THE ROLE OF THE SIBLING RELATIONSHIP IN FOSTER CARE: A COMPARISON OF ADULTS WITH A HISTORY OF CHILDHOOD OUT-OF-HOME PLACEMENT

by

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ABSTRACT

THE ROLE OF THE SIBLING RELATIONSHIP IN FOSTER CARE: A COMPARISON OF ADULTS WITH A HISTORY OF CHILDHOOD OUT-OF-HOME PLACEMENT

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This secondary data analysis focuses on the outcome experiences of adults with a history of out-of-home placement. The study focuses on the relationship between childhood sibling experiences and outcomes for adults. The study assessed the outcome of 50 alumni in the areas of income, educational attainment, employment, adult sibling relationships, social support, self esteem, and housing.

The strength of childhood sibling relationship and positive adult outcomes was assessed using a number of control variables in a multivariate analysis including maltreatment experience, age, gender, campus, number of placements, level of preparation for independence, and age at placement. A number of factors identified as statistically significant in the study including childhood sibling experience. Those individuals who had greater access to their siblings and reported stronger relationships with their siblings had higher levels of social support, self-esteem, income, and adult sibling relationships than those who did not. Furthermore, those alumni with greater access to siblings and reported stronger childhood relationships with siblings had higher scores on the overall outcome composite as well. The data in the current study was provided by Presbyterian Children's Homes and Services. All of the alumni participating in the study were residents of one of five Presbyterian Children's Homes and Services campuses.

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CHAPTER 1

INTRODUCTION

Until the last decade very little attention has been given to basic issues regarding siblings in out of home care; such issues include the placement of siblings together or separately, and the significance of sibling relationships serving as a protective factor in the foster care experience. There are many reasons that sibling relationships should be of significant interest to child welfare researchers and policy makers. For instance, The National Adoption Information Clearinghouse estimates that 65-85% of U.S. foster children come from sibling groups (Corder, 1999). In addition, sibling relationships are an integral part of childhood and continued development (Cicerelli, 1995), and these sibling relationships can serve as a source of protection and healing throughout their journey.

The sibling relationship has traditionally taken a back seat to the child-caregiver relationship, despite the fact that sibling relationships have the potential to ascend to primary importance in the context of maltreatment and placement in out-of-home care (Shlonsky, et al., 2005). Most child welfare professionals strongly support the idea that keeping siblings together is in their best interest, in most circumstances. The percentage of siblings in foster care who are separated from one another, however, speaks to the systematic inability to maintain those relationships. It is estimated that over half (53%) of youth in foster care who have siblings are not currently placed with any of those siblings (Staff & Fein, 1992). Many scholars and professionals believe that because of the high levels of separation of siblings in care, significant change is necessary in the way that children are placed nationwide.

Research and legislative interest has increased in recent years regarding the relationship rights of siblings in foster care. The professional literature on siblings in foster care has become much more research based, utilizing larger sample sizes and increasing attempts to control for preexisting differences between groups of siblings placed together or separately (Hegar, 2005). Nearly half (26) of all U.S. states now have some policy in place addressing the issue of siblings in foster care, ranging from the most progressive legislation, which attempts to ensure the placement of siblings together, to policies that simply recommend placing siblings together when it is in a child's best interest.

Of particular interest to this proposal is that research assessing the role that the sibling relationship plays and the impact it has on the lives of foster youth and alumni is scarce (Shlonsky et al., 2005). This is due in large part to the a number of factors, the most notable likely being that the sibling relationship has not been considered a key predictor of success in foster youth and alumni (Herrick & Piccus, 2005), and research design around siblings in foster care presents a number of complex methodological challenges (Hegar, 2005).

1.1 History

Preserving and maintaining sibling ties and relationships has been a problem in foster care for a number of years. Hegar (2005) notes, "Since the decades when the orphan trains carried children westward, placement of siblings has been a child welfare issue." Studies which mention the inadequate number of siblings in foster care being placed together date back as far as 1921 (Theis & Goodrich, 1921). In fact, until very recently little attention has been given to the issues surrounding siblings in foster care, in terms of research. In her 1988 review of the literature Hegar asserts, "considering the amount of foster care research that is conducted it is surprising that such little attention has been paid to separation of siblings in child placement.

Nor have other questions about siblings in foster care been answered adequately (pp 447)." Since research has been limited in this area, child welfare workers have been forced to approach this issue with little evidence to help them in making placement decisions for siblings (Schlonsky, et al., 2005).

Research and legislative efforts to address the problem of separation of siblings in foster care have intensified significantly since Hegar's critique nearly two decades ago. The Adoption and Safe Families Act of 1997 has been instrumental in increasing legislation addressing sibling issues at the state level (Hegar, 2005). Few studies addressing the issue of siblings in foster care had been conducted prior to 1988 (Bank & Kahn, 1982, Lamb & Sutton-Smith, 1982). In the past twenty years, however, a number of empirical studies have helped to strengthen the body of literature on siblings in foster care (Boer & Speiring, 1991, Boer, et al., 1995; Drapeau, et al, 2000; Leathers, 2005, Shlonsky et al., 2005, Smith, 1996, Staff & Fein, 1992, Tarren-Sweeney & Hazell, 2003, and Wulczyn & Zimmerman, 2005).

1.2 Purpose of the Study

The purpose of the current study is threefold. The goals of this study are: 1) to compare the outcomes of alumni who report having a close relationship with and access to their siblings to those who do not in the areas of income, mental health, housing, employment, education, reliance on public service, family structure, and social support; 2) while controlling for other variables, to determine if the sibling relationship and access to siblings are predictors of success for alumni of residential group foster care; and 3) to gain a better understanding of the central role that the sibling relationship plays in the lives of foster youth and alumni. This study is largely guided by the question: *Do youth in residential group foster care who report having had a closer relationship with and greater access to their siblings while in care have more positive outcomes*

as adults than those who do not? Much of the research done focusing on the issue of siblings in foster care is largely descriptive. There is little data available assessing the role that the sibling relationship plays in the lives of youth in foster care. The few studies that are available assessing the impact of the sibling relationship focus on youth who are currently in care (Wulczyn & Zimmerman, 2005; Tarren-Sweeney & Hazell, 2005; Leathers, 2005 & Staff & Fein, 1992). There are not studies to date that assess the association between the sibling relationship of youth in foster care and success in adulthood.

1.3 Importance of the Study to Social Work

An overwhelming number of siblings are separated from one another at some point during their experience in foster care. Research suggests that when it comes to the issue of approaching the sibling relationship many child welfare professionals have a significant amount of discretion, however, have very little empirical data to rely upon when making decisions. According to the NASW Code of Ethics section 1.14 social workers are mandated to take reasonable efforts to safeguard the interests and rights of those clients who lack decision-making capacity (NASW, 2007). Not all children are effective in conveying their impressions, desires, and emotions when it comes to many critical child welfare professionals must be especially equipped to make an informed decision about the importance of the sibling relationship. Studies such as the present that assess the significance of the sibling relationship will better equip child welfare professionals when making these difficulty decisions.

This study seeks to build upon the existing literature on both siblings in foster care and foster care alumni to accomplish the following:

Assess the role that the sibling relationship plays in the foster care experience

- Assess the role that the sibling relationship plays in adults who had a childhood experience of out-of-home placement
- Control for other predictors and variables to better assess whether or not sibling relationships are a predictor of success
- Identify the sibling relationship and sibling placement as one of the key predictors of success in foster youth and alumni (i.e. education, placement type, number of placements, relationship with caregiver, etc.)
- Identify other factors that contribute to successful outcomes for youth in out-of-home placement

Consideration of the child's biological family is often limited to his or her biological parents or adult relatives by both child welfare professionals and the courts (Schlonsky et al., 2005). Biological siblings tend to be excluded from the deliberation process. This is likely due in large part to the fact that there is little evidence available on the significance of the role of the sibling relationship to guide crucial placement decisions. By comparing outcomes based on sibling relationship and access the current study would allow child welfare professionals to gain a greater understanding of the long term impact that the sibling relationship can have on those individuals with a history of out-of-home placement. The definitive goal of this study is to provide evidence that the sibling relationship does in fact play a critical role in the foster care experience, therefore, child welfare professionals should make every effort possible to maintain and encourage sibling relationships.

CHAPTER 2

THEORETICAL REVIEW

The issue of siblings in foster care has very strong ties to attachment theory. Bowlby's theoretical formulations linking early difficulty to later emotional and behavioral problems, as well as Ainsworth's classification of attachment actions, which is based upon care giving styles, provide the foundation for attachment theory (Howe, 1995). Bowlby (1973) suggests that siblings play a significant role in reducing the negative effects of parental loss. Mary Ainsworth (1989) maintains that because siblings are often reared in a similar fashion, they have a heightened shared experience. Also, the concepts of attachment theory can be a valuable resource to social workers when faced with the decision to maintain or split a sibling group (Whelan, 2003). Attachment theory is largely based on the premise that children seek an attachment relationship to serve as a protective factor. Due to the unfortunate circumstances that many children in out-of-home care face, children will seek this protective relationship with their siblings.

In addition, research suggests that siblings can play a critical role in repairing and minimizing the psychological damage of instability, separation, and trauma caused by one's parents. Separating siblings who have been removed from their parents only seems to intensify the pain, grief, and trauma that they have already experienced when they were initially removed from their parents. Many feel that separating children from their siblings can be considered a form of revictimization. In fact, depending upon the conditions, some sibling separations can be more traumatic and difficult than separation from parents (Connor, 2005).

A number of studies suggest that that the foster care experience can potentially be a negative experience for youth (Mennan, 2000, Pillay & Schoubben-Hesk, 2001). If the child welfare system is to improve the conditions and outcomes of youth in foster care, it is essential that they devote more attention to children's attachments (Menan, & O'Keefe, 2004). Menan and O'Keefe suggest that an increase in attention to children's attachments would significantly affect some of the problems that have historically been synonymous in the field of child welfare.

Attachment theory is of extreme significance to those who make placement decisions, because it provides them with an overall framework to understand how the relationships in a child's environment might positively or negatively impact his or her future development. Systematic problems such as increased caseloads, caseworker turnover, ineffective policies, and a lack of evidence-based interventions and practices have often been the cause for placement decisions that have not been guided by children's attachments (Menan & O'Keefe, 2005). Attachment theory can play an extremely important role in addressing some of the most perplexing and controversial issues in child welfare, such as the issue of siblings in foster care, GLBT&Q issues, and issues concerning kinship care.

2.1 Development of Attachment Theory

Less than fifty years ago the standard approach to treating children did not take into account any basic understanding of attachment (Levy & Orlans, 1998). In fact, it was common practice for child welfare professionals to move children from foster home to foster home for the sole purpose of keeping them from becoming attached to their caregivers (Karen, 1994). A new trend began to emerge in the 1950's when a British psychiatrist working in the London orphanages by the name of John Bowlby made the realization that the most disturbed children were the ones who had experienced separation from their parents. Bowlby concluded that the

"affectionless children" had developed behavior problems and criminal characteristics as a direct result of early emotional deprivation. Furthermore, after assessing the children's parents, Bowlby concluded that they were extremely disturbed in their attitudes and parenting styles (Bowlby, 1944).

Bowlby continued to study this phenomenon with children who were homeless. Bowlby's understanding of the importance of attachment evolved, as he found that significant early deprivation led to a number of problems, such as a lack of empathy, antisocial behaviors, conduct disorders, and an inability to receive affection (Bowlby, 1951). Bowlby made the following conclusions from his work with children and families: Infants possess instinctual behaviors such as sucking, clinging, following, crying, and smiling that serve to keep their mother close.

- Anxiety, fear, illness, and fatigue causes increases in attachment behaviors, and a need for more closeness and contact.
- Maternal deprivation and separation are traumatic, because they prevent the fulfillment of a biological need
- The loss of an attachment figure causes pathological mourning, resulting in disturbed development, emotional detachment, inability to love and trust, and depression.

While many researchers began to come to similar conclusions supporting Bowlby's findings, no one expanded upon Bowlby's theory of attachment more than Mary Ainsworth. Mary Ainsworth, in an attempt to gain a better sense of how attachment developed, observed the relationship of mothers and infants in Uganda (Levy & Orlans, 1998). Ainsworth (1967) would eventually describe the five phases of attachment (undiscriminating, differential responsiveness, separation anxiety, active initiation, and stranger anxiety). Ainsworth's work with infants and mothers in Uganda supplied an improved and increased amount of empirical evidence about how parenting styles affected individual differences in children.

Sroufe and his colleagues (1983) found that attachment had a significant impact on selfesteem, moral development, social relationships, and school achievement. A similar study found that as unattached youth aged and became teens, they had problems with power and control.

One of the seminal studies in attachment research was conducted with parents of infants who were unattached. The Adult Attachment Interviews (AAI) provided the field with a method to assess the specific characteristics of parents that were associated with unattached children (Main, Kaplan, & Cassidy, 1985). As their research evolved and improved, both Bowlby and Ainsworth extended their ideas and views of attachment to include the sibling relationship. The inclusion of siblings in assessing a child's attachments becomes especially important in the field of child welfare.

2.2 Theoretical Foundations

According to Bowlby, an infant seeks a sense of closeness, especially to his mother, when he or she feels a sense of anxiety, fear, or confusion. The infant finds a sense of safety, protection, and security when in close proximity to his or her mother.

2.2.1 Development of Self

Attachment patterns are developed based upon the relationship between the infant and caregiver. Because of their maltreatment history, some children develop extreme disturbances in self-concept, self-regulation, and the ability to function autonomously (Levy & Orleans, 1998). Bowlby notes that a child's likelihood of being autonomous and independent is increased when he or she experiences a secure base with a responsive caretaker. As mentioned previously, the

prevailing attitude prior to Bowlby's findings was that children who experienced considerable gratification and affection would become "spoiled" and "dependent." In actuality, these children become more independent, self-assured, and confident (Levy & Orleans, 1998).

2.2.2 Internal Working Model

Infants develop what Bowlby termed "internal working models" based upon the interactions and transactions that they have with their caretakers during their first year of life. Infants develop representational models of their actions and of corresponding affects (Bowlby, 1969). It is the internal working model that is responsible for how the child will interpret events, store information and perceive social supports (Zeanah & Zeanah, 1989). Pearce & Pezzot-Pearce (1994) illustrate how internal working models differ in the following example:

"Given different internal working models, one child may interpret another's refusal to play as a devastating rejection and evidence of personal unworthiness. Another child with a more positive internal working model may perceive and interpret such a refusal as a minor slight. The subsequent behavior of these two children may well be different (sulking or an angry outburst by the former verses readily approaching another potential playmate by the latter" (p. 427).

2.2.3 Negative Working Models

When children experience maltreatment they are more likely to develop what Bowlby termed a negative working model. It is not uncommon for these children to internalize their lack of adequate care and support, and perceive themselves as unlovable, helpless, and responsible for their mistreatment. These negative messages eventually become a part of a child's self-image. As a result, the child is conditioned to perceive a sense of threat and hostility when it is not present and will ultimately respond with aggression and coercive behavior (Levy & Orleans, 1998).

Secure attachment will ultimately lead to healthy psychosocial development and serve as a protective factor against the development of conduct disorders and antisocial behaviors. Through modeling, internalization, and reciprocity, children develop empathy and morality. When a child does not develop a secure attachment, he or she is far more likely to develop these antisocial behaviors.

2.3 Theoretical Approach to Youth Aging out of Care

2.3.1 Attachment Theory

The body of knowledge on young people aging out of care has grown considerably over the last two decades. Attachment theory provides a solid framework for youth emancipating from the foster care system. It allows for youth and young adults to assess their separation from their birth families, and those circumstances that surround it, as well as to examine their relationship with their caregivers (Stein, 2006).

Few studies, however, have been informed from a theoretical perspective (Stein, 2006). In one of the few studies that draws upon attachment theory, Downs (1992) found that the rejection that many young adults experienced early on from their birth families contributed significantly to much of their difficulties in forming and maintaining relationships, and accepting help from others. Furthermore, in a study assessing the outcomes of former foster youth, positive outcomes were associated with alumni who had a strong attachment with at least one caregiver (Sinclair, et al., 2005). Similarly, youth who experience fewer placements and have fewer caregivers, have completed more schooling, exhibit greater interdependence, and have more social support than those who have experienced a greater number of placements while in care (Cashmore & Paxman, 2006).

2.3.2 Resilience Theory

Foster youth and alumni who are best prepared to rise above the adversities, challenges, and barriers they face are those who are more likely to: have a strong social support network, be involved in extracurricular activities that promote emotional maturity, have an opportunity to make a difference in the lives of others, be exposed to challenging situations that provide them with the opportunity develop coping and problems solving skills (Newman & Blackburn, 2002). Inquiry into resiliency as a theoretical model emerged through work identifying characteristics of young survivors living in high risk situations (Richardson, 2002). More simply put, resiliency theory provides a model to explain those internal and external qualities that help individuals, families, and communities overcome adversities, set backs, and difficult situations.

Stein (2002) defines resilience as "the very qualities that enable young people to find fulfillment in their lives despite their disadvantaged backgrounds, the problems they may have undergone, and the pressures they've experienced" (pp.427). Resilience research has identified three theoretical perspectives to serve as a framework (Luthar et al., 2000). The triarchic framework focuses on the dangers and protective processes that young people, and their families encounter. The ecological framework investigates the influence that different contexts have on the young person. Finally, the structural-organizational perspective places emphasis on the individual's ability to make personal choices and self organize. Luther and his colleagues (2000) note that the identification of risk and protective factors to youth and young adults serve as the most significant and exhaustive of the three perspectives.

Researchers have identified three stages in the development of resiliency in at-risk youth and young adults (Richardson, 2002). *Resilient qualities* make up the first stage. The focus in

this stage is on identifying the specific qualities that are associated with individuals who have been able to overcome adversity. Qualities such as self-esteem, self-efficacy, social support, and interdependence are qualities are often identified as protective factors that are successful in countering risk factors such as abuse, neglect, and poverty.

The focus of the next stage is on how the resilient qualities are acquired. The *resiliency process* provides a model that helps young people to make a choice about the outcomes of the disruptions that they experience. More simply put this is the coping process that individuals develop that can ultimately result in growth, knowledge, and self-understanding (Richardson, 2002). In most cases, humans are able to deal with life's occasional difficulties and adversity through dealing with previous disruptions and challenges. Chronic stressors such as maltreatment, poverty, and instability can befall those individuals who have not developed resilient qualities, and who have not been able to grow from previous life disruptions. Richardson uses the term "resiliency reintegration" to describe this process of using life disruptions as a way of growing and gaining insight about one's self. Dysfunctional reintegration takes place when individuals resort to negative behaviors or reactions such as substance abuse and violence as a way to deal with life's disruptions.

The final stage in the development of resiliency is *innate resiliency* (Richardson, 2002). Emphasis in this stage is placed on identifying the forces that essentially drive the young person toward self actualization and resilience reintegration from disruptions (Richardson, 2002). Werner and Smith (1992) argue that there is a force within each of us that compels us to seek self actualization, altruism, wisdom, and harmony. It is in this stage that we seek to answer the question "What is the motivation to reintegrate resiliency?"

Research has increased investigating what specific characteristics of out-of-home care might be detrimental to the well being of transitioning youth and alumni. Characteristics and experiences such as placement instability and lack of education are consistently associated with negative outcomes. Similarly, we have seen an increase in research assessing those attributes or characteristics that are common in successful young adults with experiences in out-of-home care. Resiliency theory provides a theoretical framework that can be extremely beneficial in better understanding the experiences and motivation of young adults leaving care.

CHAPTER 3

RESEARCH LITERATURE REVIEW

3.1 Method

The purpose of the current section is to provide an overview of the methodology used in conducting the review of the literature. As previously mentioned research in the area of siblings placed in out-of-home care is rather scarce, therefore this review focuses on studies addressing: (1) the prevalence of intact sibling placements, and factors associated with sibling placement, (2) outcomes of youth in out-of-home care based on whether or not they are placed with siblings, (3) caretaker and professional perceptions and attitudes toward sibling relationships, (4) the role of the sibling relationship in general not necessarily specific to experiences of maltreatment, (5) the impact of the sibling attachment and (7) the outcomes and experiences of adults with a childhood experience of out-of-home care. The selected studies were obtained by searching multiple academic databases and scholarly journals from 1982 to 2008. This search spanned disciplines outside the field of social work including sociology, psychology, anthropology, policy, and numerous governmental reports.

All relevant studies were broken down into the following sections and entered into a table: selection methodology, sample size, statistical analysis, research method, response rate, purpose, and results.

3.1.1 Methodological Concerns

Nearly all of the available studies specific to the issue of siblings in the child welfare system utilize a quantitative methodology. The only qualitative studies included in this review are alumni studies in which foster care alumni initiated the discussion of sibling issues (Whiting & Lee, 2003). Eight of the studies used secondary data (Wulzyn & Zimmerman, 2005; Shlonsky et al., 2003; Leathers, 2005; Staff & Fein, 1992; Boer, et al., 1995; Levy et al., 2005; Berzin, 2006). Surveys were used in seven studies (Tarren-Sweeny & Hazzell, 2005; Smith, 1998, Boer & Speiring, 1991; Sheehan et al., 2004; Tucker et al., 2001, & Howe et al., 2001). All of the studies were non-experimental and causal/explanatory.

Six of the studies were population studies (Wulzyn & Zimmerman, 2005; Shlonsky et al., 2003; Staff & Fein, 1992; Levy, et al., 2005; Sheehan et al., 2004; & Berzin, 2006), two studies utilized probability samples (Leather, 2005; Boer & Speiring, 1991), and five studies employed non-probability availability sampling (Smith, 1998; Simard et al., 2000; Boer et al, 1995; Tucker et al., 2001; & Howe et al., 2001). Three studies contained sample sizes larger than 10,000 (Wulzyn & Zimmerman, 2005; Shlonsky et al., 2003; & Lery et al., 2005), seven studies had sample sizes larger than 100 but less than 1000 (Tarren-Sweeney & Hazzell, 2005; Leathers, 2005; Staff & Fein, 1992; Boer & Spiering, 1991; Boer et al., 1995; Sheehan et al., 2004; Berzin, 2006), and two studies had sample sizes fewer than 100 (Smith, 1998; & Howe et al., 2001).

3.1.2 Methodological Challenges

Research in the area of siblings in foster care has increased and improved over the past 15 years; this being said, the issue of siblings in foster care continues to be an under-explored, underdeveloped subject when compared to other issues in the child welfare arena. There is no question, however, that the numerous methodological challenges that are present in sibling research have contributed to the lack of data on the subject. In fact, designing and implementing a study on siblings in care is extremely difficult and can easily become overwhelming. For instance, simply defining a sibling group presents a very complex challenge for researchers; several analysis must be done on sibling pairs to lessen the confusion of complex and sometimes overlapping categories (Staff & Fein, 1992). Even more, once sibling groups are adequately defined, researchers are faced with the challenge of issues such as measuring intactness, and measuring the quality of a sibling relationship (Shlonsky et al., 2005). Fortunately, significant progress has been made in developing techniques to assess and measure the quality of sibling relationships (Herrick & Piccus, 2005).

Shlonsky and his colleagues (2005) note that one very important component missing from the research definitions of siblings is who the children actually perceive to be their siblings. They caution that a failure to incorporate less traditional sibling bonds such as fictive kin, paternal siblings, foster siblings, and other hard-to-track relationships, when considering the emotional impact of separation. may be the cause of a significant deficit in our overall understanding of the sibling relationship in foster care.

Most statistical methods require units of analysis to have no relationship to one another. It is because of this assumption that the subject of siblings in foster care presents a very unique challenge to researchers (Shlonsky et al., 2005). Siblings share at least one parent, have experienced similar abuse and neglect, often have been placed in the same homes, and usually have similar support systems.

Much of the research on siblings in foster care has focused on placement patterns and stability of placements (Hegar, 1986). What is know about siblings in care is largely descriptive (Tarren-Sweeney & Hazzell, 2005); very little is know about the impact that separation might have on siblings. Few studies have investigated the psychological, and social impact children who are separated from their siblings experience. The vast majority of all research on siblings in foster care, regardless of its aims, has neglected to directly address the children impacted. No studies are available in which either children separated from their siblings, or children residing with their brothers and sisters, have been able to provide feedback and insight about their experiences.

Most of the relevant studies investigating siblings in foster care are fairly recent. One of the most seminal pieces of existing literature dates back to 1992 (Staff & Fein). The majority of studies did not utilize scales to measure variables, and the few scales that were used were developed specifically for the study. Only two studies utilized existing scales (Tarren-Sweeney & Hazzell, 2005; Leathers, 2005).

3.2 Frequencies

Most of the studies' findings were consistent in regard to the percentages of children in foster care who have siblings. Percentages ranged from 73% (Shlonsky et al., 2003) to 90% (Staff & Fein, 1992). A wider discrepancy was present when rates of placement together and separate were examined. Leathers (2005) found that nearly half of her sample was placed without any other siblings, while 14% had never been placed with any of their siblings. In a similar study Shlonsky and his colleagues (2003) found that about 46% of children in their sample were placed with all of their siblings and about 66% were placed with at least one sibling. More consistent with the findings of Leathers, Staff and Fein (1992) reported that 53% of children were not placed with any siblings and 43% were placed with at least one sibling.

3.3 Factors Associated with Sibling Placement Patterns

A number of factors are strongly associated with the placement of siblings in foster care. These factors include sibling size, age span, type of care (kinship, traditional foster, care, and therapeutic foster care), ethnicity, and gender.

3.3.1 Placement Type

Most studies suggest that the type of current placement for a child is a robust predictor of whether children will be placed with their siblings or not. Children in kinship care are far more likely (81%) than children in foster care (59%) to be sharing a placement with one or more of their siblings (Tarren-Sweeney & Hazzell, 2005). Children placed in kinship care have almost three times the odds of being placed with all of their siblings (odds ration=2.90) than children residing in traditional foster care (Schlonsky et al., 2003). Children residing with their legal guardians have more than twice the odds of living with a silbing than children in traditional foster care (Shlonsky et al., 2003). Those residing in group care have less than one fourth the odds of residing with all of their siblings than children in conventional foster care (Shlonsky et al., 2003). Similarly, in sibling groups in which the reference child (first child placed in foster care) is placed in a kinship home have a much higher likelihood of remaining intact than siblings groups in which the reference child is placed in a traditional foster home (Wulzyn & Zimmerman, 2005). Groups in which the reference child was in a group home setting were found to be nearly five times as likely to be separated from their siblings (Wulczyn & Zimmerman, 2005). When comparing current placement type to intact sibling groups 91% of the reference children placed in kinship homes were placed with at least one sibling as compared to 38% of those placed in group care.

3.3.2 Age Span

Children who are split from their siblings tend to be older and have greater age disparities with their siblings (Simard, Beaudry, & Charbonneau, 2000. Findings suggest that age span is an accurate predictor of sibling intactness or separation. Wulczyn and Zimmerman (2005) found that sibling groups with fewer years between them were more likely to remain together or be reunited within the first 6 months in care. Similarly, 83% of sibling groups with less than a 6-year age range were intact at 6 months, compared to 66% of groups with an age range of 6 or more years. Of sibling groups with 5 or fewer years between them 92% of the members were still intact as compared with 86% fo groups with members having 6 or more years separating them. Children in sibling groups where the age span between the oldest and the youngest exceeded 4 years had about half the odds of being placed together (odds ratio=.53) than children with an age span of 4 years or less.

In most studies, the age of children was not an indicator of placement patterns, unless the children were teenagers. Wulzcyn and Zimmerman (2005) found that teens were less likely to be placed with all of their siblings than younger children (odds ratio=.61). In a similar finding, younger children were initially placed together 74% of the time as compared to 52% of teenagers (Staff & Fein, 1992). Simard and colleagues (2000) suggest that teenagers in foster care expressed the wish to be separated from siblings more often than younger children.

3.3.3 Sibling Group Size

Due to the fact that many studies look only at sibling pairs, very little research has been conducted that focuses on sibling group size and its relation to placement patterns. The minimal research that is available assessing these variables shows a strong negative association between the two. Shlonsky (2003) found that children from 3-member sibling clusters had .64 times the odds of being placed with all of their siblings than children from 2-member sibling clusters. On a log scale, this effect was doubled for a cluster of 4, tripled for a cluster of 5, and was multiplied by 5 for families with 7 or more siblings in care. Wulczyn and Zimmerman (2005) found that 93% of sibling groups of two that were initially placed together were still intact at 6

months, compared to 87% of groups of 3 siblings, and 79% of groups of 4 or more siblings. *3.3.4 Ethnicity and Gender*

The correlations between ethnicity and sibling placement varied significantly in the only two studies addressing this issue. White sibling pairs are far less likely to be together in placement than black, hispanic, or mixed-race children (Tarren-Sweeney & Hazzell, 2005). It should be noted that white youth are far less likely to be placed in kinship homes than black and hispanic youth, which is a very important factor in relation to smaller number of intact white siblings groups. Twenty percent of white sibling pairs were reported as always together, as compared to 58% of black sibling pairs, 67% of mixed race sibling pairs, and 62% of Hispanic pairs. Shlonsky and his colleagues (2003) found ethnicity to be a limited factor in sibling placement patterns. Asian children had about 1.6 times the odds of being placed with all of their siblings as white children. African American and Native American children were no more likely to be placed together than white children. The disruption rate for siblings in foster care who are white is also much higher (56%) than that of Hispanic (8%) and African American (15%) (Staff & Fein, 1992).

Findings addressing gender and sibling placement patterns were equally inconsistent. Staff and Fein (1992) found that boys were placed together much more often than girls (72% to 56%). In their analysis of gender distribution, Tarren-Sweeney and Hazzell found that separated siblings (57.5% boys) differed with that of co-resident siblings (45.5% boys). In a similar study of children placed individually, there was an over representation of boys (86%) (Boer, Westenburk, Ooyen-Houben, 1995).

3.4 Why Siblings are separated

As noted earlier, one very important factor that has been the cause of much debate and dialogue centers around the issue of determining when it is appropriate to separate siblings. Such issues as when siblings are particularly independent, when there is great competition for adult affection, when there is overt hostility between them, sibling rivalry, when one sibling appears to be keeping another from progressing, and when one sibling presents a risk of physical or sexual abuse towards another. A few studies have examined reasons for sibling separations, and it appears that the unique and complex circumstances mentioned above are rarely cited as reasons for sibling separation. Smith (1998) asked caseworkers to list the most common reasons for not accepting sibling placement. Reasons included: no space available (65%), the siblings have too many behavior problems (45%), and sibling groups do not integrate into the family (13%). Similarly, when asked to rank order reasons for separation, Leathers (2005) found that problem behaviors (36%) and a lack of resources (33%) were the most important reasons for separating siblings. Additionally, sexual risk posed by one sibling towards another was only mentioned for 6% of children.

Caseworkers report the most common reasons foster parents wanted sibling groups were: belief in the importance of keeping siblings together (77%), willingness to take a child's siblings to prevent losing a child already placed in the home (26%), space available (19%), and scheduling is easier when the children are related (19%) (Smith, 1998). Examples of recent cases that involved separating siblings included factors such as one sibling abused another (38.8%), no space available for siblings (35.5%), and idiosyncratic reasons (e.g. child's request, behavior problems: 22%) (Smith, 1998). It should be noted that the sample size in this study was extremely small (38), therefore, the findings may not be generalizable to the population of

foster mothers and caseworkers.

3.5 Mental Health and Socialization

What is known about siblings in care is largely descriptive. There is a particularly strong need to better understand the extent to which sibling relationships shape the development, socialization, and mental health of children in care (Tarren-Sweeney & Hazzell, 2005). When comparing co-resident siblings (children residing in their placement with at least one biological sibling) to separated siblings (children who are separated in care from all of their full biological siblings) Tarren-Sweeney and Hazzell (2005) noted a strong negative association between sibling separation and the mental health of siblings, specifically females. Co-resident girls had a lower presence of any mental disorder, as well as fewer "total problem" (mean 57.1 to 62.1) and "externalizing problems" (mean 56 to 60.7). Differences in the mental health of boys were not as significant as girls (mean 54.2 to 50.1). In regards to socialization, differences between CBCL social scale scores of children with co-resident siblings, and separated siblings were small and not significant. In a separate study no association was found between behavior problems and the likelihood of placement with siblings (Leathers, 2005).

Sinard and colleagues (2000) suggest that children in an intact sibling group are perceived as having more harmonious relationships with their brothers and sisters than children in split groups. They also found that foster placement has a greater impact on the children's relationships when the sibling group is intact than when it is split.

3.6 Placement Disruption and Permanency Outcomes

Research indicates that children placed with their siblings experience more stability in their care than children who are separated from siblings. In her study of 197 randomly selected adolescents in long term foster care, Leathers (2005) had a number of findings related to placement disruption and permanency outcomes. Children who had been placed consistently with the same number of siblings for the duration of their stay in foster care were far less likely to experience placement disruption than were children with other sibling placement patterns. Thirty-six percent of children with a history of consistent joint placements experienced disruptions subsequent to the interview as compared to 56% of children placed with an inconsistent history of sibling placements, and 59% of children who had always been alone. The highest likelihood of placement disruption was experienced in children placed alone and had a history of joint sibling placement (65%). After controlling for child and placement characteristics and behavior problems, placement alone with a history of siblings placements predicted placement disruption, more than doubling a child's risk of disruption.

Staff and Fein (1992) found no significant difference in the rate of disruption between only children (44%) and children with siblings (41%). However, sibling pairs placed together were far more likely to remain together in their first placement (56%) than those placed separately (38%). It was also much less likely for one of the pair of siblings placed together to experience disruption (17%) than for the separately placed siblings (42%). In this same study of the 77 sibling pairs placed together, 35% were later separated. White children had a disruption rate of 56%, as compared to 15% of African Americans, and 8% of Hispanics. Boer and Spiering (1991) found that the phenomena between the subship, such as intense enmeshment, or extreme rivalry, were not given as reasons for failure in any of the broken-off joint sibling groups.

Children who are placed alone, either with a history of placement with siblings, or a history of placement alone, are significantly less likely to be adopted, or, placed in a subsidized guardianship home than children who are placed with a consistent number of siblings in all of

their placements (Leathers, 2005). The odds that children who are placed alone, either with a history of placement with siblings, or a history of placement alone, would be adopted, or in a subsidized guardianship home, is less than 30% the odds for children placed with a consistent number of siblings.

3.7 The Sibling Relationship

One very important factor that presents a significant problem when it comes to acting in the best interest of siblings in foster care is sufficient knowledge of the importance of the sibling relationship. For instance, social workers often feel inadequate when it comes to knowledge about sibling relationships (Beckett, 1999). In addition, very little data is available investigating the benefits of sustaining sibling relationships over time (Sheehan, Darlington, Noller, & Freeney, 2004). While the child-caretaker relationship has received a great deal of attention by researchers and practitioners, the sibling relationship has been of far less interest; and, while there is no question that the child-caregiver relationship is of great significance, there are many aspects of the sibling relationship that simply cannot be paralleled.

For most people, the sibling relationship is the longest relationship that a person will experience. Interactions with siblings, such as sharing, and comparison allow children to gain a sense of identity and opportunity for early intimacy (Banks & Kahn, 1997). Even more, early sibling bonds can be extremely beneficial, serving as an investment for later relationships (Kosonen, 1994). Their shared developmental and affective history place siblings in a situation in which they can become confidants (Howe, Aquan-Asee, Bukowski, Lehoux, & Rinaldi, 2001). Siblings are instrumental in creating opportunities for the development of trust and understanding, due to reciprocal interactions such as play and conflict. Meanwhile, complementary things such as teaching and caregiving provide the opportunity for the

development of guidance and support (Howe, et al., 2001). Prosocial and cooperative behavior, as well as pretend play and conflict management in the preschool years, are all attributed to positive sibling interaction (Dale, 1989). Throughout childhood siblings serve as both companions and confidants for one another (Buhrmester, 1992).

Even more, the sibling relationship can be of greater importance in traumatic events that are often times far to familiar too many foster youth. In fact, Shlonsky et al. (2005) notes, "Notwithstanding the importance of parental caregiving relationships, sibling relationships have the potential to ascend to primary importance in the context of maltreatment and placement in out-of-home care" (pp.710). Sibling relationships can be strengthened in cases where significant parental problems exist and the home environment is not harmonious (Sheehan et al., 2004). Also, it is not uncommon for siblings to rely more heavily on one another as a method of compensating for the lack of support from their caretakers.

While very little data is available assessing the role of the sibling relationship in foster care, studies have investigated the sibling relationships of children of divorce. In such cases, studies suggest that during more difficult situations, such as the actual divorce process, siblings tend to rely on each other more (Wallerstein, 1987). In order for sibling relationships to develop in a manner that compensates for the absence of a caregiving figure, Bank (1992) notes that two conditions must be present: high access between the siblings, in order for them to be able to rely on one another for strength and support, and a lack of parental care. Adolescent reports indicate that they often turn to their siblings for support and consolation when parental conflict was at its highest (Howe, et al., 2001). Studies also suggest that when siblings are placed together in divorced families, they are likely to exhibit fewer externalizing behaviors (Kempton, Armistead, Wierson, & Forehand, 1991).

Consequently, the presence of a sibling can play a critical role throughout the foster care experience. The sibling relationship serves as a way for youth to maintain a sense of their history, as well as a way to better understand themselves and their experiences (Banks & Kahn, 1997). In fact, Ward (1984) refers to the sibling relationship as "a link to the past." Siblings can also assist in alleviating some of the fear, loss, confusion and anxiety associated with being separated from their parents, and/or different stages of the foster care experience (McNamara, 1990). Foster youth often remember their entry into care as a time of worry, guilt, confusion and identity loss (Wedge & Mantle, 1991). Kempton et al. (1991) suggests that siblings can serve as a buffer and provide comfort and support during difficult times. It is because of their mutual experiences that siblings who have built relationships with similar people, or were removed from common loved ones, are able to better understand and rely on one another. Equally as important is the fact that these siblings likely learned to socialize with others and cope with difficulties in similar ways. Siblings also help one another to adapt to adverse situations (Hegar, 1988). At a time when such emotions as fear, confusion, and anxiety are heightened, the presence of a sibling may be the only predictable factor in a child's life (Ward, 1984). Siblings can also play a critical role in reducing the negative effects of parental loss (Bowlby, 1973).

Therefore, it is no surprise that when questioned about placement decisions, youth in foster care have consistently preferred placement with their siblings. Unfortunately, the input of siblings concerning their placement decisions has historically been overlooked. While conducting qualitative interviews with preadolescent foster children about their experiences in the foster care system, Whiting and Lee (2003) noted the following: "A theme that developed unexpectedly from the stories was the children's reliance on siblings. Themes of suffering together ran through many stories. As predicted in past literature, many children were dismayed

about being separated from siblings" (pp 291). In cases in which siblings were not fortunate enough to be placed with one another, they continually asked for increased visitation and sought information about the well being of their siblings (Knipe & Warren, 1999).

Siblings in out-of-home care have continuously reported an increased need for professional support that allows them more input in placement decisions. Practitioners and researchers alike, who work closely with siblings in care, support the idea of allowing siblings to have a greater amount of input when it comes to placement decisions (Ward, 1984, Piccus & Herrick, 2004). Therefore, it is clear that information assessing the impact of joint sibling placement is crucial; allowing children to share their stories and experiences is likely the best way to do this (Wheelan, 2003). In interviews with foster youth, Harrison (1999) noted that brothers and sisters who were placed together felt that their relationships had given them a sense of belonging and contributed significantly to their personal identity. In these same interviews, siblings noted that they often worry about the well being of one another. It seems that it is this type of rich and nuanced data that is necessary to not only give youth in care a sense of voice that they have traditionally been denied, but also to allow for professionals to have a better understanding of the importance of the sibling relationship for youth in care.

3.8 Effects of Separation

As noted earlier, the sibling relationship has been a secondary concern to foster care researchers and practitioners to the child-caregiverrelationship. In a similar fashion, the effects of sibling separation have largely been overlooked. In fact, little systematic research is available investigating the impact of separating siblings. Many youth note that when they are separated from their siblings it feels as though they have lost a part of themselves (Harrison, 1999). Siblings who are separated from one another may also maintain a sense of guilt and

responsibility for the separation. Harrison (1999) notes a very concerning dynamic in which separated siblings have feelings of shame and guilt, feeling as though they have escaped from a life of abuse and suffering, all the while fearing that their siblings continue to suffer the abuse. Furthermore, youth may also feel that being placed away from their siblings is some form of deserved punishment that they should have prevented in some manner (Timberlake & Hamlin, 1982). Similarly, siblings are more likely to convince themselves that they are insensitive and do not care about their siblings because they escaped the abuse and turmoil of their home life (Herrick & Piccus, 2005).

When siblings are separated from one another, the necessary efforts to help them sustain their relationship are all too often not carried out. Youth often face numerous obstacles and challenges just to have some sort of visitation set up with their siblings, so that they become discouraged and eventually give up (Harrison, 1999). In fact, research suggests that foster youth feel their social workers discourage siblings visitation and purposely make sibling visitation and contact unnecessarily difficult (Wedge & Mantle, 1991).

3.9 Barriers to Maintaining Sibling Relationships

Child welfare workers have historically been faced with an overwhelming amount of responsibility, and in most cases they do not have the resources at their disposal to address the needs of the foster children on their caseloads. Herrick and Piccus (2005) note that the job of preserving sibling's ties is often not as high a priority to child welfare workers as other issues that they presume to be more pressing or immediate. Even more, the field of child welfare has been plagued by high turnover and inadequate resources, and child welfare agencies are continually asked to do more with less; such factors present a significant problem when it comes to an issue such as placing siblings in foster care, due to the amount of time and resources

needed to carry out such a task. Therefore, given these circumstances, both the child welfare workers and the courts are more likely to rule that sibling association is not in the child's best interest, when in fact, it was really not in the system's best interest (Herrick & Piccus, 2005).

The foster care system, in particular, is well known as being a regulated system in which individuals have to adhere to a number of standards. It is these very regulations and standards that have made the field of child welfare appear to be an unattractive career field to many talented and creative individuals (Krebs & Pitcoff, 2006). It is not uncommon for individuals who are new to the foster care system to find their more tenured colleagues to be inflexible and closed off to new programs. Therefore, this also presents a problem when it comes to placing siblings in foster care. The problem of sibling separation in foster care has existed for decades and has unfortunately become far too familiar for these tenured child welfare workers. Therefore, in implementing a progressive policy or program to maintain sibling relationships, the very people working within the child welfare system could serve as a possible barrier.

Popple and Leighninger (2001) note that one of the most significant factors affecting employment of child welfare workers is the fact that social workers are not mandated as the major profession of choice within the child welfare arena. Most of the more progressive state legislation on siblings in foster care is very similar to the core values of the social work profession. This may come to a surprise to many, because most social policy is in contradiction with the social work code of ethics (McGinnis-Dittrich, 1994). Issues that are critical to maintaining sibling ties are in fact mandated by the governing body of the social work profession. Issues such as allowing youth to have a louder voice when it comes to placement decisions, as well as acting in a child' best interest, are key components of the social work value system.

In most cases, child welfare workers have a significant amount of discretion when it comes to separating siblings or keeping them intact. Even more, in most states, caseworkers do not have to justify the separation of a sibling group. In addition, it is not uncommon for child welfare workers to only consider a child's parents and adult relatives, and exclude a child's siblings in deliberations. Some professionals advocate for raising the rights of siblings to a constitutional level, in hopes that states actually carry out what they state they believe.

3.10 When to Remove

While most would agree that there are conditions that exist in which the separation of siblings is in the best interest of a child, some, however, debate when separation is actually appropriate. Circumstances that complicate the issue of placing siblings in care include: when there is overt hostility between siblings, when there is competition for adult affection, when one child serves as a caregiver to a younger child, when one child poses a physical or sexual risk to another child, when siblings do not have an established relationship prior to placement in foster care, when siblings enter care at different times, when one sibling is having more success in placement than another, and when one sibling keeps another from thriving in placement. While continued dialogue and debate regarding these situations would likely be beneficial, research suggests that these situations are rarely cited as actual reasons for separation. In fact, it is systematic problems such as a lack of space or behavior problems that are far more commonly cited as reasons for siblings to be separated.

Furthermore, the issue of parentification by siblings continues to be the source of much debate among practitioners, researchers, and policy makers. Kaplan (1993) notes that a caretaking relationship can provide a child with "a sense of responsibility," as well as a clear self-concept, increased self-esteem, and social support. Research in other cultures suggests

that parentification by a sibling can be an indicator of a strong commitment to the sibling relationship (Elgar & Head, 1999).

3.11 Policy

Although the courts have not interpreted the US constitution as recognizing the rights of siblings in foster care, legislation and interest has increased regarding this issue at the state level (Shlonsky et al., 2005). The extent to which these state policies address the issue of sibling placement vary significantly, ranging from the most advanced laws which attempt to ensure the placement of siblings together, to policies simply recommending the placement of siblings together when it is in the best interest of the child.

About half (26) of the US states currently have some policy in place addressing the needs of siblings in foster care; California, New York, and Illinois, who between them have over one-third of the nation's foster children, are largely considered to have the most progressive legislation concerning siblings in foster care.

Furthermore, California leads the nation in legislative efforts to preserve foster children's sibling relationships. The California Welfare and Institutions Code 16002 is largely considered to be the most progressive piece of legislation regarding sibling issues in foster care. This code attempts to ensure that siblings are placed together in foster care, regardless of whether or not they were removed from their home at the same time or a different time. Another very unique component of the legislation is that it requires that sibling interests be considered at each stage of the placement process. While each of these provisions is extremely significant, there is no question as to what aspects of the policy are responsible for separating California from the rest of the field when it comes to empowering siblings and providing them a voice. California policy limits parental control over decisions regarding post-adoptive sibling contact by allowing

siblings, not just their parents, to determine these decisions. The legislation also asserts that in some cases the best interest of a sibling group can override decisions to terminate parental rights (California Welfare and Institutions Code 16002).

While state policies appear to be improving, there continues to be an absence of federal policy advocating for the relationship rights of siblings in foster care. For instance, although the Adoption and Safe Families Act of 1997 expresses a preference of placement with relatives, some argue that the Act's emphasis on expedited permanency planning, termination of parental rights, and adoption, over family reunification or relative placements, are antagonistic to sibling rights to association (Kernan, 2005).

Even more, a number of cases involving sibling relationship rights have reached the courts; however, the courts do not appear to put as much weight on the sibling relationship as other factors. For example, in a case that sparked national discussion, the Massachusetts Supreme Court ruled not to place a four-year-old boy with his six-year-old sister and her adoptive mother; instead, the court felt it was in his best interest to be placed with a distant relative with whom he had had minimal contact with prior to his placement (Adoption of Hugo, 1998). The United States Supreme Court later declined to review the decision made by the Massachusetts court. Unlike the case of Hugo, other court cases have been somewhat instrumental in paving the way for improved conditions for siblings in care. For instance, the case of Jesse E. vs. the New York City Department of Social Services, which influenced a revision of policies and practices concerning the placement of siblings in foster care.

CHAPTER 4

HYPOTHESIS AND DATA COLLECTION

4.1 Introduction

Research in the area of siblings in foster care is rather limited. The sibling relationship has historically taken a backseat to the child-caregiver relationship in terms of research and practice interest. The goal of the present study is to increase the knowledge base about the role and significance of the sibling relationship for those whose who have had an experience of outof-home placement during their childhood. The present study will utilize existing data to compare outcomes of those adults who report they had access to their siblings, and report having strong relationships with their siblings during childhood and adulthood, to those who did not.

The hypothetical formulation guiding the current study is that the sibling relationship serves as a protective and supportive factor for those who experience out-of-home placements in childhood, therefore, those who had greater access to and closer relationships with their siblings will have more successful outcomes as adults than those who do not. The research question that the study seeks to address is: Do those adults who had an experience of out-of-home placement as children who report having greater access to and closer relationships with their their siblings have more positive outcomes those who do not.

4.2 Agency Information

Presbyterian Children's Homes and Services was established in 1903 after a mother of four who was dying of tuberculosis sought the help of her minister to care for her children. Since being founded over a century ago, Presbyterian Children's Homes and Services has served numerous children and families in a number of capacities. The agency currently has nineteen group homes spread out across five cities in the state of Texas. In addition to the group homes, the agency has 44 foster homes statewide that serve youth ages 0-17. Through their group homes and foster homes the agency served a total of 222 children. The advanced education program at Presbyterian Children's Homes and Services provided aftercare assistance, including tuition reimbursement, counseling, and funding for room and board to 45 former residents.

The residential group homes are rather unique in that they serve children in the public child welfare system, as well as children who are privately placed by their guardians. While in care children are generally placed in group homes with 6-8 other children of the same sex. A primary home parent couple resides with the youths for 2 weeks and are relieved for a week by a relief staff member. Services for youth include individual therapy, therapeutic recreation, professional tutoring, group therapy, family therapy, and independent skill training.

The data set for the current study was obtained by Presbyterian Children's Homes and Services staff with a number of goals in mind. The first goal was to gain a better understanding of the functioning and experiences of the alumni of Presbyterian Children's Homes and Services residential programs. Similarly, Presbyterian Children's Homes and Services staff wanted to identify those programmatic components that are associated with positive outcomes for alumni. *4.3 Presbyterian Children's Homes and Services Alumni Data Set*

The Presbyterian Children's Homes and Services Alumni data set is a cross-sectional data set in which adults were surveyed at one point in time. Criteria for selection included those individuals who were served by any one of the five residential programs at Presbyterian Children's Homes and Services for at least one year, and who have been discharged from care for at least six months. All Presbyterian Children's Homes and Services alumni between the ages of 18 and 40 meeting the required criteria and who could be located by agency staff were included in the study sample. Presbyterian Children's Homes and Services personnel reported having current addresses and or phone numbers for 84 alumni who meet the required criteria. Of this sample 65% (55) responded to the self administered surveys. Roughly half of respondents (29) completed the surveys at an annual Alumni event sponsored by Presbyterian Children's Homes and Service. The PCHAS alumni were between the ages of 18 and 44 at the time of the survey. The response rate was 65% with a 1.1% refusal rate (1). The high response rate is due in large part to the fact that over half of respondents were provided with the survey at the Alumni event.

Surveys were administered in the summer and fall of 2008. Surveys were mailed to alumni of four campuses (Waxahachie, Austin, Duncanville, and San Antonio). Alumni from the Itasca campus were only surveyed at the annual alumni event. Respondents were mailed a Target gift card for their participation when their completed surveys were received. Demographic information was obtained including age, gender, sexual orientation, number of placements, maltreatment experiences, reason for placement, private or public foster placement, age of entry in care, number of re-entries in care, time in placement, etc. Outcome information included educational achievement, income, employment, self esteem, mental health, reliance on public assistance, housing, and family structure. The Multi-Dimensional Scale of Perceived Social Support (MDSPSS) was used to assess the social support of Alumni. The MDSPSS is a 12-question scale designed to assess one's perceptions of social support. friends, and support from significant others. Principal components analysis was conducted on 275 male and female Duke University undergraduate students . Subscale alphas ranged from .85-.91. The scale's test-retest reliability ranged from .72-.85. Roper (1997) assessed the criterion-related validity of the MDSPSS by comparing scores to the California Inventory for Family Assessment (CIFA). The MSPSS correlated in hypothesized ways with the CIFA, as theory predicted. Responses to questions ranged from *very strongly disagree* to *very strongly agree*.

The Rosenburg Self Esteem Scale or RSE (Rosenburg, 1965) was used to assess the self esteem of alumni. The reliability and validity of the RSE has been assessed in numerous studies (Rosenburg, 1965; Silbert & Tippet, 1965, Kaplan & Pokorny, 1965, Crandal, 1973, Carmines & Zeller, 1979, Rosenburg, 1979, McCarthy and Hodge, 1972, Goldsmith, 1982, & Hagborg, 1993). These studies suggest that the RSE has established both reliability and validity on a consistent basis.

4.4 Study Design

The present study is a cross-sectional, non-experimental design using previously collected data. The measure used in this study placed significant emphasis on several aspects of the sibling relationship and its role in the out-of-home care experience. It is for this reason that this data set was selected to address the research questions for the current study.

Adults who have experienced out-of-home placement as children are the units of analysis for the current study. The ultimate goal of the study is to assess whether or not the relationship a child has with his or siblings and the amount of access a child has to his or her siblings is a predictor of success in adulthood for those with childhood experiences of out-ofhome care. In addition, this study seeks to identify any specific outcome areas in which adults with greater access to and strong childhood relationships with their siblings have more positive outcomes. Furthermore, in order to accurately asses the strength of the relationship between sibling access and relationships and success in adulthood, the current study analyzes and controls for a number of variables.

The current study identifies a number of key predictor variables based upon the theoretical framework of Bowlby's attachment theory. The predictor variables of sibling relationship and access to siblings are operationalized in a number of ways. As Hegar (1986) notes defining sibling requires a great deal of caution. For the current study the author chose to identify siblings as any biological siblings including half-siblings. The criterion variable in the current study is success in adulthood. Several domains are identified to measure outcomes including income, educational achievement, social support, self-esteem, employment, adult sibling relationships, and housing . Each of the outcome domains were combined to develop an outcome composite score. Two of the outcome measures (social support and self-esteem) were measured utilizing existing standardized measures.

4.4.1 Variables

The current study utilizes the following control, predictor and criterion variables.

4.4.2 Control Variables

Demographic Predictors

- 1. Age of Alumni at the time of interview
- 2. Gender of Alumni
 - a. Male
 - b. Female
 - c. Transgendered
 - d. Other
- 3. Race of Alumni
 - a. Caucasian
 - b. African-American

- c. Hispanic-Latino
- d. American Indian/ Alaska Native
- e. Asian American or Polynesian/ Pacific Islander
- f. Biracial
- g. Other (specify)
- 4. PCHAS Campus
 - a. Waxahachie
 - b. Itasca
 - c. San Antonio
 - d. Austin
 - e. Duncanville
 - f. Other
 - g.

Placement Experience

- 1. Length of time in care
 - a. Low (1.9 or less years)
 - b. Medium (2-3.9 years)
 - c. High (4 years or more)
- 2. Entry into care
 - a. 5 or younger
 - b. 6-11
 - c. 12 or older
- 3. Number of placements
 - a. Low (2 or less)
 - b. Medium(3-5)
 - c. High (more than 5)
- 4. Services received while in care
 - a. The following activities will be included in the composite measures: (1) life skills training, (2) tutoring, (3) individual counseling, (4) group counseling, (5) family counseling, (6) recreational therapy, (7) drivers education, (8) vocational training, (9) other.
- 5. Preparation for independence
 - a. Low (0-4)
 - b. Medium (5-9)
 - c. High (10or more)

Preparation for independence is a composite measure. Respondents will be scored on the following: (1) open a bank account, (2) prepare meals, (3) find a job, (4) budget money (5) balance a checkbook, (6) shopping, (7) choose nutritious meals, (8) obtain health care, (9) buy a car, (10) find ways to pay for college, (11) make decisions on birth control, (12) other.

- 6. Extracurricular Activities
 - a. Participated in both fun and religious activities while in PCHAS care. The following activities are included in the composite measure: (1) art, (2) band,

(3) cheerleading, (4) sports, (5) faith/church activities, (6) scouts, (7) summer camps, (8) other

Placement Reasons

- 1. Reason for placement
- 1. Maltreatment experience
 - a. Neglect
 - b. Physical abuse
 - c. Sexual abuse
 - d. Psychological Abuse
 - e. Abandonment
 - f. No maltreatment experience
 - g. Other

4.4.3 Independent Variables

Sibling Access

- 1. Placement with siblings
 - a. Placed with at least one sibling for entire duration of care experience
 - b. Placed with at least one sibling over half of duration of care experience
 - c. Placed with at least one sibling for less than half of duration of care experience
 - d. Not placed with sibling at all
- 2. Sibling monthly face to face contact
 - a. Very High (More than 8 times)
 - b. High (4-7 times)
 - c. Low (1-3 times)
 - d. Very low (less than once per month)
- 3. Sibling phone contact
 - a. Very High (More than 10 times)
 - b. High (6-9 times)
 - c. Medium (4-5 times)
 - d. Low (1-3 times)
 - e. Very low (less than once per month)

Sibling relationship

- 1. Level of closeness with siblings during childhood
 - a. Very close

- b. Somewhat close
- c. Not close at all
- 2. Level of reliability of your siblings during childhood
 - a. Very reliable
 - b. Somewhat reliable
 - c. Not reliable at all

Compared to others the level of closeness you had with your sibling during childhood Much closer than others

- b. About the same level of closeness as others
- c. Much less close than others

A number of studies identify the following four dimensions in assessing the quality of sibling relationships: (1) warmth/closeness, (2) conflict, (3) rivalry, and (4) status/power (Voling, 2003).

4.4.4 Hypothesis and Criterion Variables

The hypothesis of the current study is that the sibling relationship serves as a protective factor in the out-of-home care experience. The study postulates that adults who report having had stronger relationship with and greater access to their siblings while in care will have more positive outcomes as adults. Furthermore, this study will assess level of association between sibling access and the quality of sibling relationships with positive outcomes in adulthood. The criterion variable success will be broken up into seven outcome domains: employment, education, social support, self-esteem, housing, mental health and substance use, and family structure. The employment domain includes five items. The education domain includes one item. Social support will be assessed using one measure (Multidimensional Scale of Perceived Social Support). One measure will be used to assess self-esteem (Rosenburg Self Esteem Scale). The housing domain will include six items.

Hypothesis 1: Alumni reporting greater access to their siblings and stronger relationships with

their siblings will have more positive outcomes in the area of education.

Theoretical Framework: Attachment theory suggests that siblings serve as a source of support,

especially when trauma and instability are present. Alumni with higher levels of childhood sibling

support and access are more likely to have a greater educational experience and increased

support into adulthood to obtain higher levels of education.

- 1. Educational Attainment Outcome Variable
 - a. Graduate Degree
 - b. Bachelors Degree
 - c. Associates/Trade School Completion
 - d. Currently enrolled in college or trade school
 - e. High School Diploma
 - f. GED
 - g. Some High School
 - h. Other

Hypothesis 2: Alumni reporting greater access to their siblings and stronger childhood sibling

relationships with their siblings will have more positive outcomes in the area of income.

Theoretical Framework: Attachment theory suggests that siblings serve as a source of support,

especially when trauma and instability are present. Alumni with higher levels of childhood sibling

support and access are more likely to have better experiences while navigating through the

foster care system, therefore, have a greater potential for earning then those separated from

siblings.

- 1. Current Annual Income Individual Outcome Variable
 - a. Above \$50,000
 - b. \$40,000-\$49,999
 - c. \$30,000-\$39,999
 - d. \$20,000-\$29,999
 - e. \$10,000-\$19,999
 - f. \$5000-\$9,999
 - g. Under \$5000

- 2. Current Annual Income Family Outcome Variable
 - a. Above \$80,000
 - b. \$70,000-\$79,999
 - c. \$60,000-\$69,999
 - d. \$50,000-\$59,999
 - e. \$40,000-\$49,999
 - f. \$30,000-\$39,999
 - g. \$20,000-\$29,999
 - h. \$10,000-\$19,999
 - i. \$5000-\$9,999
 - j. Under \$5000

Hypothesis 3: Alumni reporting greater access to their siblings and stronger childhood sibling

relationships with their siblings will have more positive outcomes in the area of housing.

Theoretical Framework: Attachment theory suggests that ones relationship with his or her

siblings can help them to develop a stronger sense of resilience and independence. Alumni with

higher levels of childhood sibling support and access are more likely to obtain secure housing

due to the fact that their increased levels of resilience and independence.

- 1. Current Living Situation Outcome Variable
 - a. Own home
 - b. Renting and apartment or house
 - c. College dormitory
 - d. Living with a friend or relative and not contributing to monthly rent
 - e. Housing paid by employer
 - f. Other
- 2. Experience of Homeless Night Since Leaving Care Outcome Variable
 - a. Yes
 - b. No
- 3. Living Arrangements Since Leaving Care Outcome Variable
 - a. More than 20
 - b. 15-19
 - c. 10-14
 - d. 5-9
 - e. 4 or fewer

Hypothesis 4: Alumni reporting greater access to their siblings and stronger childhood sibling relationships with their siblings will have more positive outcomes in the area of social support. *Theoretical Framework:* Alumni with a history of greater access and better relationships with their siblings are more likely to have an increased level of social support. Siblings serves as confidants and advocates through the foster care experience and into adulthood. Alumni will have an increased likelihood to have a sibling to rely upon in times of need if they've had a stronger relationship with their siblings.

- 1. Multidimensional Scale of Perceived Social Support (Zimmet, et al., 1988)
 - a. There is a person around when I am in need
 - b. There is a person with whom I can share my joys and sorrows
 - c. My family really tries to help me
 - d. I get the emotional help and support I need from my family
 - e. I have a special person who is a real source of comfort to me
 - f. My friends really try to help me
 - g. I can count on my friends when things go wrong
 - h. I can talk about my problems with my family
 - i. I have friends with who I can share my joys and sorrows
 - j. There is a special person in my life who care about my feelings
 - k. My family is willing to help me make decisions
 - I. I can talk about my problems with friends

Hypothesis 5: Alumni reporting greater access to their siblings and stronger childhood sibling

relationships with their siblings will have more positive outcomes in the area of self esteem.

Theoretical Framework: Stroufe and his colleagues (1983) found that attachment had a

significant impact on self-esteem, moral development, social relationships, and school

achievement. A similar study found that as unattached youth aged and became teens they had

problems with power and control.

1. Rosenburg Self Esteem Outcome Variable (Rosenburg, 1965) Respondents reply to the following: a. strongly agree; b. agree; c. disagree; d. strongly disagree

- a. I feel that I am a person of worth at least on an equal plan as others
- b. I feel that I have a number of good qualities
- c. All in all I am inclined to feel that I am a failure
- d. I am able to do things as well as most people
- e. I feel that I do not have much to be proud of
- f. I take a positive attitude towards myself
- g. I wish I could have more respect for myself
- h. I certainly feel useless at times
- i. At times I think I am no good at all

Hypothesis 6: Alumni reporting greater access to their siblings and stronger childhood sibling

relationships with their siblings will have more positive outcomes in the area of sibling

relationships.

Theoretical Framework: Attachment theory suggests that early life interactions and experiences

have a strong influence on ones ability to attach and form relationships into adulthood. Alumni

who report closer relationships in childhood are more likelihood to report having closer

relationships into adulthood.

- 1. Frequency of contact with siblings
- 2. Strength of relationship with siblings
- 3. Level of reliability on siblings

Hypothesis 7: Alumni reporting greater access to their siblings and stronger childhood sibling

relationships with their siblings will have more positive outcomes in the area of employment.

Theoretical Framework: Attachment theory suggests that one's relationship with his or her

siblings can help them to develop a stronger sense of resilience and independence. Alumni with

higher levels of childhood sibling support and access are more likely to secure employment, due

to the fact that their increased levels of resilience and independence.

- 1. Employed full time, part-time, unemployed
- 2. Reliance on public assistance

4.5 Data Collection and Analysis

The current data was requested from the Presbyterian Children's Homes and Services in the summer of 2008. The data set was made available on a CD Rom in SPSS format.

4.5.1 Sample Selection Procedures and Size

A non-random availability sample was utilized in this study. Because of the nomadic nature and instability of many foster care alumni, snowball sampling was employed to identify participants. The sample frame includes adults who were placed in one of the five Presbyterian Children's Homes and Services campuses for at least 12 months. Individual alumni are the units of analysis.

4.5.2 Internal Validity

Internal validity is the strength of causal linkages between and among independent and dependent variables (Dattalo, 2008). An important issue concerning the current study is the level of interaction between variables. It is equally as important to note that this study likely does not include all relevant variables. For these reasons a number of control variables were included to address these problems.

A number of threats to internal validity are present in the current study. Many of the threats are due in large part to the fact that in most cases a significant amount of time has passed between the predictor and criterion variables. Maturation threats refer to the passage of time in which individuals continue to grow and change, therefore change in the criterion variable might be due to this maturation rather than the predictor variable (Rubin & Babbie, 2007). Maturation will likely be a significant threat due to this large time span, as well as the developmental changes that are present in the study population.

Selection bias will pose a threat as well due in large part to the fact that only those youth who can be located will be included in the sample. Therefore, youth who are homeless, incarcerated, or who have not remained in contact with Presbyterian Children's Homes and Services staff will likely not be included. It is likely that those individuals who can not be located have less positive outcomes than those who can be located. Snowball sampling was employed in an attempt to address this threat. Foster care alumni studies have historically had low sample sizes and response rates due to non responders, not having a permanent home, incarceration rates, and alumni working long hours. While a larger sample size does not necessarily increase internal validity, a larger sample can be effective in reducing the probability of non response bias.

4.5.3 External Validity

External validity refers to the ability to generalize a study's results to other times, places, and persons (Datallo, 2008). More simply put external validity is the degree to which your study would hold for other persons in other places and at other times. The sample size of a study is generally closely related to external validity. Samples that are randomly selected demonstrate much stronger levels of external validity, due in large part to the fact that all everyone in a population had the same opportunity to be included in the sample (Rubin & Babbie, 2007).

The current study employs a non-random, non-probability, non-equivalent sample. Generalization is significantly limited in this study due in large part to the fact that the study does not employ a probability sample. Similarly, the small sample size (55) in the current study significantly impacts the threats to external validity.

Presbyterian Children's Homes and Services is an agency largely considered to provide a level of quality care that likely exceeds that of many residential programs in the state of Texas and nationwide. The agency has held strong to a mission that emphasizes quality over quantity in their approach to care. Similarly, Presbyterian Children's Homes and Services have experienced a level of financial stability and consistency that many agencies do not have the benefit and fortune of experiencing. This can be important in generalizing the findings of this study to youth outside the Presbyterian Children's Homes and Services programs.

4.6 Data Analysis

The current study employs a non-experimental design in which the variables are referred to as predictor and criterion, due to the fact that there is no manipulation of independent variables, nor is there a determination of causality. Both univariate and bivariate analysis methods were employed in the current study. Chi square distributions were utilized to asses whether distributions of categorical variables differ from one another. Multivariate analysis were employed to assess if there was a statistically significant difference between groups. The strength of association between sibling placement and relationships and outcome success was identified to assess the degree to which sibling placement and childhood sibling relationships were a predictor of success. The data analysis of the current study were based largely on the level of measurement of the chosen variables. The predictor and control variables were mostly nominal and ordinal, and the criterion variables were ordinal (success/no success). Because of these levels of measurement the most appropriate statistical analysis procedures is logistic regression. Logistic regression is likely the most effective analysis method due to its ability to establish comparisons between groups while controlling for numerous other variables. Logistic regression is a kind of regression analysis often used when the dependant variable is dichotomus or multinomial. It is usually used for predicting whether something will happen or not. Independent variables may be categorical or continuous in logistic regression analysis

(Vogt, 2005). Logistic regression is largely based on transforming data by taking their natural logarithms so as to reduce nonlinearity (Vogt, 2005). The dependent or criterion variable is the only variable that is transformed while the independent or predictor variable is left in its natural unit. The maximum likelihood formula provides a goodness of fit ration which ultimately provides an odds ratio assessing the odds of change in the criterion variable when the predictor variable changes by one unit (Vogt, 2005).

For categories in which the criterion variable included more than two response categories, general linear model multivariate analysis was chosen. This analysis simply allows the researcher to assess the relationship of each predictor variable to the criterion variable using a linear combination of values while controlling for other predictors.

An overall composite variable of outcomes was developed through the integration of all nine outcome areas (education, housing, income, family structure, sibling relationships criminal activity, self esteem, mental health and substance abuse, and social support. A code of (1) predicts the positive outcome while a code of (0) was assigned in the absence of achievement of the outcome. Three categories of success will then be established based on the alumni scores on the composite outcome variable: low (0-3), medium (4-6), and high (7-9) success. It is important to note that the current study is equally as concerned with domain specific outcomes as the overall success composite variable.

4.7 Protection of Human Subjects

The current study is in compliance with all requirements with the Institutional Review Board for the Protection of Human Subjects at the University of Texas at Arlington. The IRB approval date for the current study is 10/09/08. Similarly, internal requirements with the Presbyterian Children's Homes and Services were completed as well.

CHAPTER 5

DATA ANALYSIS RESULTS

5.1 Introduction

The overall goal of the current study is to compare outcomes of adults with a history of childhood out-of-home placement based on access to siblings and childhood sibling relationships. The outcome areas that have been identified include: employment, education, social support, self-esteem, housing, mental health and substance use, and family structure. A number of variables were used as control variables to better identify the role that sibling access and childhood sibling relationships played in more positive outcomes as adults.

5.2 Demographics

A number of criteria were identified to define alumni for the current study: (1) they had to have been served in any of the 5 residential programs of Presbyterian Children's Homes and Services; (2) they must have resided in a Presbyterian Children's Homes and Services home for at least one year; (3) and they must be between the ages of 18 and 40. Presbyterian Children's Homes and Services personnel identified contact information for 84 alumni meeting criteria for the study. Of this sample information was collected from 55 respondents. To maintain independence of respondents 5 cases were excluded from the study due to the fact the respondents were from sibling groups already represented in the study.

The average of age of alumni was 22.2 years old at the time they filled out the survey. 60% percent of the study sample was female. Of the 50 alumni in the study 58% identified as Caucasian, 2% African American, and 40% Hispanic.

	labl	e 5.1 Age	
	Ν	Percentage of Alumni	
Under 20	20	40%	
20-25	17	34%	
26-30	8	16%	
Over 30	5	10%	
	Table	5.2 Gender	
	Ν	Percentage of Alumni	
Male	20	40%	
Female	30	60%	
	Table	5.3 Ethnicity	
	Ν	Percentage of Alumni	
Caucasian	29	58%	
Hispanic	20	40%	
African American	1	2%	

Table 5 1 Age

5.3 Placement Experience

A number of control variables were identified concerning the placement experience of alumni. The average alumni in the current study spent an average of 3.8 years in care at PCHAS. The average age that alumni entered care with Presbyterian Children's Homes and Services was 15.7 years old. Only 4% of respondents entered care before the age of 10, 24% were placed between the ages of 11 and 13, 50% between the ages of 14 and 16, and 22% were 17 or over at the time of their placement at PCHAS . Just under half of alumni (42%) report having between 3 and 5 out-of-home placements, while 28% report having 2 or fewer placements, and 30% report having more than 5 placements.

Alumni represented four of the five PCHAS campuses. Itasca had the most alumni (40%), followed by Waxahachie (24%), San Antonio (22%), and Austin (14%). Itasca was the

only campus in which surveys were provided at an alumni day event, which is likely due to the high number of respondents.

	Ν	Percentage of Alumni	
Waxahachie	12	24%	
Itasca	20	40%	
Austin	7	14%	
San Antonio	11	14%	

Table 5.4 PCHAS Campus

In terms of maltreatment, 89% of respondents reported some form of maltreatment experience. Neglect was the most common form of maltreatment experienced with 68% of alumni reported an experience of neglect during their childhood. Just over half of alumni (52%) reported an experience of physical abuse, 28% reported childhood sexual abuse, 22% reported emotional abuse, and 18% had at least one experience of psychological abuse as a child.

	Ν	Percentage of Alumni	
Neglect	34	68%	
Physical Abuse	26	52%	
Sexual Abuse	14	28%	
Emotional Abuse	11	22%	
Psychological Abuse	9	18%	
Abandonment	7	14%	

22%

11

Table 5.5 Maltreatment History

5.4 Childhood Sibling Experience

No Maltreatment Experience

A number of items were utilized to create the predictor variable of childhood sibling experience for the current study. Childhood sibling access and childhood sibling relationship were the two areas investigated.

5.4.1 Sibling Access

The majority of respondents were never placed with their siblings (58%). Only 14% were placed with their sibling for the entire duration of the experience in out-of-home care. Ten percent were placed for over half of their duration in care, and 18% were placed for less than half of their duration.

	Ν	Percentage of Alumni	
Entire duration	7	14%	
At least half of duration	5	10%	
Less than half of duration	6	12%	
Less than one quarter of duration	3	6%	
Never	29	58%	

Table 5.6	Placed with	Sibling
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In terms of contact, it appears that children had more face to face contact with their

siblings than phone contact. Twenty eight percent of alumni report having face-to-face contact

with their siblings at least 7 times per month, as compared to 26% seeing siblings less than

once per month, 26% one to three times per month, and 20% 4-7 times per month.

	Ν	Percentage of Alumni	
Less than once per month	13	26%	
1-3 times per month	13	26%	
4-7 times per month	10	20%	
More than 7 times per month	14	28%	

Table 5.8 Phone Contact While in Car

	Ν	Percentage of Alumni	
Less than once per month	6	12%	
1-3 times per month	15	30%	
4-7 times per month	22	44%	
More than 7 times per month	7	14	

5.4.2 Childhood Sibling Relationship

Findings in the area of sibling relationships were fairly consistent with 26% reported having a very close relationship with siblings and 40% reporting not being close at all to their siblings. Similarly, 34% reported being closer than most other sibling groups. The same number reported being equally as close as other siblings, and 32% reporting being not as close as others.

Table 5.9	Childhood	Sibling	Relationship

Very Close	N 13	Percentage of Alumni 26%	
Somewhat close	17	34%	
Not close at all	20	40%	

Table 5.10 Sibling Relationship Compared to Others

	Ν	Percentage of Alumni	
Closer than most others	17	34%	
Equally as close others	17	34%	
Not as close as others	16	32%	

Just under half of alumni reported spending less time with their siblings than most

others. Twenty eight percent reported spending more time with their siblings than most others.

Table 5.11 Time Spent with Siblings Compared to Others

	N	Percentage of Alumni	
More than most others	14	28%	
About the same as most others	13	26%	
Less than most others	23	46%	

5.5 Outcome Variables

The following outcome domains were investigated in the current study: education,

housing, income, socials support, self esteem, and employment. The following is a general

overview of each outcome domain for all alumni.

5.5.1 Educational Attainment

Only 4% of alumni in the current study report not finishing high school, while 30% report

having some college, and 10% report having successfully completing an associates degree.

	NI	Dereentage of Alumni	
	N	Percentage of Alumni	
Bachelors Degree	4	8%	
Associates Degree	5	10%	
Some College or Trade School	15	30%	
High School Diploma	18	36%	
Some High School	2	4%	

Table 5.12 Education

5.5.2 Employment Status

Of those alumni in the current study 40% are currently employed part-time as compared

to 30% currently employed full-time. The remaining 30% of respondents report being

unemployed at the time they filled out the survey.

	N	Percentage of Alumni	
Employed Full-Time	15	30%	
Employed Part-Time	20	40%	
Not Employed	15	30%	

5.5.3 Salary

Annual incomes were fairly diverse for alumni as well. Fourteen respondents (28%)

report earning less than \$5000 per year, while only 8% report earning that exceed \$30,000 per

year. The greatest percentage of alumni report earning between \$10,000 and \$15,000 per year.

The mean salary for all alumni in the study was \$14,950.

Table 5.14 Current Salary (mean=\$14,950.00)

	N	Percentage of Alumni	
Less than \$5000.00	14	28%	
\$5000-\$9,999.99	2	4%	
\$10,000-\$14,999.99	15	30%	
\$15,000-\$19,999.99	4	8%	
\$20,000-\$29,999.99	11	22%	
More than \$30,000	4	8%	

Table 5.15 Reliance on Public Assistance

	N	Percentage of Alumni
Yes	23	46%
No	27	54%

5.5.4 Housing

Respondents in the current study appear to have fewer living arrangements than alumni in some of the national studies. Over half (56%) of respondents report having had fewer than 3 living arrangements since emancipating from care, 32% have had between 4 and 7, while only 12% of alumni had more than 7 transitions since their discharge.

Table 5.16 Number of Living Arrangements Since Leaving Care

	N	Percentage of Alumni	
Fewer than 3	28	56%	
4-7	16	32%	
More than 7	6	12%	

The most common living situation of alumni was with a friend or relative and not contributing to rent (46%). Only 10% of alumni are currently living in a college dormitory. This is rather surprising considering the mean age of alumni being just over 22. Homeownership rates of alumni were similar to national alumni studies with only 12% currently owning their own

home. Thirty-two percent of alumni were renting an apartment or house at the time of the

survey.

	N	Percentage of Alumni	
Homeowner	6	12%	
Renting an apartment of house	16	32%	
College dormitory	5	10%	
Living w/ friend or relative and	23	46%	
not making contribution			

Table 5.17 Current Living Situation

Homelessness rates for alumni were rather low. Only 12% of alumni reported spending

at least one night homeless since their discharge from care.

Table 5.18 Homelessness Since Leaving Care

not making contribution

5.5.5 Social Support

The mean score on the Multidimensional Scale of Perceived Social Support for all

alumni was 18.500. Thirty-eight percent of alumni scored higher than 20 on the test, while 30%

scored less than 14, and 32% received a score between 15 and 20.

Table 5.19 Multidimensional Scale of Perceived Social Support (mean= 18.500)

	Ν	Percentage of Alumni	
Less than 14	15	30%	
15-20	16	32%	
More than 20	19	38%	

5.5.6 Self Esteem

The mean score for all alumni on the Rosenburg Self Esteem Inventory was 10.860. Fewer than half of alumni received a score below 7 on the scale. Twenty-six percent of alumni scored over 13, while 32% received a score between 8 and 12 on the survey.

	N	Percentage of Alumni	
Less than 7	21	42%	
8-12	16	32%	
Greater than 13	13	26%	

Table 5.20 Rosenburg Self Esteem Scale (mean= 10.860)

5.6 Statistical Analysis Report

Outcomes were evaluated based on the independent variable in the current study (childhood sibling experience). Respondents were given a score based upon their responses to items targeting childhood sibling access, and childhood sibling relationships. Respondents received a score based upon their responses on the following items:

- 1. Frequency of placement together while in care
- 2. Frequency of visitation while in care
- 3. Frequency of phone contact while in care
- 4. Childhood sibling relationship rating
- 5. Relationship compared to other sibling groups
- 6. Time spent compared to other sibling groups
- 7. Level of reliability of closest sibling during childhood

Based upon their answers respondents were placed in one of four categories:

1. Low- scores range from 0-9

- 2. Medium- scores range from 10-15
- 3. High- scores range from 16-20
- 4. Very High- scores above 20

The following charts illustrate how alumni faired in the outcome areas based upon their sibling

childhood experience scores.

Table 5.21 Childhood Sibling Experience and Educational Attainment

	Some High School	High School Diploma	Associates	Some College	BA
Low	8.3%	33.3%	16.7%	41.7%	0%
Medium	0%	66.7%	0%	22.2%	11.1%
High	0%	30.8%	7.7%	46.2%	15%
Very High	0%	0%	0%	75%	25%

Table 5.22 Childhood Sibling Experience and Current Employment

	Full-Time	Part-Time	Unemployed
Low	20.8%	37.5%	41.7%
Medium	0%	44.4%	55.6%
High	46.2%	53.8%	0%
Very High	100%	0%	0%

Table 5.23 Childhood Sibling Experience and Number of Living Arrangements since Emancipation

	Fewer than 3	4-7	More than 7
Low	33.3%	62.5%	4.2%
Medium	77.8%	11.1%	11.1%
High	92.3%	0%	7.7%
Very High	25%	0%	75%

Table 5.24 Childhood Sibling Experience and Reliance on Public Assistance

	Yes	No	
Low	50%	50%	
Medium	55.6%	44.4%	
High	46.2%	53.8%	
Very High	0%	100%	

Table 5.25 Childhood Sibling Experience

	Salary	Social Support	Self Esteem	
Low	\$9000.00	12.918	7.09	
Medium	\$14,333	17.11	10.309	
High	\$16,576	16.908	11.112	
Very High	\$46,750	23.712	14.650	

5.7 Multivariate Analysis

A separate multivariate analysis was performed for each of the eight predictor or control variables and all of the outcome variables in the current study. Those variables that reached statistical significance at a confidence level of p<.05 were included in the final model designed to predict success of alumni. Those variables not achieving significance at the level of p<.05 were each removed one-by-one from the final regression equation until only those significant predictors remaining.

Logistic regression was utilized for those outcome measures in which their level of measurement is categorical. Rubin (2005) defines logistic regression as a kind of regression analysis often used when the dependent variable is dichotomous or categorical to predict whether something will happen or not. Logistic regression is based upon transforming the data by taking their natural logarithms so as to reduce nonlinearity (Vogt, 1999). It should be noted that only the dependent variable is transformed in logistic regression. Logistic regression

provides the Wald statistic which measures the statistical significance of each predictor variable.

Similarly, multivariate linear regression was used in those domains in which the level of measurement for the outcome variable was continuous. This method allows the prediction of changes in the dependent variable from a group of independent variables (Vogt, 1999). Furthermore, it examines the relationship of each predictor variable to the outcome variable while controlling from other predictor variables. The *B* coefficient shows the amount of change in the outcome variable for each unit of change in the predictor variable (Rosenthal, 2001).

5.8 Outcome Domain Analysis Results

The purpose of this section is to provide a separate analysis to assess the relationship between each predictor and outcome domain, as well as to provide a comparison of outcomes based on the independent variable (childhood sibling experience).

5.8.1 Employment Outcome Domain Results

The logistic regression Wald statistic indicated that three variables showed significance at the *p*<.05 level of significance. Age was a significant predictor of the odds of more positive outcomes in this domain (Wald=13.941, *p*=.000. The Exp (*B*) indicates that alumni ages 18-20 had less than half the odds (Exp (*B*)= .39) of positive outcomes in the employment domain as the reference group of alumni over age 30. Similarly, alumni ages 21-22 had just over half the odds (Exp (*B*)=.622) and alumni age 23-30 had .811 the odds of positive outcomes in the employment domain.

Maltreatment experience also proved to be significant (Wald=5.676, p=.019). Alumni with a history of maltreatment had less odds (Exp (*B*)=.733) of improved employment experience as alumni who report not having experienced any form of maltreatment during their childhood.

Preparation for independence was significant as well (Wald=9.031, p<.05). Alumni scoring low on the preparation for independence scale had less odds (Exp (*B*)=.438) of more positive employment outcomes as the reference group of those scoring high.

	В	Wald	df	Sig.	Exp (<i>B</i>)
Age		13.941	1	.000	
18-20	632	11.432	1	.000	0.398
21-22	447	13.456	1	.005	0.622
23-30	190	3.651	1	.149	0.811
Maltreatment					
Yes	291	5.676	2	.019	0.733
Preparation for Independence		9.031	2	.023	
Low	483	7.338	1	.012	0.438
Medium	281	2.998	1	.076	0.798

Table 5.26 Current Employment

5.8.2 Education Outcome Domain Results

Only two predictors proved to be significant at the p<.05 level in the education domain. The number of years at PCHAS was significant (Wald=23.449, p=.000). The results suggest that the longer the alumni resided with PCHAS, the greater their likelihood of more positive education outcomes. Alumni residing for more than 5 years had 1.4 times the odds of more positive education outcomes than the reference group of alumni residing for less than 2 years. Similarly, alumni residing at PCHAS for 3-5 years had 1.2 times the odds of positive outcomes as the reference group.

Table 5.27 Educational Outcomes

	В	Wald	df	Sig.	Exp (<i>B</i>)
Years at PCHAS		23.449	1	.000	
More than 5	.786	15.812	1	.000	1.431
3-5	.513	13.91	1	.004	1.29
2-3	.644	14.197	1	.000	1.388

5.8.3 Adult Sibling Relationship Outcome Domain

Both age and years at PCHAS were significant at the *p*<.05 level. Alumni ages 18 to 20 had 1.791 the odds of positive outcomes in the adult sibling relationship domain than the reference group of alumni over age 30. Those alumni ages 21-22 had 1.345 the odds of more positive outcomes as the reference group, while those age 24-30 had 1.129 the odds of positive adult sibling relationship outcomes. These findings suggest that younger alumni appear to have closer relationships with their siblings than older alumni.

	В	Wald	df	Sig.	Exp (<i>B</i>)
Childhood Sibling		17.643	1	.002	
Experience					
Low	492	10.932	1	.000	.459
Medium	481	10.002	1	.000	.462
High	201	6.448	1	.003	.789
Age		21.376	1	.000	
18-20	.581	17.171	1	.004	1.791
21-22	.531	14.911	1	.000	1.345
24-30	.494	11.732	1	.000	1.129

Table 5.28 Adult Sibling Relationship

5.8.4 Housing Outcome Domain

The only predictor to show significance in terms of positive housing outcomes was the age of alumni at the time of the survey (Wald=19.712, p=.05). The younger the alumni the less

likely they were to have positive outcomes in the housing domain. Alumni ages 18-20 had fewer odds (Exp (B)=.657) of positive outcomes than the reference group of alumni over 30, while those alumni ages 23-30 had less odds (Exp (B)=.756) of positive outcomes in this domain.

	В	Wald	df	Sig.	Exp (<i>B</i>)
Aae		19.712	1	.021	
Age 18-20	587	17.869	1	.047	0.657
21-22	531	18.001	1	.021	0.59
23-30	211	6.786	1	.008	0.756

Table 5.29 Housing

5.8.5 Salary Outcome Domain

Three predictors were significant in the salary outcome domain. Gender was significant (p=.024). Ethnicity was significant (p=.001), with Hispanics having a greater likelihood of success than the comparison group (Caucasians). Males were less likely (B=-.205) than females to have positive outcomes in this domain. Those with less time in care (fewer than 2 years B= -.565; 2-3 years B= -.530; and 4-6 years B= -.330) had lower odds of positive outcomes in the salary domain than the reference group with more than the reference group of alumni with more than 6 years in care. Those with a history of maltreatment in childhood had less odds of positive outcomes in this domain as well (B= -.176).

Table 5.30 Current Salary

Parameters	В	Т	F	Sig	
Child Sibling Placement Low Medium	.978 .989	9.456 8.104	84.581 63.454 52.389	.004 .021 .000	

Table 5.30 Continued

High Male	.854 205	1.923 .061	5.780 12.057	.218 .024
Ethnicity Hispanic	.032	602	9.85 .362	.001 .023
Time in care Less than 2 years	565	-4.236	9.323	.003 .000
2-3 years 4-6 years	530 330	-3.236 -2.041		.032 .049
Maltreatment History	176	-2.486	7.080	.001
Age 18-20 21-22 23-30	764 785 387	-3.976 3.115 -1.919	11.141	.000 .000 .003 .047

5.8.6 Social Support Outcome Domain

The multidimensional scale of perceived social support scale was used to assess levels of adult social support. Childhood sibling relationship was the only predictor to show significance in the social support domain. Higher scores on the childhood sibling relationship variable indicate an increased likelihood of positive outcomes on the Multidimensional Scale of Perceived Social Support.

Table 5.31 Multidimensional Scale of Perceived Social Support

Parameters	В	Т	F	Sig.	
Childhood Sibling Relationship			12.454	.000	
Low	623	-5.656		.000	
Medium	248	-2.233		.014	
High	204	-1.956		.239	

5.8.7 Self Esteem

The Rosenberg Self Esteem Scale was used to assess levels of self esteem. There were three predictors that showed significance in the self esteem domain. Preparation for independence was significant (p=.020) with those scoring lower in the preparation for independence scale having fewer odds than the reference group to have positive outcomes in the self esteem domain. Similarly those who were male (B= -.240), and those with a maltreatment history (B= -.196) had fewer odds of achieving positive outcomes in this domain. Finally, the number of years at PCHAS was significant (p=.018). Those individuals who were in care at PCHAS for 3-5 years had the greatest odds of positive outcomes in the self esteem domain.

Parameters	В	Т	F	Sig.	
Childhood Sibling			12.454	.000	
Relationship					
Low	410	-4.432		.000	
Medium	288	-2.114		.002	
High	104	897		.071	
Years at PCHAS			5.711	.018	
More than 5	.828	6.971		.021	
3-5	.947	7.218		.000	
2-3	.781	6.117		.000	
Male	240	-4.668	11.169	.014	
Maltreatment History	196	-5.730	3.831	.001	
Preparation for Independence			7.529	.020	
Low	279	-1.438		.033	
Medium	312	-2.038		.000	

Table 5.32 Rosenberg Self Esteem Scale

5.9 Outcome Composite Analysis Results

The seven outcome areas in the current study include employment, education, adult sibling relationship, housing, income, self-esteem, and social support. All of the outcome measures were combined to create a composite outcome score across all predictor variables. Each predictor was tested against the outcome composite in a series of regressions. Only the significant predictors from the previous analysis were included. Only four of the initial predictors were identified at the *p*<.05 level. The mean score for the composite for all alumni was 10.221. The *F*-test of significance for the model is 14.223, *p*=.000.

5.9.1 Outcome Composite

An outcome composite was created based upon the 7 outcome areas. Respondents could receive a maximum value of 2 for each outcome domain. A maximum score of 14 could be obtained for alumni receiving all possible points.

A classification table was created to display the information into three categories of alumni outcomes: (1) low 0-4 outcomes, (2) medium 5-9 outcomes, (3) high 10-14 outcomes.

	В	t	F	Sig.	
Intercept	9.881	23.456	14.223	.000	
Childhood Sibling Relationship			7.282	.002	
Low	654	311		.000	
Medium High	701 243	339 105		.000 .000	
-					
Maltreatment History	656	-2.214	4.178	.005	

Table 5.33 Composite Outcome Results

Table 5.33 Continued

Preparation for Independence			19.654	.000	
Low	745	-3.432		.000	
Medium	667	-4.001		.000	
Time in Care			21.345	.000	
Less than 2 years	945	-5.874		.001	
2-3 years	771	-4.567		.000	
4-6 years	555	-4.108		.023	
Age at interview			17.121	.000	
18-20	765	-3.849		.011	
21-22	459	-2.916		.000	
23-30	.432	2.104		.746	

5.10 Analysis

1. Results from the outcome composite analysis suggest that the predicted mean scores are significantly different for those alumni in the study with a history of maltreatment (*F-test*= 4.178, *p*=.005). Alumni with a history of maltreatment have a predicted mean score .656 points below those with no history of maltreatment.

2. Results from the outcome composite analysis suggest that the predicted mean scores vary significantly for alumni based upon their scores on preparation for independence (*F*-test= 19.654, p=.000). Those alumni with a low score on the measure indicate a decrease of .745 points from those with a high score. Similarly, those with a medium score indicate a decrease of .667 points.

3. Results from the outcome composite analysis suggest that the predicted mean scores are significantly different for those alumni in the study based on their amount of time in care (*F*-test= 21.345, p=.000). Those alumni with less than two years at PCHAS indicate a decrease of

.945 points, while those with 2-3 years indicate a decrease of .771 points. Those with 4-6 years in care saw a decrease of only .555 points from the reference group of alumni with more than 6 years in PCHAS care.

4. Results from the outcome composite analysis suggest that the predicted mean scores are significantly different for those alumni in the study based on their age at the time of interview (*F*-test= 17.121, p=.000). Those alumni who were between the ages of 18 and 20 indicate a .765 decrease in points when compared to the reference group. Similarly, those ages 21-22 indicate a .459 decrease. Those alumni age 23-30 indicate a slight increase of .432 points from the reference group.

Success Level	Low Success 0-4	Medium Success 5-9	High Success 10-14
Childhood Sibling Experience Low	51.1%	41.6%	8.3%
Medium	55.6%	44.4%	0%
High	23.07%	30.7%	46.15%
Very High	0%	25%	75%

Table 5.34 Outcome Composite and Childhood Sibling Experience

5.10.1 Childhood Sibling Experience Predictors

The results of multivariate analysis, ANOVA (F=8.342, p=.003) suggest that predicted mean score differences in the success outcome composite exists for alumni with a higher score on the childhood sibling experience. Alumni who scored low on the childhood sibling experience inventory have a predicted mean of 7.421 in the outcome composite, a score that is 3.232 points lower than those scoring very high. Those respondents scoring medium on the childhood sibling experience inventory have a predicted mean 2.989 points lower than those with a very high childhood sibling experience score. Finally, those alumni with a score in the high range on the sibling composite have predicted scores slightly lower (1.788 points) than those alumni scoring very high on the sibling compositie.

5.11 Positive Outcome Measure

A number of predictor variables were identified as significant in the positive outcome composite. Based upon the following predictor variables could increase the odds of more positive outcomes for children in out-of-home care:

- 1. Maltreatment History
- 2. Preparation for Independence
- 3. Time in care
- 4. Childhood Sibling Relationship

While the study identified age at the time of survey as a possible predictor of overall positive outcomes, this is likely due to maturation. Older alumni have had more time to obtain such things as stable housing, education, and increased income.

5.12 Hypothesis Results

Hypothesis 1: Alumni reporting greater access to their siblings and stronger relationships with their siblings will have more positive outcomes in the area of education.

This study failed to detect significant differences based on childhood sibling experience on the education attainment domain.

Hypothesis 2: Alumni reporting greater access to their siblings and stronger childhood sibling relationships with their siblings will have more positive outcomes in the area of income.

This study identified statistically significant differences in income based on childhood sibling experience.

Hypothesis 3: Alumni reporting greater access to their siblings and stronger childhood sibling relationships with their siblings will have more positive outcomes in the area of housing.

This study failed to identify significant differences based on childhood sibling experience on the housing domain.

Hypothesis 4: Alumni reporting greater access to their siblings and stronger childhood sibling relationships with their siblings will have more positive outcomes in the area of social support.

This study identified statistically significant differences in social support scores based on childhood sibling experience.

Hypothesis 5: Alumni reporting greater access to their siblings and stronger childhood sibling relationships with their siblings will have more positive outcomes in the area of self-esteem.

This study identified statistically significant differences in self-esteem scores based on childhood sibling experience.

Hypothesis 6: Alumni reporting greater access to their siblings and stronger childhood sibling relationships with their siblings will have more positive outcomes in the area of adult sibling relationships.

This study identified significant differences in adult sibling relationships based on childhood sibling experience.

Hypothesis 7: Alumni reporting greater access to their sibling and stronger childhood sibling relationships with their siblings will have more positive outcomes in the area of employment.

This study failed to identify significant differences in employment experiences based on childhood sibling experience.

CHAPTER 6

DISCUSSION

6.1 Introduction

Few would argue against the fact that maintaining and supporting sibling relationships is important from both a humanitarian and philosophical perspective. Furthermore, given the fact that many children in foster care have already experienced significant loss, the maintenance of their relationships should be a high priority for child welfare workers, policy makers, and researchers alike. Research suggests that the sibling relationship plays a significant role in the lives of children and continues to serve as a source of support and comfort into adulthood. In addition, the sibling relationship can be of even greater significance when children face the unfortunate circumstances of abuse, neglect, and separation from their parents. The sibling relationship is often the longest relationship that a person will have in their lifetime. In the case of many foster youth, siblings are not only the final remaining family members to lean on for support and comfort, but also the only link to their past.

A simple review of the empirical data would provide enough evidence for anyone to conclude the child welfare system has failed siblings in care in many ways. Historically, the separation of siblings has always presented a problem for child welfare workers, dating back to the decades of the orphan trains. Many in the child welfare arena have become so familiar with the separation of siblings in care that it almost appears to be "an accepted practice" that is just an unfortunate reality in the child welfare system. Others argue that because of the numerous factors and obstacles that have historically kept siblings apart, we need to systematically rethink the way that children are placed in this nation.

A number of factors need to be closely examined in order for the relationship rights of siblings in foster care to improve. Most importantly, siblings relationships need to become of equal importance as other child welfare issues. In order for this to occur, child welfare professionals must gain a better understanding of the importance of the siblings relationship. Child welfare workers in many states continue to be overwhelmed with their responsibilities and are not provided with the necessary resources to serve children and families in an appropriate manner. Maintaining sibling relationships is a very time consuming process that requires significant legwork. Addressing key issues that seem to be very instrumental in the keeping siblings apart would be a logical start to addressing the problem. Issues such as providing incentives for families who accept sibling groups, increasing support for kinship homes, and providing services to strengthen and repair sibling relationships, certainly need to be addressed and considered.

As long as a federal "right to association" is absent, states will continue to bear the responsibility of interpreting the importance of the sibling relationship. Which essentially means that child welfare workers will continue to have a large amount of discretion concerning sibling placement. Fortunately, an increasing number of states (26) have some policy in place addressing siblings in foster care. Some states such as California, Illinois, and New York have more progressive policies, that appear to have drawn from the limited existing literature on siblings in care. Legislators in these states must pay close attention to the actual implementation of these policies to ensure that what they have set out to do is actually being done. Since the passing of the California Welfare and Institution Code 16002 in 1998, lawmakers have seen only a slight 5% increase in the number of siblings placed together

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(University of California Berkeley, Center for Social Service Research, 2006). As a result, one might assume that the authors and advocates of such an extensive piece of legislation had greater hopes and expectations than a 5% increase.

Because research has been limited in this area, child welfare workers have been forced to approach this issue with little evidence to guide them in their placement decisions for siblings. Since Hegar's 1988 seminal piece, research efforts have both improved and increased. A strong need exists for well developed and carried out research in the area of siblings in foster care. Information assessing the impact of the sibling relationship, and the role that siblings play in the foster care experience is largely absent. No qualitative studies have been conducted solely on the issue of siblings in care, and the only qualitative data that exist comes from studies on other foster care issues in which the youth being interviewed have instigated and brought forth sibling issues. More in-depth qualitative analysis would not only provide insight into the problem, but, more importantly, it would give siblings in foster care something that they have traditionally been neglected, a voice.

An overwhelming number of youth in foster care have been stripped of their relationship rights and have been silenced by a system that is all too often overburdened and inflexible. Siblings in foster care continue to be a population that is overlooked and underestimated. Practice, research, and legislative efforts are all equally necessary in order to improve the conditions of siblings in foster care. It is important, that at all levels, professionals do not "accept" the separation of siblings as an unfortunate reality of the foster care experience, but rather, work towards preserving the only family relationship that many youth in foster care have left.

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6.2 Outcomes

The current study sought to further investigate the contributions that childhood sibling experience has on successful outcomes for adults with a history of childhood out-of-home placement. John Bowlby's attachment theory was primarily utilized to provide a framework for the selection of predictor variables (Bowlby, 1944). The research available on the sibling relationship and its impact on the foster care experience is scarce. Due to the lack of research in this area, this study is in many ways exploratory. The findings in the current study are based on a small non-probability sample of alumni from one foster care agency. Furthermore, the agency that provided the care for these individuals is one that has historically not faced many of the same challenges that most foster care agencies face. Presbyterian Children's Homes and Services has had the fortune of having numerous monetary resources, as well as consistent leadership for many years.

6.2.1 Outcome Domains

The current study had seven hypotheses, as well as an overarching research question. The sibling experience in foster care proved to be significant in four outcome domains (selfesteem, adult sibling relationship, social support, and income); however, a number of predictors were identified as being significant in each outcome domain.

6.2.1.1 Educational Attainment

The study was unsuccessful in identifying significant differences in educational attainment based on the childhood sibling experience. The only factor that was associated with higher levels of educational attainment was the amount of time in PCHAS care. Those alumni who spent more time in care at PCHAS were more likely to attain higher levels of education.

The levels of educational attainment for PCHAS alumni are far better than previous studies. The high school completion rate of 96% exceeds that of most studies examining this outcome with foster care alumni. Pecora (et al. 2003) found that 86% of alumni of Casey Family Services programs had completed high school. A finding that was much higher than most previous studies. Presbyterian Children's Homes and Services has historically provided a number of services to enhance and improve the educational experiences of children and youth in their care, such as tutoring, educational consulting, etc.

6.2.1.2 Employment

The study did not identify the childhood sibling experience as having a significant impact on the employment experiences of alumni. Three predictors were identified as having a significant impact on the employment status of alumni. Older alumni had greater odds of being employed than younger alumni. Similarly, those alumni with no maltreatment experience were more likely to have higher levels of employment than those with a maltreatment history. Alumni who reported higher levels of preparation for independent living had more positive outcomes in the employment domain than those with lower levels of preparation for independence.

The employment rate for PCHAS alumni (70%) is significantly lower than the national average of 95%. The findings for PCHAS alumni were much closer to alumni in the Casey alumni study which was 80.1%. Similarly, the current study's alumni rate of 70% is the exact rate of employment as the Midwest Evaluation of the Adult Functioning of Former Foster Youth (Courtney et al., 2007).

6.2.1.3 Housing

The current study did not identify the child sibling experience as having any significance in the area of housing for alumni. In the housing domain the only predictor that showed significance was the age of alumni. Older alumni were more likely to own their own home or live in a rental property and contribute monthly.

The home ownership rate for alumni in the current study was 12%. A rate that is far less than the 67% national average. This rate was also less than the home ownership rate in previous alumni studies ranging from 18% to 27% Far fewer alumni are currently residing in a college dormitory (10%) than one would expect in the general population of similar aged adults. Nearly half of the sample (46%) were living with either a friend or relative and not making a contribution to the monthly rent. The homelessness rate for PCHAS alumni was 12%, a rate much lower than previous alumni studies which range from 18% to 22% (Pecora et al., 2003; Courtney et al., 2007).

6.2.1.4 Social Support

The study was successful in identifying the childhood sibling experience as being significant in the levels of adult social support that alumni report. Those alumni who reported higher levels of sibling access and better childhood sibling relationships had higher levels of social support on the Multidimensional Scale of Perceived Social Support. No other predictors were significant in the area of social support.

6.2.1.5 Self Esteem

The current study was successful in identifying the childhood sibling experience as being significant in the levels of self esteem. Alumni who reported higher levels of access to sibling and better relationships with siblings during their childhood had higher scores on the Rosenburg Self Esteem Scale as adults.

A number of other predictors were identified as being significant in the area of self esteem. Time in care was a significant predictor, with alumni who had been in care longer reporting higher levels of self esteem. Similarly, those alumni with no maltreatment history recorded higher scores in the area of self esteem. Individuals who recorded higher scores in their levels of preparation for independence also reported higher levels of self esteem than those scoring low in preparation for independence.

6.2.1.6 Income

The current study was successful in identifying the childhood sibling experience as being significant in the current income of alumni. Alumni who reported higher levels of sibling access and relationships during their childhood had greater earnings at the time of they completed the survey. Numerous other predictors were significant in the income domain. Females were more likely to have higher levels of income than males. Similarly, Hispanics reported higher salaries in the current study than Caucasian alumni. Those alumni who spent more time in care at PCHAS also reported higher salaries at the time of the survey.

The mean salary for alumni in the current study was \$14,950. This is nearly half that of the Casey alumni study mean salary of \$27,500. This discrepancy is likely due in large part to the fact that many of the alumni in the current study were much younger than those in the Casey study. A more comparable sample of alumni of the Midwest study suggested the mean salary to be under \$10,000.

6.2.1.7 Adult Sibling Relationships

The current study successfully identified the childhood sibling relationship as being significant in the levels of adult sibling relationships. Alumni who reported higher levels of childhood sibling experience were far more likely to have a closer relationship and greater access to their siblings as adults. Age was a significant predictor with older alumni reporting levels of sibling access and relationships as adults.

6.3 Outcome Composite

The current study identified childhood sibling access and relationships to be significant in the overall outcome composite. With those individuals reporting greater access to their siblings and stronger childhood relationships with their sibling scoring higher in the overall composite. Other factors that were identified as being significant in the overall composite include maltreatment history, preparation for independence, time at PCHAS, and age. Those alumni with no maltreatment history were far more likely to score higher on the overall composite than those with a maltreatment history. Similarly, those individuals with more time in PCHAS care faired better in terms of overall outcomes. Similarly, those who reported a greater level of independence upon discharge from care had higher levels of overall outcomes. Age was a significant factor as well; however, this is likely due in large part due to maturation. Older alumni have had more time to obtain education, earn more money, and secure better jobs than younger alumni. Furthermore, older alumni in many cases have a greater level of maturity and independence and have worked through many of the issues that are common to adults with a history of out-of-home care.

6.4. Implications for Practice, Research and Policy

6.4.1 Practice

The current study is extremely exploratory in nature and has a number of limitations. While the findings from this study must certainly be approached with caution, it does lend some evidence to the need to further look into the sibling relationship as a protective factor in the outof-home care experience. Bowlby's attachment theory provides an appropriate framework for further analyzing the impact of the sibling relationship for youth in care. Social workers report not having adequate knowledge about the sibling relationship and its role in the foster care experience (Smith, 1998). This study provides evidence that further more extensive inquiry into the impact of the sibling relationship might help to assist social workers in making critical decisions regarding sibling placement.

The current study took into consideration the long-term impact of sibling separation, which has historically been one of the most neglected components of this issue. The findings from this study can be effective in identifying those areas in which the sibling relationship has been especially significant into adulthood.

6.4.2 Policy

The increased legislative attention that sibling issues have received in recent years is promising. Any research providing any type of support for sibling placement can be of great importance when it comes to advocating for more progressive sibling legislation. The fact that the current study investigates the long term impact of the sibling relationship can be significant because this is a dimension of the issue that is often neglected. Any evidence that allows policymakers to explore the lifelong impact of decisions can be extremely promising.

6.4.3 Research

The current study is one of the first to explore the long term impact of the sibling relationship in out-of-home care. While the current study has a number of limitations, most notably the small sample size, the findings suggest that further inquiry into the relationship between child sibling access and a number of critical outcome areas might be beneficial. Areas such as adult sibling relationships, self-esteem, and social support are all outcome domains in which those with greater childhood sibling experiences had more positive outcomes. Further investigation into these outcome areas would likely be one of the most logical places to start concerning research on sibling placement and access. Furthermore, considering the current

findings, a more rigorous study with a much larger sample size, would likely make a significant contribution to the sibling literature.

Because so little is known about the role of the sibling relationship in out-of-home care more qualitative inquiry is necessary. The limited literature in this area makes little mention of theory. The lack of solid theoretical frameworks to investigate this issue only lend evidence to the fact that more in depth and rich data is needed. Youth in care have historically been silenced on many issues. In many cases, this is no different for siblings. Qualitative and mixed method inquiry would provide them with a voice, something that they have all too often been denied. APPENDIX A

PRESBYTERIAN CHILDREN'S HOMES AND SERVICES SURVEY QUESTIONNAIRE

Presbyterian Children's Homes and Services Survey Questionnaire

- 1. Age _____
- 2. Gender
 - □ Male
 - □ Female
 - □ Transgendered
- 3. Race
 - □ Caucasian
 - □ African American
 - □ Hispanic-Latino
 - □ American Indian/Alaska Native
 - □ Asian American or Polynesian/Pacific Islander
 - □ Biracial
 - □ Other (specify)
- 4. Sexual Orientation
 - □ Gay/Lesbian
 - □ Bisexual
 - □ Heterosexual
 - □ Questioning
 - □ Other

5. Which campus did you last live in while at Presbyterian Children's Homes and Services?

- □ Waxahachie
- 🗆 Itasca
- □ Austin
- □ San Antonio
- □ Duncanville
- □ Foster Care
- □ Other
- 6. Highest level of education completed

- a. Graduate Degree
- b. Bachelors Degree
- c. Associates Degree
- d. Some College or Trade School
- e. Completion of Trade School Program
- f. Currently enrolled in College or Trade School
- g. High School Diploma
- h. GED
- i. Some High School
- j. Other

7. Which of the following best describes your living situation immediately after discharge from PCHAS?

- k. Independent Living Program
- 1. Return to Birth Parents
- m. College Dormitory
- n. Stayed with Foster Family
- o. Psychiatric Hospital/Treatment Facility
- p. Military Service
- q. Incarceration or Correctional Facility
- r. Group Home/ Supported Adult Living
- s. Extended Family/ Siblings
- t. Personal Apartment or Home
- u. Weekly Hotel
- v. Homeless
- w. A Home of a Friend or Acquaintance
- x. Other (specify)
- 8. Since leaving care have you spent any nights homeless?
 - □ Yes
 - □ No

9. How many times have you been homeless since leaving care?

- 10. Did you experience a homeless night within 12 months of leaving care?
 - a. Yes
 - b. No

- 11. Which would best describe your current living situation?
 - a. Own my own home
 - b. Renting an apartment or house
 - □ Living with a friend or relative and not contributing to the monthly rent
 - c. Housing paid by employer
 - d. Other
- 12. Which of the following best describes your current employment status?
 - a. Employed full-time
 - b. Employed part-time
 - c. Currently not employed
 - d. Other

13. What is your current annual salary?

14. What is your family's total annual income?

- 15. Are you currently receiving any form of public assistance?
 - □ Yes
 - □ No

16. Do you currently have health insurance coverage?

- □ Yes
- \square No

17. Have you ever been diagnosed with any of the following?

- □ Post Traumatic Stress Disorder
- □ Major Depressive Disorder
- □ Social Phobia
- □ Panic Disorder
- □ Generalized Anxiety Disorder
- Anorexia Nervosa
- Bulimia Nervosa
- □ Eating Disorder NOS
- □ Bipolar Disorder

- □ Dysthymic Disorder
- □ Obsessive Compulsive Disorder
- □ Other (specify) _____

18. How many different living arrangements have you had since discharge from care? _____

- 19. Since your discharge from PCHAS have you received any type of substance abuse treatment?
 - □ Yes
 - □ No
- 20. During the last year how have you abused any of the following?
 - □ Cocaine
 - □ Alcohol
 - □ Marijuana
 - □ Methamphetamines
 - \Box Other (specify)

21. Have you been arrested since your discharge from care? If yes, how many times?

- □ Yes- Number of arrests _____
- □ No

22. How many children do you have? _____

- 23. What is the current living situation of your children?
 - \Box Child is in my custody
 - \Box Child is in the custody of an extended family member
 - \Box Child is in the custody of CPS
 - \Box Other
- 24. Which would best describe your marital history?
 - □ Never married
 - □ Married

- \Box Divorced
- □ Separated
- □ Remarried
- □ Other
- 25. Do you currently do some form of volunteer work at least one time per month?
 - □ Yes
 - \Box No

26. In an average year how many times do you have contact with your biological siblings?

- \Box 0 times
- \Box 1-2 times
- \Box 3-5 times
- □ 6-10 times
- \Box More than 10 times
- 27. As a child did you experience any of the following? Check all that apply
 - □ Neglect
 - □ Physical Abuse
 - □ Sexual Abuse
 - Emotional Abuse
 - □ Psychological Abuse
 - □ Abandonment
 - □ No Maltreatment Experience
 - □ Other (specify)
- 28. What were the reasons for your initial placement at PCHAS?
 - □ Maltreatment
 - □ Caregiver's inability to provide care due to family stress
 - □ Birth parent's substance abuse problems
 - □ Conflict with family due to behavioral problems
 - \Box Birth parents criminal problems
 - □ Birth parents mental health problems
 - □ Other

- 29. At what age did you first enter PCHAS? _____
- 30. How many years were you at PCHAS? _____
- 31. Are you currently taking any psychotropic medications
 - a. Yes
 - b. No
- 32. While in school did you ever have to repeat a grade?
 - $\Box \quad Yes \\ \Box \quad No$
- 33. While in school did you receive special education services?
 - $\Box \quad Yes \\ \Box \quad No$
- 34. While in school did you ever attend an alternative education program?
 - □ Yes
 - □ No
- 35. While at PCHAS care were you ever employed?
 - $\Box \quad Yes \\ \Box \quad No$
- 36. How many schools did you attend from K-12th grade?
 - □ 1-6
 - □ 7-10
 - \Box More than 10
- 37. While at PCHAS which of the following services did you receive? Mark all that apply.
 - □ Life Skills Training
 - □ Tutoring
 - □ Individual Counseling
 - □ Group Counseling

- □ Family Counseling
- □ Recreational Therapy
- □ Driver's Education
- □ Vocational Training
- \Box Other (specify)
- 38. While at PCHAS which of the following were you adequately prepared to do? Check all that apply.
 - \Box Open a bank account
 - \Box Prepare meals
 - \Box Find a job
 - □ Budget money
 - \Box Balance a checkbook
 - □ Shop
 - \Box Choose nutritious meals
 - \Box Obtain health care
 - \Box Access your medical records
 - \Box Obtain car insurance
 - \Box Buy a car
 - \Box Find ways to pay for college
 - □ Make decisions about birth control
 - □ Other (specify)
- 39. Which of the following extracurricular activities did you participate in while at PCHAS? Mark all that apply.
 - □ Art
 - □ Band
 - □ Dance
 - \Box Cheerleading
 - \Box Sports
 - □ Faith/Church Activities
 - □ Scouts
 - □ Summer Camps
 - □ Other (specify)

40. In total how many years did you spend in out-of-home care as a child?

- \Box Less than 1 year
- \Box 2-3 years

- \Box 4-6 years
- \Box More than 6 years
- 41. In total how many different out-of-home placements did you have as a child?
 - \Box 2 or less
 - □ 3-5 placements
 - \Box More than 5 placements
- 42. While in out-of-home care how often were you placed with at least one sibling?
 - \Box For the entire duration of my time in care
 - □ For at least half of the duration of my time in out care
 - □ Less than half of the duration of my time in care
 - \Box Less than a quarter of the duration of my time in care
 - □ I was never placed with any of my siblings while in care
 - □ Other
- 43. While in out-of-home care how often did you have face to face contact with at least one sibling?
 - \Box Less than 1 time per month
 - \Box 1-3 times per month
 - \Box 4-7 times per month
 - \Box More than 7 times per month
- 44. While in out-of-home care how often did you have phone contact with at least on sibling?
 - \Box Less than 1 time per month
 - \Box 1-3 times per month
 - \Box 4-6 times per month
 - \Box 7-9 times per month
 - \Box More than 9 times per month
- 45. Which would best describe your relationship with your sibling during childhood?
 - \Box Very close
 - □ Somewhat Close
 - \Box Not close at all

- 46. Which would best describe the level of reliability of your closest sibling during your childhood?
 - \Box Very reliable
 - □ Somewhat reliable
 - \Box Not at all reliable
- 47. Compared to others how would you describe your relationship with your siblings during your childhood?
 - □ Closer than most other sibling groups
 - □ Equally as close as most other sibling groups
 - □ Not as close as most other sibling groups
- 48. Compared to others how much time did you spend with your siblings as a child?
 - \Box More time than most others
 - \Box About the same amount of time as most other sibling groups
 - \Box Less time than most other sibling groups
- 49. Today how often do you have contact with your biological siblings?
 - \Box Less than one time per month
 - \Box 2-3 times per month
 - \Box 4-6 times per month
 - \Box More than 6 times per month
- 50. Today how would you best describe your relationship with your siblings?
 - \Box Very close
 - \Box Somewhat close
 - \Box Not close at all
- 51. Today which would best describe how reliable your closest sibling is?
 - \Box Very reliable
 - \Box Some what reliable
 - \Box Not at all reliable
- 52. Overall, how satisfied are you with Presbyterian Children's Homes and Services?

- \Box Very satisfied
- \Box Somewhat satisfied
- \Box Not at all satisfied
- □ Other

53. How would you describe your overall physical health today?

- □ Very Good
- □ Good
- □ Fair
- □ Poor
- □ Other

54. Overall, how happy are you with your life today?

- □ Very Happy
- □ Somewhat Happy
- □ Not Happy at All
- □ Other

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