities (Maxwell, Scourfield, Featherstone, Holland, & Tolman, 2012). Additional work suggests further strategies to increase father involvement in child welfare, including: (a) assessment of the reasons for limited contact; (b) using materials designed specifically for fathers; (c) helping mothers and children understand the importance of fathers; and (d) employment and peer support for fathers (Institute for Families, 2005). Fortunately, the empirical literature has found support for interventions targeting fathers with significant issues related to Intimate Partner Violence (IPV) and comorbid substance abuse (Stover, 2013). Since these issues occur frequently in families with eventual foster care involvement, our study suggests that the incorporation of father involvement interventions have the potential to help fathers address their IPV and substance abuse issues to create a healthier family life and improved parenting.

Greater attention to fathers in child welfare practice might also be able to overcome some of the barriers to involvement seen in this population. For example, where appropriate, fathers who live out of state can nonetheless be encouraged to make phone calls, write letters, and communicate by electronic means. It is important to note that our method involved reviewing electronic child welfare records (SACWIS) and interviewing caseworkers. However, it is more likely that caseworkers would be aware of visits and phone calls than homework help or attendance at important events because visitations are a cornerstone of child welfare practice and as such are embedded in reporting systems. It might be less likely that IA workers or caseworkers are aware of involvement activities such as homework help or attendance at important events.

We explored whether gender would moderate any benefits to children of father involvement. Specifically, we explored whether boys would benefit more from father involvement than girls, which was not supported. The broader parenting literature has on occasion found differential effects of fathers on boys versus girls in African American or lower-income samples (e.g., Hoeve et al., 2009; Leavell, Tamis-LeMonda, Ruble, & Zosuls, 2012; Farrington, Jolliffe, Loeber, Stouthamer-Loeber, & Kalb, 2001). However, the broader father involvement literature, despite its relative emphasis on middle to upper SES and non-minority fathers, has nonetheless tended to support the conclusion that fathers are equally beneficial for boys and girls (Amato & Gilbreth, 1999; Sarkadi et al., 2008). Our results therefore are consistent with the broader father involvement literature. Further, girls experienced less externalizing behavior at baseline, a finding with broad epidemiological and theoretical support in the literature (e.g., Martel, 2013; Maschi, Morgen, Bradley, & Smith Hatcher, 2008; Zahn-Waxler, Shirtcliff, & Marceau, 2008).

We also explored whether any effect of father involvement was moderated by the child's race, specifically whether being African American would moderate any effect of father involvement. We based this aim on the finding from the only other study to assess the potential moderation of father involvement by race in a child welfare sample (Marshall et al., 2001). However, despite finding that father involvement was associated with less externalizing behavior for African Americans, Marshall et al.'s study was cross-sectional and did not explore whether this interaction was associated with changes in externalizing behavior. In the current study, the cross-sectional interaction between father involvement and race only approached significance. However, consistent with Marshall et al.'s results, the African American children in our sample were rated with higher externalizing behavior at baseline. Overall then, it appears that our results are more consistent with the broader literature, which has found that demographic variables such as gender and race do not moderate the effect of father involvement on behavioral outcomes (Amato & Gilbreth, 1999).

### 4. Limitations and conclusions

First, this study examined the relationship between father involvement at Time 1 its relationship to externalizing behavior trajectories, which does not indicate whether or not father involvement is causally related to externalizing behavior. For

example, father involvement may be correlated with other variables that are having the effect on externalizing behavior. We controlled for variables that could be correlated with father involvement, such as non-father relative involvement and demographics, but clearly this is not an exhaustive list. Experimental research on interventions that increase father involvement among children in foster care and the connection between these increases and externalizing behavior would supply more causal support for the role of father involvement and outcomes.

This study examined what has been termed father "contact", but previous research has demonstrated that closeness and authoritative parenting are also significantly associated with adjustment outcomes in nonresident fathers (Amato & Gilbreth, 1999). In fact, variables related to contact demonstrated the lowest association with behavioral outcomes in Amato and Gilbreth's (1999) seminal meta-analysis of nonresident father effects. Since the current study did not assess variables related to closeness and positive parenting, it is possible that some of the benefit of father involvement was due to those variables and not contact per se. Therefore, we cannot conclude from the data that contact alone is important for children in a child welfare context, but rather variables that are often intuitively associated with contact (e.g., emotional support, encouragement, modeling, etc.) may be driving the findings. Further, as mentioned earlier, involvement was determined from SACWIS file reviews and child welfare worker report. Visits are often a required component of child welfare service plans, so this may explain why child welfare workers reported this form of involvement more often. Other measures of involvement assess either the child's or the biological mother's perspective on the father's involvement. However, in the current context, the children in our sample were as young as six and measures of child-assessed involvement are not validated on children this young. Marshall et al. (2001) did use mother self-report to assess father involvement, but their results did not show an effect of father involvement measured in this way.

It is noteworthy in light of the above discussion that relatively few studies in child welfare have employed a more multi-dimensional view of father involvement and instead have more consistently studied contact variables. For example, similar to the current study, Malm and Zielewski (2009) examined caseworker perspectives on father involvement. Father involvement was identified as either financial or non-financial (e.g., provision of diapers, childcare). Nonetheless, Malm and Zielewski found that this more specific and less multi-dimensional measurement of father involvement was robustly associated with permanency outcomes. Interestingly, Marshall et al.'s (2001) study using LONGSCAN data did include a measure that involved a broader and more multi-dimensional conceptualization of father involvement (e.g., "How much time does he [father/father figure] spend?"; "How much does he show he cares?"; "How much does he take care of financial needs?"). However, it was simply the presence or absence of any father involvement that had any association with emotional and behavioral outcomes.

The father involvement literature in child welfare would likely benefit from a more expansive and multidimensional perspective on father involvement, such as has been employed in the broader literature. However, it is not reasonable to expect that, as a group, the fathers of highly disadvantaged children in the child welfare population will be involved in the ways it has been conceptualized in studies of higher socio-economic status families, at least not upon entry into care. And importantly, these more common and multidimensional constructions of involvement may not be as necessary to confer an advantage on children in the child welfare system. One implication of this claim is that the way a parent is involved may take on unique meaning depending on environmental context. Recent theoretical work has attempted to layout the complex, reciprocal variables that interact at multiple ecological levels to influence the father-child relationship (Cabrera, Fitzgerald, Bradley & Roggman, 2014). With our findings here, we advocate for the inclusion of the child welfare system context as a variable that deserves more attention in the father-child relationship literature.

The CANS as an instrument has shown reliability and validity (Lyons et al., 2008) but the specific scale measuring externalizing behavior used here has not been used as frequently. It has been used in two other studies (Leon et al., 2016; Jhe Bai, Leon, Fuller, unpublished manuscript) with a subsample from the data used in this study and shown concurrent validity and internal consistency. However, it lacks the psychometric support of other more established measures of externalizing behavior. Nonetheless, the CANS externalizing behavior subscale used here was significantly correlated with the externalizing behavior subscale of the CBCL, despite differences in the method of data collection. Finally, the mental health professionals and caseworkers who complete the CANS are trained and certified in its use but follow-up reliability is often not assessed after training.

Future research should seek to understand the possible mechanisms that may be associated with the relationship between father involvement and outcomes. The broader father involvement literature indicates that father involvement often has indirect effects on children's development, primarily through its impact on the mother's parenting. For example, research has shown that fathers can be associated with decreases in maternal stress, which then can have a positive impact on mothers' parenting (Coley & Schindler, 2008). Father involvement may also protect against the negative effects of maternal depression (Fletcher, 2009). Finally, research has shown that nonresident fathers' financial and material support can have a positive impact on social and cognitive outcomes, possibly by reducing stresses on mothers and improving their parenting (Mollborn & Lovegrove, 2011). It remains to be seen whether these or other possible mediators are the mechanisms of positive outcomes regarding father involvement among children in foster care.

In conclusion, the findings suggest that father involvement, even contact such as visits and phone calls, might serve to decrease externalizing behavior over time among children with higher baseline externalizing behavior. These findings offer justification for the implementation of promising tools that might be used to increase father involvement. And while future research should further explore the more multi-dimensional nature of father involvement seen in the broader literature, for now these findings support efforts in the field to make fathers "core business" in child welfare (Zanoni et al., 2013).

## References

- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA School-Age Forms & Profiles*. Burlington: VT: University of Vermont, Research Center for Children, Youth, & Families.
- Amato, P. R., & Gilbreth, J. G. (1999). Nonresident fathers and children's well-being: A meta-analysis. *Journal of Marriage and the Family*, 61, 557–573.
- Amato, P. R., Meyers, C. E., & Emery, R. E. (2009). Changes in nonresident father-child contact from 1976–2002. *Family Relations*, 58, 41–53.
- Bell, A. B., Morgan, G. B., Kromrey, J. D., & Ferron, J. M. (2010). The impact of small cluster size on multilevel models: A Monte Carlo examination of two-level models with binary and continuous predictors. In H. Xe, & M. R. Elliot (Eds.), *JSM proceedings, survey research methods section* (pp. 4057–4067). Vancouver, BC: American Statistical Association.
- Bellamy, J. L. (2009). A national study of male involvement among families in contact with the child welfare system. *Child Maltreatment*, 14, 255–262.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Sage Publications, Inc.
- Cabrera, N. J., Fitzgerald, H. E., Bradley, R. H., & Roggman, L. R. (2014). The ecology of father-child relationships: An expanded model. *Journal of Family Theory & Review*, 6, 336–354.
- Centers for Disease Control. (2003). *Costs of intimate partner violence against women in the United States executive summary*.
- Coakley, T. M., Kelley, A., & Bartlett, R. (2014). Exploring child welfare workers' attitudes and practice with fathers. *Journal of Family Strengths*, 14, article 11.
- Coley, R. L., & Schindler, H. (2008). Biological fathers' contributions to maternal and family functioning. *Parenting: Science and Practice*, 8, 294–318.
- Cookston, J. T., & Finlay, A. K. (2006). Father involvement and adolescent adjustment: Longitudinal findings from Add Health. *Fathering*, 2, 137–158.
- English, D. J., Brummel, B. S., & Martens, P. (2009). Fatherhood in the child welfare system: Evaluation of a pilot project to improve father involvement. *Journal of Public Child Welfare*, 3, 231–234.
- Farrington, D. P., Jolliffe, D., Loeber, R., Stouthamer-Loeber, M., & Kalb, L. M. (2001). The concentration of offenders in families, and family criminality in the prediction of boys' delinquency. *Journal of Adolescence*, 24, 579–596.
- Fletcher, R. (2009). Promoting infant well-being in the context of maternal depression by supporting the father. *Infant Mental Health Journal*, 30, 95–102.
- Franck, E. J. (2001). Outreach to birthfathers of children in out-of-home care. *Child Welfare*, 80, 381–399.
- Hoeve, M., Semon Dubas, J., Eichelsheim, V. I., van der Laan, P. H., Smeenk, W., & Gerris, J. R. M. (2009). The relationship between parenting and delinquency: A meta-analysis. *Journal of Abnormal Child Psychology*, 37, 749–775.
- Institute for Families. (2005). *Increasing father involvement in child welfare*. Denver, CO: University of Denver, Institute for Families.
- Jhe Bai, G., Leon, S. C., & Fuller, A. F. (unpublished manuscript). *The protective effect of kinship support on the adjustment of youth in foster care*.
- Leavell, A. S., Tamis-LeMonda, C. S., Ruble, D. N., & Zosuls, K. M. (2012). African-American, White and Latino Fathers' activities with their sons and daughters in early childhood. *Sex Roles*, 66, 53–65.
- Leon, S. C., Jhe Bai, G., & Fuller, A. F. (2016). Emergency shelter care in child welfare: Who goes to the shelter? How long to they stay? *American Journal of Orthopsychiatry*, 86, 49–60.
- Lyons, J. S., Griffin, E., Fazio, M., & Lyons, M. B. (2008). *Child and Adolescent Needs and Strengths: An information integration tool for children and adolescents with mental health challenges (CANS-MH)*. manual. Winnetka, IL: Buddin Praed Foundation.
- Malm, K. E., Murray, J., & Geen, R. (2006). *What about the dads? Child welfare agencies' efforts to identify, locate and involve nonresident fathers*. Washington, DC: The U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.
- Malm, K. E., Zielewski, E. H., & Chen, H. (2008). *More about the dads: Exploring associations between nonresident father involvement and child welfare case outcomes*. Washington, DC: The Urban Institute Press.
- Malm, K. E., & Zielewski, E. H. (2009). Nonresident father support and reunification outcomes for children in foster care. *Children and Youth Services Review*, 31, 1010–1018.
- Marshall, D. B., English, D. J., & Stewart, A. J. (2001). The effect of fathers or father figures on child behavioral problems in families referred to child protective services. *Child Maltreatment*, 4, 290–299.
- Martel, M. M. (2013). Sexual selection and sex differences in the prevalence of childhood externalizing and adolescent internalizing behaviors. *Psychological Bulletin*, 139, 1221–1259.
- Maschi, T., Morgen, K., Bradley, C., & Smith Hatcher, S. (2008). Exploring gender differences on internalizing and externalizing behavior among maltreated youth: Implications for social work in action. *Child and Adolescent Social Work Journal*, 25, 531–547.
- Maxwell, N., Scourfield, J., Featherstone, B., Holland, S., & Tolman, R. (2012). Engaging fathers in child welfare services: A narrative review of recent research evidence. *Child & Family Social Work*, 17, 160–169.
- Mollborn, S., & Lovegrove, P. J. (2011). How teenage fathers matter for children: Evidence from the ECLS-B. *Journal of Family Issues*, 32, 3–30.
- O'Donnell, J. M. (2001). Paternal involvement in kinship foster care services in one father and multiple father families. *Child Welfare*, 80, 453–479.
- O'Donnell, J. M., Johnson, W. E., D'Aunno, L. E., & Thornton, H. L. (2005). Fathers in child welfare: Caseworkers' perspectives. *Child Welfare*, 84, 387–414.
- Sarkadi, A., Kristiansson, R., Oberklaid, F., & Bremberg, S. (2008). Fathers' involvement and children's developmental outcomes: A systematic review of longitudinal studies. *Acta Paediatrica*, 97, 153–158.
- Stover, C. S. (2013). Fathers for change: A new approach to working with fathers who perpetrate intimate partner violence. *Journal of the American Academy of Psychiatry and Law*, 41, 65–71.
- Zahn-Waxler, C., Shirtcliff, E. A., & Marceau, K. (2008). Disorders of childhood and adolescence: Gender and psychopathology. *Annual Review of Clinical Psychology*, 4, 275–303.
- Zanoni, L., Warburton, W., Bussey, K., & McMaugh, A. (2013). Fathers as 'core business' in child welfare practice and research: An interdisciplinary review. *Children and Youth Services Review*, 35, 1055–1070.