

Characteristics of Foster Families and Children
Impacting Placement Stability

by

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ABSTRACT

Many foster children experience numerous placements while in out-of-home care; some up to fifteen in an 18 month period (Newton, Litrownik, & Landsverk, 2000). Placement stability is important for children to find permanent families, and for social, emotional and educational development of children. This study used the National Survey of Child and Adolescent Well-being (NSCAW) data set to examine foster child and caregiver characteristics, and the caregiver-child relationship as a predictor of placement stability in the long term foster care general sample. Logistic regression was performed with the Complex Samples add-on to appropriately weight the NSCAW sampling. Children who were placed in foster homes or kinship homes and who had not been returned home at the Wave 3 interview were included in the study. The sample consisting of 562 children was divided into three groups based on age: Early Group 1, childhood ages 1 to 5, group 1; Group 2, Middle childhood ages 6 to 10, group 2; Group 3, Adolescence ages 11 to 18, group 3. Results are consistent with previous studies in that children in early childhood and middle childhood who were placed in foster homes were 83% and 87% less likely to achieve placement stability than children in kinship homes, respectively. In early childhood, each additional household member reduced the odds of achieving placement stability by 35%. The caregiver-child relationship did not predict placement stability.

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Chapter 1

Introduction

On September 30, 2009, there were 423,773 children in out-of-home placement in the United States (Adoption and Foster Care Analysis and Reporting System [AFCARS], 2009). Unfortunately that number is very close to the 503,000 children who were in out-of-home care in 1977 (Olsen, 1982) despite the passage of several laws (e.g. ASFA, Adoption Assistance and Child Welfare Act of 1980) aiming to reduce the number of children in placement. The average length of time a child was in out-of-home placement in 2009 was 28 months, with 13% of children placed as long as five years or more. Of the 114,556 children waiting to be adopted, the average wait was 38 months, while 16% waited 60 months or longer (Adoption and Foster Care Analysis and Reporting System [AFCARS], 2009). Children are experiencing long waits for permanent placements.

Most minority children are overrepresented in the child welfare system, meaning the percentage of minority children in the child welfare system is larger than the percentage of minority children in the population. In 2004, 42% of children in the population were children of color, however, 57% of the children in out-of-home care were children of color (National Data Analysis System [NDAS], 2004). Although Native American children make up only 1% of the population of children, they make up 2% of the children in out-of-home

placement. African American children make up 15% of the population but 30% of the children in placement and Hispanic children make up 20 % of children in the population (United States Government Accountability Office [GAO], 2008) and 20% of the children in placement (AFCARS, 2010).

Out-of-home placement results when the child's parents are unable to care for the child due to neglect, abuse, abandonment, or mental health reasons (United States Department of Health and Human Services [USDHHS], 2003) making them very vulnerable children. When children come into the foster care system their emotional, mental and physical health can be very fragile due to the maltreatment that they have experienced (Rowe & Eckenrode, 1999; Grasso et al., 2009).

Abused infants often have special needs due to prenatal drug exposure and low birth weight. Abused children have been found to have both internalized and externalized problems (Maikovich, Jaffee, Odgers, & Gallop, 2008; Trickett, & McBride-Chang, 1995) including anxiety, PTSD (Wolfe, Crooks, Lee, & McIntyre, 2003), and aggression. The abused children are frequently developmentally delayed (Berrick, Needell, Barth, & Johnson-Reid, 1998; Stubenbort, Cohen & Trybalski, 2010) and make poor academic progress in school (Rowe & Eckenrode, 1999; Pecora et al., 2006). The homes children are removed from are often chaotic with family conflict, and domestic violence (Slep

& O'Leary, 2001; Smith et al., 2009). Their parents are more likely to have incomes below the poverty line (Farver, Xu, Eppe, Fernandez, & Schwartz, 2005; Dufour, Lavergne, Larrivee, & Trocme, 2008) have substance use problems, and involvement with the criminal justice system (Berrick et al., 1998; Pecora et al., Dufour et al., 2008). All of these conditions make children removed from their homes extremely vulnerable.

In addition, children experience removal from their home, parents, and siblings, as a significant traumatic life event (Perry, 2006) which adds to their vulnerability and exacerbates the issues they currently face. Children report high levels of anxiety, fear and helplessness when separated from their families. Boys report more worry and girls report more loneliness (Berrick, et al., 1998). The child might also interpret the placement as a threat to their well-being (Berrick, et al., 1998) instead of interpreting the removal as a way to protect them from harm. It is of the utmost importance that the well-being of foster children is enhanced and not further harmed during their out-of-home placement, and researchers examine ways to improve child well-being. The purpose of this study is to examine the effect of placement type, caregiver characteristics, child characteristics, and the caregiver-child relationship on placement stability.

The Problem

The amount of time that children spend in out-of-home care before returning home or finding a permanent placement has been a concern since 1959 when Maas and Engler called attention to foster care drift. Taber and Poertner (1981) defined drift as “the maintenance of children through their development years in placement without effective professional intervention [and] a declining probability of returning home” (p. 551). Today we are concerned with placement stability as a similar concept. Placement stability is defined as “fewer unplanned moves” (p. 436) by Taber and Proch (1987). The U.S. Department of Health and Human Services (USDHHS) in the Child Welfare Outcomes Report (2005) defines placement stability as two or fewer placements. Placement stability is necessary for children to live in permanent homes. It is also considered an important factor for social, emotional and educational development of children. The numerous placements that some foster children experience are a problem in the child welfare system.

Placement stability is one of the seven outcomes that the USDHHS measures and tracks in the Child Welfare Outcomes Report as a measure of safety, permanency and well-being. Of children who were in placement for less than twelve months in 2005, 17% had more than two placements. Of the children who were in care for 12 to 24 months, 41% had more than two placements and of those in placement longer than 24 months, 68% had more than two placements.

The number of placements a child has can vary widely; one study (Newton, Litrownik, & Landsverk, 2000) found that the average number of placements a child experienced was 4.23 with a range of between 1 and 15 different placements over a period of 18 months in foster care.

There are several types of out-of-home placements. The least restrictive is placement with a relative or kinship home. Non-kin family foster care is the next least restrictive, followed in order by treatment foster care, group home, shelter, residential treatment facility, and correctional facility. Unfortunately, as children disrupt from their placements, they tend to move into more restrictive and more expensive placements, and away from homes that could create permanency (Proch & Taber, 1987; Sallnas, Vinnerljung & Westmark, 2004).

Child development can be negatively effected by placement instability (Goldstein, Freud, & Solnit, 1979; Barth, 1997; Stubenbort, Cohen & Trybalski, 2010). Children do not have the rational coping skills that adults have, and when they are under the stress caused by the removal from their family, they respond with anxiety, denial, and impulses. Children experience removal from the home as a deep loss, even if the parent was not fit (Goldstein et al., 1979; Berrick et al.1998). Subsequent moves are also experienced as losses (Unrau, Seita, & Putney, 2008).

Continuity of relationships with a caring adult are essential for child development (Goldstein et al., 1979; Berrick et al., 1998; Shonkoff & Phillips, 2000). Frequent placement disruptions may have an effect on children's social development (Proch & Tabor, 1985); they leave foster parents, foster siblings, friends, classmates, teachers and coaches that were all part of their life. Larger support networks have been found to be associated with reduced depression and anxiety in children (Perry, 2006), yet out-of-home placement cuts children off from their networks during a particularly stressful time. Frequent moves can also hinder a child's ability to trust other's and form new relationships out of fear that they could be moved at anytime. This lack of trust can isolate children and young adults, increase mental health problems (Rubin, et.al., 2004), and reduce self esteem (Unrau et al., 2008). Often children blame themselves for family breakdowns and moves adding to their stress (Butler & Charles, 1999).

When children are moved into and within foster care they frequently move between school districts, impacting their education. They are placed in new schools with new teachers and expected to catch up. Pecora et al. (2006) found that 65% of the foster children in the study had experienced seven or more school changes. Foster children tend to have lower grades, score poorer on standardized tests and are more likely to repeat a grade (Rowe & Eckenrode, 1999; Kendall-

Tackett & Eckenrode, 1996). The poor academic performance is in part due to frequent moves (Eckenrode, Rowe, Laird, & Brathwaite, 1995).

Services that the child is receiving can also be impacted by moves (Pecora, 2007). Mental health services, chemical dependency services, behavioral services, skills building, and independent living services can all be affected. Treatment plans are discontinued, and new service providers need to be found. Finding and building trust with new providers takes time.

According to the Life-Span Model of Human Development (Cook-Fong, 2000), events and interactions that take place in a child's life will later impact development and can cause issues of adult well-being. Therefore, a child raised in out-of-home placement, especially children frequently moved, could have long-term social issues as an adult. Adults raised in foster care are more likely to be depressed, have less marital happiness, less intimate relationships with mothers and fathers, and more social isolation (Cook-Fong, 2000). Other issues that adults who have been raised in foster care experience are higher unemployment (Cook, 1994; Courtney & Dworsky, 2006), persistent mental illness, substance and alcohol use, homelessness, and experience in the criminal justice system (Courtney & Dworsky, 2006). They are also less likely to have finished school (McMillen & Tucker, 1999; Reilly, 2003; Hines, Lemon, & Merdinger, 2005). Women who have been raised in foster care are more likely to have given birth to

at least one child within 2-4 years after leaving care, and to be on public assistance (Cook, 1994). Increasing placement stability and finding permanent homes for foster children may alleviate some issues brought on by being raised in foster care.

Federal Policies to Address Stability and Permanency

As a response to the high number of children languishing in foster care, PL 96-272, the Adoption Assistance and Child Welfare Act of 1980 was passed. Title IV-E of the Social Security Act, federal rules, and an adoption assistance program and court oversight were formed because of the Act. The Act also required states to make “reasonable efforts” to reunify children with their parents (Christie, 2002). As a result of the effort to return children home and incentives to adopt children, children were moved out of foster care and the total number in care declined (Murry & Gesiriech, 2009).

In 1997, out of concern over the once again growing number of children in the foster care system, and the need for children to be adopted into permanent homes, PL 105-89, the Adoption and Safe Families Act (ASFA) was passed. ASFA set child safety, permanency, and wellbeing as national goals for children. The purpose of ASFA was to reduce time children spent in foster care. ASFA changed child welfare in many ways. First, ASFA made child safety the ruling factor when making decisions about placements and permanency and set

exceptions to when reasonable efforts to family preservation were not necessary. Several parts of ASFA are designed to facilitate adoption for children that cannot return home in a timely manner. The Act required states to document specific recruitment efforts to have children adopted. It also removed geographic barriers by stating that states could not deny or delay an adoption because the adopting family lived outside of their jurisdiction. Incentive payments to states that increased their number of adoptions were also authorized (ASFA, 1997).

The concern about children in foster care was such that concurrent planning was also introduced (Lutz, 2001). This means that during the first year a child is in placement, case managers must work towards reunifying children with their parents, and at the same time create a permanency plan for the child. ASFA allows for five permanency options: return to the parent, adoption, legal guardianship, permanent placement with a relative, or another planned permanent living arrangement. Before ASFA there were no requirements for States to terminate parental rights (TPR) of parents. ASFA now required States to start TPR procedures when a child has been in out-of-home placement for 15 of the last 22 months, freeing them up for adoption (ASFA, 1997). If a TPR does occur, a permanency plan has already been established (ASFA, 1997). If a child cannot achieve placement stability, and is not able to live with a family for an extended period of time it may be harder to find an adoptive home for the child.

ASFA also required the Secretary of Health and Human Services to determine and report how many foster children were placed with relatives. Included in the report were the characteristics of the kinship care providers, family composition, the cost, where funds came from, and the permanency plan for the child. The AFCARS report was a result (ASFA, 1997).

While staying in foster care too long was a concern in 1997, placement stability was a concern in 2000. On January 25th 2000, the federal government through the USDHHS, Administration for Children and Families, issued the “Final Rules of Title IV-E Foster Care Eligibility Reviews and Child and Family Services State Plan Reviews”. Each state was to be reviewed for compliance to Title IV-E and Title IV-B, both which have been amended by several Acts, including ASFA. Included in the review was a section on placement stability, specifically “what percentage of children in placement for 12 months or less had no more than two placements?”(p. 4024). This information is now required in the yearly AFCARS report. States are also required to report how they plan to make improvements to foster children’s placement stability.

In addition to the federal government’s concern for foster care stability, private agencies were also concerned. The Pew Charitable Trust, a non-profit organization that provides grants to organizations to improve public policy, established The Commission on Children in 2003. The Commission was

established to make recommendations on how to improve the child welfare system and outcomes for children. The Commission was an independent, bipartisan project. The Commission resulted in two recommendations concerning ways to move children out of the system into families quickly and ways to reduce unnecessary placement moves. Their recommendations included changes in the way foster care is financed and the way the courts oversee the process (Pew Commission, 2006).

Another agency concerned with placement stability is the National Resource Center for Foster Care and Permanency Planning at Hunter College School of Social Work. Because of the Child and Family Services State Reviews, they conducted a survey at the request of the Children's Bureau to look at barriers and promising practices of placement stability in 31 states. Barriers commonly reported were lack of resources for assessment of children, insufficient skill level of foster families, and inadequate services. Promising practices included support, training, and services to foster families and relative care givers, and comprehensive assessment of children's needs (Lutz, 2003).

Placement stability and permanency are still concerns in child welfare today. As recently as 2007, Pecora, with Casey Family Programs, presented a paper titled, "Why Should the Child Welfare Field Focus on Minimizing Placement Change as Part of Permanency Planning for Children", at the

California Permanency Conference, in which he outlined five main reasons for concern about placement stability. They included (1) minimizing child pain and trauma; (2) reduce attachment, behavioral and mental health issues; (3) increasing school success; (4) preventing service discontinuation; and (5) increasing the chance that a child will have a positive relationship with another adult. Despite legislation and research, placement stability continues to be a serious issue for many foster children.

Costs

Financial cost. Foster care is primarily paid for from federal funds (Murry, 2009). Title IV-E of the Social Security Act is a partial reimbursement program for placements, clothing and other expenses. In 2006, the Federal government spent \$4,643,000,000 on Title IV-E (USDHHS, 2006), and about 50% (Murry, 2009) or around \$2,320,000,000, was spent on out-of-home placements. Another major federal funding source is the Social Service Block Grants (SSBG) given to the states. In 2006, \$413,000,000 of the SSBG was spent on out-of-home placement payments (USDHHS, 2006). The more disruptions a child experiences, the more likely they will be placed in a more restrictive placement, increasing the financial cost of their out-of-home placement. (Proch & Tabor; 1985; 1987). For example, the cost of one child in a residential placement for one year can be up to \$120,000 (Bazolon, 2009) and is usually paid for by

county social services and private insurance companies (Volunteers of America, 2009).

Costs to child. The costs to children of multiple placements are many. The emotional cost for foster children who move frequently are feelings of loss (Unrau, et al., 2008) lack of trust (Rubin et al., 2004) anxiety, depression (Perry, 2006) and increased stress (Berrick et al., 1998) as they move away from the support systems they have developed. Frequent placements result in delays in social development (Proch & Taber, 1985). Services to children are also interrupted such as mental health, treatment plans and behavioral health services (Pecora, 2007). Education is disrupted when children are moved into new school districts. Children who have multiple placements have lower grades and score lower on standardized test (Eckenrode et al., 1995).

Agency cost. When a child's placement disrupts, the social worker is usually not given much notice, causing the agency to work in crisis mode. Placement disruptions cost agencies in many ways. Social workers need to spend hours of time to find and interview new foster parents and an excess of paperwork necessary to move the child (Proch & Tabor, 1985). Agencies have invested much time and money into family and treatment foster homes. Treatment foster homes are homes that take care of children with special emotional or behavioral needs (Volunteers of America, 2009). Treatment foster homes require between 30 and

90 hours of pre-service training, first aid and CPR training to care for children. Background checks and home inspections also need to be completed before a child can be placed in a home. When a child is in a home ongoing training and 24 hour case management are provided by agencies (Catholic Charities, 2009). Family foster homes also require training, although usually less than treatment homes. CPR training, background checks and home inspections are also necessary for family foster homes (MN Department of Human Services, 2009). Having a foster parent quit because of a bad experience with a child can be very costly.

Foster parent cost. Foster parents are compensated very little for their services. A sense of helping someone else and being appreciated are the rewards they receive (Proch & Taber, 1985; 1986). Sigrid (2004) found that about one fifth of placement disruptions are due to problem behavior in foster children. When foster parents request a child leave their home because they were unable to handle the child's behaviors they may have feelings of failure and quit providing services, reducing the already shortage of placement homes (Proch & Taber, 1985).

Chapter 2

Literature Review

A critical review of the research on placement stability in foster children follows. Characteristics of children and foster homes that past research has addressed, along with characteristics that have not yet been addressed, are discussed. Theories that apply to placement stability and research questions are also discussed.

Research on placement stability has been ongoing since Maas and Engler's study in 1959 on foster care drift. Research on the subject continues today, highlighting the complicated nature of placement stability in foster children. Early studies (Olsen, 1982; Pardeck, 1983) have focused on characteristics of foster children that impact placement stability, and have not emphasized how a foster family and other factors might affect placements.

Definitions

One of the problems in comparing past research is that not all studies use the same definition of placement, placement stability or disruption. For example Proch and Tabor (1987) defined a placement disruption as "an unplanned change in foster placement made in response to a demand for replacement by a child's caregiver" (p. 9). This definition is limited because it does not include moves that were system or policy moves. James, (2004) found that up to 70% of moves

included policy or agency reasons. Festinger (1983) categorized reasons for placement changes into three reasons. Systemic or policy moves are moves that are caused by the agency and usually planned. Such reasons would be foster family moved, died, or became a single parent. Planned events were a second category. These were when the agency moved a child to place a child with kin or siblings, or into a less restrictive placement. The third category was because of child's or birth families' behavior. James, (2004) added an additional category by separating child and birth family behavior. Many researchers simply defined placement as any move, however, some included shelter and receiving stays (Newton et al., 2000), and others do not.

Placement stability also has had several definitions. USDHHS (2005) defines stability as two or less moves. Webster et al. (2002) define it as three or less moves, while Rubin, O'Reilly, Luan, and Localio (2004) created three categories of stability. Early stability was no moves in the first 45 days, late stability was no moves after 45 days, and unstable was continued moves. James and colleagues (2004) added a variable pattern of stability to these three categories. Because a prerequisite for permanency is the ability for a child to maintain in a placement for an extended period of time, this study will look at whether or not a child experiences a change in placement over a period of eighteen months instead of the number of moves the child experienced. If we can

discover what characteristics allow placements to last, and what characteristics are associated with placements that disrupt, then children can be placed in homes that have a greater chance for permanency.

Child Characteristics

Behavior problems. A 1966 study by Ferguson in Scotland found that half of the reasons for foster parents requesting children removed were due to behavior problems. Walsh and Matule's (1984) study of 51 children in Montana found the most common reason for removal was aggressive child behavior. Russo and Shyne (1980) surveyed 144 facilities that provided group and residential care. They stated disruptive behavior as the most common reason for removal.

Pardeck, (1983) primarily looked at behavioral issues. He studied 4,288 children in foster care with three types of behavior problems; home behavior, school behavior, and emotional problems, and their impact on placement stability. He found that all three types of behavior problems were statistically significantly related to the number of placements a child experienced. Proch and Tabor (1986) in their review of past research also found that behavior problems were cited as associated with placement stability in all of the studies they reviewed.

Studies have mixed results as to whether behavior problems cause multiple placements, or if multiple placements cause behavior problems. For example, Newton, and colleagues (2000) have found both situations. In their

longitudinal study of 415 children in foster care in San Diego California; children with externalizing behaviors from the Child Behavior Checklist (CBCL) were more likely to have more foster care placements. However, children with no behavior problems at five months after entry into care, but who had multiple placements were more likely to have behavior problems at 17 months after entry into care. This indicates that the relationship may go both ways.

Another study by Marinkovic and Backovic (2006) highlights the complicated nature of behavior problems and placements. They studied 84 adolescents in Serbia and found that there was a significant difference in problem behaviors between adolescents living in family foster care and those living in group care. Those in group care had more problem behaviors and more placements than those in family foster care. The authors conclude that there could be many confounding variables. Group care could interfere with attachment development and those in group care entered care later in life. Age at entering care could have more to do with problem behaviors than the type of care. Another confounding factor in their study could be that group care is designed as a more restrictive placement for children who have previously been unable to maintain in family foster care and have more behavior problems.

Barber, Delfabbro, and Cooper (2001) conducted an Australian study with 235 foster children age 12 to 17 years old. Their study was longitudinal; however,

the second time point of follow up was only four months after the original interview. Barber et al. used three scales from a child behavior check list designed by Boyle and colleagues (1987); the scales measured conduct disorder, emotionality and hyperactivity. Conduct disorder items included damaging property, stealing and assault. The items on the emotionality scale were unhappiness, nervousness, anxiety and worry. All scales were averaged with the score ranging between 0 and 2. They found that children who experienced two or more moves were more likely to score higher on the conduct disorder scale and were older than those who had less than two moves. Children who had two or more moves also scored higher on the emotionality scale, had more hyperactivity and less social adjustment. Barber et al. concluded that adolescents with behavior problems could benefit from an alternative to family foster care such as treatment foster care or residential care. Barber and Delfabbro (2003) who used the same sample noted that 33% of moves were because foster parents could not handle the child's behaviors.

Problem behaviors continue to be a variable of interest to researchers. In a study by Leathers (2006) of 179 twelve and thirteen year old adolescents in care, externalized problem behaviors reported by caseworkers predicted placement breakdowns. Behaviors came from the Children's Symptom Inventory, and addressed oppositional defiant and conduct disorder behaviors. A 2004 study by

Sallnas, Vinnerljung, and Westermark of 776 foster children in Sweden reported that antisocial behavior increased the risk for placement breakdown. In a study by James (2004), of 1,084 children in foster care between 1990 and 1991 found that 20% of placement breakdowns were a result of problem behaviors.

Another study that found behavior problems as a predictor of placement disruption was done by Chamberlain and colleagues (2006). Their study included 246 children in San Diego ages 5 through 12. There were 131 boys and 115 girls. Over half, 158, of the children were placed in foster care homes while 88 were placed in kinship care homes. Foster parents were interviewed by phone three times using the Parent Daily Report Checklist (PDR). Parents were asked if specific behaviors happened during the past 24 hours. The number of problem behaviors in a day were counted and averaged over the three days. Children with less than six behaviors had an 8.2% risk of disruption, however, for children with 6 to 14 behaviors per day the risk increased by 25 % over a 12 month period. The authors concluded that the average number of problem behaviors that foster parents could tolerate per day was six.

Rubin et al. (2007) used the National Survey of Child and Adolescent Well-being, (NSCAW), for their study of 727 children over 18 months. They created a dependant variable of wellbeing from the total score on the child behavior checklist, and the temperament score. They concluded that children's

baseline behavior scores predicted behavior scores at 18 months, and that placement instability was also associated with behaviors at 18 months. Children with fewer placements had better well-being, or behavioral scores, again pointing out how entangled behavior problems and placement stability still appear to be. Because behavioral problems have been found to consistently impact placement stability, the current study also examined the effect of problem behaviors.

Barth and colleagues (2007), in another study using the NSACW, compared 362 children with emotional behavior disorder, (EBD) to 363 children without EBD, over 36 months. The definition that the authors used for EBD was a score of 63 or higher on the Internalizing or Externalizing scale from the CBCL. Children with EBD were two and half times more likely to have four or more placements than those without EBD. Having depression and not living with siblings also predicted moves in children with EBD.

Mental health. A child's mental health has been found to be associated with placement stability in a few studies. Barber and colleagues (2001) in their study of 235 children in foster care found children with a mental health diagnosis to have more placements than children without a diagnosis. Delfabbro and colleagues (2002) defined mental health issues as "serious psychological problems requiring ongoing treatment" (p.920). Their study also found that children with mental health issues experienced more placements. A study by Park

and Ryan (2009) found similar results. They followed 5,978 foster children age 3 to 18 years old in Illinois and of the sample, 296 had experienced inpatient mental health treatment before placement in the foster home. The Caucasian children with inpatient mental health treatment had a 75% increase in the odds of experiencing three or more placements. On the contrary, the African American children who had an inpatient mental health placement had a decrease in the odds of three or more placements by 44%. Connell and colleagues (2006), however, found no mental health effects on placement stability in their Rhode Island study. Due to the mixed results of past studies, more research is needed to determine mental health's effect on placement stability. The current study examined how the emotional health of adolescents impacted placement stability.

Demographic factors. Olsen (1982) focused on what she calls status factors such as race, age, income and ability. Her theory was that status factors influence how children are treated, therefore impacting how many placements a child will have. Olsen (1982) reported from her study that being white was a risk factor for increased placements. More recently, studies have had mixed results regarding the role of race in foster care stability. Webster, Barth and Needell, (2000) studied 5,547 children over eight years in California. They also found that Caucasian children were 25% more likely to have disruptions than African Americans in their study. Farmer, Mustillo, Burns and Holden (2008) studied

3,066 children ages 5- 18 over a 36 month period. They found that Hispanic children had a higher risk for placement disruption. However, Wulczyn, Kogan, and Harden (2003) who studied 16,179 children in care in New York City, found no effect of race. Connell et al. (2006), Orme et al. (2006), James (2004), and Newton et al. (2000) also found no effect of race.

Gender has also had mixed results as a predictor of placement stability. Smith, et al. (2001) found an interaction with age and gender. Girls age 13 and older in their study were more likely to disrupt in the first six months than younger girls, and both younger and older boys, however, Webster, et al. (2000) found that boys of all ages had more placement instability. Delfabbro et al. (2002) also reported that boys had both more behavior problems and instability. While Wulczyn et al. (2003), James (2004), James, Landsverk, and Slymen (2004) and Connell et al. (2006) all found no effects of gender. Given the mixed results of past studies, the current study also examined the effect of the demographic characteristics of gender, race, and age.

Ryan and Testa (2004) studied 18,676 children from Illinois who were involved with the child protection system during 1983 and 1984. They reported an interaction between delinquency and gender in their study. Males who had multiple placements also had a higher rate of delinquency. The most common delinquent acts were property offenses such as arson, burglary and vandalism.

Foster Home Characteristics

Little research has been done on the effects of foster home characteristics in comparison to child characteristics. The number of children in the foster home has been found to effect placement disruption in some studies and not to effect disruption in others. Chamberlain et al. (2006) found that as the number of children in the home increased, so did the risk of disruption, however, this interaction was not statistically significant. Testa, Neito, and Fuller (2007) found the same results. In their sample of 75,000 placements, five or more unrelated children in the home increased the risk of disruption by 92%. Gibbs and Wildfire (2007), however, found the opposite results. Their study involved foster parent retention in New Mexico, Oregon, and Oklahoma. They also found that the median time that a family fosters was only 8 to 14 months. This has implications for placement disruptions if the children in care are expected to stay in care longer than the parents foster. Characteristics of homes that foster longer were parents who had more children in their home, parents in the 30 to 55 year old category, and those that care for special needs children. This may reflect the caregivers' commitment to children.

Placement with siblings in the home seems to reduce a child's risk of disruption. Leathers (2005) interviewed foster parents and caseworkers of 197 twelve and thirteen year old children over a period of five years. Children who

had previously been placed with siblings and then were placed alone had a risk of disruption that was more than double even after controlling for behavior problems.

Family hardiness, as defined by the Hardiness Index, has an effect on foster home retention, which has been discussed as important to placement stability if the child is in care longer than the foster parent wants to foster. Hendrix and Ford (2003) studied 82 foster families from a southeastern state. The families were divided into two groups, those who intended on continuing to foster and those that were quitting. The Hardiness Index scores of the two groups were compared. The Index is a 20 item questionnaire that assessed control, commitment, challenges, and confidence. Families that scored higher had the ability to work together to solve problems and they also had the belief that they could solve them. Hendrix and Ford found that the families that were continuing to foster had higher scores on the Hardiness Index.

There is a gap in the literature addressing other demographic characteristics of caregivers. The current study examined the impact that marital status, caregiver race, income, education, age and experience had on placement stability.

Caregiver-Child Relationships

Recently studies have begun to look at the caregiver-child relationship. Several studies have found that most disruptions occur in the first six months of entry into care. Smith, Stormshack, Chamberlain, and Wahely (2001) studied 90 children in the Oregon Social Learning Center treatment foster care program. They found that most placement disruptions occurred during the first six months in care. A limitation of this study is that only the first 12 months in care were examined. Connel, Vanderploeg, Flaspohler, Katz, and Tebes (2006) found slightly different results for length of time in care in their study of 5,909 children from Rhode Island in foster care. They found that the first nine months represent a high risk for disruption and an even higher risk from 12 months to sixteen months in care. After sixteen months the risk for disruption decreases. Their study was unique in that it was longitudinal over five years. Perhaps other studies have not found a period of decline in risk because they have not had as long of an observation period.

Other studies report opposing results. Olsen's 1982 study of 566 children in long-term foster care found that length of time in care was the strongest predictor of placement changes. Children in permanent foster care placements, where they were expected to live in until they turned 18, experienced one move for every three years in care, and children not in permanency, experienced one move for every four and half years in care. Children with emotional and social

problems also experienced more placements. Several characteristics, such as physical handicap, neglect, and race, had an indirect effect through length of time in care. Very few studies have looked at indirect effects. Delfabbro et al. (2002) in their study of 235 children age 4 to 17 in Australia also found that children in care longer were more likely to have more placements.

Pardeck's (1984) study of 414 children found effects similar to Olsen (1982). Time in foster care and case manager turnover were associated with more placements. Proch and Tabor (1985, 1987) have suggested that time in care might actually be a proxy for something else going on. Proch and Tabor (1986) recognized the need for future research to consider the relationship between foster parent and foster child yet few studies included relational variables. Their 1987 study looked at the length of time a child spent in a placement verses the number of placements the child had experienced. They reviewed the placement histories of 87 foster children in Illinois. Children in their study experienced more moves as they entered adolescents and the placements were shorter in length than placements of younger children. Case notes revealed that there were frequently power struggles between the foster child and caregivers before the placements ended.

Proch and Tabor concluded that adolescence is a time when children begin to assert their autonomy and reject authority, resulting in a change in the

caregiver-child relationship that ends with rejection and removal of the child from the home. They point out that in their studies children in long-term foster care experience more changes in placement at the onset of adolescence and that time might coincide with entry into adolescents. This point could also explain why older children move more frequently than younger children.

Tabor and Proch (1988) suggest that foster care uses the disease model, that treats children instead of parenting them. Instead of acknowledging the testing of adults and authority as a normal function of their age, teen foster children are given psychiatric diagnoses and moved to more restrictive settings where their behavior can be controlled. The teen then loses an opportunity to develop decision making and other age appropriate skills.

Another study of adolescents by Brown (1998) compared self-reported concerns of teens that experienced a removal to concerns of teens that had not. Twenty-one adolescents in Cork City Ireland were interviewed. Teens who had experienced a removal reported significantly more concerns about the relationship with foster parents. Not being trusted, rules, unreasonableness, and not given responsibility were all reported by teens as concerns.

Integration into the foster home has also been predictive of placement stability. Leathers (2006) defined integration as “the extent that a foster child is able to become a part of and form relationships within the foster home” (p.310).

She interviewed caseworkers and foster parents using a modified version of a foster family attachment index. Questions asked were about how well the children feel like they are part of the home and how distressed the child would be if removed. As foster home integration increased, the risk for disruption decreased. Foster home integration also moderated problem behaviors. Case workers report of problems was no longer significant when foster home integration was put into the model. Foster home integration reduced the risk of disruption due to problem behaviors. The current study will explore the relationships that foster children have with their caregivers as a predictive factor in placement stability.

The relationship a kinship provider has with the biological parent has also been found to effect placement stability. Chang and Liles (2007) interviewed 130 kinship care providers in California. Almost half of the kinship care providers, 44% were grandmothers and 33% were aunts of the foster children. Of the children who disrupted, 74% of the caregivers did not have contact with the birth fathers. The caregiver's relationship with biological mothers was reported to be more positive in the children who did not disrupt than those who did disrupt.

Caregiver Perception of Termination

Foster caregiver perception. In recent years there has been increased research examining the foster parent's role and perception of placement stability. In 2003, Gilbertson and Barber conducted a qualitative study of 19 foster homes

that had recently experienced a placement disruption of a child ten years or older. Nine of the foster parents stated that the placement disruptions could have been prevented. Interventions they stated that could have helped the placement were, more respite services, 24 hour crisis response services, child mentoring, counseling, and more education on adolescent management. Of the ten that thought disruption was inevitable six families made the decision based on safety.

Brown and Bednar (2006) interviewed 63 foster parents in Manitoba Canada. All foster parents were asked the open-ended question; “What would make you consider ending a foster placement?” (p.1502). Cluster analysis and concept mapping was used to create nine themes: 1) Danger to family, 2) Child not adapting, 3) Child’s conduct, 4) Complex needs, 5) Agency problems, 6) Unsuccessful attempts, 7) Changed circumstances, 8) Foster parent health, and 9) Lack of community resources. The authors concluded that violence weighed heavily in the foster parents decision to end a placement. Brown (2008) asked the same 63 foster parents what they perceived as necessary for a successful placement. Eight themes were identified: 1) Personality and skills of foster parents, (commitment, kindness and love were included in this theme); 2) Information about the child, which included a good match between the child and home; 3) Relationship with the agency; 4) Personalized services including crisis

intervention; 5) Community support; 6) Foster family networking; 7) Supportive family; and 8) Good self care.

Buehler, Cox and Cuddeback (2009) reported findings that were similar to those of Brown's. They interviewed 22 foster parents in Knox County, Tennessee on the foster parent's perceptions of what was important for successful fostering. The most frequently stated factors were a deep concern for children, church support, and tolerance. The factor that was most frequently stated as a stressor was behavioral/emotional health of the child and the factor that they perceived to prevent a successful placement was having a non-child motivation for fostering. Kalland and Sinkkonen (2001) in a study of 234 long-term foster placements in Finland also found that family resources such as support from family, contributed to successful placements. All of these studies echo the need for foster parents to care deeply for children, have outside support, commitment and tolerance. The factors that all the studies found to inhibit successful fostering once again centered on child behavior.

Martin (2001) followed nine foster families in Illinois over a period of 12 months. All of the children had previously been placed in a residential treatment center due to severe behavior problems. After 12 months five of the children were still in the foster placement and four had disrupted. The foster families of the children that did not disrupt had more resources than those that had disrupted.

Those that did not experience disruptions had used the family therapy, respite, and in home services available from the residential treatment center. They also had support systems from their family and community. The need for supportive resources was also seen in a 2003 study by Cox, Orme, and Rhodes. Their study included 142 foster families in a southeastern state. They found that families with more supportive resources such as family, friends, and income, were more willing to care for children with emotional and behavioral problems.

Lindsey (2001) stressed that the fit between foster child's temperament and foster parents, has an effect on child's adjustment to the home. Schofield (2005) in her study of 58 children 12 years and younger, found that children who were making good progress in a home were ones who had sensitive parenting, similarity or fit between child and parents, and were able to use the foster parents as a secure base. Social support from foster parents also has an effect on children's behaviors, self-esteem, and self-efficacy.

Denuwelaere, and Bracke (2007), studied 96 foster families with children ages 10 thru 21 years in Belgium. They found that foster children who had more support from foster parents, especially foster fathers, had higher self-esteem, and fewer emotional problems. Foster children who had conflicts with their foster parents, especially foster mothers, had lower self-esteem, and more emotional and

behavioral problems. The study did not look at placement disruption and support or conflict and no other studies on foster parent-child conflict could be found.

Kinship caregiver perception. Coakley, Cuddeback, Buehler, and Cox (2007) interviewed nine kinship care givers in Tennessee about their perceptions of successful fostering. Their results were also similar to Brown (1998) that attitude and support were important. In addition, they found that the relationship between care givers and birth parents was important to successful fostering. Having a poor relationship inhibited successful fostering. Having a good relationship with birth parents was also correlated with a successful placement by Kalland and Sinkkonen (2001).

We now understand to some extent that relationships between foster parents and children impacts children's well being, however, there is still a gap in the research between the relationship and placement stability. The current study will address this gap in the literature by focusing on how the caregiver-child relationship mediates the relationship between 1) foster home characteristics and 2) child characteristics and placement stability.

Kinship Care

Past research has found placement with kin to have an effect on placement stability. Most studies found that children who are placed with kin experience fewer placements than those placed in other care arrangements. Chamberlain et al.

(2006), Wulczyn et al. (2003), James (2004), James et al. (2004), and Connell et al. (2006) all found placement with kin reduced risk of multiple placements. In the study by Webster et al. (2000) there was an interaction between placement and age at entry. Preschoolers placed with non-kin were two and half times more likely to have three or more placements than preschoolers placed with kin. Results from studies that found placement with kin to be a predictor of stability may have selection bias (Barth et al., 2007). Relatives may be more willing to care for children whom they know have less behavior and emotional problems. Therefore, a comparison of children and family characteristics of those placed with kin and without kin is needed in order to better understand this relationship.

Harden, Clyman, Kriebel and Lyons (2004) compared kinship caregivers with non-kin foster homes. Their study had 51 kin and 50 non-kin parents from Washington D.C. and Baltimore and found that kinship caregivers had fewer resources than non-kin foster homes. Kinship providers were more likely to be single parents, have an income of less than \$20,000, have not graduated from high school, and more likely to have chronic health problems than non-kin foster homes. This study again highlights the need to examine placement type. If foster parents report that more resources are beneficial for successful fostering, how is it that kinship caregivers, who have fewer resources, are able to have fewer placement disruptions.

Interventions

Interventions for placement stability focus mainly on prevention programs. Because the two primary reasons for foster parent's requesting removal of children are the children's behaviors and the foster parents' inability to handle these behaviors (Gibbs, 2005), current prevention techniques primarily focus on parenting skills and behavior modification. The interventions can be categorized into foster parent recruitment and parenting skills training services.

Foster parent recruitment. Foster parent recruitment strategies can be considered preventative for placement disruptions. Knowing that many children enter foster care with externalizing and internalizing behaviors, choosing foster parents with the skills and temperament to handle such children is beneficial. Casey Family Programs has created a tool to assess foster parents potential that is called the Casey Foster Applicant Inventory-Applicant Version (CFAI-A) (Orme, Cuddeback, Bueler, Cox & Le Prohn, 2007). The CFAI-A is a questionnaire that potential foster parents and case managers fill out together. The tool assesses parent's strengths and areas for improvement. Parents are asked 72 questions about their beliefs, and behaviors. Another tool for assessing foster parent potential is the foster parent attitudes questionnaire (FPAQ) (Harden, D'Amour Meish, Vick, and Pandohie-Johnson, 2007). The FPAQ consists of questions about parenting attitudes on seven factors: attachment, negative experiences,

developmental expectations, motivation, biological parents, self-reliance, and perspective taking (Harden et al., 2007). These tools show promise for assessing future foster parent potential.

The 1994 Multi-Ethnic Placement Act (MEPA) requires states to recruit foster homes that reflect the diversity of the children in need of care. There are many promising initiatives to increase the recruitment of foster homes from diverse populations. The Utah Foster Care Foundation was established in 1998 for the purpose of recruiting and training foster homes. The foundation uses media campaigns in Spanish and grassroots efforts working with local churches, and civic organizations to increase recruitment of Latino families (Children's Bureau Express [CBE], 2001). Another initiative in Virginia funded by A Children's Bureau Adoption Opportunity Grant given to the Virginia Department of Social Services works with churches to find foster homes for African American children (CBE, 2008).

The state of Ohio identified several key factors in recruiting African American foster parents. Building relationships and trust with the families and community was identified as a common theme. Providing respectful customer service and providing support throughout the recruitment and training process were two ways to build trust. Appreciating and supporting current foster families was also identified as important. Current foster parents spreading the word about

fostering, was reported to be the most effective recruitment tool (Zeller, 2006).

Placing children in foster homes that reflect their diversity may decrease placement disruptions.

Parenting skills training. Many different parent training programs are currently used to help caregivers modify foster children's behavior and therefore reduce placement disruptions. Parent-child interaction therapy (PCIT) has been shown to be effective in numerous studies (McNeil, Herschell, Gurwitch, & Clemens-Mower, 2005) PCIT is designed for families of children ages two through seven years old. The program focuses on the parent-child relationship and the family structure. A study by McNeil et al. (2005) with thirty foster children and foster parents used a modified two day program. Twenty seven families were interviewed after one month and eight at five months. At both times behaviors had been reduced and foster parents reported a high level of satisfaction. These findings suggest that PCIT may be effective in reducing disruptive behaviors of foster children.

Multidimensional treatment foster care (MTFC) is a parenting management program that has had success in the treatment foster care homes with children who have severe emotional and behavioral problems (Price et al., 2009). MTFC is a program developed in Oregon at the Oregon Social Learning Center. MTFC involves placing only one child in a foster home. The foster parents have

had 20 hours of training and receive ongoing consultation and support from daily phone calls, weekly meetings, and a 24 hour crisis staff. The program involves close monitoring of school work, case management services, psychiatric services and a point system (Price et al., 2009).

The KEEP program, Keeping Foster and Kin Parents Supported and Trained, is a modified version of MTFC created for family foster care and kinship care homes. A study by Chamberlain et al. (2008) of 700 foster and kinship care families in San Diego California used the KEEP program to reduce problem behaviors. Parent groups were held, home visits, and weekly phone calls provided for 16 weeks. Methods for dealing with external behaviors, limit setting, and positive reinforcement were taught. After the intervention foster and kinship parents reported significantly less problem behaviors than the control group reported. Since problem behaviors have been shown to lead to placement disruption, the KEEP program also has promise as an intervention.

Another program that uses a modified version of MTFC is the Early Intervention Foster Care program (EIFC). The EIFC is designed for preschoolers in foster care (Fisher, Burroston, Pears, 2005). Components of the program are similar to the KEEP program. One notable difference is the focus on delayed development as the source of behaviors. In a study by Fisher et al. (2005), 47 three to six year olds were assigned to the EIFC treatment and 43 were in the

control group. Over a period of five years, children in the EIFC group experienced significantly less placement disruptions than the control group.

Wraparound services have had mixed results as an intervention. While Farmer, Dorsey, and Mustillo (2004) reported that research does not show it to be effective, Clark, Lee, Prange and McDonald (1996) found that wraparound services were effective in reducing placement disruptions. One study by Berzin (2006) found that family group decision making, another service, did not impact placement stability.

Child Development

Children are faced with different developmental tasks at different ages. This is one reason the current study divides the database into three developmental periods: Early childhood, middle childhood and adolescents.

Early childhood. Early childhood includes infancy, toddlers, and preschool children. The early childhood phase, birth through ages 5, is marked by a focus on the relationship the child has with their caregiver.

In infancy, attachment is the primary task (Davies, 1999). The infant learns to attach to the caregiver by expressing needs, and learning that the caregiver will respond. Attachment serves as security, affect regulation, communication (Bowlby, 1969). The emphasis on the relationship with caregiver also coincides with Erickson's stages of development. Erickson states that the

infant faces a crisis of trust versus mistrust and that the mother is the most important relationship providing comfort, security and nurture (Erickson, 1963).

As the child develops, the toddler enters Erickson's autonomy versus shame/doubt phase. During this stage toddlers begin to gain more control over their bodies and test their limits (Erickson, 1963). The toddler's task is to learn to do things for themselves, and explore (Davies, 1999). Bowlby (1969) states that attachment provides a base for exploration. Toddlers who are securely attached will explore more readily.

In the preschool stage the child's tasks are to use play as a means to explore and learn to distinguish reality from fantasy (Davies, 1999). Erickson's states that the crisis the child must resolve is initiative versus guilt (Erickson, 1963). The child starts to develop social skills and begins to be able to take another's perspective. Increased cognitive abilities allow the child to begin to problem solve and increase their coping skills. If the child is able to assert their independence, they can achieve initiative.

During early childhood moves in placement can disrupt the unique developmental needs of the child. The developmental tasks focus on the relationship between the child and the caregiver. If the caregiver changes this could result in a child unable to learn trust, form attachments, and assert independence.

Middle childhood. Middle childhood includes children 6-11 years old. It is at this time that children start school. During this time, reliance on the attachment figure begins to decline and peers begin to take on a role. Children develop friendships and define themselves as members to the groups they belong. They also begin to learn from their peers. The main tasks for middle childhood are to develop and use self-control, develop a sense of competence, and to establish a peer group (Davis, 1999). Children make physical and cognitive advances and become more competent. Erickson (1963) called this stage Industry versus inferiority. If they accomplish these new skills, they develop a sense of industry. If they have difficulty establishing peer relationships they will feel inferior.

Changes in placement during middle childhood could disrupt a child's development by removing them from their peers causing them to repeat the task and re-establish their peer group. Lower self esteem and self control could result.

Adolescence. Erickson (1969) called the adolescent stage Identity versus role confusion. This stage starts at the onset of puberty. Youth at this time have a new self-awareness with the many physical changes occurring. The main task for adolescents is to develop their sense of identity. Youth experiment with many roles and relationships. According to Erickson, if youth cannot establish their identity they will be unable to develop intimate relationships in the next phase.

During adolescence, the relationship with the family becomes less influential than the relationship with peers. Attachment in adolescents switches from a primary caregiver to a network of attachment figures that includes peers, teachers and coaches (Scharf & Mayseless, 2007). Adolescents also still use attachment for emotional security (Allen & Manning, 2007).

Placement changes in adolescence moves a child away from peer groups and their network of attachment figures at a time when peers are becoming more important in their development. Attachment to peers in adolescence has been found to be important for youth to develop a capacity for intimacy (Allen & Manning, 2007) Moves in placement can disrupt normal adolescent development.

Theoretical framework

Ecological Theory based on Bronfenbrenner's (1979) ecological perspective is a theory useful to understanding placement stability. The ecological perspective takes into consideration how the environment and the person interact with each other as the child develops. Bronfenbrenner's model incorporates different layers of systems: microsystem, exosystem, and macrosystem.

The microsystem is the immediate family and the people with whom the child spends the most time. When a child is placed in foster care, the foster family becomes the microsystem for the child. This system is the primary system for the

child and Bronfenbrenner (1979) states, the interactions have the largest impact on the child, therefore the current study will focus on the microsystem.

Applied to foster care, the success of a child's ability to live in a foster home without disrupting, does not depend only on the child. Instead, the environment, in this case the foster family, plays an important role. The foster family and the child are a microsystem, and according to ecological theory (Bronfenbrenner, 1979) and have an immediate effect on each other. What goes on in the foster family impacts the child, and the child has an impact on the family. This idea is commonly accepted in parenting biological children. In fact, children are removed from homes because of unhealthy family environments so it should naturally be assumed that the home the child is placed in will also have an effect on the child. Because the foster family is the microsystem of the foster child, it is logical to assume that characteristics of the placement such as how many household members live in the home, how many biological children the caregiver has, the marital status, income, and education of the caregiver will all have an impact on the child and impact placement stability. The relationship between the child and the caregiver also occurs in the microsystem. Therefore, how close a child feels to the caregiver and how permanent the child perceives the placement to be will affect the outcome of the placement. Exploring characteristics of foster families and children is a logical extension of the

ecological perspective. Bronfenbrenner states that all aspects of the microsystem should be analyzed (1979).

When a child is removed from the home and placed in foster care, an ecological transition occurs (Bronfenbrenner, 1979). The child's roles and setting change and the child must adjust to the new surroundings. The child's role in the family changes to foster child, and may include a change in the number of siblings and others in the home. This change effects how the child acts and is treated by others. According to Bronfenbrenner (1979), how a person perceives the environment as opposed to the actual circumstances, are important to behavior and development. For this reason the relationship variables of adolescents will come from the child interview and focus on how the child perceives the relationship between the child and the foster family.

The exosystem is the layer that includes formal and informal supports with whom the family and child interacts. The child's school, parent's work place, churches, courts and social services among others make up this layer. In Belsky's (1980; 1993) ecological model of child maltreatment he points out that the caregiver's work place can have a substantial impact on child abuse, specifically unemployment. Events that occur in the exosystem can act to provide support or isolate and increase stress on the parents, and impact maltreatment. Periods of unemployment isolate and increase stress on parents. Many researchers have used

the ecological perspective to study child maltreatment. Coohey (1996) found that mothers who had fewer social supports were more likely to abuse their children. Coohey again in 2000 used the ecological perspective to study child maltreatment in fathers. The focus was on the effects of both informal and formal social supports. Emotional support from friends and financial support or help with chores and babysitting from relatives was associated with fathers who did not abuse their children. Zuravin (1998) also focused on exosystem factors. She found that neighborhood poverty and vacant houses correlated with abuse.

It would be natural to suggest that support and isolation in the exosystem also affects foster families. Findings in several foster care studies highlight the effect of the exosystem. Brown and Bednar (2006) found that foster parents believed more community resources could have prevented placement disruptions and Brown (2008) found that foster parents believed support from family, community and agencies were important for successful fostering.

The macrosystem is the outside layer of systems that influence the individual. Culture, beliefs, laws and politics are included in this layer (Bronfenbrenner, 1979). Belsky (1980; 1993) describes the acceptance of violence in the United States as a contributing macrosystem factor to child maltreatment. He suggests that because violence in the United States is more prevalent than in European countries, child maltreatment is also more frequent.

Laws that govern the foster care system affect the child from this layer. The 1997 ASFA, depicts societies belief that children should have permanent homes, and this belief is one of the reasons placement stability is important for children. Bronfenbrenner (1992) states that the child's development cannot be examined alone, but must be considered in the context of their cultural experience. An important component for research would be an evaluation from a member of that child's culture. The General release version of the NSCAW does not include a cultural component. Rural and urban communities are also not distinguished. Race was examined, however, due to the large variation within ethnic groups generalizations about culture cannot be made.

Recent studies have used Brenfenbrenner's ecological model as a framework for evaluating the effectiveness of residential treatment of foster children. Palareti and Berti (2010) defined the residential setting as an ecological niche in which the child could achieve successful development. An ecological niche includes both what Bronfenbrenner considered social addresses, or characteristics of the environment, and personal attributes, or characteristics of the individual that he called a person context-model (Bronfenbrenner, 1992). Recognizing that the environment or ecology influences the success of the child, Palareti and Berti (2009) state that the life context of the child or an environmental variable must be examined. An environmental variable would

examine the characteristics of service providers, other children involved, background of the child, and information on the microsystem from a variety of people (Palareti & Berti, 2009). Family foster homes and kinship homes can also be considered ecological niches. The current study includes environmental variables by examining the context of the foster families, foster children and relationships. Respondents for the study are the child, caregiver, and teachers, providing a broader understanding of the environment in which the child lives.

The current study focuses on the microsystem because according to Bronfenbrenner this is the primary system for the child and has the strongest impact, and it is in this system that the child has the most amount of interactions.

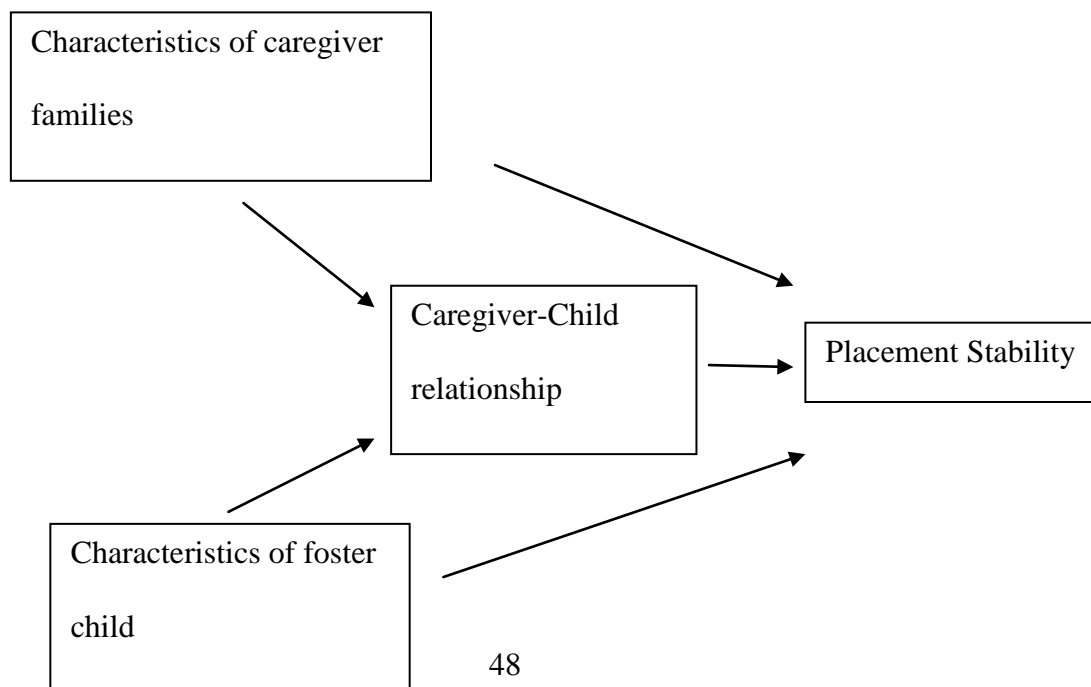
Conceptual Model

Informed by the ecological perspective, and previous studies, the present study aims to examine and understand the characteristics of caregiver families and foster children that contribute to placement stability, and whether the child-caregiver relationship mediates this association while accounting for developmental stages. The current study also aims to examine how placement type contributes to placement stability.

The conceptual model for the current study examines characteristics of caregiver families that are hypothesized to affect placement stability. These include Placement Type, Marital Status, Experience, Race, Household Members,

Income, Educational, Time with Caregiver, and Number of Biological Children. Characteristics of foster children that are hypothesized to affect placement stability include Child Age, Race, Gender, Social Skills, and External Behavior Problems, and Emotional Problems. In addition, this study theorizes that the relationship a child has with the caregiver will mediate the effects of child characteristics on placement stability. The relationship variables include Closeness to Caregiver, Perceived Permanency Emotional Support, and Parental Monitoring. If these effects are mediated, this study theorizes that it may be moderated or vary by Placement Type. This model is examined across three age groups.

Figure 1 Conceptual Model



Research questions

1. Is there a significant effect of the caregiver characteristics on placement stability?
2. Is there a significant effect of child characteristics on placement stability?
3. Is there a significant effect of the caregiver-child relationship on placement stability?
- 4a. Based on the caregiver characteristics in the final model, does the caregiver-child relationship mediate the effect of caregiver family characteristics on placement stability?
- 4b. Does this mediating relationship vary depending on placement type (kinship or foster care)?
- 5a. Based on the child characteristics, does the caregiver-child relationship mediate the effect of child characteristics on placement stability?
- 5b. Does this mediating relationship vary depending on placement type (kinship or foster care)?
6. Does placement type have a significant effect on placement stability?

Chapter 3

Methods

The following chapter will discuss the methods used to complete the current study. Information comes from the user manuals provided with the National Survey of Child and Adolescent Well-being data set (NSCAW, 2008). Information about data collection, participants, independent and dependant variables, data analysis, and study design are discussed.

The National Survey of Child and Adolescent Well-Being

The National Survey of Child and Adolescent Well-Being database (NSCAW) was used for the current study. The 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PL 104-193) authorized the NSCAW. The Act required the United States Department of Health and Human Services (US DHHS) to design a survey to examine the outcomes of children involved with child protection services. Several other agencies worked in collaboration with DHHS including the Research Triangle Institute of North Carolina, the University of North Carolina, Caliber Associates, the University of California Berkeley, and the Child and Adolescent Services Research Center at San Diego Children's Hospital (NSCAW, 2008). This survey was unique in two ways. It was the first national study to examine outcomes for foster children. Secondly, it also was

unique because it included not only interviews with agencies and service providers but also with children and families and the impact that families and community have on child outcomes. Information about several areas of children's wellbeing were included; health, mental health, school, social, and behavioral wellbeing. Baseline interviews were collected between November 1999 and April 2001. Four follow up interview waves were done up through December of 2007(NSCAW, 2008).

Site

Data for the NSCAW was collected from 97 counties, selected from 46 states, from public and private child protection services agencies. The children chosen were children who had a child abuse or neglect investigation of their families. The NSCAW was designed to be representative of children nationwide in the child protection system (NSCAW, 2008).

Participants

There are two versions of the NSCAW, the general release version used for this study and the restricted release version that provides sensitive information that may allow participant identification. Within the general release data are two sub groups of participants. The Child Protection Services (CPS) sample that included children involved in child abuse and neglect investigations. Both substantiated and unsubstantiated children were included. The second sub group

was the Long-Term Foster Care (LTFC) children. This group included children with substantiated reports of maltreatment placed in out-of-home care (NSCAW, 2008). The LTFC group was used for the current study.

Sampling

A two stage stratified sample design was used to create the sample for the NSCAW sample. The country was divided into nine strata. Eight were the states with the largest child welfare departments, and the ninth consisted of the other 38 states and the District of Columbia. Four states were left out because their state law required the case worker from the agency to be the first contact before someone from the NSCAW project could contact the family. Primary Sampling Units (PSU) were created within the strata. PSU were usually counties, or several counties combined. In large metropolitan areas a PSU was defined as a geographic area served by only a few agencies. Ninety-two PSUs for the study were then randomly selected using a probability-proportionate-to-size method (NSCAW, 2008).

The second stage of the sampling for the LTFC subgroup came from the included PSUs. Children were originally included if there had been an investigation of child abuse or neglect and they had been in care between July 1998 and February 1999. Only one foster child per home was selected for the sample to reduce the burden on the foster parent, and children had to be younger

than 14 years old, ensuring that they would not age out and could be found at follow up interviews. Twelve hundred ninety one children were identified to be included in the LTFC sample and 727 children were interviewed. The others were ineligible due to inclusion criteria, refused to participate, or were not located (NSCAW, 2008). For this study an additional 50 children were not included due to placements in group homes or other arrangements. One hundred and fifteen children who were living with biological parents at Wave 1 or returned by Wave 3 to their biological parents were also not included. That left 562 children placed in foster homes or kinship care homes in the current study.

Human subjects' protection

The data used for the current study came from the general release version of the NSCAW. To protect the children, information that could be used to identify them has been removed as a precaution. There are no geographic or sampling strata identifiers included in the general release version. In addition there are variables that have been removed or recoded to prevent any participant identification. Some variables have been recoded from continuous variable into categorical variables. In addition some participant's information may be missing because of the risk of identification when combined with other variables. This protects the children, however, also creates some limitations in analysis

(NSCAW, 2008). The current study was approved by the Institutional Review Board at Arizona State University with exemption status on December 3, 2008.

Data Collection

The NSCAW Study occurred from November 1999 to December 2007. Baseline face-to-face interviews were conducted with (1) caregivers, (2) children, (3) teachers, and (4) case workers for the LTFC sample between December 1999 and February 2000 (Wave 1). Wave 2 interviews occurred at 12 months after Wave 1. Wave 2 interviews only occurred if new services had been added for the child since Wave 1. Current caregivers and caseworkers were only interviewed, children or teachers were not. Interviews with caregivers were over the phone while interviews with caseworkers were face to face. Face-to-face interviews occurred at 18 months after Wave 1 (Wave 3) and at 36 months after Wave 1 (Wave 4). At these Waves, children, caregivers, caseworkers, and teachers were interviewed (NSCAW, 2008). For this study Wave 1 and Wave 3 were used, because not all respondents were interviewed at Wave 2.

Most of the interviews were conducted with computer-assisted interviewing (CAI) allowing for complex questionnaire patterns to be used accurately by lay people. Sensitive information was collected from adults and older youth using Audio Computer-Assisted Self Interview (ACASI) to improve accuracy. Respondents wore head phones and typed answers into the computer

during the interview. Most of the instruments were also translated into Spanish. The questionnaires were administered by field interviewers who had extensive training (NSCAW, 2008).

Design

The current study was a non-experimental, longitudinal, secondary data analysis. Observations or interviews used were at Wave 1, which for the Long Term Foster Care sample was approximately 12 months after the child had been in out-of-home placement. Eighteen months after Wave 1, at Wave 3, the dependant variable was asked, was there a change in the child's living situation. This study examined placement stability of children in long-term foster care over a period of eighteen months.

Variables

The current study explored the potential contribution of (1) caregiver characteristics, (2) foster child characteristics, and (3) caregiver-child relationships from Wave 1 that may impact placement stability. Variables for the current study were taken from the (1) Child Instrument, (2) Young Adult Instrument, and (3) Current Caregiver Instrument.

Dependent variable. For the purpose of this study, the dependant variable of Placement Stability was measured by whether or not the child had the same caregiver from Wave 1 as reported in the Wave 3 interview, which occurred

on average 18 months after Wave 1 (1 = *yes*, 0 = *no*). Respondents, who answered yes had the same caregiver and obtained placement stability. Those who answered no had a placement change and did not obtain placement stability. The dependent variable referred to as Placement Stability was a dichotomous, nominal variable.

Caregiver independent variables. Caregiver variables were collected at the Wave 1 interview because that household was the placement that was asked if it had changed at the time the dependant variable, placement stability was measured.

The Household Roster was developed for the NSCAW project (NSCAW, 2008). Ten caregiver demographic variables came from this measure: (1) Household Members; (2) Biological Children; (3) Caregivers Age; (4) Caregivers Education; (5) Caregivers Race; (6) Marital Status; (7) Household Income; 8) Experience; (9) Time with Caregiver; and (10) Placement Type.

Household Members was defined as the total number of members living in the house. This was a continuous interval level variable.

Biological Children, was defined as the caregivers total number of biological children. This was a continuous ratio level variable.

Caregiver's Age was treated as a continuous variable defined as 1= <25 years old, 2= 26-35, 3= 36-45, 4= 46-55, and 5=56 years and older, with higher numbers meaning older.

Caregiver's Education was treated as a continuous variable defined as the highest degree the caregiver has earned. The response categories were 1= *none*, 2= *high school or equivalent*, 3= *associates*, 4= *bachelors*, 5= *masters and higher*, with higher numbers meaning more education.

Caregiver Race was a categorical nominal variable defined as, *Hispanic*, *Native American*, *Black*, *White*, *other*. This variable coded with *White* caregivers as the reference category.

Marital Status was a categorical nominal level variable, and was recoded as 0= *not married*, 1= *currently married*.

Family Income was treated as a continuous level variable defined as the total family income for the year. Income categories were 1= 0-9,999, 2= 10,000-19,999, 3= 20,000-29,999, 4= 30,000-39,999, 5= 40,000 and greater, with larger numbers meaning higher income.

Experience was defined as the number of foster children the caregiver has cared for in the past. It was a continuous ratio level variable.

Time with Caregiver, was defined as the number of weeks a child had lived with the current caregiver at the time of the Wave 1 interview. This was a continuous ratio level variable.

Placement Type was a categorical nominal variable defined as 1= *kinship care*, 0= *foster care*.

Child independent variables. Independent variables included child demographic variables, External Problem Behaviors, Emotional Problems and Child Social Skills. All independent child variables were taken from the Wave 1 interview because that household was the placement that is asked if it has changed at the time the dependant variable, Placement Stability was measured.

The child demographic variables of Race, Gender, and Age were included in the current study. The demographic variables were measured at the nominal level with the exception of the child's age. Demographic information came from the Household Roster which was gathered from the caregiver.

Child's Race was a categorical nominal variable defined as, *Hispanic, Native American, Black, White, Other*. This variable was coded with *White* children as the reference.

Child Gender was coded 1= *females*, 0= *male*

Child Age was measured in years and was a continuous level variable.

External Problem Behaviors was measured from The Child Behavior Checklist, (CBCL) for children 18 years and under. The CBCL was given to children age four through eighteen. There are 113 questions on the CBCL for ages 4 to 17 that measure eight syndromes; withdrawn, somatic complaints, anxious/depressed, social problems, thought problems, attention problems, delinquent behavior and aggressive behavior. Questions asked caregivers to rate

the presence of behavior and emotional problems and responses are a 3 point Likert scale, (0= *not true*, 1= *sometimes true*, 2= *often true*). Sample questions are, “Now or in the past 6 months is the item very true, somewhat true or not true”. Items include: Cruel to animals, cruelty, bully, or meanness to others, and destroys things belonging to his/her family or others. Three scores are computed for the CBCL including internalizing, externalizing and total score. This study used the Externalizing symptoms score consisting of the Delinquent and Aggressive subscales because past research has consistently found the higher scores on this syndrome to affect placement stability. The NSCAW (2008) recommended that raw scores be used in statistical analysis; therefore the External Problem Behaviors variable was the total raw scores for the externalizing syndrome. External Problem Behaviors was a continuous ratio level variable. Scores were summed for a total score ranging from 0 to 70, with higher scores indicating a higher prevalence of the problem behavior.

Emotional Problems also came from the CBCL, using the raw score from the Internalizing Symptoms scale. The Internalizing Symptom scale is made up of three subscales: Anxious/Depressed, Withdrawn/Depressed, and Somatic Complaints. Questions for the Internalizing scale also asked caregivers to rate the presence of behavior and emotional problems and responses are a 3 point Likert scale, (0= *not true*, 1= *sometimes true*, 2= *often true*). Sample questions are,

“Now or in the past 6 months is the item very true, somewhat true or not true”.

Items include: Cries a lot, Sad, Worries, and Fearful. Emotional Problems was a continuous ratio level variable. Scores were summed for a total score ranging from 0 to 64, with higher scores indicating a higher prevalence of the problem behavior.

The CBCL was standardized on over 2000 children with different ethnic groups and social classes (Achenbach 1991). The CBCL had high internal consistency in the NSCAW sample ($\alpha=.91$) for the Externalizing behaviors scale. The measure has been known to have good construct validity and scores correlate with other scales and DSM diagnosis (Achenbach 1991).

Child Social Skills were measured using the Social Skills Rating System (SSRS) total raw score for children six years and older. The SSRS measured caregiver’s perception of the child’s social skills in four areas: cooperation, assertion, responsibility and self-control. The frequency of skills, and behaviors are recorded on a 3 point Likert scale, (0= *never*, 1= *sometimes*, 2= *very often*). Sample questions included helping others, controlling temper, and introducing self. Scores were summed for a total social skills score ranging from 0 to 114, with higher scores indicating more social skills. The elementary school form had 55 items and there was a self-rating form with 57 items for student’s grades 7 to 12. The normative sample was over 4,000 children from third to twelve grades

(Benes, 1995). The NSCAW sample had high internal consistency ($\alpha=.87$) in elementary children. Social Skills was a continuous variable measured at the ratio level with higher scores indicating more social skills.

Relationship variables. Four relationship variables were included in the study; Perceived Permanency, Closeness to Caregiver, Emotional Support, and Parental Monitoring. All were collected at Wave 1.

Perceived Permanency, used in the adolescence group, measured whether the child thinks he or she is in a placement that they will live in until they become an adult. The Perceived Permanency measure included five questions: “Do you like the people you live with”, “Do you feel like you’re part of the family”, “Can you keep living here until you are grown up”, “Have you ever asked someone if you could stop living here”, and “Have you ever tried to leave before”. Responses were coded (0= *no*, 1= *yes*). The questions “Have you ever tried to leave before” and “have you ever asked if you could stop living here” was reverse coded. Responses were summed for a total score ranging from 0 to 5 with higher scores meaning the child has a stronger sense of permanence in the home. Perceived Permanency was a continuous interval level variable. The LTFC sample had high internal consistency ($\alpha=.98$). Questions for the Perceived Permanency variable were taken from the University of California Berkeley Foster Care questionnaire and were given to children age six and older. The University of California

Berkeley Foster Care questionnaire was used on a sample of 100 mostly African American children 6 to 13 years old in long term foster care (Fox, Fransch, & Berrick, 2000).

Closeness to Caregiver, used in the adolescence group, combined two questions from the Closeness to Caregiver In-Home questionnaire that was designed for the National Longitudinal Study of Adolescent Health, (Ad Health) to determine the child's relationships with adults in the home. The Ad Health has been used with over 90,000 adolescents. The two questions used were, (1) "how close do you feel to your caregiver", and (2) "how much do you think they care about you". Response categories were on a Likert scale, 1= *not at all*, 2= *very little*, 3= *somewhat*, 4= *quite a bit*, 5= *very much*. Responses were summed and ranged from 2 to 10 with 2 being not at all and 10 very much. Higher scores reflected closer caregiver-child relationships. The LTFC sample had high internal consistency ($\alpha=.96$). Children ages 11 and older were asked the Closeness to Caregiver questions. Closeness to Caregiver was a continuous interval level variable.

The Emotional Support variable, used in the early childhood and middle childhood group, came from the Home Observation for Measurement of the Environment Short Form (HOME-SF) as a relationship variable for children 1 to 9 years old. The Home Observation for Measurement of the Environment

(HOME) tool was designed to measure the stimulation and support in a child's environment and is commonly used in research (Totsika & Sylvia, 2004). HOME has been used in over 200 studies and with children from diverse ethnic groups and risk factors (Berrara, Rosenbaum, & Cunningham, 1986; Totsika & Sylvia, 2004; NSCAW, 2008) In the NSCAW sample HOME-SF had moderate internal consistency ($\alpha=.45-.74$) (NSCAW, 2008). The NSCAW study used the shorter form of the HOME that was used in the National Longitudinal Survey of Youth (NLSY). There are 20 items on the tool for children two years old and younger, 24 on the tool for children 3 to 5 years old, and 24 for children 6 to 9 years old. One third of the items are from parental report and the others from observing the child and parent in their environment. There are two subscales on the HOME-SF: Cognitive Stimulation and Emotional Support. Emotional Support subscales are used for the current study. An example of an item from the 2 years and under HOME-SF is: "Mother spontaneously vocalizes to the child at least twice during visit", with response categories 1= *yes* or 0= *no*. Questions from the age 6 to 9 HOME-SF asked about the child spending time with the caregiver, visiting family and friends and included the child in the interview. Items were scored either 1= *yes*, or 0= *no*. Scores were summed with total scores ranging from 0 to 24, higher scores were indicative of more emotional support from the caregiver. The variable Emotional Support was a continuous interval variable.

Parental Monitoring, used in the adolescence group, was defined as how often the parent or caregiver knows what the child is doing and whom with. The variable came from the parental monitoring section of the Use, Need, Outcomes, and Costs in Child and Adolescent Population Study (UNOCCAP) by the National Institute of Mental Health. The NSCAW study included only the parental monitoring section. The UNOCCAP has been used on over 10,000 children age 4 to 17 years old (NSCAW, 2008). Responses came from the child interview. The LTFC sample had high internal consistency ($\alpha=.99$). Questions asked were (1) “How often does the child leave home without telling the caregiver”, (2) “How often does the caregiver know where the child is”, (3) “How often the care giver knows who the child is with” (4) “How often the care giver tells the child when to be home” (5) “How often the child tells the care giver when he will be back”, and (6) “How often the child is left home without an adult or sitter”. Questions 1 and 6 were reverse coded. Responses were on a Likert scale (1= *never*, 2= *almost never*, 3= *once in a while*, 4= *pretty often*, and 5= *very often*) Responses were summed for a total parental monitoring score. Responses ranged from 6 to 30, with higher scores indicating more parental monitoring.

Statistical Analysis

Because of the complex sampling design, SPSS Complex Samples Models software was used to account for the unique design and appropriately weight the

estimates. Software that weights the probability and sampling is necessary to reduce bias and inaccurate standard errors (Lee & Forthofer, 2006).

Data Reduction Strategy. Given the large number of variables, the first step performed was to determine which variables to place in the model. The procedure used was recommended by Hosmer and Lemeshow (2000). Reducing the number of variables in a model is necessary, so that the numbers will have more stability and the results will have more generalizability. Hosmer and Lemeshow state that univariable analysis should be performed first. A Pearson's chi-square test was performed with categorical variables. Any cells that had a 0 count were collapsed. For continuous variables, a univariable logistic regression was performed to determine the estimated coefficient, and wald statistic. Hosmer and Lemeshow recommend that any variable with a p value of less than .25 should be considered for the model and variables that have clinical significance should also be considered for the model (Hosmer & Lemeshow, 2000). A power analysis was also performed to determine how sensitive the final model would be. Research questions were answered based on the variables in the final model.

Logistic regression. Dichotomous dependent variables in a regression equation are not linear, and the residuals are not normally distributed, therefore the assumptions of the OLS regression are not met. Inaccurate standard errors will result. Logistic regression is used when the dependent variable is dichotomous

and the independent variables have a predictive relationship with the dependent variable. Logistic regression predicts the odds of group membership (Cohen, Cohen, West & Aiken, 2003). In this study, logistic regressions were performed to predict the odds that a child will obtain placement stability. In other words, to predict the odds that a child will have the same caregiver in Wave 1 as in Wave 3. A benefit of a regression equation is the ability to control for, or hold constant, multiple variables (Cohen, et al., 2003).

The database was subdivided into three age groups because different questions were asked of children at different ages, and different age groups represent different developmental stages. Group 1, age 1 to 5 years old, represented early childhood and had 287 children or 49% of the children in LTFC. Group 2, age 6 to 10 years old, represented middle childhood and had 149 children or 28%. Group 3, age 11 to 18 years old represented adolescence and had 126 children or 23%. All models included independent variables from Wave 1 interviews and the dependant variable Placement Stability from Wave 3.

Logistic regression models were performed for the three different age categories to determine the best fit. In a logistic regression, a likelihood ratio test is done as a measure of lack of fit, or deviance to determine if additional blocks are a better model. Null deviance is a model with no predictors and estimates the total deviance. If the model deviance of additional blocks is less than the previous

deviance then the predictors contribute to the model (Cohen, et al., 2003). The Complex Samples add-on software that was used to properly weight the sample does not report the deviance. Instead the Wald and the F-distribution were performed. Hosmer and Lemshow (2000) in their study using the National Health and Nutritional Examination Survey, and software for complex samples, assessed the significance of the model using the p values of the Wald statistic for the individual variable coefficients. This procedure was used to fit the logistic regression models for each of the three age groups. Current software packages for complex samples also do not perform diagnostics to determine if the continuous variables are linear or assess goodness-of-fit (Hosmer & Lemshow, 2000).

Early Childhood. In Group 1, age 1 to 5 years, all caregiver variables and all child variables were included with the exception of Externalized Problem Behaviors, Emotional Problem, and Social Skills. In this age category, the relationship variable was Emotional Support.

Middle Childhood. In Group 2, age 6 years to 10 years old all caregiver variables and all child variables were included. For this age Emotional Support was also the relationship variable.

Adolescence. In the age group 11 to 18 years old all caregiver variables and all child variables were included. In this age group, there were three

relationship variables, Parental Monitoring, Closeness to Caregiver, and Perceived Permanency.

Caregiver-child relationships as mediators. Within each group, the caregiver-child relationship variables were tested to determine if they functioned as mediators of the effects of caregiver characteristics and again as mediators of the effects of child characteristics. A variable is said to be a mediator when it intervenes between the independent variable and dependent variable (Baron & Kenny, 1986). Do the caregiver and child characteristics impact the caregiver-child relationship, which then impacts placement stability? To test for mediation, four regressions were performed. The mediator was regressed on the independent variable and found to determine a significant relationship. Next, the dependent variable was regressed on the mediator to determine a significant relationship. The dependent variable was regressed on the independent variable to determine a significant relationship. Finally the dependent variable was regressed on both the independent variable, and the mediator, to determine whether the independent variable is no longer significant (Baron & Kenny, 1986).

Placement type as a moderator. Previous studies have found that children in kinship care have more placement stability than children in family foster care. If the caregiver-child relationship mediated the effects of caregiver and child characteristics, another regression would have been used to test if this

mediated relationship was moderated, or varied by placement type. To determine if placement type would have been a moderator, the Relationship variable and placement type would have been multiplied and entered into the regression equation. Before this would be done, the relationship variable would be centered and placement type effects coded 0 = *Foster Care*, 1=*Kinship Care*.

Missing data.

There are four reasons for missing data in the NSCAW data set. The first is respondent non-response where the interview was not finished or it was determined that the interview was not needed. The second reason was item non-response where a participant did not answer a question. Non-response missing data is addressed by using the wave weights in the statistical analysis. Third, section skips and fourth, legitimate skips occurred due to a child's age or specific circumstances. Some questions were only asked of a certain age group because they would be inappropriate for all children. Because of this, this study has divided the LTFC group into three age categories and included in the Logistic Regressions only the variables that apply to that age group to reduce the large amount of missing data.

Limitations

There are several limitations of the current study. Because the study is a secondary data analysis, the study must use the variables that are in the original

database and questions cannot be written specifically for the purpose of this study. Interviews were conducted at an 18-month interval; therefore, if the child had several placements in between interviews, information about those caregivers was not collected and cannot be used in the study. The study was also limited to the characteristics and relationships that had been collected by the original researchers.

The caregiver-child relationship measures used in the study are also a limitation. The early childhood group and middle childhood group only had one measure of the caregiver-child relationship, Emotional Support, making it a weak measure, while the adolescence group had three measures; Parental Monitoring, Perceived Permanency, and Closeness to caregiver. In the NSCAW sample the Emotional Support subscale also only has fair internal consistency ($\alpha=.45-.74$). And finally, this variable is also not measured from the child's perspective; instead it is from the caregiver interview. Because of this Emotional Support may not actually be a good measure of the relationship.

Another limitation to the study is the small number of cases in the regression equation after subdividing the data by age groups. Because not all questions were asked of all ages, many questions have a large number of missing data. The 562 cases were divided by age groups causing each group to have a smaller number of cases, reducing the power, and the studies ability to detect

effects. The use of logistic regression was problematic because there is no standard formula for power analysis for logistic regression (Hosmer & Lemeshow, 2000). Formulas exist for a single covariate model (Whitemore, 1981; Hsieh, 1989) however; there is no formula for a model with several covariates (Hosmer & Lemeshow). The rule of ten formula based on events per parameters instead of number of covariates was used as recommended by Hosmer and Lemeshow (2000), however, this does not lead to the calculation of power, only the recommended number of parameters. In order to have enough power to avoid Type II errors, the number of parameters was small, (4 and 5) therefore the models were also small.

The small number of cases in each group also impacts the external validity of the study. Although the sampling procedures used to collect the data were designed to have strong external validity, caution is advised when applying results from this study to other populations. Cases were excluded from this study for many reasons, changing how representative the final sample is of the general foster care population. Children who were placed in group care or residential care were excluded, as were children who had returned home by the Wave 3 interview, 18 months later.

Chapter 4

Results

This chapter presents the results of the statistical analysis presented in chapter three. The research questions are addressed within each of the three age categories: Early childhood (1 to 5 years), Middle childhood (6 to 11 years) and Adolescence (12 to 18 years).

Sample description

Foster children. Foster child demographics are represented in Table 1. Half of the children in the sample were male ($n=281$; 50%) and half were female ($n=281$; 50%). Half were also Black ($n=278$; 50%) which is very over represented in this sample as nationwide Black children make up 18% of the population of children in the United State but 30% of foster children (GAO, 2008). Native Americans were also over represented with 26 (5%) in the sample while Native American children make up 1% of the population of children, and 2% of the foster children (GAO, 2008). One hundred and sixty-one (28%) in the sample were White and 91 (16%) Latino. The mean age of the foster children was 6.09 years, ($SD=4.52$), the median was 5 years, and the mode or most frequent age in the sample was 1 year. Three hundred and fifty-six (63%) had achieved placement stability and were living in the same foster or kinship home at both the baseline interview and eighteen months later.

Caregivers. Caregiver demographics are also represented in Table 1. Over half ($n= 344$; 61%) of the caregiver homes were foster homes, 149 (26%) were kinship care homes and 69 (12%) were missing. Seventy-one percent of children were placed with a caregiver of the same race. Only 11% of American Indian children, 52% of Latino children, 81% of Black children, and 80% of White children were placed with caregivers of the same race. Two hundred and two (35%) of the care givers were between age 36-45 years old, and 142 (21%) were over 55 years which supports the trend of grandparents caring for their grandchildren. Most caregivers, were married ($n=358$; 63%), had only a high school diploma ($n=349$; 62%), and many ($n=255$; 45%) made \$40,000 a year or more. The mean number of biological children a caregiver had was 3.41 ($SD=1.79$). The mean number of people in a household was 4.12 ($SD= 1.94$), and the mean number of children caregivers had cared for in the past was 14.24 ($SD= 22.90$). The mean number of weeks a child lived with the caregiver was 89 ($SD=114$) with a range from 2 to 780 weeks.

Early Childhood

Early childhood, ages 1 to 5 years old, had 287 children (49%) of the children in LTFC. See Table 2 for a summary of demographic characteristics. The mean age of children was 2.26 ($SD=1.37$) Most children ($n=180$; 74 %) were placed in foster homes, while one quarter ($n=65$; 26%) were placed in kinship

homes. Half of the children were female ($n=143$; 50 %), and half were male ($n=144$; 50 %). Sixty-nine percent ($n= 172$) of children were placed with a caregiver of the same race. Only 11% ($n= 3$) of American Indian children, 53% of Latino children ($n= 17$), 72% ($n= 91$) of Black children, and 80% ($n= 61$) of White children were placed with caregivers of the same race. Over half of the children were Black ($n=150$; 52%), 4% were Native American ($n= 10$), 25% were White ($n= 73$) and 19% were Latino ($n= 54$). Two hundred and two (80%) of children achieved placement stability while 49 (20 %) did not.

Caregiver characteristics are also in Table 2. The largest age group of caregivers was 36 to 45 years old ($n=113$; 39 %) and the other age groups, under 35, 46 to 55, and 56 and over, each had approximately 20% ($n=20$). Most ($n=113$; 36 %) were white. Most care givers had a high school diploma or equivalent, ($n=191$; 67%), earned \$40,000 or more ($n=132$; 46%), and were married ($n=179$; 63%). The mean number of household members was 3.97 ($SD=1.93$) and the mean number of children caregivers had cared for in the past was 14.44 ($SD=24.00$) with a wide range of 98. The mean number of weeks a child lived with the caregiver was 87, ($SD=109$) with a range from 3 to 780 weeks.

Power Analysis. A power analysis determined whether the sample size was large enough to detect the effects that the Independent variables had on

placement stability. Currently there is no standard formula for power analysis for logistic regression (Hosmer & Lemeshow, 2000). A few formulas have been proposed for a single covariate model (Whitemore, 1981; Hsieh, 1989), however, there is no formula for a model with several covariates (Hosmer & Lemeshow). Hosmer and Lemeshow (2000) recommend using a formula based on events per parameters instead of number of covariates: the rule of 10. They recommend the smaller of the two outcomes from the dependent variable divided by 10 used as the minimum number of parameters in the model. Using this formula, frequencies for Placement Stability are yes =202, no=49. Forty-nine rounded up to fifty; divided by ten means a model for the early childhood group should contain no more than 5 parameters.

Bivariate analysis. Following Hosmer and Lemeshow's (2000) recommendations, bivariate analysis were performed to evaluate whether a relationship existed and to determine which variables would be put in the first logistic regression model. Chi-square tests were performed with the dependent variable, Placement Stability, and the categorical independent variables. Table 3 summarizes the results of the chi-square tests of Placement Stability and Placement Type, Child Gender, Child Race, Caregiver Age, Household Income, Caregiver Education, Marital Status, and Caregiver race. Hosmer and Lemeshow (2000), suggest that all variables with a p value of less than .25 should be

included in the model. All of the categorical variables with the exception of Child Gender had a p value of less than .25, and were included in the first logistic regression model.

Univariable logistic regressions were also performed with Placement Stability and continuous independent variables Child Age, Biological Children, Household Members, Experience, Time with Caregiver, and Emotional Support, to evaluate their relationship and determine which to place in the first logistic regression model. The results are reported in Table 4. Child Age, Biological Children, and Time with Caregiver had a p value of .25 or greater, and therefore were not be included in the first model. The continuous variables Household Members, Experience and Emotional Support had a p value of less than .25 and were included in the first model.

Logistic regression. A series of logistic regressions were performed to determine the best fit model (Hosmer and Lemeshow, 2000). The first logistic regression model was performed with Placement Stability as the dependent variable and the ten independent variables with p values less than .25: 1) Child Race, 2) Placement Type, 3) Caregiver Age, 4) Household Income, 5) Caregiver Education, 6) Marital Status, 7) Caregiver Race, 8) Household Members, 9) Experience, 10) Emotional Support. In the model there were 204 valid cases and 83 invalid with missing data. Table 5 reports the Wald F and significance in the

test of model effects. The four variables with significant Wald F tests at the $p < .05$ level were kept in the second model: Caregiver Race, Placement Type, Household Members and Experience. A fifth variable Child Race was also kept because it was approaching the significant level ($p=.07$).

The second logistic regression model was performed that included the five significant variables. The magnitude of coefficients from both models were compared to determine if any of the variables that have been removed were important to the over all model. Table 6 reports the variable coefficients and several variables have differences. Child Race Latino, Caregiver Race Latino and Placement Type had approximately a .20 to .40 or difference. The Pseudo R Squares are a comparison of the model to a model with only the intercept and were compared next. Hosmer and Leshow (2000) state that Pseudo R squares are not a true assessment of goodness-of-fit, but are useful in comparing models. The Nagelkerke statistic is reported because their values range from 0 to 1 and are easier to interpret (Cohen et al., 2003). Model 1 had a .617 Nagelkerke and model 2 had a .518, meaning that compared to a model with only the intercept, Model 1 was a better fit than model 2. Finally, the Classification Tables were compared. Model 1 was estimated to correctly predict placement stability 90.2% of the time while model 2 only 87% of the time. Model 1 is a slightly better fit than model 2, however, because model 1 has 19 parameters, and the power analysis

recommends no more than 5, model 2 was deemed to be a better model than model 1.

A third model was fit dropping Child Race from the model because it was not significant at the .05 value ($p=.07$). The coefficients are reported in Table 7. The magnitude of the coefficients of model 3 compared to model 1 differed slightly with the exception of Caregiver Race which had a .89 change in the coefficients from model 1 to model 3. The Nagelkerke statistic was .500, and the classification table showed that model 3 correctly predicted placement stability 84.9%. Both numbers were lower than model 1 and slightly lower than model 2. Model 2 had 12 parameters and model 3 only 7. Due to these reasons, model 3 will be used as the final model and results are reported in Table 7.

Caregiver-child relationship as mediator. Next, the relationship variable, Emotional Support was tested to see if it was a mediator between caregiver characteristics and placement stability. In other words, do the care giver characteristics impact the caregiver-child relationship, which then impacts placement stability?

The caregiver characteristics in the final model are Caregiver Race, Placement Type, Household Members, and Experience. To determine if Emotional Support was a mediator between the caregiver characteristics and Placement stability, four steps were performed. First, Emotional Support was

regressed on the four caregiver characteristics using linear regressions. Emotional Support regressed on Caregiver Race was significant, Native American $\beta = .22$ (.68) $p = .74$, Black $\beta = -1.74$ (.48) $p = .00$, Latino $\beta = .46$ (.41) $p = .26$, with white as the reference group. Emotional Support regressed on Placement Type was not significant, Foster Care $\beta = -.39$ (.47) $p = .41$, with Kinship Care as the reference. Household Members was not significant $\beta = -.04$ (.13) $p = .77$. Caregiver Experience was also not significant, $\beta = .00$ (.01) $p = .94$. For Emotional Support to be a mediator, this relationship must be significant.

Next Placement Stability was regressed on Emotional Support. To be a mediator, this relationship must be significant. This was not significant Wald F (1, N=251) = 2.01, $p = .16$. The third step was regressing Placement Stability on the caregiver characteristics. Caregiver race was not significant Wald F (1, 251) = 2.04, $p = .11$. Placement Type was significant, Wald F (1, 218) = 5.60, $p = .02$. Household Members was significant, Wald F (1, 287) = 6.93, $p = .01$. Experience was also significant Wald F (1, 287) = 13.48, $p = .00$. To be a mediator, these relationships must be significant.

Lastly, Placement Stability was regressed on both Emotional Support and the caregiver characteristics. To be a mediator, the relationships should not be significant. When regressed on Caregiver Race and Emotional Support significant relationships were not found: Caregiver Race, Wald F (1, N= 251) = 1.91, $p = .13$;

Emotional Support, Wald F (1, N= 251) = .26, $p = .61$. When regressed on Placement Type and Emotional Support there was a significant relationship; Placement Type, Wald F (1, N= 218) = 6.56, $p = .01$; Emotional Support, Wald F (1, N= 218) = 1.53, $p = .22$. When regressed on Household Members and Emotional Support a significant relationship was found: Household Members, Wald F (1, 251) = 7.36, $p = .01$; Emotional Support, Wald F (1, 251) = 2.99, $p = .09$. When regressed on Experience and Emotional Support a significant relationship was found: Experience, Wald F (1, 216) = 12.92, $p = .00$; Emotional Support, Wald F (1, 216) = 1.10, $p = .30$.

Because all of the four criteria were not met, Emotional Support is not a mediator between caregiver characteristics and placement stability. There were no child characteristics; therefore Emotional Support as a mediator was not test with child characteristics.

Early Childhood Research Questions

1. Is there a significant effect of the caregiver characteristics on placement stability?

The caregiver characteristics that are in the final model (see Table 7) are Caregiver Race, Household Members, and Experience. All of these characteristics are significant at the $p \leq .05$ level.

Caregiver race does have an effect on placement stability in the final model. Children placed with Native American caregivers are almost two and a half times more likely to achieve placement stability than children placed with White caregivers ($OR=2.42$) and this is a moderate effect. Children placed with Black families are 38% less likely ($OR= .62$), a small effect, and children placed with Latino families are 94% less likely ($OR= .06$), a small effect, to achieve placement stability than with White families ($p=.00$).

The odds of achieving placement stability decreases by a factor of .65 ($OR=.65$; $p=.00$), for each additional person living in the household. Or a child is 35% less likely to achieve placement stability for each additional person in the caregiver household. This is a small effect.

Caregiver experience had a small effect on the odds of achieving placement stability. A child's odds decreases by a factor of .96 ($OR = .96$; $p=.00$), or were only 4% less likely to achieve placement stability for each additional unit of caregiver experience. Although this variable is significant, the decrease is small.

2. Is there a significant effect of child characteristics on placement stability?

The final model did not include any child characteristics (see Table 7) therefore in early childhood there was not a significant effect of child characteristics on placement stability.

3. Is there a significant effect of the caregiver-child relationship on placement stability?

The relationship variable in early childhood was Emotional Support and was not included in the final model because there was not a significant relationship between emotional Support and placement stability Wald F (1, N=251) =2.01, $p=.16$, therefore, caregiver-child relationship as measured did not effect placement stability in early childhood (see Table 7).

4a. Based on the caregiver characteristics in the final model, does the caregiver-child relationship mediate the effect of caregiver characteristics on placement stability?

All of the criteria Baron & Kenny (1986) state are necessary for a variable to be a mediator between an independent variable and dependent variable were not met. Therefore there was no mediated relationship between any of the caregiver characteristics in the model and placement stability.

b. Does this mediating relationship vary depending on placement type (kinship or foster care)?

Because there was no mediated relationship, this was not tested.

5a. Based on the child characteristics in the final model, does the caregiver-child relationship mediate the effect of child characteristics on placement stability?

Because there were no child characteristics in the final model, Emotional Support was not tested as a mediator between child characteristics and placement stability.

b. Does this mediating relationship vary depending on placement type (kinship or foster care)?

Because there were no child characteristics these were not tested.

6. Does placement type have a significant effect on placement stability?

Placement Type had a small effect on placement stability (see Table 7). Children placed in foster homes have a reduced odds of achieving placement stability by a factor of .17 ($OR = .17; p = .02$). Children living in foster homes are 83% less likely to achieve placement stability than children placed in Kinship homes.

Middle Childhood

Middle childhood, age 6 to 10 years old, had 149 children (28%) of the children in LTFC. See Table 8 for a summary of demographic characteristics. The mean child age was 7.76 ($SD = 1.42$). Half of the children were female ($n = 74; 50%$) and half male ($n = 74; 50%$), most were in foster homes ($n = 85; 62%$) and had achieved placement stability ($n = 89; 60%$). Seventy five percent ($n = 112$) of children were placed with a caregiver of the same race. Only 18% ($n = 2$) of American Indian children, 57% ($n = 8$) of Latino children, 90% of Black children

($n=64$), and 82% ($n=38$) of White children were placed with caregivers of the same race. Most caregivers had a high school degree or equivalents ($n=92$; 62%), many earned over \$40,000 ($n=64$; 49%), and were married ($n=91$; 61%). Just over one third of the caregivers ($n=52$; 35%) were in the 36-45 age range, and one third were in the 45-55 age range ($n=45$; 30%). The mean number of children a caregiver has cared for in the past was 11.34 ($SD=17.62$) and the mean number of members in households was 4.46 ($SD=1.84$). The mean number of weeks a child lived with the caregiver was 86, ($SD=106$) with a range from 2 to 728 weeks. The mean score for social skills was 45.35 ($SD=10.96$) and the mean score of the relationship variable Emotional Support was 9.39 ($SD=2.33$).

Power Analysis. Using the rule of ten formula (Hosmer, & Lemeshow, 2000), the final middle childhood model should contain no more than 4 parameters. The frequencies for the outcomes of Placement Stability are yes=89, no=40.

Bivariate analysis. Chi-square tests were performed with Placement stability and the categorical variables: Type of Placement, Child Gender, Child Race, Caregiver Age, Household Income, Caregiver Education, Marital Status, and Caregiver Race. The results are reported in Table 9. All variables with the exception of Child Race, and Child Gender had p value of less than .25, and were included in the first logistic model.

Univariable logistic regressions were performed with Placement Stability regressed on Child Age, Biological Children, Social Skills, Emotional Problems, Externalized Problem Behaviors, Household Members, Experience, Time with Caregiver, and Emotional Support. The results are reported in Table 10. All variables with the exception of Household Members, and Time with Caregiver had a p value of less than or equal to .25 and will be included in the first logistic model.

Logistic regression. The first model logistic regression was performed with Placement Stability as the dependent variable and 13 independent variables: 1) Child Age, 2) Social Skills, 3) Emotional Problems, 4) Externalized Problem Behaviors 5) Placement Type, 6) Caregiver Age, 7) Household Income, 8) Caregiver Education, 9) Marital Status, 10) Caregiver Race, 11) Biological Children, 12) Experience, and 13) Emotional Support. In the model there were 95 valid cases with 54 invalid and missing data. Table 11 reports the Wald F statistic and significance. Externalized Problem Behaviors, and Caregiver Age were the only variables that were significant ($p < .05$). Three other variables were also selected for the second model because they were approaching significance, Placement Type ($p = .08$), Caregiver Race ($p = .10$), and Experience ($p = .06$).

A logistic regression was performed with the second model with Placement Stability as the dependent variable, and Placement Type, Caregiver

Race, Externalized Problem Behaviors, Caregiver Age, and Experience as predictors. The magnitudes of the coefficients were compared and are reported in Table 12. Placement Type, Caregiver Race, and Caregiver Age had large differences between the coefficients, up to a change of 1. Next the Pseudo R Squares were compared. Model 1 had a .651 Nagelkerke statistic and model 2 had a .568, meaning that compared to a model with only the intercept, Model 1 was a better fit than model 2. Finally, the Classification Tables were compared. Model 1 was estimated to correctly predict placement stability 91.2% of the time while model 2 only 84.1% of the time. While there are large differences between model 1 and model 2, because model 1 had 16 parameters, therefore it was not determined to be a better fit because there would be too many parameters.

A third logistic model was performed removing Caregiver Race because it was not significant at the .05 level. Placement Stability was regressed on Placement Type, Externalized Problem Behaviors, Caregiver Age and Experience. The magnitudes of the coefficients are compared in Table 13. The size of the changes was up to .60. The Pseudo R Squares were compared. Model 1 had a .651 Nagelkerke statistic and model 3 had a .561, only a slight difference. Finally, the Classification Tables were compared. Model 1 was estimated to correctly predict placement stability 91.2% of the time while model 3 predicted 85.5% of the time. Over all, the differences were modest.

A fourth logistic regression model was performed with only the two significant variables in the first model: Externalized Problem Behaviors, and Caregiver Age. The magnitudes of the coefficients were compared in Table 14. The size of the changes was also up to .60, similar to model 3. Comparing the Pseudo R Squares, model 1 had a Nagelkerke statistic of .651, and model 4, .380, a large change. When comparing classification tables, model 1 predicted placement stability correctly 91.2% of the time while model 4 correctly classified placement stability 83.3%. The changes from model 1 to model 4 were deemed to be too large, therefore, model 3 was the final model as changes were modest and there were 5 parameters, only 1 more than the power analysis recommended. A summary of results of the final model are reported in Table 13.

Caregiver-child relationship as mediator. The relationship variable in middle childhood was Emotional Support. Emotional Support was tested as a mediator between child and caregiver characteristics and placement stability. The caregiver characteristics in the final model were Placement Type, Experience and Caregiver Age. The child characteristic was Externalized Problem Behaviors.

To determine if Emotional Support was a mediator between the caregiver and child characteristics and Placement stability, four steps were performed. First, Emotional Support was regressed on the caregiver and child characteristics using linear regressions. Emotional Support regressed on Placement Type was not

significant, $\beta=1.05$ (.62) $p= .09$. Emotional Support regressed on Experience was not significant, $\beta= -.00$ (.02) $p= .87$. Caregiver Age was significant $\beta= -.72$ (.24) $p= .00$. Externalized Problem Behaviors was also not significant, $\beta= .01$ (.02) $p= .67$. For Emotional Support to be a mediator, these relationships must be significant.

Next Placement Stability was regressed on Emotional Support. To be a mediator, this relationship must be significant. This was not significant Wald F (1, N=122) =2.31, $p=.13$. The third step was regressing Placement Stability on the caregiver and child characteristics. Placement Type was significant Wald F (1, 119) = 6.05, $p= .02$. Experience was not significant, Wald F (1, N=149) = 2.94, $p= .09$. Caregiver Age was significant Wald F (1, 128) = 5.31, $p= .02$. Externalized Problem Behaviors was significant, Wald F (1, N=249) = 19.27, $p=.00$. To be a mediator, these relationships must be significant.

Lastly, Placement Stability was regressed on both Emotional Support and the caregiver and child characteristics. To be a mediator, the relationships should not be significant. When regressed on Placement Type and Emotional Support significant relationships were not found: Placement Type, Wald F (1, N= 112) = 3.08, $p= .08$; Emotional Support, Wald F (1, N= 112) = 1.05, $p= .31$. When regressed on Experience and Emotional Support there was not a significant relationship in both variables; Experience, Wald F (1, N= 108) = 3.23, $p=.08$;

Emotional Support, Wald F (1, N= 108) = 4.14, $p = .04$. When regressed on Caregiver Age and Emotional Support a significant relationship was found in both: Caregiver Age, Wald F (1, 121) = 6.10, $p = .02$; Emotional Support, Wald F (1, 121) = 1.13, $p = .29$. When regressed on Externalized Problem Behaviors and Emotional Support a significant relationship was found in both: Problem Behaviors, Wald F (1, 121) = 17.14, $p = .00$; Emotional Support, Wald F (1, 121) = 3.06, $p = .08$.

All of the four criteria were not met, therefore, Emotional Support is not a mediator between caregiver and child characteristics and placement stability. Because there was not a mediating relationship, Placement Type as a moderator was not tested.

Middle Childhood Research Questions

1. Is there a significant effect of the caregiver characteristics on placement stability?

The caregiver characteristics in the final model were Caregiver Age and Experience (see Table 13). Placement Type is discussed later. Caregiver experience had a small effect on placement stability in middle childhood. The odds of achieving placement stability decreased by a factor of .96 ($OR = .96$; $p = .09$) for each additional child cared for however, this was not statistically

significant. For each additional child that a caregiver had experience caring for a child was 4% less likely to achieve placement stability.

Caregiver's Age also had a small effect. The odds of achieving placement stability increase by a factor of 1.90 ($OR = 1.90$; $p = .06$) for each unit increase in caregiver age, and this was approaching significance. For each increase in the caregiver age categories, children are almost twice as likely to achieving placement stability.

2. Is there a significant effect of child characteristics on placement stability?

The child characteristic in middle childhood was Externalized Problem Behaviors (see Table 13). Externalized Problem Behaviors had a small effect on placement stability. The odds of achieving placement stability decrease by a factor of .87 ($OR = .87$; $p = .00$). for each additional 1 point increase in externalized behavior score. A child is 12% less likely to achieve placement stability for every additional point increase in their external behavior score

3. Is there a significant effect of the caregiver-child relationship on placement stability?

The relationship variable in middle childhood was Emotional Support and was not included in the final model because it was not statistically significant; therefore there was no effect of the caregiver-child relationship as measured on placement stability (see Table 13).

4-5. Based on the child and caregiver characteristics in the final model, does the caregiver-child relationship mediate the effect of caregiver family and child characteristics on placement stability?

When tested as a mediator, not all of the four criteria (Baron and Kenny, 1986) were met; therefore, there was not a mediating relationship. Because there was not a mediating relationship, Placement Type as a moderator was not tested for either caregiver or child characteristics.

6. Does placement type have a significant effect on placement stability?

Placement type had a small effect on placement stability (see Table 13). The odds of achieving placement stability when the caregiver is a foster home as opposed to a kinship home is decreased by a factor of .13 ($OR = .13; p = .00$). Children living in foster homes were 87% less likely to achieve placement stability than those living in kinship homes.

Adolescence

Adolescence, age 11 to 18 years old had 126 children or 23% of LTFC. See Table 15 for a summary of demographic characteristics. The mean age of children was 12.85 ($SD = 1.41$). Half were female ($n = 64; 51%$) and half were male ($n = 62; 49%$). Most ($n = 79; 71%$) were in foster homes and had placement stability ($n = 65; 62%$). The mean Emotional Problems was 12.52 ($SD = 9.48$) and Externalized Problem Behaviors 17.98 ($SD = 11.90$). Seventy seven percent ($n =$

83) of children were placed with a caregiver of the same race. Five percent ($n= 1$) of American Indian children, 40% ($n= 6$) of Latino children, 94% ($n= 41$) of Black children, and 80% ($n= 35$) of White children were placed with caregivers of the same race. Most caregivers were in the 46-55 ages category ($n=40$; 32%), had high school degree or equivalent ($n=66$; 52%), earned over \$40,000 ($n=59$; 54%) and were married ($n=88$; 70%). The mean number of children caregivers had cared for was 17.30 ($SD=11.90$), and the mean number of house hold members was 4.41 ($SD=1.99$). The mean number of weeks a child lived with the caregiver was 99, ($SD=132$) with a range from 2 to 728 weeks. The mean for the three relationship variables was Parental Monitoring 24.98 ($SD=3.78$), Perceived Permanency 4.23 ($SD=1.11$), and Closeness 8.32 ($SD=2.27$).

Power Analysis. Using the rule of ten (Hosmer & Lemeshow, 2000), the final model for Adolescence should contain no more than 4 parameters. Outcome frequencies for placement stability are Yes=65, no =39.

Bivariate analysis. Chi-square tests were performed with Placement stability and the categorical variables: Type of Placement, Child Gender, Child Race, Caregiver Age, Household Income, Caregiver Education, Marital Status, and Caregiver Race. The results are summarized in Table 16. The variables that had a p value of less than .25, Caregiver Education, Caregiver Age and Marital Status will be included in the second logistic regression model.

Univariable regressions were performed with Placement Stability regressed on Child Age, Biological Children, Social Skills, Emotional Problems, Externalized Problem Behaviors, Household Members, Experience, Time with Caregiver, Parental Monitoring, Perceived Permanency, and Closeness. The results are summarized in Table 17. Only Child Age and Parental Monitoring had a p value of less than .25 and will be included in the second model. Hosmer and Lemeshow (2000), state that all variables with clinical significance should also be included; therefore, Externalized Problem Behaviors will also be included in the models due to its significance in numerous previous studies.

Logistic Regression. The first logistic regression model was performed with Placement Stability as the dependent variable and Marital Status, Caregiver Education, Caregiver Age, Child Age, Externalized Problem Behaviors, and Parental Monitoring as predictors. Wald F statistics and significance are summarized in Table 18. There were 104 valid cases and 22 invalid with missing data. None of the six variables in Model 1 had significance at the $p < .05$ level.

The second logistic regression model was then fit by systematically dropping the variable with the least significance, one at a time. When the model contained only Child Age ($p = .06$) and Parental Monitoring ($p = .09$) both variables were nearing significance. When the coefficients were compared both changed less than .20. Wald F statistics and significance are summarized in Table 19.

Next the Pseudo R Squares were compared. Model 1 had a Nagelkerke statistic of .184 and Model 2 had a .140, meaning that compared to a model with only the intercept, Model 1 was a slightly better fit than model 2. Finally, the Classification Tables were compared. Model 1 was estimated to correctly predict placement stability only 67.8% of the time while Model 2, 71.8% of the time. Given these comparisons, and the power analysis recommendation to use no more than 4 parameters, the decision was made to use Model 2 as the final model and is summarized in Table 19.

Caregiver-child relationship as mediator. The relationship variables in Adolescence were Parental Monitoring, Perceived Permanency, and Closeness. Only Parental Monitoring was included in the final model. Parental Monitoring was tested as a mediator between child characteristic, Child Age and Placement Stability. The final model did not contain any caregiver characteristics; therefore Parental Monitoring was not tested as a mediator between caregiver characteristics and Placement Stability.

To determine if Parental Monitoring was a mediator between Child Age and Placement stability, four steps were performed. First, Parental Monitoring was regressed on Child Age using a linear regression. Parental Monitoring regressed on Child Age was not significant, $\beta = -.24 (.34)$ $p = .49$. For Parental Monitoring to be a mediator, this relationship must be significant.

Next Placement Stability was regressed on Parental Monitoring. To be a mediator, this relationship must be significant. This was not significant Wald F (1, N=103) = 2.14, $p = .15$. The third step was regressing Placement Stability on the child characteristics. Child Age was not significant, Wald F (1, N=126) = 3.34, $p = .07$. To be a mediator, this relationship must be significant.

Lastly, Placement Stability was regressed on both Parental Monitoring and Child Age. A significant relationship was not found: Child Age, Wald F (1, 126) = 3.77, $p = .06$; Parental Monitoring, Wald F (1, 126) = 2.98, $p = .09$. To be a mediator, significant relationships should not be found.

All of the four criteria were not met, therefore, Parental Monitoring is not a mediator between child characteristics and placement stability. Because there was not a mediating relationship, Placement Type as a moderator was not tested.

Adolescence Research Questions.

1. Is there a significant effect of the caregiver characteristics on placement stability?

In Adolescence, none of the caregiver characteristics had a significant effect at the $p \leq .05$ level, on placement stability when the chi-squares, univariate logistic regression were performed and were not included in the final model (see Table 19).

2. Is there a significant effect of child characteristics on placement stability?

In Adolescence, the only child characteristic that was in the final model was child age (see Table 19). The odds of achieving placement stability increase with each additional year in age by a factor of 1.50 ($OR = 1.5$; $p = .06$) when controlling for other variables, however, this was only nearing statistical significance and a small effect. For each year a child is older, they are 50% more likely to achieve placement stability.

3. Is there a significant effect of the caregiver-child relationship on placement stability?

In Adolescence, there were three relationship variables: Parental Monitoring, Perceived Permanency, and Closeness. Only Parental Monitoring was included in the final model (see Table 19) and it was not statistically significant, however, it has practice significance. The odds of achieving placement stability increased by a factor of 1.14, ($OR = 1.14$; $p = .09$), for each additional unit increase in parental monitoring. For each additional point scored on the parental monitoring scale, children are 14% more likely to achieve placement stability.

4-5. Based on the caregiver and child characteristics in the final model, does the caregiver-child relationship mediate the effect of caregiver family and child characteristics on placement stability?

There were no caregiver family characteristics in the final model; therefore a mediating relationship was not tested. The child characteristic was Child Age. The relationship variable in the final model was Parental Monitoring. When Parental Monitoring was tested, all of the criteria Baron and Kenny (1988) state are required to be a mediator were not met. Therefore, there was no mediating relationship of caregiver-child relationship between child characteristics and Placement Stability. Because there was not a mediating relationship, Placement Type as a moderator was not tested for either caregiver or child characteristics.

6. Does placement type have a significant effect on placement stability?

Placement Type was not included in the final model (see Table 19), and did not have an effect on placement stability because the relationship was not statistically significant ($p=.43$).

Table 1
Frequency and Percentages, Means and Standard Deviations of Long Term Foster Care

Characteristic	Caregiver			Foster Child	
	<i>f</i>	%	<i>M SD</i>	<i>f</i>	%
Caregiver Race				Child Race	
Native American	16	2.8		Native American	26 4.6
Black	247	44.0		Black	278 49.5
White	239	42.5		White	161 28.6
Latino	46	8.2		Latino	91 16.2
Other	14	2.5		Other	6 1.1
Caregiver Age				Gender	

<=25	5	.9	Female	281	50.0
26-35	94	16.7	Male	281	50.0
36-45	202	35.9	Placement Type		
46-55	142	25.3	Foster home	344	61.2
>55	118	21.0	Kinship care	149	26.5
Family Income			Missing	69	12.3
0-9,999	22	3.9	Placement Stability		
10,000-19,999	74	13.2	Yes	356	63.3
20,000-29,999	70	12.5	No	128	22.8
30,000-39,999	84	14.9	Ambiguous ^a	78	13.9
40,000 and greater	255	45.4			
Caregiver's Education					
Refused/none	70	12.5			
High school	349	62.1			
Vocation/AA	54	9.6			
Bachelors Degree	49	8.7			
Graduate	15	2.7			
Marital Status					
Married	358	63.8			
Not married	203	36.1			
Biological Children			3.41	1.79	
Household Members			4.12	1.94	
Time with Caregiver			89.96	113.67	
Experience			14.24	22.90	

N=562

Note. ^a Ambiguous cases are those that could not be determined if the child still lived in the same household at Wave 3.

Table 2
Early Childhood Frequency, Percentages, Means and Standard Deviations of Caregiver and Foster Child Characteristics

Characteristic	Caregiver				Foster Child			
	<i>f</i>	<i>%</i>	<i>M</i>	<i>SD</i>	<i>f</i>	<i>%</i>	<i>M</i>	<i>SD</i>
Race					Race			
Native American	10	4			Native American	10	4	
Black	116	40			Black	150	52	
White	131	46			White	73	25	
Latino	26	9			Latino	54	19	
Caregiver Age					Gender			

<=35	59	21			Female	143	50
36-45	113	39			Male	144	50
46-55	57	20			Placement Type		
>=56	57	20			Foster home	180	74
Caregivers' education					Kinship	65	26
None	30	11			Placement Stability		
High	191	67			Yes	202	80
Vocation/AA	25	9			No	49	20
Bachelors degree	21	7			Age		2.26 1.37
Graduate	9	3					
Family Income							
0-19,999	46	16					
20,000-29,999	40	14					
30,000-39,999	48	17					
40,000 and greater	132	46					
Marital Status							
Married	179	63					
Not married	107	37					
Biological Children			3.11	1.82			
Household Members			3.97	1.93			
Time with Caregiver			97.31	108.99			
Experience			4.44	24.00			
Emotional Support			7.94	2.05			

N=287

Table 3
Early childhood Chi-square Independent Variables and Placement Stability

Variable	χ^2	Adjusted F	df	n	p	ϕ
Placement Type	10.00	6.27	1	218	.01	.19
Child Gender	.59	.21	1	251	.65	.05
Child Race	13.79	1.74	3	251	.16	.22
Caregiver Age	18.63	2.96	3	251	.03	.25
Household Income	17.89	3.03	3	237	.04	.25
Caregiver Education	14.20	1.47	4	251	.21	.22
Marital Status	21.94	9.10	1	251	.00	.28
Caregiver race	22.77	2.57	3	251	.06	.28

N=287

Table 4
Early Childhood Univariable Logistic Regression Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
Child Age	.00	.17	1.00	[.717, 1.405]	.00	.98
Biological Children	-.10	.14	.90	[.681, 1.201]	.49	.49
Household Members	-.39	.15	.68	[.509, .907]	6.93	.01
Experience	-.04	.01	.96	[.938, .981]	13.48	.00
Time with Caregiver	1.65	.00	1.00	[.997, 1.003]	.00	.99
Emotional Support	-.41	.10	.87	[.713, 1.056]	2.01	.16

N=287

Dependent Variable: Placement Stability, reference category, no

Table 5
Early Childhood Model 1 Tests of the Model Effects, Logistic Regression Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
(Intercept)	6.68	2.72	796.88	[3.73,170178]	4.30	.04
Child Race					2.40	.07
Native Amer	-2.29	1.06	.10	[.013, .827]		
Black	-.89	.79	.41	[.087, 1.948]		
Latino	-1.50	.72	.20	[.050, .835]		
Caregiver Race					2.93	.03
Native Amer	.91	1.37	2.50	[.167, 37.337]		

Black	.66	.77	1.94	[.422, 8.938]		
Latino	-1.99	-1.99	.14	[.031, .598]		
Placement Type	-1.41	.70	.25	[.061, .981]	4.00	.05
Household Members	-.32	.60	.73	[.529, .996]	3.99	.05
Experience	-.06	.01	.95	[.922, .970]	18.65	.00
Marital Status	1.29	.80	3.63	[.745, 17.683]	2.57	.11
Education	-.02	.22	.98	[.635, 1.522]	.01	.94
Household Income	-.01	.32	.99	[.526, 1.848]	.00	.96
Caregiver Age	-.19	.28	.82	[.475, 1.429]	.48	.49
Emotional Support	-.05	.16	.95	[.687, 1.305]	.11	.74

N=204

Dependent Variable: Placement Stability, reference category, no

Race: reference category, White

Placement Type: reference group, kinship care

Marital Status: reference group, married

Table 6
Early Childhood Model 2 Tests of the Model Effects Logistic Regression Predicting Placement Stability

Variable	B	SE	OR	95% CI	Wald F	p
(Intercept)	6.23	1.01	507.94	[69.157,3730.72]	41.91	.00
Child Race					2.21	.09
Native Amer	-2.11	.86	.12	[.022, .662]		
Black	-.71	.71	.49	[.122, 1.985]		
Latino	-1.15	.70	.32	[.850, 1.254]		
Caregiver Race					3.07	.03
Native Amer	.97	1.16	2.63	[.268, 25.781]		

Black	.27	.93	.77	[.123, 4.746]		
Latino	-2.27	.80	.10	[.021, .498]		
Placement Type	-1.63	.20	.25	[.052, .740]	5.86	.02
Household Members	-.46	.63	.73	[.488, .816]	12.45	.00
Experience	-.05	.01	.95	[.934, .977]	16.60	.00

N=204

Dependent Variable: Placement Stability, reference category, no

Race: reference category, White

Placement Type: reference group, kinship care

Table 7

Early Childhood Final Model (Model 3) Logistic Regression Predicting Placement Stability

Variable	B	SE	OR	95% CI	Wald F	p
Intercept	5.71	1.03	302.309	[39.42, 2318.38]	36.50	.00
Caregiver Race					4.60	.00
Native American	.88	1.16	2.42	[.245, 23.84]		
Black	-.48	.81	.62	[.124, 3.080]		
Latino	-2.87	.81	.06	[.012, .280]		
Placement Type	-1.77	.76	.17	[.038, .757]	5.48	.02
Household Members	-.43	.13	.65	[.497, .845]	10.37	.01
Experience	-.04	.01	.96	[.937, .978]	15.58	.00

N=287

Dependent Variable: Placement Stability, reference category, no

Race: reference category, White

Placement Type: reference group, kinship care

Table 8
Middle Childhood Frequency Percentages, Means and Standard Deviations of Caregiver and Foster Child Characteristics

Characteristic	Caregiver				Foster Child			
	<i>f</i>	%	<i>M</i>	<i>SD</i>	<i>f</i>	%	<i>M</i>	<i>SD</i>
Race					Race			
Native American	7	5			Native American	9	6	
Black	74	50			Black	73	49	
White	57	38			White	46	31	
Latino	11	7			Latino	21	14	
Caregiver Age					Gender			

<=35	18	12							
36-45	52	35							
46-55	45	30							
>=56	34	23							
Caregivers' education									
None	18	12							
High school	92	62							
Vocation/AA	13	9							
Bachelors	14	9							
Graduate	9	6							
Family Income									
0-19,999	7	5							
20,000-29,999	19	15							
30,000-39,999	18	23							
40,000 and greater	64	49							
Marital Status									
Married	91	61							
Not married	58	39							
Biological Children			3.72	1.56					
Time with Caregiver			86.37	105.60					
Household Members			4.46	1.84					
Experience			11.34	17.62					
Emotional Support			9.39	2.33					
<hr/>									
N= 149									

Table 9
Middle Childhood Chi-square Independent Variables and Placement Stability

Variable	χ^2	Adjusted F	df	n	p	ϕ
Placement Type	15.49	7.12	1	120	.01	.32
Child Gender	2.19	1.31	1	129	.25	.12
Child Race	.14	.03	3	129	.99	.03
Caregiver Age	10.25	2.55	3	129	.06	.26
Household Income	9.40	1.58	4	129	.17	.25
Caregiver Education	13.92	2.31	4	129	.06	.30
Marital Status	8.16	8.78	1	129	.00	.23
Caregiver Race	11.71	3.14	3	129	.04	.28

N=149

Table 10
Middle Childhood Univariable Logistic Regressions Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
Child Age	-.32	.20	.73	[.487, 1.093]	2.38	.13
Biological Children	.24	.14	1.28	[.974, 1.669]	3.19	.08
Social Skills	.12	.04	1.13	[1.045, 1.220]	9.56	.00
Emotional Problems	-.09	.03	.91	[.867, .963]	11.50	.00
External Behaviors	-.10	.02	.91	[.866, .947]	19.27	.00
Household Members	.18	.17	.83	[.591, 1.173]	1.12	.29
Experience	-.05	.03	.96	[.909, 1.007]	2.94	.09
Time with Caregiver	.00	.00	1.00	[.996, 1.005]	.04	.84

Emotional Support	-.20	.13	.82	[.626, 1.063]	2.31	.13
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N=149

Dependent Variable: Placement Stability, reference category, no

Table 11
Middle Childhood Model 1 Tests of the Model Effects Logistic Regression Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
(Intercept)	.52	4.90	1.68	[.000, 28155.336]	.05	.82
Placement Type	-1.45	.82	.24	[.046, 1.1192]	3.13	.08
Child Age	-.00	.28	1.00	[.568, 1.756]	.00	1.00
Social Skills	.06	.04	1.06	[.973, 1.156]	1.82	.18
Emotional Problems	.06	.05	1.06	[.964, 1.165]	1.49	.23
External Behaviors	-.14	.05	.87	[.784, .958]	8.10	.01
Caregiver Race					2.12	.10

Native American	.61	1.56	1.83	[.082, 40.741]		
Black	-.74	.83	.48	[.091, 2.475]		
Latino	2.81	2.20	16.65	[.208, 1316.086]		
Marital Status	.92	.90	2.64	[.447, 15.612]	1.18	.28
Education	-.07	.26	.93	[.563, 1.551]	.07	.79
Experience	-.06	.03	.94	[.881, 1.003]	3.62	.06
Household Income	.05	.43	1.05	[.448, 2.463]	.01	.91
Caregiver Age	1.21	.54	3.35	[1.153, 9.727]	5.07	.03
Emotional Support	-.17	.19	.85	[.585, 1.230]	.77	.38

N=95

Dependent Variable: Placement Stability, reference category, no

Race: reference category, White

Placement Type: reference group, kinship care

Marital status: reference category, married

Table 12
Middle Childhood Model 2 Tests of the Model Effects Logistic Regression Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
(Intercept)	2.92	1.41	18.57	[1.129, 305.538]	3.19	.08
Placement Type	-2.02	.66	.13	[.035, .484]	9.49	.03
External Behaviors	-.14	.05	.87	[.784, .958]	22.56	.00
Caregiver Race					.87	.46
Native American	.30	1.31	1.35	[.100, 18.018]		
Black	-.90	.64	.92	[.257, 3.262]		
Latino	1.79	1.22	8.98	[.535, 66.816]		

Experience	-.04	.03	.96	[.912, 1.006]	3.06	.03
Caregiver Age	.64	.37	1.90	[.906, 3.981]	2.94	.09

N=95

Dependent Variable: Placement Stability, reference category, no

Race: reference category, White

Placement Type: reference group, kinship care

Table 13
Middle Childhood Model 3 and Final Model Logistic Regression Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
(Intercept)	2.88	1.43	17.92	[1.037, 309.691]	2.10	.15
Placement Type	-2.02	.72	.13	[.032, .549]	7.92	.01
External Behaviors	-.13	.02	.88	[.841, .926]	26.53	.00
Experience	-.04	.02	.96	[.915, 1.007]	2.91	.09
Caregiver Age	.64	.37	1.90	[.906, 3.981]	3.58	.06

N=95

Dependent Variable: Placement Stability, reference category, no

Placement Type: reference group, kinship care

Table 14
Middle Childhood Model 4 Tests of the Model Effects Logistic Regression Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
(Intercept)	.66	1.32	1.94	[.142, 26.571]	2.51	.62
External Behaviors	-.10	.02	.90	[.868, .943]	22.89	.00
Caregiver Age	.66	.34	1.94	[.996, 3804]	3.87	.05

N=95

Dependent Variable: Placement Stability, reference category, no

Table 15
Adolescence Frequency, Percentages, Means and Standard Deviations of Caregiver and Foster Child Characteristics

Characteristic	Caregiver				Foster Child			
	<i>f</i>	%	<i>M</i>	<i>SD</i>	<i>f</i>	%	<i>M</i>	<i>SD</i>
Race								
Native American	9	7			Native American	13	10	
Black	57	45			Black	55	44	
White	51	41			White	42	33	
Latino	9	7			Latino	16	13	
Caregiver Age					Gender			

<=35	22	18	Female	64	51		
36-45	37	29	Male	62	49		
46-55	40	32	Placement Type				
>=56	27	21	Foster home	79	71		
Caregivers' education			Kinship	32	29		
None	21	17	Placement Stability				
High school	66	52	Yes	65	62		
Vocation/AA	16	13	No	39	38		
Bachelors degree	14	11	Age			12.85	1.41
Graduate	6	5	Social Skills			48.07	11.03
Family Income			Emotional Problems			12.52	9.48
0-19,999	24	22	Externalized Behaviors			17.98	11.90
20,000-29,999	13	12	Parental Monitoring			24.98	3.78
30,000-39,999	13	12					
40,000 and greater	59	54					
Marital Status							
Married	88	70					
Not married	38	30					
Biological Children		3.73	1.86				
Household Members		4.41	1.99				
Time with Caregiver		99.94	131.61				
Experience		17.30	25.49				
Perceived Permanency		4.23	1.11				
Closeness		8.32	2.27				
<hr/>							
N= 126							

Table 16
Adolescence Chi-square Independent Variables and Placement Stability

Variable	χ^2	Adjusted F	df	n	p	ϕ
Placement Type	1.37	.63	1	92	.43	.10
Child Gender	.86	.40	1	104	.53	.08
Child Race	5.99	1.39	3	104	.25	.22
Caregiver Age	8.89	1.70	3	104	.17	.27
Household Income	4.86	.83	3	92	.45	.20
Caregiver Education	13.75	1.96	4	104	.10	.33
Marital Status	4.22	2.32	1	104	.13	.18
Caregiver Race	5.01	1.24	3	104	.30	.20

N=126

Table 17
Adolescence Univariable Logistic Regressions Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
Child Age	.36	.20	1.43	[.970, 2.119]	3.34	.07
Biological Children	.14	.16	1.15	[.841, 1.572]	.78	.38
Social Skills	.02	.02	1.02	[.974, 1.072]	.80	.37
Emotional Problems	.01	.03	1.01	[.950, 1.069]	.07	.79
External Behaviors	-.02	.02	.97	[.931, 1.025]	.95	.33
Household Members	.00	.14	1.00	[.763, 1.320]	.00	.98
Experience	.00	.01	1.00	[.973, 1.029]	.00	.96
Time with Caregiver	7.75	.00	1.00	[.994, 1.006]	.00	1.00

Parental Monitoring	.11	.08	1.12	[.961, 1.304]	2.14	.15
Perceived Permanency	.18	.30	1.20	[.665, 2.172]	.38	.54
Closeness	.00	.13	1.00	[.776, 1.291]	.00	.99

N=126

Dependent Variable: Placement Stability, reference category, no

Table 18
Adolescence Model 1 Tests of the Model Effects Logistic Regression Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
(Intercept)	-6.85	4.39	.00	[1.793, 6.267]	2.07	.15
Child Age	.36	.22	1.43	[.919, 2.228]	2.58	.11
External Behaviors	-.01	.02	.99	[.941, 1.036]	.26	.61
Marital Status	1.01	.75	2.76	[.623, 12.191]	1.83	.18
Caregiver Age	-.01	.29	.99	[.556, 1.770]	.00	.98
Education	-.02	.26	.98	[.582, 1.648]	.01	.94
Parental Monitoring	.12	.08	1.12	[.962, 1.318]	2.23	.14

N=104

Dependent Variable: Placement Stability, reference category = no

Marital status: reference category, married

Table 19

Adolescence Model 2 and Final Model Logistic Regression Predicting Placement Stability

Variable	<i>B</i>	<i>SE</i>	OR	95% CI	Wald F	<i>p</i>
Intercept	-7.79	3.66	.00	[2.937E-7, .582]	4.54	.04
Child Age	.40	.20	1.50	[.991, 2.263]	3.77	.06
Parental Monitoring	.13	.08	1.14	[.981, 1.322]	2.98	.09

N=126

Dependent Variable: Placement Stability, reference category, no

Chapter 5

Discussion

Summary of study

The purpose of this study was to examine the effect of placement type, caregiver characteristics, child characteristics, and caregiver-child relationships

on placement stability for foster children in long term foster care. Foster children are particularly vulnerable due to the abuse, neglect and chaos they experienced in the homes they were removed from. (Berrick et al.,1998; Pecora et al., 2006). Placement stability is considered important for social, emotional, and educational development of children (Barth, 1997; Cohen & Trybalski, 2010) and a precursor to achieving permanency. The number of placements children have varies widely, and can be as many as 15 different homes (Newton et al., 2000). Frequent moves cause disruptions in a child's education, therapy, other important services (Pecora et al., 2006) and can also cause distrust when children are taken away from support systems (Rubin et al., 2004). For these reasons placement stability is important for foster children to further reduce harm and encourage wellbeing.

The current study used data from the National Survey of Child and Adolescent Wellbeing, long term foster care sample. This study defined placement stability as living with the same caregiver in Wave 1 at Wave 3, 18 months later. Characteristics of children, caregivers, and their relationships were examined to determine if they affected the odds of children achieving placement stability. The database was divided into three age groups to reflect different developmental stages; Ages 1 to 5, early childhood, Ages 6 to 10, middle childhood, and ages 11 to 18, adolescence. It was expected that results would differ by age group because of differing developmental tasks.

Ecological theory informs the current study, by including characteristics of caregivers. According to Bronfenbrenner's (1970) theory, the environment plays a major factor in a child's life. The microsystem is the immediate family and for a foster child, would include foster parents and others living in the home. The child spends the most amount of time with, and has the most amount of interactions with the microsystem, therefore it would be natural to expect characteristics from this system to impact the child's placement stability.

Findings

Child characteristics. How child characteristics effect placement stability has been the focus of much previous research. The link between problem behaviors, called externalized problem behaviors in this study, and placement stability has been well documented (Chamberlain et a., 2006; Litrownick & Landsverk, 2000; Marinkovic & Backovic, 2006). Externalized problem behaviors were not included in the early childhood group because of the young age of the children, but were in the middle childhood group, and adolescence group. It was expected that externalized problem behaviors would have a significant negative effect on the odds of achieving placement stability. The results from this study were surprising. In middle childhood externalized behaviors did negatively affect placement stability but not as strongly as expected.

The odds ratio was .88 meaning for each increased point in external behaviors, the odds of achieving placement stability is reduced by 12%.

It is difficult to directly compare the current study to previous studies as the definition of placement stability is a little different. Previous studies have used the number of moves a child experienced as a measure of placement stability. The current study used a definition of no moves during an 18 month period. Barber et al. (2001) found that children, who scored higher on a child behavior check list created by Boyle (1987), also experienced more than two placements and were older. The findings from the current study conflict with results from Barber et al. In adolescents externalized problem behaviors were not statistically significant in achieving placement stability ($p=.33$). There is a possible reason for the surprising findings. Children who were placed in group homes were excluded from the study. The mean score of adolescent Externalized Behaviors was 17.98 ($SD=11.90$). It is possible that there was selection bias due to children with higher externalized behaviors placed in group homes and therefore not included in this study, producing conflicting results from other studies.

Mental health was measured by Emotional Problems, a subscale of the CBCL in middle childhood and adolescence. Barber et al. (2001) and Delfabbro et al. (2002) both found that children with mental health issues also had more placements. In middle childhood, Emotional Problems was statistically significant

when used as a single variable in a logistic regression ($p=.00$), however, when added to a model of other significant variables, Emotional Problems was no longer significant ($p=.23$), and therefore was not included in the final model. The adolescent group also did not find Emotional Problems to have an effect on achieving placement stability ($p=.75$). The definition used could explain the differing results. This study used scores on the CBCL, while Barber et al. and Delfabbro used mental health diagnosis and children receiving treatment. It is possible that not many of the children in this study have a mental health diagnosis, and children who did, might have been placed in group homes or residential facilities and excluded from the study.

Past studies have found mixed results with child race. Farmer et al. (2008) found that Latino children had a higher risk for placement disruption and Webster et al. (2000) found that Caucasian children had a higher risk. Most studies however, found no effect of race (Connell et al., 2006; Orme et al., 2006; James, 2004; Newton et al., 2000; Wulczyn et al., 2006). The current study found child race not to be statistically significant.

Past studies have also found mixed results with gender. Wulczyn et al. (2003), James (2004), James et al. (2004) and Connell et al. (2006) all found no effect of gender, however, Webster et al. (2002) found boys had more placement

disruptions. The current study was consistent with most past studies and found no effect of gender.

Age in early childhood and middle childhood did not effect the odds of achieving placement stability, however, in adolescence Child Age was near statistical significance ($p = .07$) and increased placement stability by 50% for every year older. This finding contradicts another study by Smith et al. (2001) who found that girls age 13 and older were more likely to disrupt from their placements than younger girls.

Caregiver characteristics. Recently, studies have included caregiver characteristics. Testo et al. (2007) found that five or more unrelated children in a house increased the risk of placement disruption. The current study asked if the number of household members and the number of biological children in a home effected placement stability. The number of biological children did not have an effect on achieving placement stability in any of the three groups. The number of household members did, but only in the early childhood group ($p = .01$). Each additional household member reduced the odds of achieving placement stability by 35%. This is similar but not exactly what Testo et.al (2007) found, because the current study was limited in using the data that was already collected.

Caregiver experience affected the odds of achieving placement stability in the early childhood and middle childhood groups, but only slightly. For each

additional child previously cared for, the odds of achieving placement stability are increased by 4% ($p=.00$). This result was surprising. It was expected that as caregivers gained more experience they would have acquired more skills that would significantly prevent placement disruptions in future children. Perhaps this did not occur as strongly as expected because caregiver training may not be ongoing. Caregivers may only receive initial training to be licensed. Experience as a caregiver was not evaluated in past studies.

Gibbs and Wildfire (2007) studied foster parent retention and found that caregivers who fostered longer were in the 30 to 55 age category. Caregiver age in the current study only effected placement stability for children in middle childhood, increasing their likelihood by almost two times, however, this was only nearing statistical significance ($p=.06$).

The past research on placement stability does not include studies that examined caregiver race, education, income, or marital status. The current study included these four demographic variables and only found caregiver race to have an effect on placement stability, and only in the early childhood group ($p=.00$). Children placed with Native American caregivers are almost two and a half times more likely to achieve placement stability than children placed with White caregivers. Children placed with Black families were 38% less likely and children

placed with Latino families were the least likely or 94% less likely to achieve placement stability than with White families.

Caregiver-child relationships. Very little research exists that examines caregiver-child relationships and its effect. Tabor and Proch (1987) discovered that there were frequent power struggles between adolescents and caregivers before disruptions occurred. Brown (1998) also discovered that adolescents who disrupted had more concerns about the relationship they had with caregivers. Leathers (2006) found integration into the foster home, which was defined as “the extent that a foster child is able to become a part and form relationships within the foster family” (p.310) predicted placement stability. Given these studies and based on Ecological theory, it was expected that the stronger the relationships, the greater the odds of achieving placement stability. The current study did not find that the caregiver-child relationship as defined here impacted placement stability in early childhood or in middle childhood. In adolescence, only the relationship variable parental monitoring had an effect; closeness to caregiver and perceived permanency did not. For each unit increase in parental monitoring the odds of placement stability increases by 14%, however, this was not statistically significant ($p=.09$). That the effect was only found in adolescence is not inconsistent with past research studies.

One reason why the relationship variables did not have the expected effect on placement stability could be the limitations of the measures. Relationships involve more complex concepts as attachment and loyalty to biological parents and cannot be measured as simply as in the current study. In the early childhood and middle childhood only 1 measure of the relationship, Emotional Support, was used. Also this relationship was measured from the interviewers observations and parents point of view, not the child's, therefore it was a weak measure of the child-caregiver relationship. Although parental monitoring did have an effect in adolescence, parental monitoring may not actually measure the relationship, but instead the level of structure and precaution of the caregiver.

It was also expected that the relationship would mediate the effect of child and caregiver characteristics on placement stability, and may vary by placement type. In all three groups, a mediating relationship of caregiver-child relationships between child or caregiver characteristics and placement stability was not found, and again could be because of the weak measures.

Developmental stages. Some of the findings from the current study are inconsistent with the expectations of the three different developmental groups. In early childhood the developmental tasks focus on the relationship between the caregiver and child. Because of this it was expected that the caregiver-child relationship variable would have a large effect on placement stability, however,

the relationship variable Emotional Support was not significant and not included in the final model. Again this could be due to the way the relationship was measured.

In early childhood it was expected that caregiver characteristics would also have a large effect on placement stability due to the child's focus on attachment and trust with the caregiver (Davies, 1999; Erickson, 1963). Caregiver Race, number of Household Members and Caregiver Experience did affect placement stability; however, there was only a small effect. Reasons for these results may be that the current study did not include any variable that could accurately measure a child's trust or attachment to the caregiver, and that only one observational variable was tested .

In middle childhood the main developmental tasks are to develop self control, a sense of competence, and a peer group (Davies, 1999; Erickson, 1963). The current study did not include a peer group variable. In middle childhood it was expected that caregiver characteristics would have a smaller effect than in early childhood, and that child characteristics may have a larger effect on placement stability, as the child begins to focus on peer groups instead of caregivers. In this group the caregiver characteristics were Caregiver Age and Experience, and the effect was small. As expected the childhood characteristic Externalized Problem Behaviors was stronger, and had a moderate effect on

placement stability. It is possible that problem behaviors may be associated with peer groups.

In adolescence the child's developmental tasks focus on the peer group much more than the caregiver. The child uses the peer group for attachment needs that were previously used with caregivers. At this time the main developmental tasks are to develop a sense of identity and intimacy (Scharf & Maysless, 2007). Therefore, it was expected that caregiver characteristics would have the least effect in this group. As somewhat expected, none of the caregiver characteristics were significant and included in the final model.

Placement type. Placement type did however, have an effect on placement stability with children in early and middle childhood. The odds of children in the early childhood group, placed in a foster home had reduced odds of achieving placement stability by 83% compared to children placed in kinship homes. The results for children in middle childhood were similar. The odds of children placed in foster homes achieving placement stability were reduced by 87% compared to children placed in kinship homes. Meaning children in kinship homes had much higher odds of achieving placement stability. These results are consistent with the abundance of research showing that children in kinship home have more placement stability than in foster homes (Barth et al., 2007; Chamberlain, 2006; James, 2004; Wulczyn et al., 2003)

Implications for Social Work

Research. This study adds to the growing knowledge on placement stability for foster children. Previous research has primarily focused on the behavior of foster children who experience frequent moves and other child characteristics that might affect placement stability (Olsen, 1982; Pardeck, 1983; Newton et al., 2000). Historically researchers have not looked at the impact that foster parents have on placement. Recently a hand full of studies have been performed that evaluate treatment foster home programs (Price, Chamberlain, Landsverk & Reid, 2009; Chamberlain, Price, Reid, Landsverk, Fisher & Stoolmiller, 2006), recognizing that the foster home may have an effect on disruption outcomes. The relationship a foster parent has with the child has also just recently been recognized as a potential factor in placement disruption and a few studies have been performed in that area (Denuwelaere, & Bracke, 2007; Lindsey, 2001). A large gap still exists in the knowledge about how foster parents contribute to placement stability. Because parenting is an interaction and relationship between a child and parent, this study builds on past research and adds to it by including characteristics about the foster parent and the relationship the child has with the foster parent.

The current study also adds to the body of research because it is a longitudinal study. Many of the past studies have been cross sectional. The

current study looked at a time period of 18 months after the first data collection, allowing enough time to determine if the child has actually achieved placement stability.

Future research should more closely examine this relationship. Other measures that can assess the quality of the relationship should be used. Attachment the child has to the foster parent and to biological parents may also be of interest. Loyalty to the biological parent may play a role in placement stability and should also be examined. Finally, the relationship a caregiver has to the biological parents might also influence placement stability. It could be that kinship placements have more placement stability because a relationship between the caregiver, caregiver family, parent, family of the parent and child already exist, and this could help the child resolve issues of loyalty, thereby increasing stability.

Practice. Ideally, social workers in the field try to match children with foster parents when placing them, however, at best this process is merely a guess. The results of this study will give social workers in the field more knowledge to use when placing children in care that can assist in reducing the number of placements the child will experience and improve outcomes. This study confirms and should reinforce the practice of placing children with relatives because they are much less likely to have a placement disruption in the early and middle

childhood groups. The variable with the largest effect was race in early childhood. Children placed in Native American homes were much more likely to have placement stability. Although the number of Native American participants was small, this may be a result of the Indian Child Welfare Acts emphasis. Caregiver experience had little effect, but caregiver age did. The number of people living in a caregiver's home also affected placement stability with more members reduced placement stability. Children placed with older foster parents were likely to have placement stability. Perhaps maturity and a higher tolerance for children's behaviors may contribute. Recruiting older caregivers for foster and kinship homes, with less people living in the home may reduce disruptions.

Why experience was not significant is an important question to look into. Providing more ongoing training to current caregivers could change future results. Training in behavior management and child development may reduce further disruptions. Because parental monitoring increased placement stability, training should also include techniques to provide structure and oversight with foster children. If situations that may lead to placement disruption can be recognized in advance, a child's foster care placement has an increased chance for permanency.

Policy. Information that improves stability for children is necessary for social workers to achieve permanency goals for children and be in compliance with ASFA. ASFA is a federal policy that all states must comply with. However,

in reality, compliance is much harder to accomplish. AFCARS reports and USDHHS reports continually show that a large number of children have many placements and are unable to have permanency. The recommendations for practice may improve placement stability and help agencies increase compliance with ASFA. Information that helps improve placement stability can be incorporated into agency policies.

The information gained from this study can also be used by states in their Title IV-E Foster Care Eligibility Reviews and Child and Family Services State Plan Reviews. One of the factors that is reviewed are the percentage of children in of out-of-home care for 12 months or less that experienced two or more placements. States must also show how they plan to improve in the future. Knowing that children placed with family members are less likely to disrupt, agencies can create stronger policies encouraging children to be placed in kinship homes. Possibly limiting the number of people who can live in a licensed foster home may also reduce disruptions.

Conclusions. The results of this study indicate that caregiver-child relationship are complicated and not simply measured. Ecological theory suggests that the relationship between the child and his environment, the foster home, should have an effect on the child's placement stability. Clearly more research with better measures needs to be done. A strength of the current study is that it

examined characteristics that impacted placement stability within the context of the developmental stages of the child. Future studies should also include developmental stages.

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APPENDIX A

ARIZONA STATE UNIVERSITY INSTITUTIONAL REVIEW



To: Lela Williams
411 N. Cen

From: Mark Roosa, Chair
Soc Beh IRB

Date: 12/03/2008

Committee Action: **Exemption Granted**

IRB Action Date: 12/03/2008

IRB Protocol #: 0811003493

Study Title: Secondary Data Analysis of the NSCAW Data Base

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(4) .

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records