

## Foster children and placement stability: The role of child care assistance

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### ABSTRACT

Children who enter the child welfare system at a young age are at risk for a myriad of developmental, physical, and mental health problems. The risks faced by these vulnerable young children may be exacerbated by placement disruptions during foster care. This study utilizes administrative data from Illinois to explore the potential of child care assistance programs to reduce placement disruptions among foster children under the age of five. Survival analysis results suggest that receipt of child care assistance is associated with a reduced risk of placement disruption over time, especially for children who enter foster care as preschoolers. These findings are discussed in the context of the literature on the compensatory role that early care and education can play in short circuiting the detrimental impacts of toxic stress. With regard to public policy, they suggest an important, largely unexamined, role for child care support within the child welfare system.

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### Introduction

Children who enter foster care at an early age do so with a myriad of challenges, including developmental delays, mental and physical health problems, and attachment disorders (Dicker, Gordon, & Knitzer, 2001; Vig, Chinitz, & Shulman, 2005). Many of these children come from impoverished biological homes and a large majority of them have experienced trauma and/or toxic stress in the form of abuse and neglect (Bruce, Fisher, Pears, & Levine, 2009). Trauma and toxic stress in early childhood are extremely detrimental to children's health, neurobiological and behavioral development (National Scientific Council on the Developing Child, 2005). Given that both child maltreatment and poverty are sources of toxic stress, children in the child welfare system are highly likely to display its negative sequelae.

The most important buffer of the effects of early detrimental experiences on children's cognitive, behavioral and neurobiological development is sensitive and stable care-giving, usually studied as part of the maternal–child attachment relationship (Belsky & Fearon, 2002; Gunnar & Quevedo, 2007; Thompson, 2008), but increasingly as a focus of research on early care and education (ECE) (Phillips, Fox, & Gunnar, 2011). Efforts to provide young children with high quality early care both at home and in extra-familial contexts are now being framed as supporting the normative development of children's stress systems through the provision of stable, contingent, and emotionally supportive experiences (Blair, Berry, & Friedman, 2012).

It is a small leap to hypothesize that supportive ECE experiences may be especially beneficial for children in foster care especially when they have experienced the dual risks of poverty and maltreatment. Children with special needs are also overrepresented in the foster care population. Specifically, those who enter in early childhood (before age 6) are at 4 to 5 times greater risk of experiencing developmental delays than the general population (Dicker et al., 2001; Vig et al., 2005). Evidence from evaluations of both school-based pre-kindergarten programs and Head Start is revealing that these children exhibit comparable, developmental gains as compared to their typically developing peers when they are enrolled in high-quality early education settings (Phillips & Meloy, 2012; U.S. Department of Health and Human Services, 2010).

Despite the connecting strands provided by theory and research on the developmental impacts of toxic stress and on the potentially beneficial role that ECE programs can play in the lives of vulnerable children, there is a paucity of research at the intersection of child welfare and ECE. This study is designed to by initiate a program of research on the role of ECE in the lives of young children in the foster care system.

#### Conceptualizing risk in the context of foster care

Conceptualizing the risks associated with involvement in the child welfare system and placement in foster care requires acknowledging the many needs that children in foster care share with other groups of at-risk children, as well as the needs that are likely exacerbated by or unique to their special status as foster children. Of primary importance with regard to shared risks is the prevalence of impoverished backgrounds among children who enter foster care (Pinderhughes, Harden, & Guyer, 2007; Wulczyn, Kogan, & Harden, 2003). Poverty heightens the risk of developing physical and mental health problems, and of experiencing delayed cognitive development and poor

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academic achievement, particularly when experienced in the early childhood years (Hernandez, Montana, & Clarke, 2010; Rouse & Fantuzzo, 2009).

Moreover, children growing up in poverty and those who have experienced abuse and neglect have been observed to exhibit similar stress-related neurobiological impacts (Blair et al., 2008; Bruce et al., 2009; Cicchetti, 2007; Lewis, Dozier, Ackerman, & Sepulveda-Kozakowski, 2007; Oosterman, De Schipper, Fisher, Dozier, & Scheyngel, 2010). Given links between poverty, single parenthood and poor maternal education, foster children who are placed with kin may experience an additional burden given that they are more likely than traditional foster parents to be single, elderly, low-income, and poorly educated (Ehrle & Geen, 2002). Importantly, this is the fastest growing type of placement for foster children in the U.S. (Geen, 2004).

With regard to risks that are likely heightened for foster children, children in the child welfare system have been found to display unusually high rates of attachment disorders (Morton & Browne, 1998). The disruption of being removed from their biological homes and the instability that characterizes foster care placements in this country may compound the risk of disrupted attachments and their developmental effects (Lewis et al., 2007; Rubin, O'Reilly, Luan, & Localio, 2007; Wulczyn et al., 2003). Research has confirmed that transitions within the child welfare system exacerbate the negative developmental outcomes associated with abuse and neglect (Lewis et al., 2007; Rubin et al., 2007). Multiple placements, in particular, increase the risk for attachment disorders among foster children (Lewis et al., 2007; Webster, Barth, & Needell, 2000; Wulczyn et al., 2003) and are associated with adverse long-term outcomes (Carlson, 1998). Older children in foster care are at higher risk for placement disruptions (Wulczyn et al., 2003) making foster child age an important variable to consider when examining factors that reduce or exacerbate such disruptions.

This evidence at the juxtaposition of poverty, stress-reactivity, and foster care research emphasizes the importance of examining variation in children's experiences within foster care as a potentially powerful mediator of foster children's long-term development. Specifically, the quality and stability of foster care placements may buffer young foster children from—or compound—the negative developmental impacts associated with their high-risk childhoods. Identifying avenues for increasing the quality and stability of foster care placements could be critical to supporting the healthy development of these children. Among the candidates for this role, ECE warrants explicit attention.

#### *Possible roles of early care and education in the context of foster care*

ECE programs have a long history of serving as preventive interventions for children at risk due to poverty and other factors (See Harden, Monahan, & Yoches, 2012; Reynolds, Rolnick, Englund, & Temple, 2010; Zigler, Gilliam, & Barnett, 2011). Ample evidence supports this role (see Phillips & Lowenstein, 2011). Like other young children in the United States, foster children are likely to be exposed to ECE environments both before and during their placement in foster care. Recent studies have found that the majority (55–88%) of foster children of preschool age experience ECE while in foster care (Dinehart, Manfra, Katz, & Hartman, 2012; Lipscomb & Pears, 2011; Meloy & Phillips, n.d.; Ward et al., 2009).

The vast literature on ECE, which combines research on child care, preschool, and early intervention programs, has documented the wide variation in every imaginable feature of these programs, confirmed the developmentally supportive role that ECE can play in young children's lives, and highlighted the detrimental impacts that are associated with poor quality and unstable care (Ahnert, Piquart, & Lamb, 2006; Phillips & Lowenstein, 2011). Higher quality child care is consistently (albeit modestly) related to improved cognitive and language outcomes through the latter elementary grades, even after controlling for multiple child and family characteristics (Belsky et al., 2007; NICHD ECCRN, 2000, 2002, 2005; NICHD Early Child Care Research

Network & Duncan, 2003). Center-based arrangements have been found to be of higher quality than home-based care and to show stronger associations with a variety of school readiness outcomes for young children than other types of arrangements (Phillips & Lowenstein, 2011; Rigby, Ryan, & Brooks-Gunn, 2007). Child care stability also affects children's developmental outcomes (Adams & Rohacek, 2010). Frequent changes in child care arrangements have been linked to increased risk of negative social-emotional and cognitive outcomes (Howes & Hamilton, 1992; Loeb, Fuller, Kagan, & Carrol, 2004).

Stronger positive effects of child care quality have been found for children from more at-risk backgrounds, particularly with regard to school readiness outcomes (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002; Gormley, Phillips, & Gayer, 2008; Gormley, Phillips, Newmark, Welti, & Adelstein, 2011; Reynolds et al., 2010; Schweinhart, Barnes, & Weikart, 1993). Recent evidence has also reported stronger impacts for children who are portrayed as exhibiting sensitivity to context arising from biologically based vulnerability, including those characterized by social reticence and those with special needs (Phillips & Meloy, 2012; Phillips et al., 2011; Pluess & Belsky, 2009, 2010). This emerging evidence suggests that variation in the quality of ECE may also matter more for children in the child welfare system given their exposure to highly stressful and often unstable rearing conditions. These children may exemplify a group who display both biologically and environmentally based sensitivity to context and, as such, may be especially affected by variation in child care quality. Stability of care may also play a more salient role for these children than it does for others given their common histories of insecure attachment combined with frequent disruptions in care-giving. Whereas these questions remain unexplored, preliminary evidence from one study has linked child care exposure to improvements in the cognitive and language development of children in the child welfare system (Meloy & Phillips, n.d.).

To the extent that there is any history of research on child care in the context of foster care, it focuses on respite care. Respite care is a form of assistance that is designed to alleviate foster parent stress by offering short-term alternative care arrangements for foster children, often with other foster parents. Evidence indicates that access to respite care is associated with improved foster parent outcomes, including reduced stress and stronger intentions to continue fostering—factors that may promote foster parent retention and satisfaction (Owens-Kane, 2007; Rhodes, Orme, & Buehler, 2001). No evidence on child impacts exists.

Although generalizing results from respite care to more typical ECE arrangements is questionable, these findings raise the possibility that access to more regular and dependable ECE may offer even greater support for foster parents. This slim evidence on respite care also indicates that, when examining foster children, it is important to consider ECE as a potentially beneficial intervention with both direct impacts on the child and indirect impacts that are mediated through the foster parent (Meloy & Phillips, 2012). There is, however, virtually no evidence beyond that on respite care to guide efforts to ensure that ECE experiences support both the foster child and the foster parent, perhaps especially with regard to promoting stability in these children's lives.

#### *Child care assistance and foster families*

The vast majority of states offer financial child care assistance to foster parents as part of efforts to provide for both their economic and support needs (Minton, Durham, & Giannarelli, 2011). No research has been conducted on whether this assistance does, indeed, promote positive outcomes for foster parents or the children in their care. However, research on child care assistance for families in poverty suggests two ways in which it may also play a constructive role within the foster care system. First, the federal Child Care Development Fund subsidy program, which assists with the costs of child care for families on welfare, has been successful in supporting the employment of low-income parents (Forry,

2009; Tekin, 2004, 2007). There is every reason to believe that child care has the same potential to serve as an essential employment support for foster parents, the majority of whom report the need for additional financial resources in order to successfully maintain their homes and support their foster children (Hudson & Lévassieur, 2002). In this context, child care assistance could lead to greater foster parent retention, and thus placement stability, if it promotes the economic security of the home.

Second, assistance in the form of subsidies typically leads parents to choose center-based over home-based care (Crosby, Gennetian, & Huston, 2005). Subsidy receipt has also been linked to selection of higher quality home-based and center-based child care as compared to the arrangements selected by eligible, non-recipients who do not use other forms of publicly-funded care (e.g., Head Start; Johnson, Ryan, & Brooks-Gunn, 2012; Ryan, Johnson, Rigby, & Brooks-Gunn, 2011). To the extent that access to center-based and possibly higher quality child care options for foster children offers both consistent respite from the rigors of providing foster care and dependable support for maternal employment, this literature implies that child care assistance may facilitate placement stability for foster children.

### The current study

The literatures on risk and toxic stress, the benefits of developmentally supportive ECE experiences, and on child care assistance all bear on the potentially positive role that high-quality, stable child care can play within the child welfare system, and suggest a vast landscape of needed research at this policy intersection (see Meloy & Phillips, 2012). As an initial step, this study took as its point of departure the importance of foster placement stability for young foster children and the potential of child care assistance to promote it. Specifically, we examined the relationship between child care assistance use among foster parents and the stability of foster placements for children aged birth to five years. Administrative data from Illinois, which offered the unique opportunity to model the relationship between (a) Division of Child and Family Services child care assistance (CCA) use and the type of ECE used and (b) the occurrence and timing of foster placement disruptions, were used to explore this question.

We hypothesized that children whose foster parents use child care assistance would be less likely to experience placement disruptions. We further hypothesized that among children who experienced CCA supported child care, receiving center-based child care would be associated with a lower risk of placement disruption. Finally, we hypothesized that the impact of child care assistance on the likelihood of placement disruption would be more pronounced for older children, who are at higher risk for placement instability (Wulczyn et al., 2003), and for children in kinship care given their more disadvantaged circumstances.

## Methods

### Data sources

Data utilized in this study were obtained by merging data from the Illinois Department of Child and Family Services' (DCFS) Child and Youth Centered Information System (CYCIS)-Child Pull and the Illinois Department of Human Services' Child Care Tracking System (CCTS). The CYCIS-Child Pull included information on children's foster placement histories, as well as child demographics for all children who entered the child welfare system between the ages of 1 and 60 months in the state of Illinois between January 2003 and January 2009. Data from the CYCIS-Child Pull included total number of placements and dates of entry into and exit from foster care, as well as start and end dates for each foster care placement. These dates were utilized, along with the child's date of birth to calculate age of entry into foster care and total time in foster care.

Dates of entry into and exit from foster care were also utilized in conjunction with child's date of birth and age (in months) at the time

of foster parent child care assistance use to confirm that children's foster parents were using this assistance *while the child was in foster care*. The CYCIS-Child Pull also contained child demographic information: child gender, child race (White, Black, Hispanic, and other), and child disability status. Disability status was an administrative variable entered by either the CPS investigator or caseworker without specification of the basis of "disability" determination. The type of each foster care placement, kin vs. traditional, was also included in the CYCIS.

The CCTS contained information on child care assistance (CCA) issued via DCFS on a monthly basis from 1 to 60 months of child age. It included information on type of care purchased with the assistance and date of assistance receipt for every monthly payment through June, 2010. All foster parents in Illinois are eligible to receive child care assistance, regardless of family income and employment status. It is important to note that CCA provided funds directly to the child care provider, rather than in the form of a voucher to the foster parent. The merged CCTS/CYCIS Illinois dataset contains a total sample size of 21,320 children.

### Sample

The sample for this study consisted of 18,944 of the 21,320 children from the merged dataset who entered foster care in the state of Illinois prior to their fifth birthdays and remained in foster care for at least 3 months during the study time frame given the lag that often exists, following foster care placement, for families to receive child care assistance. Approximately half of these children were male (52%), half were African American (52%), 39% were Caucasian, 6% were Hispanic, and the remaining 3% were categorized as "other" race. In addition, 16% of these children had been diagnosed with a disability, according to DCFS records. Of these 18,944 children, 3922 (21%) had caregivers who used child care assistance at some point prior to their fifth birthday. However, only 2,028 children (11% of the study sample) had foster parents who used child care assistance *while they were in foster care*. Of the 18,944 children under the age of five in this sample, 15,462 were infants and toddlers (under age 3), and 3,686 were preschoolers (age 3–5) when they entered foster care.

### Measures

The predictor variables for the primary analysis consisted of whether a child's foster parent used child care assistance (CCA), duration of CCA receipt, and type of child care that was purchased for the foster child in the study sample. CCA use (Yes/No) was determined by utilizing the monthly data from the Child Care Tracking System in conjunction with entry and exit dates into foster care. Children were considered to have experienced CCA supported child care while in foster care if at least 1 month of CCA use fell between their entry and exit dates in foster care. Duration of CCA was measured by calculating the total number of months in foster care during which a child's foster parent used CCA. The type of care variable indicated whether the child care being purchased was center care, family day care, or informal care. All types of care were licensed or licensed exempt. Informal care was care provided in the recipients own home or another family home for less than eight children and fewer than four unrelated children. Family day care was care regularly provided for more than eight children in a family home or less than three children in a facility other than a family home. Finally, center-based care was care regularly provided in a facility other than a family home for three or more children (Illinois Action for Children, 2010). It is possible that some foster parents combined CCA funded arrangements with Head Start, Pre-K or other programs (Thomas, Fowler, Cesarone, & Rothenberg, 2011); however, the type of care variable in the CCTS does not reflect use of these arrangements. Finally, the outcome variable (placement disruption) for the primary analysis was created using data from the CYCIS on start and end dates for the initial foster care placement and whether a placement disruption occurred.



Demographic information from the CYCIS was used in secondary analyses to predict foster parents' use of CCA as well as duration of CCA use and type of care being purchased. Specifically, the following variables were used: child age at entry into foster care; race, gender, and disability status; and whether the child was ever in a kinship care foster placement. Kin arrangements are those in which children were placed with adults who are related to them (e.g. grandparents, aunts, older siblings) who are not necessarily licensed by the state to provide foster care, in contrast to traditional arrangements, which involve the placement of a child with a non-relative who is licensed to provide foster care. These demographic variables (i.e., child age, race, gender, and disability status, and type of foster care placement) were also used as controls in the primary analysis.

### Data analysis

Initial analyses examined predictors of child care assistance use among foster parents. Specifically, logistic and multinomial logistic regressions were utilized to determine the contribution of child gender, race, disability status, age at entry into foster care, and type of foster care placement (kin vs. other) to the likelihood that foster parents used CCA for a given child while in foster care and for whether the assistance was used to purchase center, family day care, or informal child care arrangements, and the duration of their CCA use (OLS).

We then turned to the primary analyses aimed at examining whether use of child care assistance was associated with foster placement stability. Given the skewed nature of the distribution of error terms that resulted from the extremely high placement stability in our sample, survival analysis, using a Cox proportional hazards model (Cox, 1972, 1975; Willett, Singer, & Martin, 1998), was employed to estimate the impact of (1) CCA use, (2) duration of CCA use, and (3) type of child care purchased with the assistance on the risk of placement disruption over time (Willett et al., 1998). Unconditional models were run first. Then, two sets of control variables were added step-wise to the models. Structural child welfare variables (child age at entry into foster care and type of foster care placement) were added first and then child demographic variables (race, gender, disability status) were added to the final model. Finally, two interaction terms were added separately to the model to determine whether the impact of CCA use varied by age of entry into foster care or by type of foster care placement (ever kin vs. all non-kin).

A final analysis was run based on results from these analyses to further explore the relationship that emerged between the impact of CCA receipt on the likelihood of placement disruption and child age of entry into foster care. Specifically, we examined, in separate models, whether the effect of CCA use on placement stability differed for infants and toddlers (those who entered foster care before 3 years of age) and preschoolers (those who entered foster care between the ages 3 and 5).

## Results

### Descriptive statistics

The average age of entry into foster care for the 18,904 children in this study was 17 months, with a range from birth to 59 months (see Table 1 for a comparison of children who entered foster care as infants/toddlers or as preschoolers). Their average duration of time in foster care was 36 months, ranging from 3 to 147 months. Forty-one percent of all children had experienced at least one kinship foster care placement, whereas the remaining children were never placed with kin. Of those placed with kin, 6.8% had also experienced a traditional foster placement. The total number of placements ranged from one to seven, with 11% of all children experiencing at least one placement disruption. Children who did experience multiple placements averaged 2.1 placements while in foster care ( $SD = 0.337$ ).

Only 11% of the sample had been in the care of foster parents who used child care assistance. Among these children, 51% were enrolled

in informal care, 20% were enrolled in center-based care, and 29% were enrolled in family day care. On average, assistance was used for 13 months with a range from 1 to 56 months.

### Predictors of CCA receipt

Table 2 presents results of the logistic regression analyses to determine the contribution of child gender, race, disability status, age at entry into foster care, and type of foster care placement (kin vs. other) to the likelihood that the child's foster parent used CCA. Children who entered foster care as preschoolers were 27% more likely than those who entered as infants/toddlers to experience CCA supported child care while in foster care ( $\beta = 0.239$  per year,  $SE = 0.015$ ,  $p < .001$ ), as were African American children and children of "other" race (54% and 57% more likely than white children,  $\beta = 0.434$ ,  $SE = 0.052$ ,  $p < .001$  and  $\beta = 0.463$ ,  $SE = 0.141$ ,  $p = .001$ , respectively). Children with diagnosed disabilities were 42% less likely to experience CCA supported child care while in foster care than were typically developing children ( $\beta = -0.539$ ,  $SE = 0.079$ ,  $p < .001$ ). Children who were ever placed with kin were 41% more likely than those who were only placed in traditional foster care placements to experience CCA child care ( $\beta = 0.344$ ,  $SE = 0.050$ ,  $p < .001$ ).

### Predictors of CCA duration and type of care used

OLS regression analyses revealed that duration of CCA use, for the population of children whose foster parents used CCA ( $n = 2,028$ ), was predicted by child age of entry into foster care, type of foster care placement, and child ethnicity. Children who entered foster care at an older age experienced 1.8 additional months of CCA supported child care per year ( $SE = 0.170$ ,  $p < .001$ ). Children who were ever in kinship foster care placements also experienced more months of CCA child care ( $\beta = 1.343$ ,  $SE = 0.498$ ,  $p = .007$ ) than children who were only placed in traditional foster care, as did African American children ( $\beta = 2.283$ ,  $SE = 0.523$ ,  $p < .001$ ) and children categorized as "other" race ( $\beta = 4.285$ ,  $SE = 1.417$ ,  $p = .003$ ) when compared to white children. Neither child gender nor disability status predicted duration of CCA use.

With regard to the type of care supported by CCA, the age of the child at entry into foster care predicted type of care that was purchased. Specifically, children were 19% less likely per year to experience center care ( $\beta = -0.212$ ,  $SE = 0.029$ ,  $p < .001$ ) and 13% less likely to experience family day care ( $\beta = -0.121$ ,  $SE = 0.028$ ,  $p < .001$ ) than in informal care if they entered foster care at an older age (years). Type of foster care placement (kin vs. traditional) did not predict the type of care the children experienced. Children's race also predicted the type of CCA supported child care they experienced. African American children were

**Table 1**

Descriptive comparison of children who entered foster care as infants/toddlers and preschoolers.

	Infants and toddlers	Preschoolers	Total
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Age at foster care entry (months)	10 (11)	47 (7)	17 (18)
Time in foster care (months)	36 (20)	34 (20)	36
	<i>f</i>	<i>f</i>	<i>f</i>
Ever kin care	37.0%	56.0%	41.0%
Placement disruption	7.2%	16.0%	11.0%
CCA receipt	8.6%	14.0%	11.0%
Subgroup of children receiving CCA			
Duration of CCA receipt (months)	11 (10)	18 (13)	13 (13)
	<i>f</i>	<i>f</i>	<i>f</i>
Center care	20.0%	18.0%	20.0%
Family day care	32.0%	23.0%	29.0%
Informal care	48.0%	59.0%	51.0%

*f*: meant to signify frequency.

**Table 2**  
Logistic regression: contribution of child demographics and foster placement type to CCA use.

	B	SE	OR
Age at foster care entry	0.239***	0.015	1.270
Ever in kin care	0.344***	0.050	1.412
Black	0.434***	0.052	1.543
Hispanic	−0.226	0.123	0.798
Other	0.463**	0.141	1.568
Male	0.021	0.048	1.022
Disability	−0.539***	0.079	0.583
Constant	−2.860***	0.061	

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

77% less likely than white children to be enrolled in center care ( $\beta = -1.136$ ,  $SE = 0.091$ ,  $p < .001$ ) and 53% less likely to be enrolled in family day care arrangements ( $\beta = -0.732$ ,  $SE = 0.080$ ,  $p < .001$ ). Children categorized as other race were 57% less likely than white children to be enrolled in center based care ( $\beta = -0.747$ ,  $SE = 0.269$ ,  $p = .006$ ). In contrast, Hispanic children were twice as likely as white children to be enrolled in center care ( $\beta = 0.498$ ,  $SE = 0.211$ ,  $p = .018$ ). Boys were more likely (26%) than girls to be enrolled in center based care ( $\beta = 0.206$ ,  $SE = 0.086$ ,  $p = .016$ ). Children with disabilities were 88% less likely to be enrolled in family day care if they received CCA ( $\beta = -0.301$ ,  $SE = 0.123$ ,  $p = .015$ ) as compared to typically developing children.

#### Impact of CCA receipt on risk of placement disruption

Children whose foster parents used child care assistance were significantly less likely to experience a foster placement disruption (see Table 3). No relationship was found between duration of CCA use or type of care and the likelihood of placement disruption.

Children whose foster parents used CCA were about half as likely (47%) to experience a placement disruption in any given year than were children whose foster parents did not use child care assistance ( $\beta = -0.609$ ,  $SE = 0.107$ ,  $p < .001$ ). This relationship is displayed as

a smoothed distribution of hazard estimates (probability of experiencing a placement disruption over time) for the children whose foster parents did and did not use assistance in Fig. 1. The relationship between CCA use and risk of placement disruption was maintained when control variables were added to the model. Children whose foster parents used CCA were 61% less likely per year to experience a placement disruption than were children whose foster parents did not when all controls were included in the model ( $\beta = -0.953$ ,  $SE = 0.107$ ,  $p < .001$ ).

The relationship between CCA use and the foster child's likelihood of experiencing a placement disruption was moderated by the age of the child at entry into foster care, but not by whether the child was in kin or traditional foster care ( $\beta = -0.421$ ,  $SE = 0.074$ ,  $p < .001$ ). Given this significant interaction, the relationship between CCA use and placement disruption was examined separately for children who entered foster care as infants and toddlers and as preschoolers (see Table 3). These subgroup analyses revealed no significant relationship between CCA use and placement disruptions for children who entered foster care as infants and toddlers ( $\beta = -0.103$ ,  $SE = 0.122$ ,  $p > .10$ ). However, experiencing CCA supported child care assistance was associated with an 80% reduction in the likelihood of placement disruption, in a given year, for children who entered foster care as preschoolers ( $\beta = -1.615$ ,  $SE = 0.222$ ,  $p < .001$ ). This relationship is displayed as a distribution of hazard functions in Fig. 2.

#### Discussion

The most important finding to emerge from this study concerns the positive association between use of child care assistance and stability of young children's foster care placements. As hypothesized, having a foster parent who used child care assistance was associated with a reduction in the likelihood of experiencing a placement disruption for young children in foster care. Also as hypothesized, this finding was largely attributable to children who entered foster care as preschoolers who, in turn, were more likely than those who entered foster care as infants/toddlers to experience placement disruptions and to have foster parents who used child care assistance. Contrary to our hypothesis, the association between child care assistance and placement stability was not

**Table 3**  
Survival analysis for placement disruption.

Whole sample	$\beta$	SE	HR	$\beta$	SE	HR	$\beta$	SE	HR
CCA use	−0.609***	0.107	0.544	−0.943***	0.107	0.390	−0.953***	0.107	0.386
Ever in kin care				0.387***	0.049	1.472	0.316***	0.049	1.371
Age at foster care entry				0.445***	0.015	1.561	0.448***	0.015	1.565
Male							0.043	0.048	1.044
Black							−0.266***	0.051	0.766
Hispanic							−0.663***	0.117	0.515
Other							0.082	0.138	1.085
Disability							−0.418***	0.065	0.658
Infants and toddlers	$\beta$	SE	HR	$\beta$	SE	HR	$\beta$	SE	HR
CCA use	−0.103	0.122	0.902	−0.204	0.122	0.816	−0.190	0.123	0.827
Ever in kin care				0.631***	0.061	1.879	0.539***	0.062	1.714
Male							−0.026	0.060	0.974
Black							−0.451***	0.066	0.637
Hispanic							−0.752***	0.156	0.471
Other							0.056	0.172	1.058
Disability							−0.397***	0.085	0.673
Preschoolers	$\beta$	SE	HR	$\beta$	SE	HR	$\beta$	SE	HR
CCA use	−1.615***	0.222	0.199	−1.627***	0.222	0.197	−1.638***	0.222	0.194
Ever in kin care				0.331***	0.078	1.392	0.280***	0.079	1.323
Male							0.118	0.077	1.125
Black							−0.203*	0.081	0.816
Hispanic							−0.543**	0.177	0.581
Other							0.062	0.231	1.064
Disability							−0.329***	0.101	0.720

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

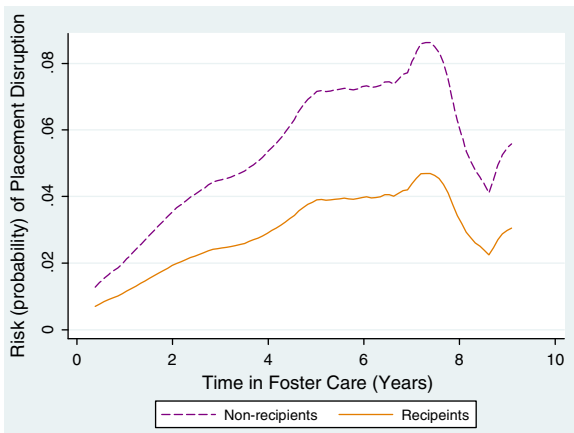


Fig. 1. Hazard estimates of placement disruption over time, by CCA status.

moderated by whether the child was in a kin or traditional foster arrangement, nor was it linked to use of center-based arrangements.

This pattern of results needs to be placed in the context of the fact that, in the current study, only a very small share (11%) of the children were cared for by foster parents who used child care assistance despite their categorical eligibility in Illinois—a finding that is of concern given the contribution of assistance receipt to placement stability found for this sample. This percentage is notably lower than national estimates of federal child care subsidy uptake (26%) among eligible low-income biological parents of young children (Collins, Layzer, & Kreader, 2007). Whereas we cannot elucidate the reasons for such meager take-up of assistance, it is vitally important to explore this issue given its implications for both possible selection confounds and for public policy. It is reasonable, however, to hypothesize that child welfare caseworker's function under incentives to be conservative with their distribution of scarce child care funds.

Use of child care assistance was more likely when the foster parent was related to the foster child, which is in contrast to other evidence indicating that kin foster parents are less likely than traditional foster parents to receive support services (Ehrle & Geen, 2002; Geen, 2004). However, kin foster parents, in general, are also more likely to be economically and educationally disadvantaged, which may have led caseworkers to encourage their employment by referring them to child care assistance. Assistance use was also more likely when the child was older, of African-American or other race, and did not have a disability. Evidence on biological parents indicates that, as with this sample of foster parents, minorities and those with typically developing children are more likely to use child care perhaps because they also have higher rates of employment (Loeb et al., 2004; Magnuson, Meyers, Rhum, & Waldfogel, 2003). Case workers may prioritize employed foster parents for child care assistance. Indeed, in Illinois, administrative rules give case workers discretion to determine “when a child in foster care can benefit from day care services” (Illinois PL 89.3.302.330, 1997).

Most of the children whose foster parents use child care assistance were placed in informal child care arrangements, rather than in family day care or child care centers. This was the case for infants and toddlers, and, to an even greater extent, for preschoolers, which runs counter to evidence on more representative samples of children (U.S. Census Bureau, 2010). This is potentially of concern given prior evidence that center-based care is more strongly associated with positive cognitive and language outcomes than are other forms of care (Loeb et al., 2004; NICHD ECCRN, 2000). However, in this study, use of center care was not positively related to placement stability perhaps because of the quality and stability of the options that were readily available to the foster parents and perhaps because, as noted below, center care is often unable

to accommodate non-standard work hours and thus less helpful for foster parents seeking to sustain employment.

Also in contrast to other evidence was the finding that Hispanic foster children, but not African-American children or those of other races, were more likely than white children to be in center-based arrangements (Loeb et al., 2004; Magnuson et al., 2003; U.S. Census Bureau, 2010). The reasons for these disparities cannot be identified in the current study.

National estimates suggest that low-income families that receive child care subsidies through the federal Child Care Development Fund rely heavily on center based care (U.S. Department of Health and Human Services, 2012). However, in Illinois, reliance on family day care and informal care is more common, suggesting that Illinois may have fewer centers that accept state assistance dollars (Illinois Action for Children, 2010). It may also be the case that foster parents who elect to place their foster children in Head Start or in preschool programs do not rely on the child care assistance provided by the Division of Child and Family Services or use it exclusively for more informal forms of wrap around care. If true, then rates of the foster families' use of center-based care in this sample—and especially the rates for preschool-age foster children—would be underestimated.

The fact that the source of child care assistance for which we had data precluded inclusion of Head Start and state preschool arrangements in our examination of type of care is a limitation of this study. Additionally, our inability to rule out the possible role of many potential selection effects in the association between child care assistance and placement stability is a limiting factor. Although this association was highly significant and became even stronger when we controlled for child welfare characteristics and child demographics, it is possible that unmeasured dimensions of the foster parents or of these children's lives played a role in this finding. For example, more competent and stable foster parents may also be more motivated to seek and more capable of obtaining child care assistance. With regard to the larger research agenda regarding the interface between child welfare and child care policies, this study was able to address only a small, albeit important question given the lack of data regarding the quality or stability of the child care arrangements for which the child care assistance was used.

Nevertheless, the results from this study point to the potential of child care assistance to facilitate placement stability and thus potentially to benefit the development of foster children. The critical next step is to examine possible links to developmental outcomes and to examine mechanisms through which assistance-placement stability-outcome pathways may operate for children in foster care. The obvious candidates for this role are the quality and stability of the child care arrangements that children in foster care experience. For this notably vulnerable population of children, for whom the experience of toxic stress is prevalent, notions

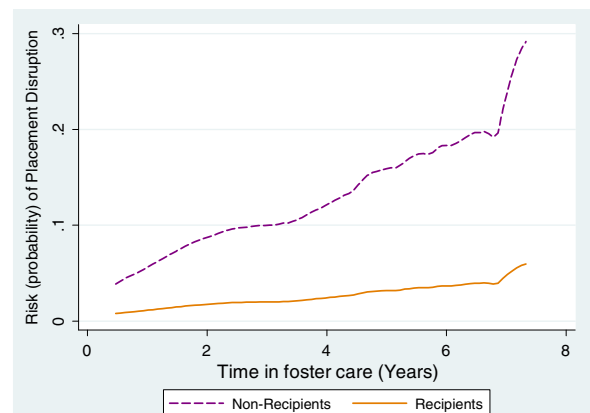


Fig. 2. Hazard estimates of preschooler placement disruption over time, by CCA status.



of biological sensitivity to context come into play and imply that variation in their experience of high- versus low-quality care will play an especially powerful role in their well-being and development over time. The stability (or instability) of child care, and the opportunity it may or may not afford for the development of a secure attachment relationship with adult caregivers, is also likely to play a salient role in the lives of these children for whom care-giving disruptions are commonplace (Meloy & Phillips, 2012).

Indirect mechanisms that operate through impacts on foster parents are equally important to consider. These encompass both the economically and emotionally supportive role that reliable child care assistance can potentially play. Insofar as such assistance facilitates reliance on higher-quality, stable child care, it may not only support economic security but also increased foster parent satisfaction and self-efficacy, improved relationships with the children in their care, and ultimately greater placement stability (Coakley, Cuddeback, Buehler, & Cox, 2007; Dozier, Stovall, Albus, & Bates, 2001).

Such efforts to understand paths of influence among child care, foster care, and stability in the lives of foster children should be prioritized in the next stage of research examining the role that child care can play in the lives of foster children and the adults who care for them. As part of this agenda, there is a pressing need for research that examines whether high-quality, stable child care, in particular, serves a therapeutic function for foster children over time, given their early exposure to poverty, toxic stress, and disrupted care-giving—or whether, child care, regardless of its features, may simply be an added disruption in the lives of foster children, and thus exacerbate their developmental difficulties.

Research that informs this intersection of services for children in foster care and links them to developmental outcomes has the potential not only to inform developmental science regarding compensating mechanisms that can short circuit the detrimental impacts of toxic stress experienced early in life, but also to promote effective public policies that integrate child care and child welfare resources in ways that ensure they will improve the well-being of some of the nation's most vulnerable children.

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