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Article in *Journal of Child and Family Studies* · June 2018

DOI: 10.1007/s10826-018-1155-8

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Relational Permanence and Psychological well-being among African American Adolescents in Foster Care

Abigail Williams-Butler¹ · Joseph P. Ryan² · Vonnie C. McLoyd² · John E. Schulenberg² · Pamela E. Davis-Kean²

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Abstract

The field of child welfare has historically focused on physical safety and legal permanency with little emphasis on child well-being or the importance of social relationships in positive youth development. We add to the literature regarding child well-being among African American adolescents in care—a group that is overrepresented within the foster care system. Specific attention is given to relational permanence—the concept of continuous supportive relationships marked by mutual trust and respect. Descriptive statistics were used to assess the prevalence of relational permanence and the change of relational permanence over time. Regression analyses were used to explain the variation associated with relational permanence and to investigate whether relational permanence predicts psychological well-being. The findings indicate that relational permanence varies at the start of foster care for African American adolescents. Yet, relational permanence did not significantly change over time. Maltreatment type had the largest influence on predicting the attainment of relational permanence over time ($p < 0.05$). Relational permanence was positively correlated with higher psychological well-being ($p < 0.05$). An increase in relational permanence over time also significantly predicted higher psychological well-being over time ($p < 0.05$). These findings indicate that social support from a variety of different sources aid youth in staying mentally healthy despite major disruptions in support from biological parents. These findings support the importance of developing a wide variety of social support networks to improve positive developmental outcomes among African American adolescents in foster care.

Keywords African American youth · Foster care · Relational permanence · Social support · Adolescence

Introduction

Children and adolescents in foster care are at risk of experiencing numerous negative life events. Many foster care youth face a myriad of problems, including food insecurity, homelessness, lack of access to health and mental health services, unplanned pregnancies, unemployment, and involvement with the criminal justice system during and after their time in care (Courtney et al. 2011). Adolescents in the child welfare system are also much more likely to be involved in the juvenile justice, mental health, and substance abuse systems (Shook et al. 2011). Multiple

service involvements between the child welfare and juvenile justice systems are especially prevalent. For example, substantiated victims of child maltreatment are approximately 47% more likely to have a delinquency petition compared to the general population (Ryan and Testa 2005).

After facing all of these obstacles to positive development, adolescents who finally age out of foster care often experience an abrupt end to adolescence. Many forms of instrumental support (housing or financial assistance) and emotional support (advice, guidance, and comfort) end when they no longer receive assistance from the child welfare system (Avery and Freundlich 2009; Wills and Shinar 2000). Therefore, it is no surprise that foster care youth are often more likely to be disadvantaged in comparison to same-aged peers in the general population (Osgood et al. 2010). However, there are some adolescents who are able to successfully navigate the foster care system and have optimal psychological well-being despite their associated risks.

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The relationship between relational permanence and psychological well-being among African American adolescents in foster care is explored because there is much documentation on the disadvantaged conditions for African American youth involved in child welfare services (Rolock and White 2016). However, there is little research devoted specifically to African American adolescents in foster care who are able to have positive outcomes, despite major deficits in their developmental trajectories. The vast majority of research conducted on African American youth involves the identification of problem behaviors and race-comparative studies (McLoyd 1998; Wong and Rowley 2001). The examination of relational permanence in increasing psychological well-being among African American adolescents in foster care is important because it may inform developmental science on whether relational permanence is a promotive factor—an asset or resource, which promotes positive development and helps youth overcome adversity (Zimmerman et al. 2013). Knowing whether relational permanence is an asset or resource specifically relevant for African American adolescents in foster care is important because of the aforementioned documented disadvantaged conditions for African American youth in the child welfare system. This knowledge can also be used to inform developmental theory as it relates specifically to African American adolescents in foster care.

Attachment theory and research inform the importance of relational permanence for positive development among this population. According to attachment theory, attachment bonds develop when a strong affective relationship is established between an infant and a primary caregiver (Bowlby 1969). This relationship is generally formed with the mother, but secondary attachment bonds can be established with other supportive individuals in the infant's life such as the infant's father, siblings, or extended family. Bowlby theorized that the attachment relationship an infant develops with their caregiver creates an internal working model that impacts the infant at every future stage of development. Through interactions with the caregiver, the infant develops specific internal working models about the self and others (Smith 2011). Beliefs around what to expect from relationships and whether the self is worthy of care and attention are developed through the formation of attachment bonds in infancy (Ainsworth et al. 1978). For example, if a caregiver is emotionally available and supportive, the infant is likely to develop an internal working model that promotes expectations of warmth and availability and the belief that one is worthy of care from others (Fonagy et al. 1995). This infant is likely to develop a secure attachment. Conversely, if an infant experiences a caregiver who is cold and generally unresponsive to their needs, the infant is likely to develop an internal working model that promotes expectations of coldness and unresponsiveness from others and the belief that one is unworthy of

care. This infant is more likely to develop an insecure attachment. Researchers contend that any situation in which an individual, at any age later in life, seeks and experiences emotional support and makes presumptions about how others should respond to this need, is impacted by one's infant attachment style (Rholes and Simpson 2004).

The attachment literature is guided by a general expectation that secure attachment predicts positive developmental outcomes later in life. One might assume from a review of the literature that if an infant is not securely attached by 12 months, their cognitive and relational development is set in stone. However, the attachment literature is more nuanced than that. There is evidence that the internal working model in relation to attachment is still open to change at an early age and that attachment relationships are open to change throughout the lifespan (Belsky and Fearon 2002). There is also support for the importance of multiple attachment figures, outside of just the caregiver–child relationship, in promoting healthy adolescent development (Laible et al. 2000). It can be argued that any significant relationship in an individual's life may result in a new attachment. If the relationship is positive, a secure attachment may form. If the relationship is negative, an insecure attachment may form. The ability to form new attachment relationships, whether positive or negative, is particularly important during adolescence because the development of friendships, romantic partnerships (Rholes and Simpson 2004), mentoring relationships (Rhodes et al. 2006), teacher relationships (Commodari 2013), and other new relationships become key at this developmental stage.

Further empirical evidence from adolescent (Laible et al. 2000) and adult attachment studies (Travis et al. 2001) has also shown that attachment styles can and do change over time. Although attachment security is primarily set in infancy, what happens in infancy loses its power to predict adjustment in adolescence as other factors that shape personality and psychological functioning become more salient. These factors include peer influence, school environment, neighborhood characteristics, and genetic characteristics (Haworth et al. 2010). Furthermore, change is particularly likely when an individual experiences a high number of negative life events (Waters et al. 2000; Weinfield et al. 2000) or a nurturing environment much different from their original upbringing (Smith 2011). Some argue that any major change in social support or life stressors may impact one's attachment style and subsequent relationships with others (Sroufe et al. 2005).

Weinfield et al. (2000) conducted a study of 57 adults who completed the Ainsworth Strange Situation task in infancy and were interviewed at age 19 using the Berkeley Adult Attachment Interview. The sample was intentionally selected to understand the attachment processes among those living in poverty and at high risk for poor developmental outcomes. In terms of racial distribution, 61% of the

sample was White, 16% was Black, and 23% was from a mixed racial background. In terms of socioeconomic status, mothers in the study were young, mostly single, and had family incomes at or below the poverty level. In addition, their pregnancies were not planned, and 40% of the mothers had not graduated high school. The findings of this study were much different than the previous studies based largely on White, middle-class samples that found attachment styles were primarily consistent from childhood to adulthood (Waters et al 2000). First, 91.2% of the sample experienced negative life events consisting of being born to a single mother, parental divorce, life threatening illness of parent or child, serious parental drug or alcohol problem, childhood physical or sexual abuse, and/or death of a parent or other custodial attachment figure. Second, the predominant attachment style found in infancy among this sample was the insecure attachment style, as opposed to the secure attachment style predominant among the White, middle-class sample. Finally, the researchers found no evidence of significant continuity between infant and adult attachment styles in this sample. Results indicated that child maltreatment, maternal depression, and family functioning in adolescence played major roles in the discontinuity of attachment styles. Child maltreatment was much more likely to occur for participants with an insecure-to-insecure attachment over time. Maternal depression, on the other hand, significantly influenced participants who moved from attachment security to insecurity.

Adolescents in foster care are faced with a wide variety of challenges that affect their positive adolescent development. First, the removal from their biological family home and placement into a foster care setting disrupts a child's social network, often leading to the loss of family, peer, and neighborhood supports (Jones 2014). Second, numerous placement changes, which often occur among adolescents in foster care, makes it difficult to develop new and lasting sources of social support (James et al. 2004) and increases psychological distress (Vranceanu et al. 2007).

Sometimes, friendships often must end abruptly and boyfriend/girlfriend relationships are terminated without the ability to say goodbye. If youth have part-time jobs, they must quit. All of these social disruptions can create a significant barrier to the youth's developing a sense of belonging and control, and a sense that their desires and experiences are important to others (Stott and Gustavsson 2010). Among adolescents in foster care, those who are emancipated leave care without the social, cultural, and economic capital of their parents (Johansson and Hojer 2012). These adolescents transition to adulthood alone because they lack the formal and informal support systems that parents in the general population provide their children to assist them with a positive transition to adulthood. Being separated from essential sources of support while dealing

with the normative developmental challenges of adolescence can pose formidable challenges to positive development particularly for African American youth.

Originally excluded from the child welfare system due to racial discrimination (Smith and Devore 2004), African American youth have historically had higher rates of foster care placement than White youth since being included into the child welfare system (Billingsley and Giovannoni 1972). African American youth represent 12% of the population of children under the age of 18 (Colby and Ortman 2015), yet constitute 24% of the population of children in foster care (US Department of Health and Human Services 2015). Contrast these figures with the percentages for Whites: White youth represent 62% of children in the United States under the age of 18 (Colby and Ortman 2015), but they comprise only 42% of those in foster care (US Department of Health and Human Services 2015). These figures demonstrate the ongoing overrepresentation of African American youth and the underrepresentation of White youth in foster care. Furthermore, African American youth's overrepresentation in foster care has direct implications for the overrepresentation of African American adults in other allied service systems such as juvenile justice and adult corrections (Ryan et al. 2007).

As the child welfare system is responsible for the safety, permanency, and well-being of all children and adolescents in its care, a focus on developing well-being that relates specifically to an overrepresented population within the foster care system is necessary. A focus on relational permanence adds to the literature by identifying a factor that may play a role in supporting positive developmental outcomes for youth in foster care. Relational permanence may also aid the foster care system in becoming more solution-focused rather than solely risk-adverse in decision making regarding clients and the allocation of resources.

The importance of social relationships in the lives of older youth in the foster care system has received wide review, although most of this work has not specifically used the term "relational permanence." The conceptual framework of relational permanence is drawn largely from Samuels' (2008) work with young adults with foster care backgrounds. The concept has been described in studies using a variety of terms as general as "social support" (Collins et al. 2010) to as specific as "Emotional Effectiveness Education" (Nesmith and Christophersen 2014). Relational permanence can be defined as having a continually supportive, warm relationship marked by mutual trust and respect with non-parental family figures, peer companions, child welfare professionals, and/or a best friend in the context of the foster care system (Stott and Gustavsson 2010).

The first hypothesis contends despite significantly compromised relationships of care and safety within the

biological home, relational permanence does exist for African American youth entering foster care. Second, we hypothesize that relational permanence changes between Time 1 and Time 2 during adolescence and the transition to adulthood. Third, we hypothesize factors at the individual level (maltreatment type, interpersonal skills, and school achievement), caregiver level (caregiver resources), and system levels (low number of placement moves and less time in care) predict relational permanence at Time 1. Fourth, we hypothesize that relational permanence at Time 1 predicts psychological well-being at Time 2 (ranging on average of 8 months after Time 1). Fifth, we hypothesize an increase in relational permanence between Time 1 and Time 2 predicts higher psychological well-being at Time 2 for African American adolescents in the foster care system.

Method

Participants

The sample consisted of 534 African American adolescents in foster care who completed the Illinois Department of Children and Family Services (IDCFS) and Child and Adolescent Needs and Strengths (CANS) survey twice between 2007 and 2012 while still in care (see Table 1). All youth resided in Cook County, Illinois and were between the ages of 13 and 18 at Time 1. The mean age of the participants was 16 years old while the median was 17 years old. The majority of the sample were 17 (22%) or 18 (32%) years old. The sample consisted of 316 males (69% of the sample) and 218 females (31% of the sample). The average number of months between the CANS survey at Time 1 and Time 2 was 8 months.

Procedure

IDCFS began collecting data using the CANS all youth with an open child welfare case from ages 0 to 18 in 2005. The CANS data were collected from multiple sources and in multiple modalities, including the child, caregiver interviews, caregiver and teacher report tools, clinical observations of the child, and family and case record reviews. The discretion of the caseworker determined which source weighed most heavily in the collection of the data (Kisiel et al. 2014). Though not a diagnostic tool, the CANS offers clinically relevant data for service planning and decision making for children and adolescents in care (Lyons 2009). As part of the Integrated Assessment process through IDCFS, the goal of the CANS is to provide better information about the functioning of children in foster care, child and family strengths, support systems, and service needs. The first assessment is taken within 45 days of entering

Table 1 Descriptive statistics ($n = 534$)

Independent variables	<i>n</i> (%)	Mean	SD
Gender			
Male	316 (59)		
Female	218 (41)		
Age at Time 1		16	1
13	43 (8)		
14	46 (9)		
15	64 (12)		
16	92 (17)		
17	118 (22)		
18	171 (32)		
Maltreatment type at Time 1			
Neglect alone	71 (13)		
Neglect and any form of abuse combined	424 (86)		
Number of placements	14 (12)	14	12
Number of placement changes	13 (12)	13	12
Youth with less than 9 placement changes	254 (48)		
Duration of time in care in years		8	4
Youth in care for 6 years or less	267 (50)		
Time between assessments in months		8	9

IDCFS, to make recommendations for services and appropriate placement. Follow-up assessments are then administered three months after the first assessment and every 6 months thereafter (Smithgall et al. 2008).

Measures

Measures in this study were taken from the CANS assessment and the IDCFS Integrated Database in order to retrieve foster care placement information and other demographic variables specific to the foster care system such as the duration of time in a placement setting. All CANS variables in the survey had ordinal responses, and were recoded so that an increase signified a positive change in the variable. Maltreatment type and gender were coded dichotomously. Maltreatment type was coded so that a value of “0” signifies neglect and all forms of abuse including physical, sexual, and emotional abuse. A value of “1” signified neglect alone. All demographic variables, including age, maintained their original form. Gender was coded so that a value of “0” signified male and a value of “1” signified female.

Below is a description of each CANS variable used in this study. Each CANS variable was coded categorically. Relationship Permanence refers to the stability of significant relationships in the young person’s life. This likely includes family members but may also include other individuals. In this study, a value of “1” signified a youth with no stability in relationships; a value of “2” signified at least

one stable relationship; a value of “3” signified stable relationships; and a value of “4” signified very stable relationships. Interpersonal Skills refers to the social skills of the child or youth both with peers and adults. In this study, a value of “1” signified no interpersonal skills; a value of “2” signified low interpersonal skills; a value of “3” signified moderate interpersonal skills; and a value of “4” signified significant interpersonal skills. School Achievement describes academic achievement and functioning. In this study, a value of “1” signified severe school problems/more than a year behind; a value of “2” signified moderate school problems/may be failing some subjects in school; a value of “3” signified doing moderately well; and a value of “4” signified a child is doing well in school. Caregiver Resources refers to the financial and social assets (including extended family) and resources that the caregiver can bring to bear in addressing the multiple needs of the child and family. In this study, a value of “1” signified a caregiver(s) with severely limited resources; a value of “2” signified a caregiver(s) with limited resources; a value of “3” signified necessary resources that might be stretched; and a value of “4” signified a caregiver(s) with sufficient resources and few limitations. Time between assessments was calculated in months by subtracting the date of the CANS assessment at Time 2 from the date of the CANS assessment at Time 1.

Variables in the Integrated Assessment include the number of placement changes and duration of time in care. All variables from the Integrated Assessment were coded so that an increase in each level signified positive change within the variable. Number of Placement Changes was dichotomized using the middle score in the distribution of scores (i.e., median) to divide the distribution into equal parts. The median was selected after using sensitivity analyses with various cutoffs and thresholds before determining that binary choice model using the median was the best measure for the study. At Time 1, the median number of placement changes was nine. A value of “0” was given to youth with nine or more placement changes (designated “high number of placement changes”), whereas a value of “1” was given to all youth with between zero and eight placement changes (designated “low number of placement changes”). Duration of Time in Care was dichotomized using the middle score in the distribution of scores (i.e., median) to divide the distribution into equal parts. Sensitivity analyses with various cutoffs and thresholds were used to determine that the median was the best measure for the study. At Time 1, the median number of years in foster care was 7. A value of “0” was given to youth who had been in foster care for 7 or more years (designated “more time in care”), whereas a value of “1” was given to youth who had been in foster care for 0 to 6 years (designated “less time in care”).

Data Analyses

Descriptive statistics were calculated for gender, age, maltreatment type, number of placements, number of placement changes, duration of time in care, and time between assessments. Gender and age were control variables in the model. Frequencies were calculated to ascertain the prevalence of relational permanence at Time 1 and Time 2. Frequencies were also used to calculate the incidence of individual change in relational permanence from Time 1 to Time 2.

To determine whether change in relational permanence between Time 1 and 2 was statistically significant a paired *t*-test was conducted. To test the third hypothesis ordinal regression analyses were conducted to identify the predictors of relational permanence at Time 2 including age, gender, maltreatment type, relational permanence at Time 2, interpersonal skills, school achievement, caregiver financial and social resources, a low number of placement moves, duration of time in care, and time between assessments in the model. The reference group for each variable in the ordinal regression model is the highest level indicator. For example, regarding interpersonal skills, the reference group is a value of “4” which signifies significant interpersonal skills compared to a value of “3” for moderate interpersonal skills, a value of “2” for mild interpersonal skills, and a value of “1” for no interpersonal skills. Regression analyses were also conducted to examine whether relational permanence at Time 1 predicted psychological well-being at Time 2 to test the fourth hypothesis. Age, gender, maltreatment type, relational permanence at Time 1, interpersonal skills at Time 1, a low number of placement moves, duration of time in care, and the time between assessments were included in the model. To test the fifth hypothesis of whether an increase in relational permanence was correlated to higher psychological well-being at Time 2, a regression analysis was conducted which included age, gender, maltreatment type, relational permanence at Time 1, interpersonal skills at Time 1, a low number of placement moves, duration of time in care, and the time between assessments. Including relational permanence at Time 1 into the models takes advantage of the longitudinal design of the study and allows for the analysis of change over time rather than simply examining the level of relational permanence at Time 2; it also provides a basis for considering potentially causal relationships and time ordered change in relational permanence over time.

Results

Table 1 gives an overview of the descriptive statistics in the study. In regards to maltreatment type, experiences of

neglect were overwhelmingly common among youth in the sample. Those who experienced neglect in combination with any form of abuse (physical, sexual, and/or emotional) comprised 86% of the sample. Regarding system level variables in this study, the average number of placements was 14 whereas the average number of placement changes was 13. The average duration of time in care was 8 years. The average observation period between Time 1 and Time 2 was 8 months.

Supporting the first hypothesis, relational permanence does exist for African American adolescents in foster care. The levels of relational permanence measured at Time 1 and Time 2 varied widely. At Time 1, 11% of adolescents had very stable relationships, 35% had stable relationships, 46% had at least one stable relationship, and 8% had no stable relationships. At Time 2, 13% of adolescents had very stable relationships, 32% had stable relationships, 47% had at least one stable relationship, and 8% had no stable relationships. The distribution of both time points appeared to be similar with slightly more youth having very stable relationships at Time 2.

The second hypothesis that relational permanence changes between Time 1 and Time 2 is not supported. Most adolescents maintained their level of relational permanence over time and positive change was as likely as negative change. Between Time 1 and Time 2, 54% maintained their level of relational permanence, 24% of adolescents had a positive change in relational permanence, and 22% had a negative change in relational permanence. At the mean level, there was no statistically significant change in mean relational permanence between Time 1 (2.50) and Time 2 (2.52) ($t(530) = -0.52, p = 0.59$).

Hypothesis three, that factors measured at multiple levels are necessary to predict relational permanence at Time 1, was partially supported. The regression results (Table 2) indicated that maltreatment type was the only factor important in predicting the hazard of relational permanence at Time 2, beside the level of relational permanence at Time 1. Those who experienced neglect in combination with any form of abuse were 44% less likely to have relational permanence at Time 2 compared to those who experienced neglect alone with an odds ratio of 0.56, 95% CI [0.34, 0.92], Wald $\chi^2(1) = 5.35, p < 0.05$. Additionally, regarding relational permanence at Time 1, those with no stable relationships at Time 1 were significantly less likely to have relational permanence at Time 2 compared to those with very stable relationships, with an odds ratio of 0.02, 95% CI [0.01, 0.06], a statistically significant effect, Wald $\chi^2(1) = 61.95, p < 0.001$. Adolescents with no stable relationships at Time 1 were 98% less likely to have relational permanence at Time 2 compared to youth with very stable relationships at Time 1. Those with at least one stable relationship at Time 1 were significantly less likely to have relational

Table 2 Ordinal regression predicting relational permanence at Time 2, controlling for relational permanence at Time 1

	β	SE	Exp (β)
Age	-0.03	0.06	0.97
Gender	0.17	0.18	1.19
Neglect and any form of abuse combined	-0.58*	0.25	0.56
Relational permanence (Time 1)			
No stable relationships	-3.80***	0.48	0.02
At least one stable relationship	-2.12***	0.34	0.12
Stable relationships	-1.24***	0.34	0.29
Interpersonal skills (Time 1)			
No interpersonal skills			
Mild interpersonal skills	-0.51	0.64	0.60
Moderate interpersonal skills	0.19	0.31	1.21
Academic achievement (Time 1)			
Severe problems/more than a year behind	0.17	0.29	1.18
Failing some subjects in school			
Doing moderately well in school	0.26	0.34	1.30
Caregiver resources (Time 1)			
Severely limited	0.27	0.25	1.31
Limited	0.12	0.23	1.12
Necessary			
Low number (<9) of placement changes (Time 1)	-0.17	0.34	0.84
Less time (<7 Years) in care (Time 1)	-0.08	0.25	0.93
Time between assessments in months	-0.08	0.22	0.92

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

permanence at Time 2 compared to those with very stable relationships, with an odds ratio of 0.12, 95% CI [0.06, 0.24], a statistically significant effect, Wald $\chi^2(1) = 37.88, p < 0.001$. Adolescents with at least one stable relationship at Time 1 were 88% less likely to have relational permanence at Time 2 compared to youth with very stable relationships at Time 1. Those with stable relationships at Time 1 were significantly less likely to have relational permanence at Time 2 compared to those with very stable relationships, with an odds ratio of 0.29, 95% CI [0.15, 0.57], a statistically significant effect, Wald $\chi^2(1) = 13.16, p < 0.001$. Adolescents with stable relationships at Time 1 were 71% less likely to have relational permanence at Time 2 compared to youth with very stable relationships at Time 1.

The fourth hypothesis regarding relational permanence at Time 1 predicting psychological well-being at Time 2 was supported (see Table 3). Having no stable relationships was correlated with a decrease in the likelihood of having higher psychological well-being as compared to having very stable relationships, with an odds ratio of 0.37, 95% CI [0.15, 0.90], Wald $\chi^2(1) = 4.79, p < 0.05$. Those with no stable relationships were 63% less likely to have higher relational

Table 3 Ordinal regression for relational permanence and psychological well-being at Time 2

	β	SE	Exp (β)
Age	0.07	0.06	1.07
Gender	0.06	0.18	1.07
Relational permanence (Time 1)			
No stable relationships	-0.99*	0.45	0.37
At least one stable relationship	-0.68*	0.33	0.51
Stable relationships	-0.28	0.33	0.76
Neglect and any form of abuse combined	-0.56*	0.25	0.57
Interpersonal skills (Time 1)			
No interpersonal skills	-0.75	0.66	0.47
Mild interpersonal skills	-0.45	0.30	0.64
Moderate Interpersonal Skills	0.06	0.28	1.06
Low number (<9) of placement changes (Time 1)	-0.39*	0.19*	0.68
Less time (<7 Years) in care (Time 1)	0.04	0.19	1.04
Time between assessments in months	0.01	0.01	1.01

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

permanence as compared to those with very stable relationships. Having at least one stable relationship was correlated with the decreased likelihood of having higher psychological well-being as compared to having very stable relationships, with an odds ratio of 0.51, 95% CI [0.27, 0.97], Wald $\chi^2(1) = 4.28$, $p < 0.05$. Those with at least one stable relationship were 49% less likely to have higher relational permanence as compared to those with very stable relationships.

Additionally, having neglect and any form of abuse reduced the likelihood of higher psychological well-being compared to those with only neglect with an odds ratio of 0.57, 95% CI [0.35, 0.94], Wald $\chi^2(1) = 4.91$, $p < 0.05$. Those with neglect and any form of abuse combined were 43 percent less likely to have higher psychological well-being compared to those with only neglect. Furthermore, a higher number of placement moves compared to a lower number of placement moves was correlated with lower levels of psychological well-being with an odds ratio of 0.68, 95% CI [0.47, 0.99], Wald $\chi^2(1) = 4.08$, $p < 0.05$. Those with a higher number of placement moves as compared to those with a lower number of placement moves were 32% less likely to have higher psychological well-being compared to those with a lower number of placement moves.

The fifth hypothesis regarding the increase in relational permanence between Time 1 and Time 2 being correlated with higher psychological well-being at Time 2 was supported (see Table 4). An increase in relational permanence between Time 1 and Time 2 correlated with higher

Table 4 Ordinal regression for increased change in relational permanence and psychological well-being at Time 2

	β	SE	Exp (β)
Age	0.11	0.07	1.12
Gender	0.10	0.21	1.10
Positive change in relational permanence	1.61***	0.25	4.99
Relational permanence (Time 1)			
No stable relationships	-3.50***	0.63	0.03
At least one stable relationship	-2.74***	0.51	0.07
Stable relationships	-1.56**	0.50	0.21
Neglect and any form of abuse combined	-0.51	0.30	0.60
Interpersonal skills (Time 1)			
No interpersonal skills	-0.47	0.74	0.63
Mild interpersonal skills	-0.21	0.36	0.81
Moderate interpersonal skills	0.17	0.35	1.18
Low number (<9) of placement changes (Time 1)	-0.29	0.22	0.75
Less time (<7 years) in care (Time 1)	0.04	0.22	1.04
Time between assessments in months	0.00	0.01	1.00

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

psychological well-being as compared to those who maintained their level of relational permanence, with an odds ratio of 4.99, 95% CI [3.06, 8.13], Wald $\chi^2(1) = 41.65$, $p < 0.001$. Having a positive change in relational permanence correlated with an increase in the probability of higher psychological well-being by 399% compared to maintaining one's level of relational permanence.

Having no stable relationships at Time 1 compared to those with very stable relationships was correlated with lower psychological well-being at Time 2, with an odds ratio of 0.03, 95% CI [0.01, 0.10], Wald $\chi^2(1) = 31.37.67$, $p < 0.001$. Having no stable relationships at Time 1 correlated with a decrease in the probability of higher psychological well-being at Time 2 by 97% compared to those with very stable relationships. Having at least one stable relationship at Time 1 correlated with lower psychological well-being at Time 2 compared to those with very stable relationships, with an odds ratio of 0.07, 95% CI [0.02, 0.18], Wald $\chi^2(1) = 29.16$, $p < 0.001$. Having at least one stable relationship correlated with a decrease in the probability of higher psychological well-being by 93% compared to those with very stable relationships. Having stable relationships at Time 1 correlated with lower psychological well-being at Time 2, with an odds ratio of 0.21, 95% CI [0.08, 0.57], Wald $\chi^2(1) = 9.61$, $p < 0.01$ compared to those with very stable relationships. Having stable relationships is correlated with a decrease in the probability of higher psychological well-being by 79% compared to those with very stable relationships.

Discussion

The field of child welfare has historically focused on physical safety and legal permanency without an emphasis on child well-being or the importance of social relationships in positive youth development (Walsh 2015). Little research has been devoted to identifying positive outcomes specifically for African American adolescents in foster care. This study adds to the literature about child well-being among African American adolescents in care—a group that is overrepresented within the foster care system (US Department of Health and Human Services 2015) and is well documented as being disadvantaged within the child welfare system (Rolock and White 2016). The findings indicate that relational permanence is linked to positive outcomes among these youth. In particular, higher levels of relational permanence at Time 1 predicted higher levels of psychological well-being at Time 2. Furthermore, an increase in relational permanence over time predicted higher levels of psychological well-being compared to maintenance of relational permanence over time. This relationship held after taking into account maltreatment type, interpersonal skills, number of placement moves, time in care, and time between assessments. These findings support the conclusion that social support aids foster youth in staying mentally healthy despite major deficits in support from parents or other family members (Rutman and Hubberstey 2016). Furthermore, these findings support that relational permanence acts as a promotive factor specifically relevant for African American adolescents in foster care.

Promotive factors have been identified among adolescents in the child welfare system regarding the reduction of delinquent behaviors (Grogan-Kaylor et al. 2008) and increasing educational outcomes (Flynn and Tessier 2011). But few previous studies have identified promotive factors for African American adolescents in foster care specifically. Studies have explored promotive factors for African American children in the context of informal kinship care (Washington et al. 2014). Studies have also examined African American children in the context of changes in family resources and functioning related to informal kinship care (Washington et al. 2013). However, little research has explored how relational permanence may act as a promotive factor for African American adolescents formally involved in the child welfare system. This study also advances knowledge in regards to relational permanence broadly as well.

The variation in the prevalence of relational permanence supports the argument that even though these foster youth have chaotic life circumstances (e.g., neglect, abuse, etc.), they are still able to form lasting relationships with others (Harden 2004). Foster youth's relationships do not end simply because they are in the child welfare system. Change

over time in the construct was not significant. These findings support those of Goemans et al. (2015). After three decades of longitudinal research on the development of foster children, researchers found little overall improvement in adaptive functioning was detected when the timespan of the study was less than 1 year (Goemans et al. 2015). Maltreatment type, neglect alone as opposed to neglect and abuse, was a predictor of relational permanence. This supports the finding that adolescents who experienced neglect alone were more likely to have relational permanence than adolescents who experienced physical and sexual abuse (Cushing et al. 2014). Youth who experience neglect may be more likely to form lasting relationships because their maltreatment is related more to poverty than physical violence at the hand of a caregiver. The finding of relational permanence at Time 1 predicting to psychological well-being at Time 2 is consistent with an extensive body of research evidence that social relationships are important for psychological well-being (Mota and Matos 2015). These findings are also significant because they support previous literature regarding positive outcomes specifically for older youth in foster care and youth transitioning out of foster care (Munson and McMillen 2009; Thompson et al. 2016). Also, the finding related to high placement moves in predicting less relational permanence supports previous findings that placement instability has a significant negative impact on psychological well-being for foster youth (Rubin et al. 2007).

The hypotheses regarding interpersonal skills, school achievement, caregivers with financial and social assets, a low number of placement moves, and less time spent in care at Time 1 predicting to relational permanence at Time 2 were not supported. This is not to say that these factors are not important in the developmental processes of youth in care; rather, more research needs to be conducted to understand what roles these factors may play in the developmental processes of youth in care. Perhaps these factors do make a difference in predicting to relational permanence over time, but a longer observation period is needed.

Among the methodological strengths of this study is its longitudinal design. Rather than assessing the predictors of relational permanence or the correlation of relational permanence with only cross-sectional data, this study examined variables across two time points. Furthermore, with the use of ordinal regression, this study is able to explore the degree of difference for each variable compared to a lower level of that variable. The findings of this study are important because race has the potential to create institutional, societal, and personal barriers that exacerbate normal developmental challenges (Beale Spencer et al. 2015). This may especially be the case among child welfare involved youth. Fortunately these findings show that what works for the general population regarding social relationships and

psychological well-being works for African American adolescents in the foster care system. People who are consistently in your life and affirm your importance are likely to aid in positive affirmations about the self, others, and increase overall psychological well-being.

Limitations and Future Research

While providing unique insights into factors which increase psychological well-being, there are still limitations to this research that must be acknowledged. The average observation period between assessments was only 8 months. This may be one reason why there was no a significant change over time in relational permanence. This may have been too brief a time period to observe change over time even if it were in the process of taking place. It would be beneficial to examine change over a longer period of time than was allowed by this study. Related to this limitation, it would also be beneficial to have more than two time points to study change over time in order to explore the trajectory of this phenomena.

The measurement of the CANS items in this study was also a limitation. For instance, encompassed within the original item of relationship permanence are dimensions related to the number of social relationships, the duration of social relationships, and general concerns about instability. Furthermore, the measurement of relational permanence may have had an undue influence on the change over time score. Within the original measurement of relational permanence, a value of “1” signified a child without any stable relationships, while a value of “4” signified a child with very stable relationships for most of their life and whose relationships are likely to remain stable in the foreseeable future. It would therefore effectively be impossible for a child who stated at Time 1 they had no stable relationships to ever access the other end of the distribution because any new relationship would have had to be stable for the most part of the child’s life. A measure that does not allow each individual to access the full distribution of answers over time is problematic. However this scale has been used extensively in the literature in a variety of different human service settings (Lyons 2009).

In regards to future directions, asking African American adolescents in foster care about their social relationships in a multi-dimensional manner would be an important area of future research. Additionally, examining the impact of race and gender on the prevalence, change over time, and predictors of relational permanence would be an important contribution to the literature. There are several important developmental processes that operate differently as a result of the intersection of race and gender (Towbin and Shwalter 2008). Examining the moderation of gender in

regards to these outcomes would be an especially significant contribution to the literature.

Author Contributions A.W.B.: designed and executed this study, conducted all data analyses, and wrote the paper. J.R. collaborated with the design and writing of the study. V.C. collaborated with the design and writing of the study. J.S. collaborated with the data analysis and editing of the final manuscript. P.D.K. collaborated in the editing of the final manuscript.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval The University of Michigan provided IRB approval for this study. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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