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Placement stability among children in kinship and non-kinship foster placements across multiple placements

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ABSTRACT

The child welfare system has focused on kinship placements, which have been found to protect against disruption. However, the existing literature has primarily studied time to disruption for a single disruption despite the fact that many children have multiple placements while in care. The current study used survival analysis to investigate whether the type of placement (kin versus non-kin) related to time to placement disruption across up to four placements. Participants included 447 youth aged 5–15 years ($M = 9.94$, $SD = 2.40$; 50.8% female) from a larger project examining the outcomes of a family finding intervention. Using survival analysis, we examined the role of a kinship placement on placement disruptions across up to four placements while controlling for demographics, externalizing behaviors upon entry into care, treatment group (family finding versus control), and kin involvement outside of the placement. Results revealed that kin placements contributed to fewer disruptions across the first three placements. Findings align with policies prioritizing kin placements and suggest that the benefits of kinship care hold even for later disruptions. Thus, caseworkers should continue to consider kinship care, even if prior kin placements have disrupted.

1. Introduction

1.1. Placement stability among youth in out-of-home care

Estimates suggest that nearly 440,000 youth are involved in the United States child welfare system (Child Welfare Information Gateway, 2020). Some youth in foster care may have experienced neglect and/or maltreatment. Others enter foster care as dependency cases and may not have experienced maltreatment. Regardless, youth are often removed from familiar environments and separated from social supports upon entry into foster care and during subsequent placement disruptions, or changes in their foster care placements (Pecora et al., 2018). Placement disruptions are common in foster care (e.g., Konijn et al., 2019). The likelihood of disruption increases as youth spend more time in care. Per the most recent Child Welfare Outcomes 2016: Report to Congress (United States Department of Health and Human Services, 2019), national estimates suggested that 84.3% of youth in foster care for less than 12 months experienced no more than two placements; 65.4% youth in care between 12 and 24 months had no more than two placements; and 39.3% of youth in care for 24 months or more had no more than two placements.

Placement disruptions occur for a number of reasons, including system or policy factors (e.g., move to less restrictive setting, bring siblings together, funding challenges), foster family considerations (e.g., foster family moves, vacation plans, death of foster parents), abuse or neglect perpetrated by foster families, biological family-related challenges (e.g., parents threaten foster parents and new placements are arranged at non-disclosed locations), and youth's behavioral problems (James, 2004; Koh et al., 2014). Depending on the situation, placement disruption may be necessary and beneficial (e.g., Fawley-King et al., 2017; James, 2004). For example, the following are typically considered positive changes for youth in care: movement to a less restrictive setting, a new placement that allows for siblings to live together, placements that are more suitable for children (e.g., closer to home), or adoption with families (James, 2004).

However, placement disruption has also been shown to operate as a unique risk factor in the development and maintenance of emotional, behavioral, social, and educational concerns among youth in foster care (Gypen et al., 2017; Perry & Price, 2018; Vreeland et al., 2020). Placement disruptions can feel confusing and upsetting to children (Pecora et al., 2018). Youth experiencing placement disruptions are often removed from familiar communities and important figures in their lives

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(Fawley-King et al., 2017). Thus, changes in placement can impact youth's ability to form and maintain consistent attachments with caregivers (Pecora et al., 2018). From a logistical perspective, placement changes can also disrupt service provision (e.g., psychotherapy, county case management; Pecora et al., 2018). Thus, placement disruptions have been linked to internalizing symptoms and externalizing behaviors among children, with rates of mental health concerns increasing among those experiencing chronic instability (e.g., Greeno et al., 2016; McGuire et al., 2018; Pritchett et al., 2013). Increasing externalizing behaviors, in turn, can also increase the likelihood of future placement disruption (James, 2004).

1.2. Placement type

Youth in foster care may enter and switch between a variety of placement types (e.g., informal placement with family, emergency shelter, foster family; Winokur et al., 2018). Some older studies have highlighted higher or similar rates of placement disruption among children in kin versus non-kin placements (e.g., Koh & Testa, 2008; Oosterman et al., 2007; Terling-Watt, 2001). For example, Terling-Watt (2001) revealed that approximately half of their sample of children in Texas foster care placed with kin experienced substantial placement disruption due to contact with biological parents, a mismatch between the kin placement and children's developmental and behavioral needs, and health problems among kin. An older meta-analysis by Oosterman et al. (2007) revealed no significant effect of placement with kin on placement instability. However, the authors noted that more recent studies had found that kinship care related to more placement stability (Oosterman et al., 2007). Oosterman et al. (2007) reasoned that over time, foster care agencies may have become more adept at addressing the aforementioned challenges with kinship care (Terling-Watt, 2001) and leveraging the benefits of kinship care.

Consistent with this reasoning, many newer studies, including recent systematic reviews (Konijn et al., 2019; Rock et al., 2015; Winokur et al., 2018), have revealed that custodial kinship care (i.e., formal placement with related extended family) resulted in fewer subsequent disruptions (Bell & Romano, 2017; Hayduk, 2017; Jedwab et al., 2020; Koh et al., 2014; Sattler et al., 2018). Kin caregivers may feel personally involved and a sense of duty given their family status, which may result in increased efforts to maintain placement stability (Rock et al., 2015). Further, youth in kinship care remain in familiar environments, maintain important relationships, and experience a higher likelihood of continuity of care (Konijn et al., 2019). As such, research shows that youth in kinship care exhibit fewer developmental delays, behavioral problems, and mental health challenges, along with improved well-being (Vasileva & Petermann, 2018; Winokur et al., 2018; Xu & Bright, 2018). Ultimately, studies have suggested that kinship care offers benefits to children in foster care and may buffer against the negative aspects of foster care (Konijn et al., 2019). In contrast, research has shown that children in non-kin placements exhibit higher rates of mental health problems, which in turn relates to more placement disruptions (Oosterman et al., 2007; Winokur et al., 2018).

1.3. Gaps in prior research

Despite focus on the role of kinship care in mitigating placement disruptions in policy and the literature, there are a number of gaps in our knowledge on this topic. First, studies (e.g., Sattler et al., 2018) have not controlled for other support provided by kin and fictive kin (e.g., coaches, religious leaders, family friends) when examining placement disruptions among youth in out-of-home care. Fictive kin are important people in the lives of youth who are not biologically or legally related. The presence of kin, beyond those acting as custodial caregivers, contributes to decreased placement disruption (Collins et al., 2010; Vanderwill et al., 2020). Non-custodial kin (i.e., important people in children's lives with whom they do not live) provide unique support to youth in foster care and relational consistency across placement settings (Williams-Butler et al., 2018). When youth have strong extended networks, they are less likely to experience depression and anxiety (Collins et al., 2010; Salazar et al., 2011). This is important when considering that youth's emotional and behavioral problems have been linked to an increased likelihood of placement disruption (James, 2004; Fisher et al., 2011). Thus, it is important to control for both kinship involvement and behavioral problems when examining the relation between kinship placements and placement disruptions (Winokur et al., 2018).

Additionally, while earlier work focused more on single placements (e.g. Chamberlain et al., 2006), more recent work has expanded methodologies and considered multiple placements in analyses (e.g. Konijn et al., 2019; McBeath et al., 2018). This is particularly important given multiple placement disruptions are common (Children's Bureau, 2016) and may be qualitatively different from first placements, as a child may exhibit increased externalizing behaviors (McGuire et al., 2018) and receive less social support (Strijker et al., 2008) in subsequent placements. Thus, it is important to study the impact of kin involvement on placement disruption across multiple placements in order to continue expanding upon prior work analyzing the factors associated with movement into kin placement after first placement (Jedwab et al., 2020).

1.4. Purpose

The current study used survival analysis to investigate the research question: how does type of placement type (kin versus non-kin placement) impact the stability of placements over time? The current study controlled for child age, gender, race; treatment group; kin and fictive kin involvement; and externalizing behaviors to address gaps in the literature previously discussed. Treatment group refers to participants who engaged in a Family Finding intervention that identified and involved more kin and fictive kin during the youths' enrollment in the project (Leon et al., 2016a). Based on the extant literature, the researchers hypothesized that custodial kinship placements would contribute to longer time to placement disruption compared to traditional foster homes (i.e., placement with non-kin; Konijn et al., 2019; Rock et al., 2015; Winokur et al., 2018; Konijn et al., 2019). Additionally, the researchers hypothesized that the kin involvement covariate would significantly relate to placement disruption (Collins et al., 2010; Vanderwill et al., 2020), wherein the presence of highly involved kin support beyond placement (e.g., car rides, letters, visits) would contribute to longer time to disruption.

2. Methods

2.1. Sample

The participants in this study came from the Recruitment and Kin Connection Project (RKCP), which was conducted at the Loyola University Chicago and funded by the Children's Bureau of the U.S. Department of Health and Human Services (Grant 90C01053). The goal of the RKCP was to evaluate a family-finding intervention and improve child welfare practices for identifying kin and fictive kin and strengthening connections between youth and their families. The study was conducted from October 1, 2011 to October 1, 2014, and the study was approved by Institutional Review Boards at Loyola University Chicago and the Illinois Department of Children and Family Services (DCFS). All youth who entered DCFS custody during this time period ($N = 450$) were eligible for participation. Three participants had missing data about their out-of-home placements. Since the main outcome of this study was length of stay in each placement, these participants were excluded from the study, which resulted in a final sample of 447 youth.

Demographic and child welfare involvement information can be found in Tables 1 and 2. Ages ranged between 5 and 15 years ($M = 9.94$, $SD = 2.40$) and approximately half were female (50.8%). The majority

Table 1
Demographic differences by involvement cluster.

Baseline characteristic	*n*	%
Gender		
Female	227	50.8%
Male	220	49.2%
Ethnicity		
African American	266	59.5%
Latinx	72	16.1%
Caucasian	35	7.8%
Asian American	3	0.7%
Multiracial	71	15.9%
Treatment Group		
Intervention	204	45.6%
Control	243	54.4%
Maltreatment*		
Physical Abuse	136	30.4%
Sexual Abuse	44	9.8%
Neglect	342	76.5%
Involvement Cluster		
Low Involvement	342	76.5%
High Involvement	105	23.5%

Note. $N = 447$.
*Participants could experience multiple forms of maltreatment.

Table 2
Child welfare outcome differences by involvement cluster.

Baseline Characteristic	*M*	*SD*	Range
Age	9.94	2.40	5.89–15.88
Total Placements	2.86	2.06	1–12
Total Kin Placements	1.01	0.82	0–4
Number of Kin	16.04	7.21	2–41
Externalizing Behaviors	0.57	1.07	0–6

of the sample came from racial/ethnic minority backgrounds; 59.5% were African American, 16.1% were Latinx, 15.9% were Multiracial, 7.8% were Caucasian, and 0.7% were Asian American. Participants had experienced various forms of maltreatment prior to their entry into DCFS custody including neglect (76.5%), physical abuse (30.4%), and sexual abuse (9.8%). Just under half (45.6%) of the participants were part of the RKCP intervention, while the rest were in the control group.

2.2. Procedures

Data for this study come from a larger project examining a family-finding intervention from October 1, 2011 to October 1, 2014. All youth who entered DCFS custody in Cook County through this time period were eligible for participation. DCFS provided the research team at Loyola University Chicago a list of participants and access to the Statewide Automated Child Welfare Information System (SACWIS), which included information on demographics, out-of-home placements, and kin and fictive kin involvement beyond placement (e.g., visits, letter, transportation). The research team was also provided access to the Child and Adolescent Needs and Strengths (CANS) measure, which is a tool used in child welfare practice to measure the needs and strengths of youth and guide service planning (Lyons, 2009). Youth within the treatment group received dedicated family finders, who were assigned to identify and contact extended kin and fictive kin. Youth within the treatment group had, on average, seven additional social support figures identified as compared to the control group (Leon et al., 2016a).

2.3. Measures

There were three different sources of information used in this study: a review of DCFS files for each child to capture the demographic controls for the present study, including the type and length of each placement; the Kin Identification and Level of Engagement Form (KILE) to assess the social support figures present in each child's life; and the CANS to measure the externalizing behaviors at each placement. Each measure is described in detail below.

2.3.1. Demographic controls

DCFS provided researchers access to demographic information via SACWIS, including age, race, and gender, which were included as covariates. African American youth made up the reference group in analyses, given the majority of the sample was African American.

2.3.2. Placement type and length

Researchers also had access to DCFS billing data which included information about out-of-home placements for each child, such as placement type and the exact dates on which youth changed placements. Placement type was classified into five categories: Emergency Shelter, Home of Kin, Foster Home, Home of Parent, and Congregate Care. Given this study was intended to measure placement changes from one out-of-home placement to another and was not intended to measure placement disruptions related to congregate care settings, emergency shelters, or homes of parents, only those who were in kin or non-kin/foster placements at any given point were included in this study.

Placement length was calculated using the number of days between the measured placement and the subsequent placement. There were two possible reasons that participants did not experience subsequent placements: exiting DCFS custody (e.g., reunified or adopted) or reaching the end of the study. In cases when participants had a DCFS close date associated with their record, this date was used to calculate the length of the final placement. In cases when there was no subsequent placement and no DCFS close date, the study close date was used to calculate length of the final placement. This method was used to preserve as much of the original sample as possible. Analyses for this study were run with and without the use of cases that did not have a DCFS close date. In three of the four analyses that did not use these cases (Placements 1, 3, and 4), the overall models were not significant, likely as a result of reduced power. In the fourth analysis (Placement 2) the results aligned with those that used these cases. Because this method did not cause substantive changes to the overall results, only the results that included the full sample are reported below.

2.3.3. Kin and fictive kin involvement

The Kin Identification and Level of Engagement Form (KILE); (Leon et al., 2016a) is a measure that was created for the RKCP to ascertain kin and fictive kin involvement; kin involvement (including kin and fictive kin) was included as a covariate in the present study. This form was completed by research assistants through a file review of the SACWIS. The KILE included information for up to 41 different relatives in terms of their involvement in various areas (e.g., visitation, phone calls, transportation). The information was then confirmed with caseworkers via telephone. This measure has been used in previous studies conducted using the RKCP dataset and displays concurrent validity (Hindt et al., 2018; Jhe Bai et al., 2016; Leon et al., 2016b).

Prior work using Latent Profile Analysis has found that children can be accurately classified into one of two family types: A "higher involved" type and a "lower involved" type (Leon & Dickson, 2019). Therefore, the current study used these categories as a covariate in placement disruption analyses.

2.3.4. Child externalizing behaviors

Externalizing behaviors, included as a covariate in the current study, was measured via the CANS. The CANS (Lyons, 2009) consists of 105 items that examine various aspects of child functioning. The CANS is completed by a caseworker for each child who enters DCFS custody. CANS items are rated on a scale from 0 to 3, with scores of 2 and 3 indicating "actionable items." An externalizing behavior problems composite was calculated for this study by summing these actionable items in the areas of oppositional behavior, conduct, attention deficit/

impulse control, anger control, danger to others, sexual aggression, and delinquency. This composite has been used in previous research and has demonstrated concurrent validity (Hindt et al., 2018). In the present study, participants displayed between 0 and 6 externalizing behaviors according to their caseworkers ($M = 0.57$, $SD = 1.07$).

2.4. Analytic plan

2.4.1. Preliminary analyses

Descriptive statistics were presented on youth's out-of-home placements (Table 3). A power analysis was conducted using G*Power 3.1 (Faul et al., 2009) using the Power Plots function, which allows required sample size to be plotted as a function of power given various effect sizes and a given α level. Given this analysis, only Placements 1–4, which had sample sizes of at least 60, were included in this analysis. These analyses were conducted with the understanding that none would be sufficiently powered to detect a small effect, and only those with a sample size greater than 160 (Placements 1–3) would be sufficiently powered to detect a medium effect.

2.4.2. Primary analyses

To address the aforementioned hypotheses, four Cox Regression analyses were conducted, one for each of the first four placements in which a child was in a non-kin foster home or a kin foster home. This method examines right-censored data and creates a model for survival functions across different groups. In this case, "survival" in each placement refers to the time until placements disrupted. The survival models included age, race, and gender; RKCP treatment group; the CANS externalizing behavior composite; the binary variable that identified whether individuals were in the high involvement or low involvement cluster; and whether someone was placed in the home of a relative. The dependent variable was a combination of the length of stay in each placement as well as whether the subsequent placement existed. These survival functions were then plotted with separate lines showing those who were and were not in kin placements.

3. Results

3.1. Descriptive statistics

The participants in the study had between one and 12 total placements throughout their time in DCFS custody ($M = 2.86$, $SD = 2.06$). As indicated in Table 3, relative placements were more common than non-relative placements at Placement 1 (51.6% versus 10.3% of total placements), but this shifted for later placements. Relative placements represented 36.4% of all Placement 2 types, 30.0% of all Placement 3 types, and 23.2% of all Placement 4 types. On the other hand, non-relative placements represented 42.0% of all Placement 2 types, 50.7% of all Placement 3 types, and 53.1% of all Placement 4 types.

3.2. Inferential statistics and findings

The data analysis for this paper was generated using SAS software, version 9.04, copyright © 2012–2018 SAS Institute Inc. To test the hypotheses in this study, four Cox proportional hazards regression models were conducted using PROC PHREG in SAS. In all analyses, fewer than half of the cases were censored. The results of the analysis for each placement are outlined below:

Table 3
Distribution of placement types across placements.

	Placement 1	Placement 2	Placement 3	Placement 4
Shelter*	138	5	9	1
Home of Relative	230	116	61	26
Foster Home	46	134	103	60
Home of Parent*	2	36	24	14
Congregate Care*	30	25	14	12
Other*	1	3	1	0

* Not included in analysis.

3.2.1. Placement 1

A total of 276 participants were in kin or non-kin placements in their first placement. The remaining 171 participants were placed in a shelter, the homes of their parents, congregate care, or a placement classified as "other" (see Table 3). Kin or non-kin placement types were the only ones considered in the analysis because the goal of the study was to examine placement disruptions from kin and non-kin foster homes. The overall proportional hazards model was significant, $Wald\ X^2(7) = 14.17$, $p = .048$. Parameter estimates for the model are included in Table 4.

The only variable that significantly contributed to the model was whether someone was placed with kin, $HR = 0.547$, $p = .005$; no demographic or other variables significantly impacted the length of placement. Being placed with kin is associated with a 45.3% reduction in the hazard rate compared to a non-kin caregiver in the first placement (Fig. 1).

3.2.2. Placement 2

A total of 250 participants were in foster homes or homes of relatives in their second placement. The overall proportional hazards model was significant, $Wald\ X^2(7) = 26.50$, $p < .001$. Parameter estimates for the model are included in Table 5.

The only variable that significantly contributed to the model was whether someone was placed with kin, $HR = 0.474$, $p < .001$; no demographic or other variables significantly impacted the length of placement. Being placed with kin is associated with a 52.6% reduction in the hazard rate compared to non-kin caregiver in the second placement (Fig. 2).

3.2.3. Placement 3

There was a total of 164 participants who were in foster homes or homes of relatives in their third placement. The overall proportional hazards model was significant, $Wald\ X^2(7) = 16.75$, $p = .019$. Parameter estimates for the model are included in Table 6.

Two variables significantly contributed to the model: age ($HR = 1.117$, $p = .022$) and whether someone was placed with kin ($HR = 0.498$, $p = .005$). With each year of age, there is a 11.7% increase in the hazard rate, while being placed with kin is associated with a 50.2% reduction in the hazard rate compared to non-kin caregiver in the second placement (Fig. 3).

3.2.4. Placement 4

There was a total of 86 participants who were in foster homes or homes of relatives in their fourth placement. The overall proportional hazards model was not significant, $Wald\ X^2(7) = 13.39$, $p = .063$. Because the overall model was not significant, parameter estimates and survival functions were not explored further.

3.2.5. Assumptions of the Cox Regression

One important assumption of the Cox Regression model is that of proportional hazards, or the hazard of the event is similar across groups (Bradburn et al., 2003). This assumption can be evaluated by examining whether the survival functions overlap across groups. As seen in Figs. 1–3, the survival functions are parallel, indicating the assumption of proportional hazards is likely met.

4. Discussion

The results of this study indicated that kin placements were significantly associated with placement stability in the first three placements that children in out-of-home care experienced. These conclusions have been replicated in a number of studies (e.g. Bell & Romano, 2017; Hayduk, 2017; Jedwab et al., 2019) and systematic reviews have

Table 4
Parameter estimates for Placement 1 survival model.

Parameter		Parameter Estimate	Standard Error	Chi Square	Sig.	Hazard Ratio
Age	N/A	−0.06	0.04	3.20	0.074	0.939
Gender	Female	0.27	0.17	2.72	0.099	1.315
Race	African American	0.07	0.16	0.18	0.668	1.071
Treatment Group	Control	−0.22	0.17	1.78	0.183	0.802
Ext. Behaviors	N/A	0.05	0.10	0.21	0.647	1.049
Involvement Cluster	High Involvement	−0.13	0.19	0.46	0.496	0.881
Kin Placement**	In Kin Placement	−0.60	0.21	7.91	0.005	0.547

Note. $^{*}p < .05$, $^{**}p < .01$.

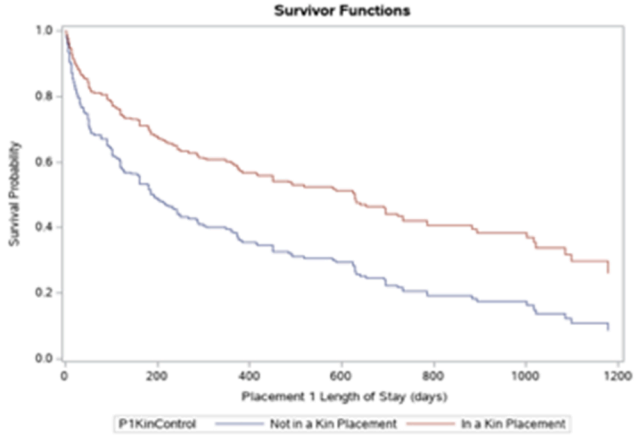

Fig. 1. Survival Functions For Kin and Non-Kin Placements in Placement 1. Note. Reference values based on age equal to 9.66, externalizing behaviors equal to 0.38, gender as male, race as not African American, treatment group as intervention, and the low involvement cluster. Continuous estimates are based on the baseline survival function.

indicated that kin placements resulted in fewer placement disruptions (Konijn et al., 2019; Rock et al., 2015; Winokur et al., 2018). Additionally, while the likelihood of disruption increases as children get older in Placement 3, other covariates (i.e., gender, race, externalizing behaviors, involvement, and the intervention) did not significantly contribute to the model when controlling for all other variables. It is possible that the effects of these variables on time to disruption may have existed in isolation, but those analyses were outside the scope of this study. These discrepant findings may be attributable to differing assessment methods. Specifically, the present study assessed externalizing behaviors dichotomously using CANS data. Thus, the present study extends this body of work as it supports the contribution of kinship care to fewer placement disruptions, above and beyond other support from involved kin (e.g., transportation, visits, phone calls).

Perhaps kinship care decreases to placement disruptions because kin placements more closely replicate the child's ecological context, including child rearing practices and family culture unrelated to abuse/neglect (Hong et al., 2011). Thus, there may be a better match between placement settings, caregivers, and youth. There are also likely psychological and cultural reasons underlying the protective nature of kinship placement. Families are an integral part of one's identity, binding the individual within a shared family history (Winokur et al., 2018). Further, visits between biological parents and children may be better managed in the context of kinship care, as the interactions may more closely mirror natural family dynamics (Kiraly & Humphreys, 2015).

It is noteworthy that kin and fictive kin involvement did not relate to increased time to placement disruptions. While highly involved kin and fictive kin have been found to be negatively related to placement disruption (Vanderwill et al., 2020), other work has found that among youth in foster care, their perceived social support is not directly linked to placement outcomes (Leon et al., 2016a). These findings may reflect the various components of social support provided by kin, including instrumental, emotional, information, and esteem support (Sterrett et al., 2011), wherein varying types of social support differentially impact placement outcomes. Additionally, kin involvement was significantly related to the total number of placements and total kin placements, suggesting that while kin involvement does not prevent placement disruption, it does contribute to a greater availability of caregivers. Thus, the current study indicates that social support may not be a key factor in youth's placement disruptions, though it is still likely important in promoting more integrated ecological systems among youth in out-of-home placements.

It is also noteworthy that demographic variables, except for age at Placement 3, and externalizing behaviors did not relate to decreased time to placement disruptions. Some prior work has found that boys, youth from racial minority groups, and older youth are more likely to experience disruption (James, 2004; Pritchett et al., 2013; Sattler et al., 2018). Additionally, the extant literature has consistently documented the contribution of youth externalizing behaviors to placement disruption (Fisher et al., 2011; James, 2004; Leathers et al., 2019; Pritchett et al., 2013). However, the present results indicate that gender, race, and child externalizing behaviors did not significantly affect placement disruptions. This suggests that custodial kin caregivers contribute to fewer placement disruptions above and beyond factors typically associated with placement disruption.

4.1. Limitations

Despite the contributions of these findings, this study has several limitations. As with some placement disruption research, the present

Table 5
Parameter estimates for Placement 2 survival model.

Parameter		Parameter Estimate	Standard Error	Chi Square	Sig.	Hazard Ratio
Age	N/A	−0.04	0.03	2.02	0.156	0.954
Gender	Female	0.09	0.15	0.33	0.569	1.089
Race	African American	0.04	0.15	0.08	0.772	1.044
Treatment Group	Control	−0.20	0.15	1.95	0.162	0.811
Ext. Behaviors	N/A	0.03	0.09	0.11	0.741	1.029
Involvement Cluster	High Involvement	0.18	0.20	0.74	0.389	1.191
Kin Placement***	In Kin Placement	−0.75	0.16	21.11	<0.001	0.474

Note. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

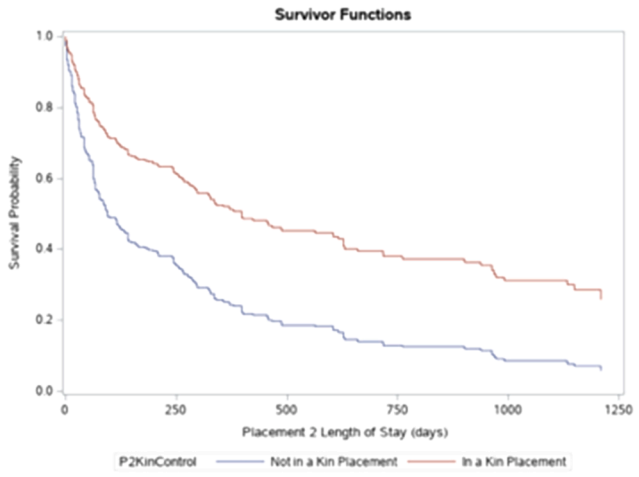

Fig. 2. Survival Functions For Kin and Non-Kin Placements in Placement 2. Note. Reference values based on age equal to 9.77, externalizing behaviors equal to 0.46, gender as male, race as not African American, treatment group as intervention, and the low involvement cluster. Continuous estimates are based on the baseline survival function.

study did not collect data on the reason for placement changes and the quality of such disruptions. As previously noted, placement disruptions can be considered negative (e.g., a child attached to a foster family who can no longer care for the child due to financial concerns) or positive (e.g., changed placement to be with siblings). The qualities of placement disruptions likely impact children differently. Thus, future studies should distinguish between "positive" and "negative" placement disruptions, along with the association with children's outcomes. This work is challenging because a disruption can have both positive and negative attributes. For example, a disruption might be "positive" if it involves a move from a non-relative to a relative placement, but could be harmful if the move resulted in part from the non-relative placement's ability to manage the child's emotional concerns. In this instance, the child could still leave the placement with the sense that their emotional concerns are burdensome. Any approach to qualifying placement outcomes must be thoughtful and nuanced.

Another limitation is that this study did not track repeated placements with the same foster family in the same location. Therefore, it is unknown how often placements involved new foster caregivers. Future studies should examine the effect that returns to prior placements have on placement disruptions. Another limitation of the present study is the reliance on caseworker reports of externalizing behaviors. Child welfare workers' perceptions of externalizing behaviors may differ from caregivers' observations. Future studies should consider using multiple informants to more accurately capture the contribution of externalizing behaviors in placement disruption. In addition, the present study used data collected from DCFS system in the Chicago metropolitan area met. As a result, these findings may not replicate in areas with differing child welfare policies or outside of an urban, Midwestern city. Future studies should examine the effect of kin placements in mitigating placement disruption across geographic locations. Finally, the fourth placement analysis was underpowered, indicating that the null finding may be due to a Type II error.

4.2. Implications

Despite these concerns, this paper adds to existing literature about placement disruptions in child welfare settings. Specifically, this study examined the unique influence of kinship caregivers across multiple placements while controlling for factors that may be expected to influence time to disruption. These findings indicate that custodial kinship placement relates to fewer placement disruptions above and beyond level of kin involvement, child externalizing behaviors, and child demographic factors across multiple placements.

These findings have significant implications for child welfare policy, which has been typified by an increasing emphasis on kinship care throughout the past several decades. Most recently, the Family First Prevention and Services Act of 2018, part of the Bipartisan Budget Act of 2018 (PL 115–123), underscored the federal government's stance that families offer the most appropriate and effective setting to care for youth in foster care. The current study provides support for continuing emphasis on kinship care as an effective method for increasing placement stability and care continuity. Child welfare workers should continue to examine the most effective methods for engaging kin caregivers and prioritize placements in kinship care.

Additionally, child welfare practice should consider kinship placements even after initial disruptions, given they are protective against disruption at both the second and third placements. This in turn supports the need for identifying and involving kin at the beginning of child welfare cases in order to have multiple caregivers available for

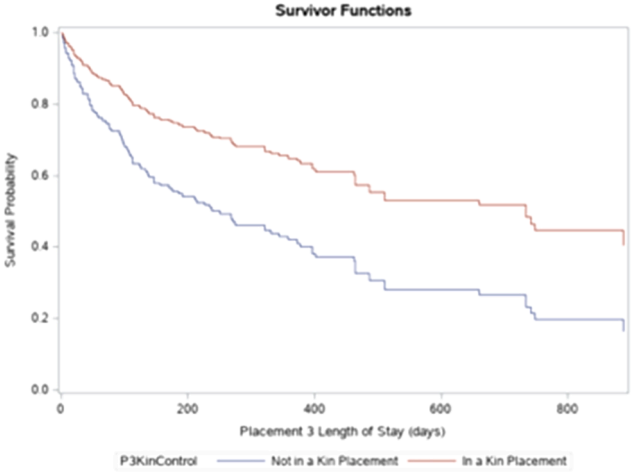

Fig. 3. Survival Functions For Kin and Non-Kin Placements in Placement 3. Note. Reference values based on age equal to 9.67, externalizing behaviors equal to 0.47, gender as male, race as not African American, treatment group as intervention, and the low involvement cluster. Continuous estimates are based on the baseline survival function.

Table 6
Parameter estimates for Placement 3 survival model.

Parameter		Parameter Estimate	Standard Error	Chi Square	Sig.	Hazard Ratio
Age*	N/A	0.11	0.05	5.25	0.022	1.117
Gender	Female	−0.12	0.22	0.30	0.582	0.888
Race	African American	−0.19	0.22	0.75	0.386	0.829
Treatment Group	Control	−0.08	0.21	0.15	0.698	0.920
Ext. Behaviors	N/A	−0.03	0.11	0.08	0.774	0.968
Involvement Cluster	High Involvement	0.12	0.29	0.16	0.691	1.124
Kin Placement**	In Kin Placement	−0.70	0.25	7.96	0.005	0.498

Note. $^{*}p < .05$, $^{**}p < .01$.

subsequent placements. Thus, while kin involvement was not directly related to placement stability, kin involvement does create more comprehensive social support networks that may allow for more protective second and third placements. Taken together, kin are an essential component of effective casework practice and kin placements should continue to be prioritized in policy and in practice.

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CRediT authorship contribution statement

Jennifer Osborne: Conceptualization, Writing - original draft. **Lauren A. Hindt:** Writing - original draft. **Nathan Lutz:** Formal analysis, Writing - original draft. **Nicole Hodgkinson:** Writing - review & editing. **Scott C. Leon:** Methodology, Writing - review & editing, Supervision.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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