Published in final edited form as:

Child Youth Serv Rev. 2016 September ; 68: 44–50. doi:10.1016/j.childyouth.2016.06.024.

Foster care placement change: The role of family dynamics and household composition

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Abstract

Sibling co-placement and kinship care have each been shown to protect against the occurrence of placement change for youth in substitute care. However, little is known about the effects of different combinations of sibling placement and relative caregiver status on placement change. Nor does the field fully understand how family dynamics may differ in these households. Utilizing data from the Supporting Siblings in Foster Care study, this paper examines family dynamics across four typologies of living composition, and tests the effects of living composition membership on the odds of experiencing a placement change over an 18-month period of time. Findings suggest that across living composition typologies, children who were placed separately from their siblings in non-relative care were more likely to be older, have more extensive placement histories, and experience more placement changes both prior to and during the study than were children in other living composition groups. Family living composition was found to influence the occurrence of placement change. Specifically, children co-placed in kinship care were least likely to experience movement; however, sibling co-placement in non-relative care was also protective. Results reveal the need to conduct additional research into the experiences of children in different family living arrangements, and tailor case management services and supports to children in substitute care accordingly. Implications and future directions are discussed.

Keywords

Siblings; Placement stability; Foster Care; Child welfare

1. Introduction

Foster care is arguably the most intrusive intervention available to child welfare agencies. Placement into out-of-home care is designed to be a temporary intervention that helps address immediate safety concerns, while permitting child welfare agencies the time needed

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to investigate and treat any risk conditions and/or threats to child safety (Berrick, 2015). When a child's removal from the family is required, the goal is to create circumstances that allow children to be reunified with their caregivers or be placed into a permanent, family-like living arrangement in a reasonable period of time (CWLA, 1995; Maluccio, 2003).

When children are placed into out-of-home care, federal law requires the establishment of a timeline for child welfare agencies and families to design and implement a plan that provides for the child's permanency. To help prevent children from languishing in out-of-home care, child welfare agencies are required to develop and implement a legal permanency plan for the child within an 18 to 22-month period of time, barring particular case exceptions (Adoption and Safe Families Act of 1997). The timely resolution of threats to child safety and placement into a permanent, family-like situation are cornerstone child welfare system components for youth who experience placement into out of home care (Courtney, 1994; Maluccio, Abramczyk, & Thomlinson, 1996). Recognizing the concerns related to disruption of family bonds when removal is required, more recent federal legislation prioritizes the co-placement of siblings and kinship care placements whenever possible (Fostering Connections to Success and Increasing Adoptions Act of 2008).

Approximately 415,129 children were residing in out-of-home care in 2014 (USDHHS, 2015), and approximately 22–70% of foster care placements will disrupt in a given year (Blakey et al., 2012). Children who experience foster care placement change are at greater risk of experiencing lengthy stays in care (Webster, Barth, & Needell, 2000), and the implications for well-being can be substantial. For children who experience multiple placement changes, the stress associated with the maltreatment experience and subsequent removal from their family system is compounded by the instability associated with movement from foster home to foster home (Unrau, Seita, & Putney, 2008). Foster care placement instability has been shown to negatively impact a number of important areas in a child's life, including a child's emotional and behavioral well-being (Barber & Delfabbro, 2003; Rubin, 2008). Multiple placement changes can lead to behavior problems (Newton, Litrownik, & Landsverk, 2000; Rubin, O'Reilly, Luan, & Localio, 2007), and increase the likelihood of experiencing future placement changes (Newton et al., 2000; Price et al., 2008). Unplanned placement changes may negatively impact child welfare case planning and service provision, redirecting limited agency resources to stabilizing a placement when those resources and services may be better utilized working on the underlying conditions which necessitated the initial foster care placement. Placement changes have been shown to disrupt health care utilization and continuity (Rubin, Allessandrini, Feudtner, Localio, & Hadley, 2004), and children who experience placement changes utilize outpatient mental health visits (James, Landsverk, Slymen & Leslie, 2004), emergency mental health services, psychiatric hospitalization, and crisis mental health services at greater rates than children in stable placements (Fawley-King & Snowden, 2012). Placement instability has also been shown to negatively impact academic performance and school achievement (Allen & Vacca, 2010).

Unwanted placement change is therefore a serious issue for child welfare organizations, and as the literature suggests, the implications for child well-being are significant. Foster care systems must ensure that when children are removed from their families, services and case

management are provided in a way that minimize risk of prevent placement change so that related consequences can be prevented.

This study utilizes data from a sibling-focused intervention study to investigate the effects of family dynamics and household living composition on the experience of foster care placement change. The central aim of this investigation is to examine how different indicators of family dynamics manifest in different living composition typologies, and to explore the moderating effects of living composition on placement change.

2. Literature review

Research on unwanted placement change in substitute care settings have identified a number of conditions that cause children in care to experience moves from one home to another. These conditions generally fall into child, family, and agency/system level factors (Waid, 2014). For children, behavior problems (Chamberlain et al., 2006; Fisher, Stoolmiller, Mannerling, Takahashi, & Chamberlain, 2011), poor foster home adaptation (Brown & Bednar, 2006), health problems (Eggertsen, 2008), and older child age (Oosterman, Schuengel, Wim Slot, Bullens, & Doreleijers, 2007) are associated with increased rates of placement change. For caregivers, the inability to set appropriate limits and rigidity in rule setting (Crum, 2010), reduced treatment engagement, and mood lability (DeGarmo, Chamberlain, Leve, & Price, 2009), health problems (Terling-Watt, 2001), fatigue, and burnout related to caregiving demands (Heller, Smyke, & Boris, 2002) are also associated with placement change. Agency factors include the use of short term and emergency shelter care placements (James, Landsverk, & Slymen, 2004) and caseworker turnover (Ryan, Garnier, Zyphur, & Zhai, 2006). Case history, including prior placement changes, can increase the likelihood of future placement disruptions (Price et al., 2008). Prior placement changes have also been associated with increased problem behaviors, initiating a reciprocal process which in turn increases the likelihood of future instability (Newton et al., 2000).

Certain conditions in family systems appear to protect against the occurrence of placement change, such as good family connections and supportive relationships in the home setting (Brown & Campbell, 2007), as well as the child's sense of integration and inclusion in foster home processes (Leathers, 2005, 2006). Specifically, a child's sense of integration in the home has been shown to mediate the association between problem behaviors and placement disruption (Leathers, Spielfogel, Gleeson, & Rolock, 2012). Parent engagement has also been shown to moderate the risk of negative placement disruptions (DeGarmo et al., 2009).

Whether a child resides in kinship care or is co-placed with their siblings appears to protect against the occurrence of foster care placement change. Children who enter into kinship earlier in their foster care stay experience greater stability (Rubin, 2008) and children in kinship care tend to experience fewer foster care placements and less foster care change over time (Benedict, Zuravin, & Stallings, 1994; Cuddeback, 2004; Iglehart, 1994; Price et al., 2008). Sibling co-placement also has been shown to promote positive permanency outcomes, with co-placed siblings reunifying more quickly than siblings who are placed apart, including siblings in kinship placements (Albert & King, 2008). Co-placed siblings are also more likely to fare better on reunification, guardianship, and adoption related

outcomes than siblings who are placed in partially intact groups, those who were completely separated from their siblings, and those who had no siblings in care (Akin, 2011).

To date the child welfare literature has focused primarily on co-placement of siblings, but sibling relationships are understudied and may play a particularly important role to understand among youth in foster care (Lundstrom & Sallnas, 2012). Siblings are powerful vehicles of socialization (Bank, Burraston, & Snyder, 2004; Bank, Patterson, & Reid, 1996; Snyder, Bank, & Burraston, 2005) and these relationships develop within the context of family (Criss & Shaw, 2005). Siblings serve as friends, advocates, allies, playmates, as well as role models and socialization agents (Brody, Stoneman, & McCoy, 1994) and research has demonstrated that during some life stages, children report spending more time with their siblings than with friends, parents or even by themselves (McHale & Crouter, 1996). When youth are removed from their homes and much that is familiar to them, siblings may serve as sources of emotional support and provide relational continuity (McBeath et al., 2014).

Therefore, it could be argued that foster family dynamics are related to youth placement changes. Family dynamics may incorporate a variety of components, but often include aspects of the home environment, caregiver characteristics including youth's relationship with their care-giver(s), youth's relationships with other children in the home (e.g., youth's relationships with siblings), and youth's behavior. It is well known that child behavior impacts overall family dynamics in reciprocal fashion (Newton et al., 2000). For researchers and practitioners interested in intervening to promote placement stability and child well-being, examining the influence of family dynamics and home setting characteristics are critically important.

3. Limitations of current research

Investigations that have examined how sibling co-placement and kinship care influence placement change have done so primarily with administrative data, and while research supports a protective effect for co-placed sibling groups (Akin, 2011; Albert & King, 2008) or placement into kinship or non-relative care (Eggertsen, 2008; Rubin, 2008), additional research is needed to understand if different combinations of household living composition offer varying degrees of risk or protection.

Studies have identified multiple factors related to placement instability; yet, little is known about how family dynamics are expressed in different household living arrangements. If family members in different living compositions interact with one another in substantively different ways, this would carry important implications for child welfare research and practice. Little is known about how interactions between children, siblings, and caregivers operate across different home setting typologies, and if potential differences in interactions could explain placement related outcomes.

4. Study purpose

This study sought to (1) understand if family dynamics differ across four typologies of family living composition, and (2) determine if family living composition moderates the occurrence of foster care placement change over an 18-month period of time. This study was

drawn from a sample of youth who participated in the *Supporting Siblings in Foster Care Study* (SIBS-FC), a NIMH-funded RCT designed to test a sibling intervention for youth in foster care (Kothari et al., 2014).

5. Methods

5.1. SIBS-FC study

Data for this investigation were drawn from *Supporting Siblings in Foster Care* (SIBS-FC), the first large scale randomized clinical trial to evaluate a sibling relationship development intervention for preadolescent and adolescent foster youth. The behavioral intervention program tested in the SIBS-FC study was designed specifically for pre-adolescent youth in foster care. The study utilized a universal recruitment strategy that drew from the population of sibling pairs from a three county metropolitan region. To be eligible for participation, youth had to be in the legal custody of the local child welfare agency at the time of study enrollment, reside in a three county region, meet age eligibility requirements, and speak English. The study limited inclusion to older siblings in care between the age of 11–15, with younger sibling within four years of age (Kothari et al., 2014). While youth were enrolled in dyadic pairs, groups of up to four youth from the same sibling group were accommodated.

Siblings in the intervention group were taught and practiced communication, cooperation, planning, and problem solving skills as well as ways they could improve their relationship. Sibling dyads living together and sibling dyads living apart participated in the study. In instances in which sibling groups of four youth were enrolled, the entire sibling group was randomized to either the treatment or control condition. Findings suggest that this program was delivered with a high degree of fidelity, feasible and well-liked by foster youth (Kothari et al., 2014) and sibling relationship quality improved for those in the intervention group (Kothari, McBeath, Bank, et al., under review; Kothari, McBeath, Sorenson, et al., under review). The SIBS-FC study utilized a multiple method, multiple indicator data collection and measurement strategy (Chamberlain & Bank, 1989). Data were collected from all youth (i.e., older and younger siblings), foster parents, teachers, caseworkers, and outside observers on the major project domains (i.e., mental health, education, quality of life and sibling relationship quality) using multiple methods across the 18-months families were enrolled in the study. At the end of study participation, administrative data was collected from the state's Department of Human Services (DHS) and Department of Education (DOE).

5.2. Participants

SIBS-FC study participants were in the legal custody and universally recruited from one northwestern states Department of Human Services (DHS), and resided in a tri-county metropolitan region at the time of enrollment. A total of 328 youth were enrolled in the study, with an equal number of older ($n = 164$) and younger ($n = 164$) participating siblings. At the time of study enrollment, the mean age of older siblings was 13.1 (1.4) years and 10.7 (1.7) years for younger siblings, with an average age difference of 2.4 years. Full siblings accounted for 62% ($n = 202$) of the sample and half siblings accounted for an additional 37% ($n = 121$) of the sample. The majority (73%, $n = 238$) of the sample lived together at study enrollment, and 57% ($n = 93$) of older siblings and 55% ($n = 90$) of younger siblings

lived in a non-relative foster care placement. Siblings were in foster care for an average of 2 years at the time of study enrollment. Youth reported living with a non-relative foster parent (57%, $n = 187$), with their biological aunt, (12.5%, $n = 41$), grandmother (11%, $n = 36$), mother (10.4%, $n = 34$), uncle (2.4%, $n = 8$), father (0.9%, $n = 3$), sister (0.6%, $n = 2$), other biological care-giver (1.2%, $n = 4$), or other non-relative caregiver (3.7%, $n = 12$).

The gender distribution of siblings was nearly even, with females accounting for 51% ($n = 84$) of older siblings and 49% ($n = 80$) of younger siblings respectively. With respect to race of older/younger sibling groups, 40% ($n = 66$) of older and younger siblings identified as Caucasian, 29% ($n = 49$) of older and 28% ($n = 48$) of younger siblings identified as multiracial, 13% ($n = 21$) of older and 12% ($n = 19$) of younger siblings identified as African-American, 5% ($n = 8$) of older and younger siblings identified as Native American, 1% ($n = 2$) of older and younger siblings identified as Asian/Pacific Islander, and 12% ($n = 20$) of older and 14% ($n = 23$) of younger siblings identified as “other.” 26% ($n = 86$) of older and younger siblings identified as Hispanic.

6. Measures

The current investigation utilized a few select measures from the SIBS-FC multi-method multi-agent dataset to answer the primary research questions. These measures are described below.

6.1. Placement change

Data regarding placement changes experienced during the course of study participation were recorded in the SIBS-FC study database. In the current investigation, placement moves for reasons other than visitation, respite care, or achieving an established permanency goal and subsequent exit from care were considered as placement changes. This approach is consistent with prior research on placement moves (Akin, 2011; Albert & King, 2008; Barth et al., 2007; Chamberlain et al., 2006; DeGarmo et al., 2009; Fisher et al., 2011; Linares, Li, Shrout, Brody, & Pettit, 2007). Placement change during 18-month study period was represented as a binary variable. Youth who did not experience any placement change over the 18-month period of enrollment were coded as 0 and youth who experienced placement change during this time were coded as 1.

6.2. Positive home integration (PHI)

Positive home integration was measured using a 9 item indicator ($n=312$, $\alpha = .86$, extracted from the Essential Youth Experiences measure (Kothari, McBeath, Bank, et al., under review; Kothari, McBeath, Sorenson, et al., under review). Each item was rated on a 10-point response scale, with 1 representing never/not at all, 5 representing sometimes, and 10 representing always/a lot. Four of the 9 items asked youth to rate the family and foster home (e.g., To what extent do you feel included in your (foster) family? To what extent do you feel that you are involved in decision making in your (foster) home?) and 5 items asked youth to report on their primary caregiver (e.g., How good is your relationship with your (foster) parent? How well does your (foster) parent listen to you? When you have a problem, how well does your (foster) parent respond to you?).

6.3. Sibling relationship construct (SRC)

The sibling relationship construct score (Kothari, McBeath, Bank, et al., under review; Kothari, McBeath, Sorenson, et al., under review) is a seven item indicator gathered from four reporting sources; two items were gathered from the youth, one from the primary foster parent, two from the study assessor, and two from the study coder ($n = 312$, $\alpha = 0.75$). All item responses were coded so that larger values were positive, and all responses were transformed into z-scores before the development of the construct. Two youth reported items included the “Total sum of the Sibling Problem Inventory” which offers a range of 0–22 responses, and a single item “On a scale of 1–10, how good has your relationship to your sibling in the study been?” The foster parent reported item was: “How good has the youth's relationship to the sibling in this study been?” which was rated on a 10-point response scale.

The study assessor rated items were from the sibling interaction task. The study assessor provided ratings for the following items: “Overall sibling relationship quality” and “how often do you think this youth is aggressive with his or her sibling.”

6.4. Impact of child behavior (ICB)

The Impact of Child Behavior is a six item scale ($n=312, \alpha=.85$) derived from the Parent-Child Health Questionnaire (Boyle et al., 1987). This scale asks the primary caregiver of the target child to rate the degree to which a child's behavior has impacted their lives (e.g., “How frequently has this child's behavior made it difficult for you, or prevented you from taking him/her out in public or going shopping or visiting?” “How frequently has this child's behavior caused you to be anxious or worried about his/her chance for doing well in the future?”) Each item asks the caregiver to rate the frequency of a specific impact, from 1 = never, 2 = sometimes, 3 = often, to 4 = always.

6.5. Number of prior placements

The number of placements a youth experienced between their first foster care stay and the date of study enrollment was extracted from the DHS child welfare systems database and recorded as a count variable. Any placement other than those for respite or visitation purposes were included in the count of total prior placements (including residential treatment, shelter, foster care, and kinship care placements). At the time of baseline assessment, 24.7% of the youth were in the home they resided in at their initial entry into foster care. The total range of prior placement experiences was 0–22 ($n = 271$, $\bar{x} = 4.08$, $sd = 3.19$).

6.6. Treatment condition

Sibling dyads enrolled in this study were yoked by race and randomly assigned to either the sibling intervention or control condition (Kothari et al., 2014; Kothari, McBeath, Bank, et al., under review; Kothari, McBeath, Sorenson, et al., under review). The treatment condition was represented as a binary variable, with 0 representing the control condition and 1 representing the treatment condition.

6.7. Living composition

Study participants resided in one of four potential combinations of living composition at the time of baseline assessment: Youth who resided separately from their siblings in non-relative care were coded as the referent category. Siblings who lived together in non-relative homes were coded as 2. Youth who lived apart from their siblings in a kinship placement were coded as 3, and siblings who resided together in kinship care were coded as 4. The largest living composition category were children who lived with their sibling in non-relative care (37.2%, $n = 122$), followed by youth who lived with their sibling in kinship care (34.8%, $n = 114$), youth who were separated from their sibling in non-relative care (23.5%, $n = 77$), and youth who lived apart from their sibling in kinship care (4.5%, $n = 15$).

The use of the non-relative/apart category as the referent group, and subsequent modeling of living composition categories was informed by two primary considerations. First, recent federal policy prioritizes the co-placement of siblings in kinship care whenever possible (Foster Connections to Success and Increasing Adoptions Act of 2008). Second, research on co-placement of siblings in care suggest a protective effect against placement change independent of placement into kinship care (Akin, 2011). Therefore, it was hypothesized that there would be a graded protective effect for family living composition, with co-placed siblings faring better than children who were separated, and children who were co-placed in kinship care faring better than those who were both separated from their siblings and/or residing in non-relative care.

7. Analytic plan

7.1. Family dynamics and youth characteristics

To explore potential differences in family dynamics across the four forms of family living composition, an analysis of variance (ANOVA) was conducted for positive home integration, the sibling relationship construct, and impact of child behavior. An ANOVA was also conducted across the forms of living composition for number of placements prior to study entry and total number of placement changes occurring during study enrollment. To test for differences in youth characteristics according to living composition, an ANOVA was conducted for youth age, and a chi-square analysis was conducted for living composition and youth gender (male, female) and youth race (white, non-white). To address potential clustering of observations (given the dyadic nature of participant enrollment), the ANOVA s were conducted in a Generalized Linear Model as recommended by Kenny (1995) and DeCoster (2002).

7.2. Placement change

To investigate the individual and combined effects of family dynamics on the likelihood of placement change, a logistic regression model was tested in Stata version 14, and standard errors were clustered according to family living composition using the cluster command (StataCorp, 2015). Positive home integration, the sibling relationship construct score, and impact of child behavior were entered into the logistic regression model, with number of placements experienced prior to study entry and treatment condition entered as control

variables. Living composition was entered as a categorical variable to test for moderation effects.

8. Results

8.1. Family dynamics and youth characteristics

Results from the analysis of variance found no differences in youth report of home integration according to family living composition [$F(7, 311) = 1.31, p = 0.25$] or youth scores on the sibling relationship construct [$F(7, 325) = 0.76, p = 0.62$]. Differences were found for caregiver rating of impact of child behavior [$F(7, 311) = 2.84, p < 0.01$], with older siblings living apart in kinship care ($\bar{x} = 2.50, SE = 0.29, CI = 1.93\text{--}3.08$) and older siblings living apart in non-relative care ($\bar{x} = 2.13, SE = 0.12, CI = 1.89\text{--}2.37$) receiving higher caregiver ratings of problematic behaviors than co-placed older siblings as well as younger siblings in all four living composition groups. Significant differences were also noted for placement history and youth age. The number of placements experienced by a youth prior to study entry varied significantly [$F(7, 270) = 8.24, p < 0.01$], with children living apart in non-relative care experiencing the greatest number of pre-study placement changes (OS $\bar{x} = 6.8, SE = 0.52, CI = 5.79\text{--}7.83$, YS $\bar{x} = 5.9, SE = 0.54, CI = 4.88\text{--}6.99$) followed by youth living apart from their sibling in kinship care (OS $\bar{x} = 5.6, SE = 1.3, CI = 3.02\text{--}8.12$, YS $\bar{x} = 4.5, SE = 1.47, CI = 2.61\text{--}7.39$), youth living together with their sibling in non-relative care (OS $\bar{x} = 3.8, SE = 0.42, CI = 3.06\text{--}4.79$, YS $\bar{x} = 3.32, SE = 0.42, CI = 2.50\text{--}4.14$), and youth living with their sibling in kinship care (OS $\bar{x} = 3.0, SE = 0.42, CI = 2.18\text{--}3.82$, YS $\bar{x} = 3.1, SE = 0.42, CI = 2.24\text{--}3.88$). Children who were separated from their siblings in non-relative care also experienced a greater number of placement changes during study enrollment (OS $\bar{x} = 1.45, SE = 0.20, CI = 1.06\text{--}1.84$, YS $\bar{x} = 1.04, SE = 0.21, CI = 0.62\text{--}1.45$) than youth in the other living composition categories. For youth age [$F(7, 327) = 31.08, p < 0.01$], differences were noted for each living composition category. For older siblings, youth who were separated from their sibling in kinship care were older (OS $\bar{x} = 13.9, SE = 0.59, CI = 12.74\text{--}13.37$), than youth who living apart in non-relative care (OS $\bar{x} = 13.56, SE = 0.25, CI = 13.1\text{--}14.07$), together in kinship care (OS $\bar{x} = 12.96, SE = 0.21, CI = 12.55\text{--}13.37$), or together in non-relative care (OS $\bar{x} = 12.82, SE = 0.20, CI = 12.43\text{--}13.22$). For younger siblings, the mean age for those who were living apart in non-relative care was greater (YS mean = 11.36, SE = 0.21, CI = 10.86–11.86) than in the three other forms of living composition. A chi-square analysis did not find differences in living composition according to youth gender (OS $X^2 = 0.99, p = 0.80, n = 164$, YS $X^2 = 3.41, p = 0.33, n = 164$) or race (OS $X^2 = 1.83, p = 0.61, n = 164$, YS $X^2 = 1.25, p = 0.74, n = 164$).

8.2. Placement change

Over the 18 months of study enrollment 40.8% ($n = 98$) of the sample experienced at least once placement change. The distribution of placement change was zero (59.2%, $n = 142$), one (23.8%, $n = 57$), two (10.8%, $n = 26$), three (3.8%, $n = 9$), four (0.4%, $n = 1$), five (1.3%, $n = 3$), six (0.4%, $n = 1$) and seven changes (0.4%, $n = 1$). The total range of placement changes experienced by a youth during the 18-month window of study enrollment was between 0 and 7.

A logistic regression model was tested with positive home integration, the sibling relationship construct, and impact of child behavior. The categorical living composition variable was included to examine the moderation effects on placement change. Number of prior placements and treatment condition were included as covariates. Robust standard errors were calculated and clustered according to family living composition.

In the logistic regression model, measures of family dynamics did not independently predict the occurrence of placement change, although the sibling relationship construct approached significance ($OR = 0.89$, $RSE = 0.06$, $p = 0.07$). Number of prior placements, treatment condition, and youth age were not significant predictors of placement change. A moderation effect was found for the different forms of family living composition on the odds of experiencing a placement change; compared to children who lived apart from their sibling in non-relative care, children who were co-placed with their sibling in kinship care were 77% less likely to experience a change in placement ($OR = 0.23$, $RSE = 0.01$, $p < 0.01$). Children who were co-placed with their sibling in non-relative care 38% less likely to experience a placement change ($OR = 0.62$, $RSE = 0.14$, $p < 0.05$), and children who lived in kinship care but apart from their sibling were 28% less likely to experience a change ($OR = 0.72$, $RSE = 0.11$, $p < 0.05$) than were children who lived apart from their sibling in non-relative care (Table 1).

9. Discussion

Results of this investigation offer a number of considerations for researchers, practitioners, and policymakers interested in intervening to prevent placement change and promote well-being for youth in substitute care. With respect to differences in family dynamics and youth characteristics across the living composition typologies, children who were separated from their siblings and living in non-relative care were older, had more extensive placement histories, and experienced more placement changes during the course of study participation. Caregivers reported greater levels of problematic child behavior for older siblings who were residing apart from their sibling in kinship care, however no differences were noted across living composition groups for youth report of home integration and sibling relationship quality.

Findings related to odds of experiencing a placement change suggest that living composition is highly influential. Differences in protection were found according to the type of living composition category a youth resided in at the time of study enrollment; co-placed siblings in kinship care were 77% less likely than separated siblings in non-relative care to experience a change, suggesting that the presence of both siblings and relative caregivers provide a protective effect against the odds of experiencing placement change. Even when youth reside in non-relative care, the presence of a sibling in the home promotes placement stability; co-placed siblings in non-relative care were 38% less likely to experience change than children separated from their sibling in non-relative care. In the absence of a sibling in the home, living in kinship care still reduced the odds of experiencing placement change by 28%.

While the investigation into family dynamics did not clearly identify the malleable factors within family systems that promote placement stability and well-being, the type of living composition a child was residing in demonstrated some degree of protection against placement change. This may suggest that children who know others within their foster household (i.e., a sibling and/or a relative) may feel more comfortable in the home, and therefore may adapt more easily to the experience of removal and placement into care. Similarly for youth who are co-placed with their siblings (even in non-relative care), the familiarity of sharing the home with someone that is known and who presumably shares family characteristics and prior living experiences may promote adaptation to the home setting. In the logistic regression analysis, the trend level effect for sibling relationship quality reducing the odds of placement change may further support the proposition that family dynamics and sibling dynamics in particular are a viable place to develop interventions to promote well-being and placement stability for foster youth.

10. Limitations

There are some limitations to this study. First, the research questions investigated in the current study were ancillary to the experimental design of the original SIBS-FC intervention study. As a result, study findings should be considered correlational as opposed to causal. Second, a few select and available measures were used to examine family dynamics. If different measures could have been used, perhaps there would be a better explanation for the role of family dynamics in predicting placement change. Third, this investigation could not account for the potential influence of siblings within the family system who did not participate in the SIBS-FC study. If additional siblings were present within the family system, their unique influence on family relationships and foster home processes could not be accounted for in the study design. Finally, while this study utilizes kinship and non-relative designations to denote differences in caregiver relationship status, there was variation in the type of kinship provider (e.g., grandmother, sister, etc.) and small sample sizes for the kinship/apart group create power issues which could lead to Type II error in the analysis of variance for family dynamics.

11. Implications and future directions

This study provides a novel approach to the analysis of sibling and caregiver relationships within foster home settings, and attempts to understand potential differences in living composition arrangements by utilizing three unique measures of child and family well-being. Findings provide evidence to support sibling co-placement to reduce placement change, and identifies an additive protective effect for co-placement in kinship care and with siblings.

Siblings remain an understudied dimension of family subsystems, particularly within child welfare populations. There is a growing body of evidence that suggest the need to attend directly to the sibling relationship when maltreatment is present in family systems. In addition to living composition, the field needs to better understand the ways in which the heterogeneity of sibling relationships among youth in care [i.e., large sibling groups, sibling types (e.g., full, half), sibling composition (e.g., male, female, birth order, foster siblings,

quality of relationships, sibling contact, etc.] may influence protection in family systems. This would require the development of data systems that allow for examining siblings' relationships over time and analytical approaches that attend to cluster-correlated observations (Webster, Shlonsky, Shaw, & Brookhart, 2005).

Additionally, we need to know how and under what conditions placement into certain living composition groups may be problematic (e.g., sibling abuse, etc.). Although in the current study sibling co-placement and kinship placement were highly associated with placement stability, this finding should not be taken to imply that all youth experiencing sibling and kinship co-placement should expect stable placement and wellbeing outcomes. We would suggest that, even among these youth, a distribution exists reflecting a spectrum of outcomes. Studies have identified factors related to reasons why siblings may be co-placed or separated, but research is needed to understand the underlying conditions within families, such as maltreatment characteristics and family dynamics, that lead to differential outcomes for youth in care.

While this investigation highlights the protective, additive benefits of co-placement and kinship care, children will continue to require placements away from family and siblings. Additional research is needed to understand the experiences of youth who are placed apart from siblings and kin. In this investigation, this group of children had longer and more complex placement histories and experienced greater numbers of placement change during the course of the study. Children in this living composition group may require specialized supports and services.

Researchers have suggested that siblings constitute the third rail of family systems (Feinberg, Solmeyer, & McHale, 2012). Future work with family dynamics and living composition should think explicitly about sibling relationships as a viable mechanism for prevention and intervention programming, and work to determine malleable points for intervention within this sub-system. Future studies should also continue to examine living composition (i.e., kin and sibling placement) and work to understand how the protective capacity of these living arrangements for youth in care may change over time.

12. Conclusion

This study is the first to use data from a large scale sibling-focused randomized controlled intervention trial to explore the moderating effects of family living composition on the occurrence of placement change. This study found a graded effect for family living composition on the experience of placement change, with children who were co-placed with their siblings being least likely to experience a placement change when compared to children who lived apart from their siblings in non-relative care. Protective effects were also noted for co-placed siblings in non-relative care, providing additional evidence for sibling subsystems as a meaningful place for research and practice. The utilization of a living composition measure provides a means to extend our analysis of family systems and move beyond independent examination of sibling co-placement and kinship caregiver status when exploring potential differences in family dynamics and the potential protective effects of family systems in substitute care settings.

Acknowledgements

Research support is gratefully acknowledged from the National Institute of Mental Health for the project, 'Evaluation of Intervention for Siblings in Foster Care,' (R01 MH085438, Lew Bank, PI). The information reported herein reflects solely the positions of the authors.

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Table 1

Logistic regression model predicting placement change.

	Odds ratio	Robust Std. Err.	z	P> z	95% Conf. interval
Family dynamics					
PHI	1.01	0.06	0.22	0.82	0.90–1.13
SRC	0.89	0.06	−1.83	0.07	0.77–1.00
ICB	1.12	0.46	0.26	0.79	0.48–2.57
TX	1.03	0.16	0.21	0.83	0.76–1.41
Prior placements	0.92	0.05	−0.81	0.42	0.86–1.06
Youth age	0.92	0.07	−1.14	0.26	0.80–1.06
Living composition					
Together, non-relative	0.62	0.14	−2.08	0.04	0.39–0.97
Apart, kin	0.72	0.11	−2.32	0.02	0.55–0.95
Together, kin	0.23	0.08	−4.38	0.00	0.12–0.45