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Kinship foster care among African American youth: Interaction effects at multiple contextual levels

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Abstract

This study investigated the effects of kinship foster care on mental health outcomes among African American youth. Longitudinal data were used from a nationally representative sample of children and adolescents who were the subject of child protective services investigation from 1999 to 2000 ($n=5,501$). The secondary analyses focused on African American youth ($n=225$) placed into foster care. In structured interviews, current caregivers reported on youth internalizing and externalizing behaviors immediately following placement into out-of-home care and 18-months later. Path analysis tested a theoretical model that compared placements with kin to other formal out-of-home arrangements in context of setting characteristics, including aspects of caregiver and neighborhood disorder. Results suggested significant increases in *internalizing* symptoms over time for youth with more baseline mental health problems, as well as those placed in more distressed neighborhoods. Increased *externalizing* symptoms occurred among youth with greater baseline behavior problems, those placed in more problematic neighborhoods, and youth who experienced a placement change between assessments. Additionally, a combination of placement characteristics predicted increases in externalizing problems; youth placed in kinship foster care with older caregivers in poorer health exhibited greater increases in externalizing problems. Findings highlighted important contextual considerations for out-of-home placement among African American youth.

Keywords

kinship care; internalizing behaviors; externalizing behaviors; youth; African American

Overview

Children removed from the home by child welfare services generally exhibit poorer mental health outcomes (Grogan-Kaylor, Ruffolo, Ortega, & Clarke, 2008; Leslie et al., 2000; McCrae, 2009). Research shows African American youth are disproportionately involved in the child welfare system, and these youth experience greater rates of child abuse and neglect as well as the associated negative impacts on mental health (Ards, Myers, Malkis, Sugrue, & Zhou, 2003). Kinship foster care arrangements, in which youth are removed from their homes and placed with other family members, currently represent the preferred placement type for African American youth due to assumptions that this provides a more cost efficient

method that also reduces instability experienced by the child (Harris & Skyles, 2008; Smith & Devore, 2004; Swann & Sylvester, 2006). However, little evidence exists to determine if kinship placements improve mental health outcomes among African American youth. This study investigates the effects of kinship foster care and other contextual factors that may affect the relationship between out-of-home placement and internalizing and externalizing symptoms reported 18 months later among a nationally representative sample.

Mental Health in Foster Care

Many children in out-of-home care have clinically meaningful mental health problems. Evidence suggests variability in the numbers of children entering foster care with reported mental health problems, from 35% to as high as 85% (Leslie et al., 2000). Years of research and data consistently show that these prevalence rates of mental health problems in children placed into foster care are higher than those found in peers of the same age, as well as in other children with similar backgrounds of abuse and deprivation (McCrae, 2009). Elevations occur both among emotional problems and especially in behavioral disruptions, such as delinquency and aggression (Grogan-Kaylor et al., 2008; McCrae, 2009; Ryan et al., Testa, & Zhai, 2008; Wall & Barth, 2005). Steep rates of mental health problems point to the necessity for systematic improvements in order to help foster youth.

Mental health problems may be worsened simply through removal from the home and placement into foster care. Removing a child from his or her home and primary caregivers may be disruptive and traumatic, which increases the developmental and behavioral problems in foster youth (Simms, Dubowitz, & Szilagyi, 2000). To combat the negative effects of removal, kinship foster care has become a popular placement type for children.

Kinship Care and Mental Health

The 1979 *Miller v. Youakim* Supreme Court case decreed that kin could not be excluded from the definition of foster caregivers and, in some cases, would be eligible for the same benefits and government aid as nonrelative foster caregivers (Berrick & Barth, 1994). Since then, formal kinship care – in which child welfare caseworkers remove a child from the home and place him or her with a family member – has become a highly utilized resource. As with many relatively new constructs and policies, research regarding the efficacy of kinship foster care in promoting well-being in youth placed in out-of-home care lacks definitive evidence.

Many reasons exist for child welfare services to opt to place children with other family members when removed from the home. It is presumed that this process is less disruptive, as the child is being placed with someone he or she already knows. Furthermore, placement with relatives may facilitate communication and contact with the child's parents (Berrick, Barth, & Needell, 1994; Schwartz, 2008). Children in kinship foster care are often able to remain housed with siblings, which has been cited as both a protective and a stabilizing factor (Barth et al., 2007b). Generally kinship foster care placements are more stable, with more children in these settings experiencing as few as one placement, as opposed to nonkinship foster care in which it is not uncommon for children to have four or more placements (Aarons et al., 2010; Fowler, Toro, & Miles, 2009; James, Landsverk, &

Slyman, 2004; Perry, Daly, & Kotler, 2012). These factors have been the driving rationale for why children may fare better when placed with kin rather than non-kin.

Although research supports the potential of kinship settings to increase stability in placements, findings on the impact of this placement on mental health outcomes are mixed. Some studies imply that kinship foster care has positive effects on youth placed out of the home. In one study, kinship foster caregivers were less likely to report internalizing and externalizing problems in the youth in their care than nonkinship foster caregivers (Hegar & Rosenthal, 2009), and another corroborated that those in kinship care exhibited fewer behavioral problems than those in nonkinship care, specifically related to fewer placements (Vanschoonlandt, Vanderfaellie, Van Holen, De Maeyer, & Andries, 2012). Other research supports better mental health functioning in general for youth placed in kinship foster care. Youth in kinship care exhibited a better change in social, emotional, and behavioral outcomes compared to those in non-relative foster care in all cases, even when living with depressed caregivers (Garcia et al., 2015). Keller et al. (2001) found that children placed in kinship foster care were no more likely to exceed clinical cut-offs on competence or problem behavior scales on the Child Behavior Checklist than children in the general population; however, children placed in nonkinship foster care were significantly more likely to score in the clinical range on this measure. While this suggests positive effects of kinship foster care on mental health, other studies find null or negative effects.

In contrast to studies showing better outcomes when youth are placed in kinship settings, there is evidence to suggest that kinship youth have greater emotional and behavioral problems compared to both the general population (Dubowitz, Zuravin, Starr, Feigelman, & Harrington, 1993) as well as youth in nonkinship foster homes (Cuddeback, 2004). In one study, teachers reported higher behavioral problems in kinship foster youth compared to nonkinship foster youth (Hegar & Rosenthal, 2009). Another suggested that 26% of children in kinship foster care reported clinically significant levels of externalizing behaviors, with aggression and delinquency most commonly identified (Dubowitz et al., 1994), and African American and white males in kinship care have been found to be at greatest risk for juvenile delinquency (Ryan, Hong, Herz, & Hernandez, 2010). In regards to internalizing problems kinship foster youth reported experiencing greater internalizing problems than nonkinship foster youth (Hegar & Rosenthal, 2009). Thus, some have concluded that it is unclear whether kinship foster care has any advantage over nonkinship foster care due to the significant prevalence of emotional and behavioral problems in these youth. This conclusion is supported by research showing no significant differences between behavioral problems in kinship and nonkinship foster youth (Shore, Sim, Le Prohn, & Keller, 2002). There is evidence that children in kinship foster care may fare similarly to youth in nonkinship foster homes, and that both groups show poorer mental health outcomes than youth in the general population.

Mixed findings across studies may relate to the limitations of research on youth placed in out of home settings. Heterogeneity exists in the samples under investigation; some studies examine families placed into foster homes through government policy, while others include informal kinship foster placements. In addition, the reason for placement may confound findings, in that there may be a selection bias due to differences that exist between kinship

and nonkinship foster youth and the prevailing reasons for their removal from the home. Research suggests caseworkers may have reservations about use kinship care due to complicated implications based in policy and family relationships (Peters, 2005). For example, youth may be less likely to be placed with relatives or other kin in instances of more serious or pervasive forms of abuse. These reasons for removal and placement may contribute to mental health outcomes, and may be related to the mixed results found when studying kinship foster youth.

A recent study attempted to address the confounding role of selection bias by statistically adjusting for differential reasons for placement into out-of-home placement settings (Barth, Guo, Green, & McCrae, 2007a). Findings suggested that children placed in kinship care presented significantly better mental health outcomes after accounting for the selective processes that contributed to placement decisions and could influence child outcomes, including child and caregiver characteristics and investigation findings. Specifically, kinship care promoted better outcomes for youth placed out of the home, especially in externalizing behavioral outcomes. Internalizing behavioral scores improved for children placed in both kinship and nonkinship care, but there was a greater improvement in children placed in kinship care. These findings are promising for the use of kinship settings; however, they represent average effects across all youth. Differential use and characteristics of kinship homes among African American youth warrant additional investigation.

Kinship Care and African American Families

While research has suggested that kinship care may be beneficial for out-of-home placement, it is unclear whether or not these effects are found across subpopulations. A consistent trend shows African American youth are more likely to be placed in kinship foster care than other populations (Smith & Devore, 2004; Swann & Sylvester, 2006). Researchers have theorized that the disproportionate placement of African American youth in kinship foster care relates to cultural assumptions and familial willingness such as large extended family networks of support. Indeed, African American families are more likely to rely on kin or fictive kin in times of need (Brown, Cohon, & Wheeler, 2002; Harris & Skyles, 2008; Swann & Sylvester, 2006). Additionally, others suggest kinship care represents a way to keep children in their families and communities (Bartholet, 2009). While there is evidence to suggest that high rates of child welfare service involvement in predominantly African American communities may adversely affect parental authority and neighborhood cohesion (Roberts, 2008), it is possible the desire to respond through use of kinship care may not be providing these youth with the best placement (Bartholet, 2009). Thus, it is important to identify whether or not this placement is more beneficial than traditional foster care settings for African American youth.

Contextual Factors in Kinship Foster Care

Given its disproportionate use, research that identifies conditions under which kinship placements support the mental health of African American youth is especially important. Some researchers and advocates express concern that children being placed in kinship foster care move to homes similar to those from which they have been removed (Ehrle & Geen,

2002). The apparent lack of resources in many kinship foster families may occur at multiple levels of contextual influence. A number of possible factors have been theorized but not empirically tested. On a broader scale, kinship homes tend to be in more chaotic neighborhoods than nonkinship homes (Berrick, 1997). Research indicates that children who live in impoverished neighborhoods exhibit worse mental health outcomes, such as anxiety, depression, and conduct disorder symptoms (Leventhal & Brooks-Gunn, 2003; Meier, Slutske, Arndt, & Cadoret, 2008). African American families may be more likely to accept the challenges of kinship care (Brown et al., 2002; Harris & Skyles, 2008), but may also do so while experiencing extremely difficult economic hardships to the detriment of mental health outcomes.

More proximally, demographic characteristics of caregivers may also be relevant to children's mental health. Many kinship caregivers are grandmothers, some of whom have health problems that come with old age (Iglehart, 1994; Raphael, 2008; Zinn, 2012). In a qualitative study examining what factors promoted or inhibited effective foster caregiving, kinship foster caregivers reported a significant age disparity (such as between a grandmother and a teenage child), which was a barrier to successful fostering (Coakley, Cuddeback, Buehler & Cox, 2007). Another study of characteristics of caregiving environments based on a nationally representative sample found 75% of kinship caregivers were 40 years old or older and reported significantly worse physical health than nonkinship caregivers (Barth et al., 2008a). Old age and poor physical health of the caregiver may be stressors for children that predict better or poorer outcomes for kinship foster youth placed in their care. Both the age and physical health of the caregiver may interact with the kinship setting to predict worse mental health outcomes in children.

The effects of kinship foster care among African American youth may depend on the presence of multiple contextual risks. It may be that kinship foster care improves the mental health of kinship foster youth compared to those children placed in foster homes and other out-of-home settings when the kinship foster children are placed in more enriched settings, while no differences exist if these children are placed in poorer settings. An examination of how kinship care settings and environmental factors interact to produce better or poorer mental health in the domains of internalizing and externalizing behavior is necessary to determine in what situations kinship foster care is a better option for African American youth placed out of the home.

Although kinship care has become the placement type of choice for children removed from their homes (Geen & Berrick, 2002), few conclusions have been reached on whether or not this placement is efficacious in reducing mental health problems for all children. African American children are much more likely to be placed into kinship foster care than children of other races and ethnicities, perhaps due to a historical use of family and other kin relationships to help care for children when families are in need (Brown et al., 2002). However, some researchers and policy-makers have expressed concerns that placement into kinship care is only placing children with families and environments similar to that from which they were removed initially (Dubowitz et al., 1994; Ehrle & Geen, 2002). Furthermore, it appears that many African American children in kinship foster care may be moving to homes rife with similar disadvantages to those in their previous home. Research

suggests that African American children entering kinship foster care are moving to homes that are in more violent and less cohesive neighborhoods (Berrick, 1997), with caregivers who are older (Coakley et al., 2007; Barth et al., 2008a) and have poorer physical health (Barth et al., 2008a). In light of these additional risk factors, the use of kinship foster care within African American youth and families must be examined further to inform policy and practice in the child welfare system.

Present Study

The present study examines the effects of kinship foster care for African American youth on mental health over time, as well as empirically investigates contexts associated with better and worse outcomes. Data from a nationally representative longitudinal study of families investigated for child maltreatment identified African American youth placed out of home following the child welfare services investigation. Analyses focus on African American youth due to their disproportionate placement into kinship foster care that likely represents different selective processes from non-African American families. Concentrating on African American youth provides an opportunity to isolate effects of kinship care and associated contextual factors within this population. Kinship placement is compared to the average effect of other out-of-home placement types over an 18-month period. Other potential selective processes complicate this direct comparison with more emotionally and behaviorally disordered children burning through kin placements (James et al., 2004); however, the inclusion of additional contextual factors into the model test hypothesized environmental qualities that contribute to differences while in contact with the system. In addition to placement type, the model includes both distal and proximal influences of youth mental health, comprising characteristics of neighborhoods, current caregiver age and health, and the combined influences of placement type and contextual factors after statistically controlling for reasons for removal from the home. Effects are tested beyond normative change in mental health symptoms over time. It is assumed that internalizing and externalizing symptoms co-occur, as commonly observed in child and adolescent psychopathology among general and foster care populations (Burns et al., 2004), and youth with higher baseline symptomatology will exhibit greater cross domain problems 18-months later.

This study tests the following hypotheses:

Hypothesis I. Among African Americans, kinship foster care will be associated with decreases in internalizing and externalizing outcomes when compared to youth in other nonkinship out-of-home foster care after statistically controlling for demographics, change in out-of-home placement between assessments, and reason for removal from the home.

Hypothesis II. The relationship between kinship foster care and both internalizing and externalizing outcomes will be moderated by family resources, as indicated by neighborhood, caregiver age, and caregiver physical health, such that there will be increases in internalizing outcomes when a) families live in high-risk neighborhoods, b) caregivers are older, and c) caregivers are in poor health.

Hypothesis III. A significant interaction between placement type and caregiver age on internalizing and externalizing outcomes will be further moderated by the caregiver's reported physical health.

Method

Participants

The present study used data from the National Survey of Child and Adolescent Well-Being (NSCAW), a nationally representative longitudinal study of 5501 children whose families were investigated by child welfare services between October 1999 and December 2000 (NSCAW Research Group, 2002). The present study conducted secondary analysis of data from the baseline and 18 month follow-up assessments for African American youth aged four to 14 years whose child welfare investigation resulted in removal from the home after initial investigation at baseline. Figure 1 displays the sampling hierarchy. Participants who had complete data at baseline assessment included 225 caregivers and youth. Two fifths of youth resided in kinship settings, with the remaining youth living in other out-of-home placement settings, such as nonkinship foster homes and group therapy homes.

Measures

Emotional and behavioral problems—Behavior problems were measured using the Child Behavior Checklist (CBCL; Achenbach, 1991). Items are on a 3-point Likert scale (not true, somewhat or sometimes true, very true or often true). There are 113 items for children ages 4 to 18. Behaviors are categorized as Externalizing or Internalizing, and there is also a Total Problems scale, which results from the addition of both of these behavior scales. This measure was completed at baseline and at 18-month follow-up by the current caregiver reporting on the target child. This measure has been used frequently for research purposes and has well-documented reliability for externalizing ($r = .93$) and internalizing scales ($r = .89$; Achenbach, 1991). For the purposes of this study, both Internalizing and Externalizing Total raw scores were used from a baseline assessment at the time of child welfare investigation and a follow-up 18 months later.

Child demographics—Child demographic information was collected. Gender is a dichotomous variable (male/female), derived from five source variables reporting gender when discrepancies existed. The hierarchy was as follows: the majority from the parent, caseworker, and youth-reported gender; the majority of all responses on the five source variables; if gender still could not be determined, parent report of the youth's gender at baseline were used. The child's age was also given. Youth, parents and caseworkers were asked for the child's date of birth, which was used to calculate age. When age discrepancies existed, age was determined by the following reporting hierarchy: youth, caseworker, parent. The race variable of each child was measured at baseline as a four-option categorical variable (Black/Non-Hispanic, White/Non-Hispanic, Hispanic, Other) and derived from reports given by caseworkers and parents.

Abuse type—The most serious type of abuse or neglect experienced by the child was derived at the baseline interview, placing children into one of ten categories. The variables

were then recoded to indicate physical abuse, sexual abuse, emotional abuse (including emotional maltreatment, moral/legal maltreatment, educational maltreatment, exploitation, and other), and neglect (including physical neglect didn't provide, neglect – no supervision, and abandonment).

Change in living environment—Whether or not a child experienced any change in their living situation between baseline and 18-month follow-up was gathered. Current caregivers at the 18-month follow-up were asked whether the child had lived in any other placement since the date of the baseline interview. The change in living environment was dummy coded as *No* = 0 and *Yes* = 1.

Placement type—Information on the type of out-of-home placement was identified using records from various sources at baseline. Placement type was defined by the child's current placement at baseline into one of four categories: foster home, kinship setting, group home/residential program, and other out-of-home care arrangement. These placement types were identified using information from the child, caregiver, and caseworker. If discrepancies regarding placement were found in these reports, the first non-missing response found from the caregiver, then the child, and then the caseworker was used based on NSCAW coding schemes. A dichotomized placement type variable was created to compare children placed in kinship foster care to those in any other foster care setting, as operationalized in Barth et al. (2007a).

Caregiver age—Current caregiver age, in years, was self-reported at baseline. No other reports of age were given, and the variable was not verified.

Caregiver physical health—Caregiver's physical health at baseline was assessed using the Short-Form Health Survey (SF-12), which is a shortened version of the SF-36, with 12 items as opposed to 36 items. It measures both mental and physical health, with higher scores indicating better health. Descriptive statistics for SF-12 scores by gender and age using the normative sample from SF-36 were very similar to SF-36 descriptive statistics, indicating that it is appropriate to use the norms and other interpretation guidelines from the original SF-36 (Ware, Kosinski, & Keller, 1996). Test-retest reliability was high for physical health ($r = .89$). In 12 validity tests involving physical criteria, relative validity estimates ranged from .43 to .78 (median = .67; Ware et al., 1996). In NSCAW, internal consistency for Physical Health is moderate ($\alpha = .59$).

Neighborhood Problems—Caregivers were asked about their neighborhood at baseline. Nine items were asked on the abridged community-environment measure developed for the Philadelphia Family Management Study (Furstenburg, 1990). The first five items ask how much of a problem certain occurrences are within the neighborhood. These questions are rated on a 3-point Likert scale (not a problem at all, somewhat of a problem, or a big problem in your neighborhood). The final four items ask the respondents to compare their neighborhood to others on safety, neighbor support, parent involvement, and whether or not it is a better or worse place to live. The mean of the nine community items measured the overall neighborhood environment, with higher scores indicating worse neighborhoods.

Sufficient reliability has been reported for this measure in NSCAW ($\alpha = .86$; Hazen, Connelly, Kelleher, Barth, & Landsverk, 2006).

Procedure

Data were collected using a probabilistic sample method, as described by the NSCAW Research Group (2002). The United States was divided into nine sampling strata, eight of which were the eight states with the highest child welfare caseloads, and the ninth consisted of the remaining 42 states and the District of Columbia. Families were randomly selected from 97 counties throughout the nation. All children had been involved in a child welfare investigation within the past 6 months. The children's current caregivers were sent a letter to notify them of the study, as well as a brochure with answers to common questions. Then, as stated within the recruitment materials, the child's current family was contacted by phone or in person through a home visit to schedule a time for the first interview. Interviews were conducted within the families' homes. The current caregiver was interviewed, as well as the child who had been the source of the investigation at baseline, and followed-up over four additional time points over seven years. Each family was called for a shorter phone interview 12 months later (the 2nd wave) and were then contacted for a full follow-up interview at 18 months past baseline (the 3rd wave), 36 months past baseline (the 4th wave), and 59-97 months past baseline (the 5th wave).

Data collection and study procedures received institutional review board approval, and the secondary analysis was reviewed and approved by the Institutional Review Boards at DePaul University and Washington University in St. Louis. De-identified survey data were received through the National Data Archive on Child Abuse and Neglect (NDACAN) and complied with security protocols to ensure the confidential use of the data.

Analytic Plan

Path analysis investigated the effects of kinship care in context of other placement characteristics on mental health over time. A hypothesized model regressed caregiver mental health at the 18 month assessment on baseline mental health symptoms, child age, child gender, primary type of abuse that led to the investigation, change of living environment between baseline and 18-month follow-up, kinship care versus other formal out-of-home placements, caregiver age, caregiver physical health, and neighborhood problems. Additionally, models incorporated terms to test the interactive effects of placement characteristics on mental health outcomes. These included two-way interactions between placement type and neighborhood problems, placement type and physical health scores, placement type and caregiver age, and caregiver age and physical health. A three-way interaction also examined the combined influence of placement type, caregiver physical health scores, and caregiver age. Variables were centered prior to inclusion in the model and construction of interaction terms to facilitate interpretation. Path analysis simultaneously predicated contextual effects on internalizing and externalizing problems at 18 months, while allowing for outcomes to correlate. The model incorporated cross-domain prediction, such that externalizing problems at 18 months was predicted by internalizing symptoms as well as externalizing symptoms at baseline. Conversely, internalizing symptoms at 18 months was predicted by both baseline internalizing and externalizing scores.

Full information maximum likelihood derived parameter estimates using MPLUS Version 5, while correcting accommodating missing outcome data (Muthén & Muthén, 2007). MPLUS also allowed incorporation of study-derived sample weights to account for probability of selection into the study, as well as missingness at the 18-month follow-up (Dowd et al., 2004). Model fit to the data was evaluated using a number of indices. The model chi-square captured absolute fit of the data. The root mean square error of approximation (RMSEA) as well as standardized root mean square residual (SRMR) provided estimates of relative fit (Browne & Cudeck, 1992). Values below .05 indicated good fit to the data (Hox, 2010).

Results

The present study examined the relationships between child welfare placement type, internalizing and externalizing behaviors, and placement characteristics such as caregiver age, physical health, and neighborhood, among African American families. Descriptive statistics, including percentages means, and standard deviations, were reported for each variable included in the final model in Table 1. The sample comprised of 225 African American youth plus current caregivers who had complete baseline data. The sample was evenly divided by gender, and most youth were middle school-aged. Neglect was the primary reason for out-of-home placement accounting for nearly half of the investigations. Caregivers were slightly older than would be expected in biological families of children in this sample, and they rated neighborhoods as relatively stable, on average.

Path analysis tested the independent and interactive effects of placement type and contextual factors on internalizing and externalizing behaviors after controlling for child demographics, type of abuse that led to placement out of the home, and a change in the child's living situation between baseline and 18 month follow-up. Table 2 presented parameter estimates in the final model by outcome with model fit information. The model provided adequate fit to the data; the value of the chi-square test was not zero, and the RMSEA and SRMR fell below .05. The model explained half of the variance in both internalizing and externalizing symptoms at 18 months. A significant and moderate correlation existed between internalizing and externalizing behaviors at 18 months. Baseline externalizing problems significantly predicted both internalizing and externalizing at 18 months, whereas internalizing symptoms at baseline had a specific effect on later internalizing problems in this sample.

Internalizing symptoms among African American foster youth were not predicted by placement type after controlling for other child and placement characteristics; youth placed in kincare had similar rates of caregiver-reported emotional problems as youth in other out-of-home settings. Internalizing symptoms at 18 months were predicted by baseline levels of both internalizing and externalizing problems, suggesting cross symptom domain influences on mental health. In addition, youth placed in more problematic neighborhoods exhibited significantly greater internalizing symptoms at 18 months, regardless of placement type. No interactions were significant after accounting for these main effects.

The model also tested effects on caregiver-rated externalizing problems at 18 months. Symptom levels were predicted by youth baseline externalizing problems, suggesting

stability in behavioral problems among youth. Unlike internalizing problems, no cross symptom domain influence occurred indicating specificity in behavior problems over time. Significant main effects existed for both a change of living situation in the 18 months between baseline and follow-up interview and neighborhood problems ($p < .05$), such that youth who moved between interviews as well as those residing in worse neighborhoods exhibited higher externalizing symptoms. Additionally, a significant two-way and three-way interaction existed between placement characteristics predicting changes in externalizing problems at 18 months. Caregiver age and physical health interacted to predict behavior problems, and this effect occurred differently by out-of-home placement type. As displayed in Figure 2, youth placed in kinship care displayed a decrease in behavior problems when placed with older caregivers who experienced fewer health problems; the reverse was true for those in nonkinship placement settings who experienced decreased behavior problems when placed with older caregivers in poorer health.

Discussion

This study tests the effects of kinship foster care on African American youth mental health over time in context of placement and community characteristics. Hypotheses predicted that youth placed in kinship foster care would show decreases in internalizing and externalizing problems over time, especially when placed in homes with more family and community supports. Findings demonstrate complex relationships involved in out-of-home placement decisions. Unlike prior research (Barth, Guo, & McCrae, 2008b; Hegar & Rosenthal, 2009; Keller et al., 2001), this study found no mental health differences between youth placed with kin versus other placement types among African American youth after accounting for developmental and contextual factors. Instead, youth mental health problems at the time of child protective services investigation, as well as problems in the neighborhoods in which youth are placed predict increased problems over time. Furthermore, change in behavior problems function through a combination of structural characteristics of the placement settings.

Caregiver physical health and age combine to predict changes in youth behavior problems, and this effect functions differently for youth placed with kin versus other out-of-home placement settings. Youth placed with kin exhibit increases in externalizing problems when placed with older and sicker caregivers. This finding is consistent with previous research suggesting kinship caregivers are often older and in poorer health (Iglehart, 1994; Raphael, 2008; Zinn, 2012), as well as qualitative research indicating the age disparity between kinship foster caregivers and youth is a barrier to successful fostering (Coakley et al., 2007). The reverse is found in nonkinship placements; youth placed with older caregivers in poorer health exhibit fewer behavioral issues over time. While these factors do not separately predict increases in externalizing scores over time, their presence together with the placement type distresses youth.

Many potential influences may explain this pattern of effects. Research suggests that children placed with kin exhibit better mental health outcomes compared to youth placed in other settings (Barth et al., 2008b; Hegar & Rosenthal, 2009; Keller et al., 2001). However, youth may only benefit from a kinship placement when contextual stressors are limited, as

demonstrated in prior research (Barth et al., 2008a). In particular, it seems more difficult to manage living with a sick caregiver if that caregiver is a loved one, such as an aunt or grandmother, as opposed to a previously unknown foster caregiver. It may seem more intuitive these youth would show increased *internalizing* behaviors if distressed by caregivers ailing health; however, it is also common for youth to exhibit feelings of sadness through irritability and reactive aggression (White, Jarrett, & Ollendick, 2013). Additionally, previous research on youth placed in kinship foster care indicates significant levels of externalizing behaviors including aggression and delinquency (Dubowitz et al., 1994), with both African American and white males in kinship care at the greatest risk for juvenile delinquency (Ryan et al., 2010).

Increased behavior problems in youth placed in kinship care with older caregivers in poorer health may also be related to use of services by these families. Research suggests that service provision for families in kinship care is not utilized to its full extent, in that a greater number of these families do not receive the same level of monitoring and caseworker supervision as compared to nonkinship foster homes (Bartholet, 2009; Berrick & Barth, 1994). Less contact with kinship foster families may cause child welfare services to miss opportunities to identify and engage youth in need of preventive interventions that address contextual stressors. In addition to low supervision by these families, kinship foster caregivers also request and receive fewer financial services by means of foster care payments than nonkinship foster caregivers (Ehrle & Geen, 2002). Caregivers may lack the resources to follow up on receipt of services, which would be more difficult and perhaps of lower priority for caregivers who are ill and preoccupied with day-to-day needs and their own medical care. Furthermore, the extreme vulnerability to economic hardship experienced by kinship foster families may compromise the ability to monitor and follow through with disciplinary techniques compared to other caregivers.

Positive effects of placement with older and sicker caregivers in non-kin settings may reflect considerations of contextual factors and placement options by the child welfare system. While caseworkers may identify kin caregivers as their first choice for youth, regardless of individual and family characteristics, a more complex decision-making process may occur when placing youth with nonkin caregivers. For example, caseworkers may choose not to place a child known to exhibit behavior problems with a foster caregiver struggling with health problems. Presumably, caseworkers hope to find stable foster environments for youth, and are attentive to those characteristics of the youth and foster caregiver that could disrupt the placement. Kinship placements have been shown to be more stable than nonkinship settings (Schwartz, 2008), which could explain a discrepancy in consideration of contextual factors. There may be less concern or incentive, as kin may be more likely to maintain a placement regardless of challenges faced. However, results of this study indicate *change* in internalizing and externalizing outcomes. Thus, if outcomes relate to caseworker selection of placement sites, it would imply that caseworkers were able to predict which youth would be likely to improve their behavior after being removed from the home. Further research is necessary to understand the nuances of how caseworkers make decisions around placements, or if there is another variable at play.

In addition to the effects described above, other developmental and contextual factors independently predict changes in youths' emotional and behavioral health over time. Youth mental health outcomes at 18-month follow-up were predicted by their scores at baseline. Specifically, both internalizing and externalizing scores predicted increased internalizing scores later, while externalizing outcomes were only predicted by initial reports of externalizing behavior. This effect is likely due to the propensity for youth experiencing internalizing symptoms to also exhibit behaviors such as irritability and reactive aggression, as stated above (White et al., 2013). Results suggest when youth experience at least one change in placement setting between baseline and interviews 18 months later, externalizing symptoms worsen. This effect was not seen for internalizing symptoms. It is possible that experiencing multiple placement changes increases behavior problems; however, research also suggests youth with behavior problems are more likely to have disruptions in their placement (Fisher, Stoolmiller, Mannering, Takahashi, & Chamberlain, 2011). These moves may be a result of caregivers feeling they are unable to appropriately care for youth who are exhibiting behavior problems, or in extreme cases could be due to caregivers feeling unsafe with these children. Thus, it may be that already existing behavior problems are predicting changes in placement in a way that is not present in those youth with less observable or noxious internalizing symptoms.

Both internalizing and externalizing scores increase when caregivers report the neighborhoods in which they live have higher rates of problem occurrences and lower support from neighbors and other parents. This finding is consistent with research suggesting disadvantaged neighborhoods have higher rates of mentally ill youth living within them (Leventhal & Brooks-Gunn, 2003; Meier et al., 2008; Xue, Leventhal, Brooks-Gunn, & Earls, 2005). While some suggest kinship care is a way to keep children in their families and communities, youth in these neighborhoods may be exposed to a variety of risks. For example, exposure to violence and crime in one's community may increase internalizing symptoms such as anxiety or depression (Bartholet, 2009). Behavioral problems may increase as well for youth who may become entrenched in committing violent or criminal acts in the neighborhood. Additionally, caregivers report decreased neighborhood cohesion and parental authority in neighborhoods where child welfare service involvement is high (Roberts, 2008). It is probable that living in a community where caregivers and families feel less supported contributes to challenges monitoring problem behavior, and may also decrease the amount of support the youth themselves are able to seek when experiencing emotional challenges. Researchers suggest disadvantaged neighborhoods tend to have less collective efficacy, which refers to social ties between members of a neighborhood or community and often includes a willingness to care for each other and youth in the neighborhood. Without a sense of cohesion among residents of a neighborhood it is likely stress amongst both children and caregivers heightens. In disadvantaged neighborhoods where residents report a higher sense of cohesion and collective efficacy, negative effects on youth mental health have been shown to be mitigated (Xue et al., 2005). It must also be noted that the neighborhoods included were those in which youth were placed. Thus, it is unclear what relationship neighborhood problems have with increased emotional and behavioral problems in youth. If youth are placed in neighborhoods similar to those in which they originally lived, this may indicate accumulated risk of living in such

neighborhoods; however, if youth were placed in worse neighborhoods, it could indicate a sort of culture shock or pervasive effect of neighborhood disadvantage.

Future Directions

Kinship foster care shows promise to support mental health of African American youth placed in out-of-home settings. However, it is important for caseworkers to recognize the multitude of factors affecting the quality of care and living arrangements available for foster youth. Kinship foster homes are not required in all states to meet the same standards as nonkinship foster homes (Bartholet, 2009; Falconnier et al., 2010). Future research should identify what, if any, differences there are in outcomes in kinship and nonkinship youth where these homes are required to meet the same standards, versus states in which they are not. Falconnier and colleagues (2010) suggest comprehensive measures be created to evaluate quality of kinship care homes in order to understand the settings in which a youth is placed. Placements with impaired caregivers limit the potential benefits associated with African American kinship settings. This study highlighted the importance of caregiver characteristics that child welfare currently assesses in making placement decisions. Greater attention to kin age and health at the time of placement may promote future child functioning, and evaluations of kinship homes prior to placement may be necessary in order to provide the most beneficial settings for youth. A greater understanding of the effects of kin caregivers' age and health on youth outcomes may guide necessary changes to child welfare service placement procedures. It is also important that future research identify other contextual factors of out of home placements that may differentially affect a child's functioning, such as kinship caregiver mental health, number of children in the home, and potential for exposure to violence either in the home or in the community.

The present study sought to understand how placement type may affect specifically African American youth, based on research suggesting kinship placement settings are disproportionately used for these children and families (Harris & Skyles, 2008; Smith & Devore, 2004; Swann & Sylvester, 2006). Future research may want to address whether this practice has persisted. It will also be important to identify whether kinship placements differ for youth of other racial and ethnic backgrounds. Caseworkers may make assumptions about the willingness of kin to care for youth based on cultural factors; however, a more sophisticated understanding of who benefits from kin placements, and under which contexts, would be valuable in informing best practices. Future research should compare whether kinship care is disproportionately used for African American youth as compared to other ethnicities, as well as measure if youth and families of a specific racial or ethnic background benefit from this placement type more than others. Further, it would be of interest to understand how different racial and ethnic groups are affected by contextual factors to understand if these effects are generally universal or if more complicated and nuanced relationships exist.

As neighborhood problems were predictive of outcomes in this study, future research on the effects of community-level factors may provide more information related to characteristics of foster homes related to poorer outcomes in youth. Research suggests that the disproportionate rates of child welfare involvement for African American families are

related to greater victimization rates in this population (Drake et al., 2011). It is known that disadvantaged neighborhoods have higher rates of abuse, and evidence suggests this is related to risk factors and stressors often found in these communities and perpetuated by institutional racism (Coulton, Crampton, Irwin, Spilsbury, & Korbin, 2007). Qualitative research suggests there may be negative effects of child welfare involvement and kinship care as perceived by those in communities where investigations and removal from the home are common; these effects may include increased victimization and behavioral problems in youth throughout the neighborhood (Roberts, 2008). In order to both decrease victimization rates and improve functioning of families, it may be necessary to research potential community-level interventions and services.

Additional research is needed to further understand the receipt of services in kinship foster families in terms of both financial assistance and caseworker monitoring and supervision. Youth may benefit from kinship foster settings when caregivers have sufficient support and ability to provide the consistency needed for child well-being. Studies may evaluate outcomes of those homes and families who do receive benefits through either the foster care system or other forms of cash assistance, as well as striving to identify not just who is receiving these services, but what barriers caregivers face that may prevent receipt. A better understanding of families' connections to child welfare caseworkers may also identify potential opportunities to improve services. It may be that caseworkers who have greater contact and interaction with families may mitigate the effects associated with caregiver aging and health problems. Additionally, community-level supports and services for neighborhoods with a high concentration of child welfare involvement may be beneficial in improving youth outcomes and family functioning. Taken together, these evaluations may be important indicators to effect policy change in regards to standards and requirements of child welfare services and caseworkers.

Limitations

The present study is not without limitations to be considered. The sample size was relatively small despite using a national probability sample. Studies with larger samples of African American families may be used to replicate findings. The use of nationally representative data in this study facilitates comparisons with future samples. Another limitation of note is many of the variables used were solely caregiver-reported. Other than derived variables (which pulled data from multiple sources) and some demographics, caregivers reported the outcome variables, environment, and caregiver health. Thus, findings mainly reflect the perceptions and experiences of the caregivers, and do not directly capture experiences of the youth in the study. Relatedly, different caregivers reported on child mental health at different time points for many youth. Although prior research has found stability across reporters and over time for children in child welfare (Glisson, Hemmelgarn, & Post, 2002), variation may have been introduced in assessing change in mental health over time.

A strength of the present study is the longitudinal design. Although the timeframe is not very long, this allows the focus on *change* in internalizing and externalizing behaviors over time. Given that approximately half of the sample under study had a change in their living environment between baseline and follow-up it is important to focus on the effects of

placement and contextual factors since baseline. No main effect on mental health existed in this study of moving or staying; however, it is possible that there is a great deal of within-group variation. Some youth may have changed placements multiple times in that 18-month period. Furthermore, it is likely that the reason for the change in placement could affect a youth's mental health functioning. For example, youth who changed placement due to the death of a caregiver would likely have greater difficulties than youth who change placement due to reunification with their biological parent. Future research should identify and control for not just a change in placement, but also the reason the youth had a change in living environment when assessing their functioning over time.

A final consideration is in regard to comparisons of youth in kinship versus nonkinship foster care. First, in keeping with previous research on this population, those youth categorized as living in nonkinship foster care included various settings. Some youth may have been living in group homes while others may have lived with foster families. It is possible that there are between-group differences among those youth placed into nonkinship foster care; however, the small sample size limited these comparisons in this study. Additionally, exploratory analyses suggested that youth in this study placed into kinship foster homes were more likely to have caregivers with poorer physical health and less likely to change living situations between baseline and 18-month follow-up. This pattern is in keeping with hypotheses and prior research regarding kinship foster families (Barth et al., 2008a), but does indicate the need to exert caution when comparing these groups.

Conclusion

Child welfare services' current practice is to attempt to identify kinship foster settings first when removing a child from their home, a practice used disproportionately for African American youth. This study suggests developmental and contextual factors predict changes in internalizing and externalizing problems among African American youth beyond the placement type. More specifically, contextual factors combine to determine child well-being, such that youth living with older caregivers in poorer health exhibit worsened outcomes over time. Results of this study illustrate the need for child welfare services to consider multiple factors when choosing appropriate settings for youth removed from their homes given the effects of contextual factors at many different levels. Future service provision may benefit from greater attention to within-home factors, such as a kinship caregiver's health, as well as the neighborhoods into which youth are placed in efforts to provide a living environment with limited stressors to improve youth wellbeing.

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Figure 1. Sampling hierarchy based on NSCAW study design and inclusion criteria of the present analyses.

Figure 2.

The moderating effect of placement type on the relationship between caregiver physical health and caregiver age on youth externalizing outcomes. The top graph shows the relationship among youth in kinship foster care, whereas the bottom graph represents those in nonkinship foster placements. As demonstrated in the top graph, youth placed in kinship foster care with older caregivers in poor health had higher (and thus poorer) externalizing scores.

Table 1

Means and Standard Deviations of African American Youth Placed Out-of-Home (N = 225) for Study Variables^a

Variables	Mean or %	Standard Deviation
Baseline Internalizing	10.16	8.67
Baseline Externalizing	17.38	12.23
18 Months Internalizing	10.35	8.38
18 Months Externalizing	17.41	12.14
Child Gender (%)		
Female	52.9	--
Child Age	9.67	3.21
Abuse Type (%)		
Physical Abuse	27.27	--
Sexual Abuse	14.14	--
Emotional Abuse	9.60	--
Neglect	48.99	--
Change in Placement (%)	52.5	--
Kinship Placement Type (%)	40.9	--
Foster Home	44.0	--
Group Home or Residential	8.9	--
Program		
Other Out-of-Home	6.2	--
Arrangement		
Caregiver Age	45.50	12.93
Caregiver Physical Health ^b	-8.16	10.05
Neighborhood Problems ^c	1.43	0.39

^aChange in placement refers to the percentage of youth who experienced a change in placement or living situation between baseline and 18-month follow-up.

^bScores for Caregiver Physical Health ranged from -38.58 to 4.28 with lower scores indicating poorer health.

^cNeighborhood problems reflected average scores of neighborhood disadvantage rated on a scale from one to three with higher scores representing more problems.

Table 2

Unstandardized Regression Coefficients from a Path Analysis Predicting Internalizing and Externalizing Behaviors at 18-Month Assessment Among African American Youth Placed Out-of-Home (N = 225)

Model	Internalizing at 18 months			Externalizing at 18 months		
	<i>b</i>	<i>SE</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>p</i>
Baseline Internalizing	.36	.10	.001	-.04	.13	.74
Baseline Externalizing	.15	.05	.001	.58	.06	.001
Child Gender ^a	.03	1.10	.98	-1.46	1.48	.33
Child Age	.15	.18	.41	.05	.24	.82
Abuse Type ^b						
Physical Abuse	-.81	1.79	.65	-1.10	2.60	.67
Sexual Abuse	1.40	2.21	.53	3.726	3.20	.25
Neglect	-.09	1.880	.96	1.93	2.82	.50
Change in Placement ^c	.60	1.41	.67	4.42	1.70	.001
Placement Type ^d	-1.98	1.28	.12	-1.16	1.73	.50
Caregiver Age	-.07	.06	.20	-.12	.09	.16
Caregiver Physical Health	-.01	.08	.86	.21	.14	.14
Neighborhood Problems	4.00	1.49	.01	9.61	4.14	.02
Caregiver Age × Placement Type	.10	.11	.36	.18	.15	.24
Neighborhood Problems × Placement	-3.38	2.49	.17	-7.60	6.02	.21
Caregiver Physical Health × Placement	-.14	.10	.18	-.20	.18	.28
Caregiver Physical Health × Caregiver Age	.002	.01	.80	.02	.01	.04
Caregiver Physical Health × Caregiver Age × Placement	-.01	.01	.26	-.03	.02	.03
MODEL PARAMETERS						
Intercepts	10.03	2.26	.001	14.39	2.49	.001
<i>R</i> ²	.53	.10	.001	.48	.09	.001
	Pearson's <i>r</i>	<i>SE</i>	<i>p</i>			
Internalizing With Externalizing at 18 Months	.62	.05	.001			

^a Child gender dummy coded as *male* = 0 and *female* = 1

^b The reference condition for Abuse Type combined all other abuse categories

^c Change in placement dummy coded as *No* = 0 and *Yes* = 1

^d Placement Type dummy coded as *Other Out of Home Placement* = 0 and *Kinship Foster Care* = 1