THE ASSOCIATIONS BETWEEN BIOLOGICAL FATHER INVOLVEMENT
(QUANTITY AND QUALITY) AND FAMILY SUPPORT
WITH ADULT CHILD WELL-BEING

by

GEORGE RUSSELL WILLIAMS

B.S., Kansas State University, 1984
M.S., Friends University, 2001

An Abstract of A Dissertation

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

School of Family Studies and Human Services
College of Human Ecology

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2016

Abstract

The purpose of this dissertation was to investigate factors related to quantity and quality of biological father involvement in non-intact families and family support and their association with young adult child outcomes. The independent variables examined were the biological father's number of years living with his child, early, middle and late developmental periods present, number of transitions, and relationship quality with the young adult child during childhood. The dependent variables were related to sexual health and five distinct domains that have emerged from the research literature: 1) education, 2) economic, 3) physical, 4) social, and 5) emotional.

This dissertation drew on a subsample of the 2,988 respondents of the New Family Structures Study (NFSS). Biological fathers were examined from non-intact families (n = 1793) of which 1,080, lived with their child for at least part of a year. The Father Adult-child Involvement Relationship Outcomes (FAIRO) Model was developed with current literature and theory to form quantity and quality father involvement hypotheses and test those using mean comparisons, bivariate, and multivariate analyses.

This study detected weak to moderate positively statistically significant associations between the quantity and quality of the biological father involvement in the non-intact families and young adult child outcomes. The results seemed to indicate the importance of the role of the father; even in a non-intact family where the father spends time apart from his children, he is still able to influence the outcomes of his children. The findings pointed to the need for further research into fatherhood transitions, early involvement, and the salient influence of family support. This research takes a small step in examining quantity and quality father involvement

associations on young adult outcomes to make an incremental contribution to the research,

theory, and practice of father involvement that may benefit the future well-being of children.

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Acknowledgements

There are five diverse people groups that I want to acknowledge for their help in this educational pursuit. They are faith, family, friends, faculty, and fathers.

I want to begin by acknowledging my faith in the love of a creator, God, who brought me into his family through the sacrifice of his son, Jesus Christ. This faith was shared with me through the lives of others like Warren and Georgia Martin, and Dave and Sharron Scoggins. It has brought my life purpose, fulfillment, and a quest for excellence in serving Him and others.

I acknowledge the support from my family starting with my wife, Trudy Lynn Williams who is my life's greatest treasure on earth and our beloved children Timothy Reid, Jeremy John Allen, Geordy Paul, and Sydney Grace Williams. The late John Morgan and Yuson Kim Williams, my father and mother who daily made sacrifices for their children and my siblings who were and are my shining examples, Dr. Robert Williams, Jeannie Delaney, Morgan Williams, Mary Kitchen-Neal, and Dr. Andrew Williams. Earl and Barbara Franklin, my in-laws and their children Dr. Bernard Franklin, Elsia Franklin, Wayne Franklin, Ethel Franklin, Gregory Franklin, Patricia Taylor, Les and Karen Dixon, and Raymond and Regina Basye have been a valued support.

I acknowledge my friends who have worked alongside me and mentored me directly and indirectly. Mark Davis, John Graves, Bob Schmoekel, Major Johnson, John Johnson, Dr. Ken Canfield, Dennis Solis, Sherri Solis, Carey Casey, John James, and Lucy Bloom have helped me in my educational, spiritual, social, and professional development.

I acknowledge those who have fed my hunger for knowledge and helped me reach this milestone in my lifelong learning. To the faculty and staff of Kansas State University and

Dedication

I want to dedicate this work to the same five diverse people groups of faith, family, friends, faculty and fathers.

For me anything I do apart from my relationship with God through Jesus Christ has little value but dedicating this work to God's glory makes it priceless. I am no fool if I give a life I cannot keep anyway, to gain a life that cannot be taken away–my life for God's life.

Trudy Lynn Williams and children Timothy Reid Williams, Jeremy John-Allen Williams, Geordy Paul Williams, and Sydney Grace Williams, you are gifts from God and have been my constant source of encouragement and are my forever love.

To my family and friends I will always be grateful for having you in my life. John Morgan and Yuson Kim Williams, Dr. Robert Williams, Jeannie Delaney, Morgan Williams, Mary Kitchen-Neal, Dr. Andrew Williams, Earl Franklin, Barbara Franklin, Dr. Bernard Franklin, Wayne Franklin, Gregory Franklin, Patricia Taylor, Karen Dixon and Regina Bayse, David Scoggins, Sharon Scoggins, Dr. Ken Canfield, Major Johnson, John Johnson, Dennis Solis, Sherri Solis, Carey Casey, Bob Schmoekel, Mark Davis, John Graves, Mike Randle, Linda Randle, Amos Johnson III, Ray Mabion II, John James, and Lucy Bloom, God has blessed my life through our shared relationships.

Dr. Laszlo Kulcsar, Dr. Maurice McDonald, Dr. Charlotte Olsen, Dr. Be Stoney, Dr. Farrell Web, Dr. Karen Myers-Bowman, and especially Dr. Walter Schumm, thank you for helping me get it done. And finally, fathers you are part of God's design for the family so success to you in doing your part.

Prologue

Almost three decades ago I was standing in Centinela hospital in Inglewood, California when a nurse handed me my first child, a son. I was a new father. As I held him and stared into his face, I can remember smiling so much that my face began to hurt. And then it hit me, as I panicked for a moment as I thought to myself, "Is that nurse going to give me some information so I know what to do with my baby son?" I needed help but for better or worse, I did not ask her or anyone else for it. That day I began my adventurous journey as a father of three sons and a daughter who are my greatest treasures on earth.

I grew up with my father, mother and five siblings in the racially and ethnically diverse city of Junction City, Kansas in a household that by federal guidelines was declared poor. My African American father was retired from the army and worked a low wage job. My mother was from Korea and suffered trauma from the war and was hospitalized many times during my childhood for a mental disorder. But while we had many hardship and challenges, we did have a father and mother who loved us the best they knew how. We lived in a neighborhood where most households did not have the fortune of both parents but had fathers that were "MIA" (Missing in Action). Most of the outcomes for the children who were my neighborhood friends, to my dismay, did not turn out well.

The outcomes for my siblings and I who did have a father and mother turned out well. My mother was illiterate and I never heard about my father's graduation from high school but all the siblings are first generation college graduates with six bachelor degrees, seven master degrees, two Ph.Ds., and one on the way. My brothers excelled in science and engineering. The oldest, Robert earned a doctorate in electrical engineering. He is a former DARPA program manager, director of the Air Force Research Laboratory's Discovery Lab and the 2013 American

Institute of Aeronautics and Astronautics (AIAA) "*Engineer of the Year*". The second is Morgan with two master degrees from MIT in aeroastro engineering and mathematics. As a Boeing innovator he was awarded Boeing's "*Special Invention Award*" for his research in Fluid Flow Modeling Systems and Device Interchanging Capability. And the third is Andrew who was the first African American to graduate from the University of Kansas with a doctorate in Electrical Engineering. He is the John P. Raynor, S.J., Distinguished Chair and Director of the Humanoid Engineering & Intelligent Robotics Lab Engineering at Marquette University. He was recognized by *Black Money* magazine as one of the "*50 Most Important African Americans in Technology*" in 2010, 2011, 2012. All these accomplishments are tied to a father who was a strong supporter of education and avid reader, especially of *Popular Science* and *Popular Mechanics* magazines.

I graduated from Kansas State University with a bachelor of science in computer science, married my college sweetheart, and worked in that field for 13 years mostly in diverse Southern California. I remember attending a Promise Keepers rally and receiving the *Today's Father* magazine from the National Center for Fathering. I was amazed that there was an organization for the specific purpose of inspiring and equipping men to be better fathers. I was finally getting the information I needed, but as a new father I did not ask. About four years after that conference I was invited by my brother-in-law, Dr. Bernard Franklin to join the organization to help him work with urban men. One year after I joined him, he left to start a church. I stayed on and began a new adventure of helping men to be the fathers their children need, giving them the help they needed but rarely requested. I obtained a master's degree in marriage and family therapy at Friends University to study theory that could guide my work with fathers.

Over the next decade through work at the National Center I have had opportunities that I never imagined I would experience working in the fatherhood field. I have spoken at state and national conferences, written for and appeared in national magazines, trained trainers across the country, appeared on a national news network, been a reoccurring guest on a talk show, held workshops for a professional football team, testified as an expert witness before a Senate subcommittee, authored curricula, became a contributing author for an anthology on fatherhood, and visited the first Lady's White House conference and reception in 2007. Of all these experiences what I value the most is the exchanges that took place in working with small groups of men from very challenging situations whose passion for their children could inspire us all to be better fathers. I thought I was helping men become better father when in reality they were helping me much of the time.

My passion for working with fathers is driven by wanting the best for children. And my reason for pursuing of a doctorate in family studies is to develop expertise in research methodology, family theory, and the practice of providing educational and preventative services for fathers and families. It is my desire to become a uniquely qualified professional with expertise in creating, providing, and evaluating effective services for men to be the fathers their children need.

Chapter 1 - Introduction to the Study

Over the past forty years the role of father involvement in the well-being of their children has been a focal point of social science research (Doherty, Kouneski, & Erickson, 1998; Lamb, 2000; Marsiglio, Amato, Day, & Lamb, 2000). The increasing numbers of children growing up in changing family structures without their biological fathers has fueled the continued interest regarding this research. Researchers have constructed measures from various domains that review social, emotional, and psychological development, as well as economic, educational, and health outcomes to determine the overall well-being of young children from these families. Theories have emerged to help explain the phenomenon of father involvement or the lack thereof and the resulting impact on their children. These father involvement theories and research findings have helped inform and guide the field in identifying gaps and shifting cultural norms that require new, additional, or repeated studies. For these reasons, there is a continuing need to advance fatherhood research by making incremental contributions to the research, theory, and practice of father involvement and those emerging variances within the varied family structures on the welfare of children.

An example of the shifting cultural norms is the question concerning the necessity of fathers. In the early 1990's, the titled character of a CBS comedy series, the *Murphy Brown* show, a divorced news anchorwoman, got pregnant and chose to have and raise the baby alone as a lifestyle choice (Hartman, 1992). The then Vice President, Dan Quayle, decried the show because he saw it as a reflection of the current culture that seemed to mock marriage and the importance of fathers by portraying them as dispensable, thereby attacking and diminishing the American family (Hartman). Eighteen years later the idea of the dispensability of fathers continues to live on under the guise of support from some researchers. For

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instance, Pamela Paul (2010) wrote a magazine article titled, *"Are Fathers Necessary?"* and referenced the same *Murphy Brown* show. In the article, Paul references the research of Biblarz and Stacey (2010), which challenged the importance of the gender, marital status, sexual identity, or biogenetic status of the second parent, as research support for her article.

As intended, the Biblarz and Stacey research has continued to inspire future research on the role of gender in parenting. In contrast to Paul's interpretation of their research as a confirmation that fathers are unnecessary, their research can become a springboard for further research. Their research raises intriguing inquiries such as how the influence of the cultural message of disposable fathers might impact father involvement. Another inquiry might be whether the financial support of fathers allow mothers to provide greater or improved levels of involvement with their children. And finally in cases where lesbian mothers receive child support, do these additional resources help them to be and/or stay more involved with their children? The process of resolving these questions continues to point researchers back to the basic topic of father involvement and its possible impact or lack thereof.

One challenge brought on by the shifting cultural norms involves the concepts of fatherhood and father involvement. Outside of the realm of biology, fatherhood is a social construct that defines a father's involvement with his child. The construct of fatherhood has transitioned over time throughout American history from a role with the main emphasis on a father's participation as a moral teacher, a household provider, and a nurturing father (Lamb, 2000). These one-dimensional constructs of fatherhood are descriptive of the ways fathers during historical time periods were expected to be involved with their children. The missing component in researching the phenomenon of father involvement was a multi-dimensional

construct of father involvement that would provide a broader view of involvement when compared to one-dimensional constructs.

A multi-dimensional construct of involvement was developed by Lamb, Pleck, Charnov, and Levine (1987) as a way to analyze the concept of father involvement by categorizing involvement into three components: engagement, accessibility, and responsibility. Other researchers have followed their efforts and expanded on these core concepts; however, most definitions have not strayed far from using some related elements of these three components.

These constructs of fatherhood are society's perceived paternal norms that are derived from culture that consists of the values and beliefs of what society thinks fathers should do and the conduct of what fathers do. Culture and conduct reciprocally influence each other. What society expects fathers to do often develops into what fathers do; and what fathers do repeatedly often develops into what society expects them to do. Framing these societal paternal norms using Lamb, Pleck, Charnov, and Levine's (1987) components results in society's perception of what children need from fathers (responsibility), how available fathers are to meet their children's needs (accessibility), and how responsive fathers are to the needs of their children (engagement).

One goal of operationalizing these components is to find measures that have broad utility and are easy to measure. A simplistic view of father involvement utilizing these components is the quantity and quality of father involvement. Quantity can be an objective measure of a wide range of factors. Examples of objective measures are the amount of time the father spends with his child, or is resident at home with the child, the number of transitions in and out of his child's life, and the number of years spent at key developmental periods living with his child. Quality can be a subjective measure that looks at factors such as closeness, awareness, or engagement from the father, child, or the mother's perspective. These measures can help answer the question

of the quantity of time the father engages with his child (accessibility) and the quality of that

engagement (engagement and responsibility).

The cultural message of our mainstream society communicates that the U.S. population

values the well-being of children as the key to the future of our country. The evaluation of that

message requires objective measures of the well-being or quality of life for children. The

question arises of how researchers determine the measures of child well-being? The search for

the answer requires taking into consideration the domains of welfare and then deciding on

specific indicators. For example, using a simple rubric of economic, health, and education

outcomes to determine the well-being of children can be measured by their poverty rates,

immunization rates, and grade level of reading. Similarly, understanding societal norms and

developing scientific measures are equally important in the father involvement research. The

concept of the importance of the role of fathers has been popularized by the combination of the

research findings, public policies, and a growing level of awareness raised by fatherhood

practitioners, social helping professionals, politicians, and the general public (Doherty, Boss,

LaRoss, Schumm, & Steinmetz, 1993; Doherty, Kouneski, & Erickson, 1998). The sustainability

of the movement requires that the public sentiment or feelings be supported by the facts. The

questions about the impact of father involvement or lack thereof on the well-being of the

children must be answered by empirical evidence derived from reliable and valid research.

The *Adverse Childhood Experience Study* (ACES) (Felitti, Anda, Nordenberg,

Williamson, Spitz, Edwards, Koss, & Marks, 1998) demonstrated a link between a child's family

life experience and the child's later well-being as an adult. This study indirectly relates to the

father's role in regulating the family environment through his presence, engagement, and

responsibility to keep his children safe from harmful influences. The ACES surveyed a base of

17,421 respondents from 1995 to 1997 and discovered a link between "the breadth of exposure to abuse or household dysfunction during childhood and multiple risk factors for several of the leading causes of death in adults" (p. 245). Nearly two-thirds of the adults surveyed had experienced one or more types of the ten adverse childhood experiences, which included household dysfunction (substance abuse, parental separation/divorce, mental illness, battered mother, criminal behavior), abuse (psychological, physical, sexual), or neglect (emotional, physical) (Felitti et al.). There were 87% of these same adults that had experienced two or more of the adverse childhood experiences (Felitti et al.). The major finding was that higher numbers of adverse childhood experiences were associated with higher risks of medical, mental, and social problems as an adult. When fathers help maintain a healthy family environment for their children there are serious implications for their child's current and future well-being.

Researchers have found associations between father-absent households and negative outcomes for children and also between father-present households and positive results for children. While these associations do not prove causation, the research findings that support the benefits of father presence and the greater risks associated with father absence provide reason for on-going research, theory, and practice on this subject. Studies indicate when fathers are involved, children are more likely to experience positive social, behavioral, psychological, and academic outcomes (Mosely & Thompson, 1995; Biller & Kimpton, 1997; Nord & West 2001; Amato & Rivera, 1999). Additionally, research links father absence with higher risks for negative emotional, behavioral, psychological, economic, and educational outcomes for children (McLanahan & Sandefur, 1994; Angel & Angel, 1996; Mott, Kowleski-Jones, & Menghen, 1997; Hoffmann & Johnson, 1998; Brown, Cohen, Johnson, & Salzinger, 1998). The increasing

volume of research on fathering supports the assertion that fathers are vital to the well-being of their children.

The findings from father involvement research have helped inform and guide the field in identifying gaps that require more studies. Such as whether fathers are important merely as a second parent or whether there is something special about *fathering* that goes beyond being a second parent. Another area is in exploring the impact of biological father involvement on the outcomes of young adult children. Adult children can reflect on their childhood and articulate in ways preschool and young school-age children cannot about the level and impact of their biological father involvement. More of the past research has focused on these younger children who require the report of others to determine the impact of biological father involvement on their well-being. Most often their report relies on the parents who have a conscious or sub-conscious bias to portray himself or herself as well as the other parent in a positive or negative light. Both research perspectives of including the adult children's and parent's reports have their own merits and add to the breadth and depth of the research.

In studying the concept of father involvement there is a need for more research on the impact of the transitions of fathers, their presence during key developmental periods, and their absence. There has been a growing amount of research literature on the impact of family structure transitions on the outcomes of children. However, there exists a gap in researching the impact of the transitions of fathers in and out of the lives of their children. There has also been a lack of research in comparing the impact of the father's presence during key developmental periods over the child's life (birth to age 18) and the associated outcomes. Additionally, the need for these two research topics generate the need for researching the father's presence in transitions and developmental periods to be compared against his complete absence.

The finding from the *fathering* research has also identified cultural shifts over time that requires replicating studies. Over the past few decades there has been a growing change in the family structure. A major family structural change connected to the growth in father absence was the sharp rise in single mother households. Single mother households have doubled over a 30-year period (Glick, 1988). This increase in single mother households is tied to higher rates of marital dissolution and non-marital childbearing (Cherlin, 2010). These trends have introduced new challenges for fathers to stay connected to their children and are contributors to the increases in the number of fathers living absent their biological children.

There are other family structural changes to consider to the intact biological parents besides single mother households. Moreover, while the size of the population of these other structures is smaller than the single mother households, their numbers are continuing to grow. These others family household structures that have garnered a growing research interest include step-parents, adoptive parents, and gay or lesbian parents. For all family structures the major concern continues to focus on the well-being of the children to determine if biological father engagement is still a protective factor against negative social outcomes for their children. What theoretical model could help explain why this protective phenomenon might occur? How could a model assist fathering practitioners with more efficient strategies for fathers to engage their children? This study is an effort to take another step in answering these questions to make an incremental contribution to the research, theory, and practice of father engagement for the benefit of child well-being.

Purpose of the Study

The purpose of this dissertation is to examine factors of biological father engagement that affect the well-being of the young adult children using the proposed *Father-Adult Child*

Involvement Relational Outcome (FAIRO) model (see figure 1.1). The engagement of the biological fathers will be reviewed regarding the quantity and quality of that engagement based on the research literature. The quantity of engagement will be explored by the number of years the father spent living with his child from birth to age 18, the number of transitions in and out of his child's life, and the number of years spent at key developmental periods living with his child. The quality of engagement will be based on the adult children's evaluation of their relationship with their biological father as the primary or secondary parent related to awareness, engagement and closeness, and family support. The constructs of the quantity and quality of biological father involvement will be investigated to evaluate the influence of these two factors on sexual health and commonly researched well-being indicators of the adult children such as educational, economical, physical, emotional, and social health (Pollard & Lee, 2003; Lippman, 2007; Bzostek, 2008).

Theoretical Framework

The multi-dimensional nature of humans as physical, psychological, social, emotional, spiritual, and intellectual beings means that it is a challenge for any one theory to explain their actions. This challenge increases when one considers exploring more than one human in the context of a family and what helps explain their interactions. These characteristics multiply the interactional factors through the addition of each member. The relational interaction of this study is between the Father-Adult Child dyad. The *Father-Adult Child Involvement Relational Outcome model* is derived from various social-psychological theories that help explain the motivation of father involvement and the impact of that involvement on the outcomes of adult children.

Figure 1.2 is a working machine model adaptation of the FAIRO model that graphically represents the possible associations of the quantity of father involvement with adult child outcomes. The quantity of father involvement exerts a weight (in theoretical language it is a gain or loss), father involvement is the lever, the adult child is the fulcrum, and the outcomes are personal well-being, paternal closeness, and parental success. The weight of quantity can be exerted on the lever of father involvement at three points that will either result in a positive, negative, or null association with the adult child outcomes (Figure 1.3). If the weight of quantity is exerted on the left side of the father involvement lever, it results in an association with positive outcomes (Figure 1.4). If the weight of quantity is exerted in the middle of the lever, it results in a null association with outcomes (Figure 1.5). And if the weight of quantity is exerted on the right side of the lever, it results in an association with negative outcomes (Figure 1.6). Figure 1.7 and Figure 1.8 use the same model to illustrate quality of father involvement and family support.

From the father's perspective two theories were selected to explain what may be motivating the biological father's involvement internally and within his external context. Social exchange theory is used to explain the father's internal disposition because of its strong roots in the motivation of the individual (White & Klein, 2008). Ecological theory is prevalent in father involvement research and functionally addresses the larger contextual factors of the environment (Bronfenbrenner, 1979). From the child's perspective two theories were selected. Ecological theory was selected to help explain how the quality and quantity of the biological father's involvement might influence the adult child's outcomes. Social capital theory was selected to explain how the resources and the resulting benefit that children may draw from the relationship investment of the father and mother, facilitate a range of social outcomes (Coleman, 1988;

Dufur, Parcel, & McKune, 2008). The research in this deductive study is quantitative in nature, from the idea to the data, for the purpose of testing or verifying that these three theories fit the data (Creswell, 2009).

Social exchange theory is a conceptual framework organized around an economic metaphor that is simple but with a depth that can be adapted to explain a broad range of phenomenon (Homans, 1961; Doherty, Boss, LaRossa, Schumm, & Steinmetz,1993; Sabatelli & Shehan, 1993). Social exchange theory's ability to cover a broad range of phenomena but with less precision also makes it strongly suited for use in the study of relationships. Social exchange theory's basic fundamental principle is that "humans in social situations choose behaviors that maximize their likelihood of meeting self-interest in those situations" (Chibucos & Liete, 2005, p. 137). The central focus of social exchange theory is rooted in the motivation of the individual (White & Klein, 2008), which makes it broadly applicable to family behaviors including fathering. Social exchange theory has explanatory power for proposing the internal motivation of why biological fathers remain involved with their children as noted in the following: 1) biological fathers who view continued involvement in the life of their children as profit will seek to maximize that profit; 2) biological fathers who view involving in the life of their children as a cost will seek to minimize the costs; 3) biological fathers who view continued involvement as neutral, when faced with the costs of risk factors to deter involvement and the profits of shield factors to promote involvement, will choose to maximize their profits and minimize their costs (White & Klein, 2008).

Out of four theoretical perspectives that have utility in framing father involvement: attachment theory, social capital theory, "essential father" theory, and ecological theory, Pleck (2007) found Bronfenbrenner's (1979) ecological framework to be one of the best foundations

for studying how father involvement can benefit a child's development. In this study ecological theory is used with a focus on a father as the central individual in the context of multi-level systems that influence the development of a father's involvement (Bronfenbrenner). The fathers are the individuals engaged in a process of dynamic interaction with the environment where the development of involvement occurs in the context of the microsystem (role and relations), the mesosystem (interaction between to microsystems), the exosystem (contexts in which individuals are not directly involved), and the macrosystem (broad social influences) over time (Bronfenbrenner). The father in a microsystem is framed by the individual father's interactions intra-personally with his role and behaviors as a father to influence the development of his involvement. The father in a mesosystem is framed by the interrelations between two or more microsystems such as between the father and his child, his father, or his child's mother. The father in the exosystem is framed by the external settings that do not include the father, such as a child support order. Finally, the father in a macrosystem is framed by the influence of culture and society on the concept of fatherhood (Bronfenbrenner).

The ecological theory, from the child's perspective, was used for its intended purpose to explain the child's development. Bronfenbrenner made distinctions of how the different ecological levels or systems made an influence on a child's development. Following are examples of the progression of development from the innermost level of these ecological systems to the outermost level. The microsystem level represents face-to-face relationships the child may have the mother, father, peers, and other adults. The mesosystem level represents linkages between microsystems such as the relationship between microsystem partners such as the mother and father. The exosystem level represents relationships in which the child's microsystem partners are embedded, but in which the child does not participate directly such as

the parent's relationship with a job supervisor or co-workers. The macrosystem level represents social policies and programs as well as broader cultural scripts influencing the prior systems, such as parental leave policies or cultural ideology about the role of the mother vs. father. The chronosystem level represents historical change in the prior systems, as well as developmental change during the life course of the child in these systems.

Social capital theory is another theoretical approach that has utility in the exploration of the transmission of resources to the children through father involvement (Pleck, 2007). The essence of social capital theory refers to the resources of information, norms, and support that flow through personal or institutional relational connections (Crosnoe, 2004). The resources provided to the children fall into two broad categories: material (e.g. food, shelter, clothing) and social (father involvement which promotes development, school readiness, educational aspiration, and connecting the children to other social supports) (Pleck, 2007). Children whose fathers spend a higher quantity of time and have a higher quality relationship potentially receive more social capital than those whose fathers do not. It is theorized that children with lower social capital are more likely to experience negative outcomes and children with higher social capital are more likely to experience positive outcomes.

Research Questions

The research questions were generated to assist in explaining the associations between, the quantity and quality of biological father involvement and family support as a protective factor against negative outcomes for the adult children as defined by the *Father-Adult Child Involvement Relational Outcomes (FAIRO)* model (see figure 1.1). The research questions were as follows, for adult child outcomes for children with biological fathers from non-intact households:

1. How does the number of years the biological father lived with the child affect the well-being of the young adult child?

2. How does the number of biological father transitions during childhood affect the well-being of the young adult child?

3. How does father presence during different developmental periods of childhood influence the outcomes for the adult child?

    a. How does the number of developmental periods (early, middle, and late childhood) the biological father is present during childhood affect the well-being of the young adult child?

    b. How does the developmental period the biological father is present during childhood affect the well-being of the young adult child?

4. How does the relational quality of involvement of the biological father during childhood affect the well-being of the adult child?

5. How does positive family support during childhood favorably affect the well-being of the adult child?

6. How do the six variables of biological father's years with the child, number of transitions, early, middle or late developmental periods present, and level of family support as a child jointly influence outcomes for adult children?

Hypotheses

These hypotheses derived from the research questions will help explore the relationship between the quantity and quality of biological father involvement and family support for young adult child outcomes. It is speculated that a high number of years present during key developmental periods with low transitions of high quality biological father involvement and

positive family support will be associated with favorable adult child outcomes. The following hypotheses will be used in this research:

Hypothesis 1: The greater the number of years the biological father is involved during childhood the more positive the outcomes are for the adult child.

Hypothesis 2: The lower the number of biological father transitions during childhood the more positive the outcomes for the adult child.

Hypothesis 3: Father presence during different developmental periods of childhood will have a positive influence on outcomes for the adult child.

Hypothesis 3a: The more the total number of different developmental periods for which the father is present during his child's childhood, the more positive the outcomes for the adult.

Hypothesis 3b: The earlier the developmental periods for which the father is present during his child's childhood, the more positive the outcomes for the adult child.

Hypothesis 4: The higher the relational quality of the biological father's involvement the more positive the outcomes are for the adult child.

Hypothesis 5: The more positive the family support during childhood the more favorable the outcomes are for the adult child.

Hypothesis 6: Adult child outcomes will be related to the main effects of the independent variables: biological father's years with the child, number of transitions, early, middle, or late developmental periods present, and family support as a child and the dependent variables of adult child outcomes.

Conceptual Definitions

The variables used in the *Father-Adult Child Involvement Relational Outcome* model have originated from previous fatherhood and family structure research. There are four concepts to be defined by this model are father involvement, family structure, family transitions, and adult child outcomes.

Father involvement. In the last two decades of the responsible fatherhood movement scientists, policy makers and practitioner have sought to define father involvement (Doherty, Kouneski, & Erickson, 1998). Lamb, Pleck, Charnov, and Levine's (1987) paternal involvement concept was defined by interaction with, access to, and responsibility for the child. A more recent effort by Levine and Pitt (1995) included: 1) maturity for fathering readiness, 2) establishment of paternity, 3) a partnership with the mother for care, and 4) financial support. The definition of father involvement must be broad to include the many diverse fathers and fathering situations in America. For instance, are these concepts for father involvement applicable to low-income African American fathers? Moreover, when measuring their involvement is residency taken into account when measuring involvement of non-resident African American fathers who may be involved with their children while living separately (Mott, 1990)?

Father involvement must be more than a dichotomy of *father presence* versus *father absence* as described by Parke (2000). Father involvement's core components are behaviors, affections, and cognitions that direct a variety of types of capital (social, emotional, financial, moral, spiritual, intellectual, etc.) to the child for his or her benefit or the child's environment (Marsiglio & Cohan, 2000). Most research has focused on the direct interaction or involvement between the father and his offspring while other research has recognized the indirect interaction

that benefits the child (Parke, 2000). Palkovitz (1997) has helped expand beyond the easily observed and quantified behavioral measures such as talking, touching, and caring. He recognized other indices of involvement such as affective and cognitive processes (Palkovitz). However, research is lacking concerning father's emotions such as worry, guilt, pride, and joy about their children's activities during a father's presence or absence (Parke). Cognitive involvement represented by a father planning for his child or thinking about his or her needs is another phenomenon needing research (Parke).

Long established measures of father involvement from the literature including both the quantity and quality of father involvement are able to assist in providing robust research using multiple measures. Separately these two measures may not be able to "paint" the full picture. For example, high involvement may not be linked to better child outcomes if the quality of the involvement is low (Parke, 1996). The Father-Adult Child Involvement Outcome Relational model explores the quantity of father involvement by the number of years, the number of transitions, the number of developmental periods the biological father has been involved, and the quality of that involvement as reported by the adult child against that child's outcomes.

Family Structures. In Glick's (1988) examination of fifty years of the demography of changing family structures, he analyzed the overriding themes of marriage, divorce, cohabitation, single parenting, and stepfamilies and the consequences of these changes. Although Glick did not specifically look at the outcomes for children, he reported a general concern for the impact of these family changes on the children. There is strong evidence that family structure is associated with child well-being (Musick & Meier, 2010). Over a decade after Glick's research Teachman, Tedrow, and Crowder (2000) described acceleration in divorce rates, delays in marriage, and declines in family stability for the living arrangements of children. The economic environment is

explored as a key reason for this rising shift in family structure whose impact begins at the starting point of family formation.

The research supports the notion that children on average do best in intact married mother and father homes than any other family structure (McLanahan & Sandefur, 1994; Musick & Meier, 2010; Regnerus, 2012a). Children who grow up without both parents may experience negative outcomes (McLanahan & Sandefur; Musick, & Meier; Regnerus, 2012a). McLanahan, Tach, and Schneider (2013) shared how literature on children from father absence homes was frequently criticized for less rigorous methodological approaches. To identify the causal effect of father absence they reviewed 47 studies that employed a variety of innovative research designs that included lagged dependent variable models, growth curve models, individual fixed effects models, sibling fixed effects models, natural experiments, instrumental variables, and propensity score matching (McLanahan, Tach, & Schneider). They found that these studies using more rigorous designs continued to find negative effects of father absence on child well-being (McLanahan, Tach, & Schneider). Their evidence was strongest and most consistent for outcomes such as high school graduation, children's social-emotional adjustment, and adult mental health (McLanahan, Tach, & Schneider).

Family Transitions. The United States is a leader among developed countries in divorce (Glick, 1988). The increase in family instability over the last fifty years is associated by some scholars in an increase in marital dissolution and non-marital cohabitation. The children born to these increasingly unstable marital unions and the even less stable cohabiting couples are more likely to experience transitions compared to other family structures. These structural transitions can be from stable, intact families to conflicted intact families to single-parent households after divorce to remarriage into step-families (Spruijt & Goede, (1997).

Magnuson and Berger (2009) using the *National Longitudinal Survey of Youth* examined child well-being during middle childhood. They found that residing in a single-mother family was associated with small increases in behavior problems and that residing in a social-father family was associated with small increases in behavior problems (Magnuson & Berger). Experiencing an increase in some type of issues is generally true of all family structure transitions. Transitioning into a single-mother family is associated with increases in behavior problems and transitioning to a social-father family was associated with decreases in reading achievement (Magnuson & Berger). Brown (2006) in researching family structure transitions and adolescent well-being using the *National Longitudinal Study of Adolescent Health* (ADD Health) had similar findings. A salient finding from Brown's study is that cohabitating families are particularly unstable and seem to undermine adolescent well-being. It was also noted that the impact of transitions is dependent on the type of transition, the domain of the well-being, and the controls for economic and parenting resources (Brown).

There exist two approaches to understanding the role of transitions within a family's structure. One is known as the instability hypothesis and the other as the selection hypothesis (Fomby & Cherlin, 2007). A growing body of research supports the instability hypothesis. This research suggests that children who experience multiple transitions within a family structure often do worse when compared to children raised in stable two-parent families (Fomby & Cherlin). This hypothesis hints at the possibility of similar results when making the same comparisons against any other stable family structures such as stable single parent households.

The fact that multiple changes within family structure are associated with negative outcomes for children does not prove that the former causes the latter. It is possible that the parent's antecedent behaviors and attitudes are common causal factors of multiple transitions and

negative outcomes for children (Fomby & Cherlin, 2007). The alternative to the instability

hypothesis is the selection hypothesis, where the parent affects the child's outcome through their

inability to maintain stable relationships and their personality and cognitive abilities that are

genetically transmitted and shape the home environment (Fomby & Cherlin).

  Adult Child Well-being. The basis for the Father-Adult Child Involvement Relational

Outcome model is to determine which fathering conditions results in the well-being of adult

children. There is a lack of a standard definition of child well-being in the research literature.

This results from the challenge of selecting from a myriad of indicators that may be available and

included in researching child well-being (Land, Lamb, Meadows, & Taylor, 2007). The goal of

this model is a balanced definition of child well-being that includes the number of indicators

used, a representation of different domains and inclusion of positive and negative indicators

(Pollard & Lee, 2003). The definition selects a manageable number of indicators from five

distinct domains that have emerged from the research literature: 1) physical, 2) emotional, 3)

social, 4) cognitive, and 5) economic (Pollard & Lee, 2003; Lippman, 2007; Bzostek, 2008).

Adult child well-being is a multi-domain measure using select positive and negative indicators to

provide a current snapshot of that adult's overall satisfactory state of life.

Organizational Overview of the Study

  Chapter 1 has presented the introduction, purpose of the study, theoretical orientation,

research questions, hypotheses, conceptual definitions, and relevance of this study. Chapter 2

contains the review of literature and research related to family structure, instability and

transitions, father involvement, presence versus absence, and the outcomes of offspring. The

methodology and procedures used to gather data for the study are presented in Chapter 3. The

results of analyzes and findings to emerge from the study will be contained in Chapter 4. Chapter

5 will contain a summary of the study and findings, conclusions drawn from the findings, further

discussion, and finally, recommendations for further study.

Chapter 2 - Literature Review

In 1970, American families predominantly experienced the benefits of a family structure that included the biological father and mother (Teachman, Tedrow, & Crowder, 2000). Even before the 1970's some researchers had begun to notice a shift in the rising number of single parent families, and concern about the impact of father-absent family structures on the outcomes of children emerged (Moynihan, 1965). Fueled by concern for child outcomes, researchers over the next four decades have increasingly studied this phenomenon of the changing family structure (Cherlin, 2010; Glick, 1988; Popenoe, Glenn, Stacey, & Cowan, 1993; Teachman, Tedrow, & Crowder, 2000). The majority of the findings revealed children had better outcomes when they continuously grew up in a home with their biological parents, mother and father (Amato, 2005; Bali & Hou, 2003; Musick & Meir, 2010, Regnerus, 2012a). The outcomes of other family structures with non-biological parents such as adoptive parents, divorced parents, step-parents, foster parents, and same-sex parents did not fare as well.

The instability of family structures has been a salient concern for the well-being of children. Families with intact biological fathers and mothers naturally experience fewer transitions than other family structures. Children who experienced multiple transitions in family structures fared worse developmentally than children from stable biological married father and mother homes (Brown, 2004; Fomby & Cherlin, 2007; McLanahan & Sandefur, 1994). This research raised the question – were adverse outcomes for children associated with family structure per se, or with instability over time, or with the number of caregiver transitions (Fomby & Cherlin). The former is referred to as the instability hypothesis while the latter is referred to as the selection hypothesis (Fomby & Cherlin). The selection hypothesis suggests the number of transitions and the negative child outcomes may be related to shared factors stemming from the

parent's behaviors and attributes. One of the implications of the selection hypothesis would be that stability and/or number of transitions might matter less for children's outcomes than preexisting parental characteristics.

This shifting in family structure, particularly the increase in single mother households helped fuel the focus on the importance of the role of the father in the family (McLanahan & Sandefur, 1994). In explaining the importance of fathers some researchers have pointed to the gender differences of fathers and mothers to describe gender-flavored contributions of fathers and mothers to the family environment (Blankenhorn, 1995; Parke, 1996; Pruett, 2000). Other researchers looked at the role of the father from a social capital point of view that benefits the child through the unique resources and attributes provided by the father (Coleman, 1988; Crosnoe, 2004; Furstenberg, 2005; Durfur, Parcel, & Mckune, 2008). Still other researchers have viewed it from an evolutionary point of view where biological fathers have the relatedness motivation of ensuring the future of their progeny (DNA). Many agree that fathers are important: however, the how, why, and to what degree is a source of continued discussion.

Examining further the importance of the role of the father requires exploring what fathers do, why and when they do it, and how might it make a difference for children. One of the most researched concepts when it comes to the roles of fathers is involvement (Lamb, 2000). The concept of father involvement has evolved to explain the many diverse ways fathers in different circumstances and situations interact to positively influence the outcomes of their children. Accessibility, responsibility, and engagement (Lamb, Pleck, Charnov, & Levine, 1987) are three basic concepts that have become universal to most definitions of father involvement.

This literature review is divided into three parts. The first part reviews the literature related to family structure, instability, and transitions in light of the hypothesis to determine

whether structure or transitions have the greatest effect on child outcomes. The second part will examine the literature highlighting the benefits of father involvement, the detriment of father absence, and how involvement can be measured along with its potential impact on child well-being. The third part will examine the growing literature that suggests a father can be replaced by a substitute or social father, and the need for further research of this issue.

Family Structure, Instability and Transitions

When studying families, researchers need to be aware of their own personal values and ideals to keep them on guard against value-laden research bias. This is particularly important since society's view on the family has shifted over the past few decades and certain aspects including family structure have become polemical. During the period of the "*The National Family Wars*" Popenoe (1988, 1993) sought to avoid this potential pitfall. His solution was to undertake his research from the viewpoint of child well-being. In order to stay true to the calling of the social sciences the path of empirical analysis of the data must be chosen over unresolvable ideological disputes (Popenoe, 1993). In this literature review I have sought to be aware of my own ideology pertaining to the family and explore the family from differing points-of-view for the well-being of children and the benefit of society.

Married Biological Parents

Today most children reside in the married biological two-parent family structure although that percentage has been in decline (U.S. Census Bureau, 2010). In 1970, 84% of children lived in this family structure but that percentage dropped to 65% in 2010 (U.S. Census Bureau). Until recently, most social researchers have agreed to the increased stability and overall benefit for children in married biological two-parent families compared to other family structures (Brown, 2004, McLanahan & Sandefur, 1994). Although the intact biological two-parent family structure

has a long history of research support, recent findings are challenging what was once widely accepted. Beside the plausible evolution of the family, other explanations of these recent findings include: research data may not have been complete, may not have been properly analyzed, or may have been influenced by research bias. Ensuring the methodology of using nationally-representative data collected from a large probability sample can help rule out the former, while following recommended analysis methodology and keeping the perspective of what is best for the well-being of the child can help rule out the latter.

Outcomes for Children. Children living in married biological two-parent families are more likely to enjoy better outcomes than do the children residing in other family structures. Children raised by married biological two-parent families experience better educational, social, cognitive, and behavioral outcomes (Brown, 2004; Carlson 2006). They are more likely to graduate from high school and college, less likely to be raised in poverty, less likely to become teen parents, and more likely to be in school or working (McLanahan & Sandefur, 1994; Wilcox et al., 2011). Musick and Meier (2010) concluded that children do better on average living with two biological married parents.

However, Musick and Meier's research found not all biological married two-parent families were equal and that parental conflict even in these families was associated with negative outcomes for children (Musick & Meier). When examining parental conflict, consideration of the elements including frequency, duration, intensity, and resolution are necessary (Krishnakumar & Beuhler, 2000). Amato, Loomis, and Booth's (1995) research showed that if parental conflict was high, offspring did better in early adulthood if their parents divorced, compared to remaining married. Other studies have shown similar results (Amato & Keith, 1991; Grych & Fincham, 1990; Grych, Seid, & Fincham1992; Krishnakumar & Beuhler, 2000). In cases where the

parental conflict was low and the parents divorced, the offspring were worse off (Amato, Loomis, & Booth). And while all parental conflict and divorce experienced by offspring does not always result in poor outcomes, the findings warrant further research (Amato & Cheadle, 2008). Marriage does not guarantee positive outcomes for the children; the quality of the marriage makes a difference.

Single Parent Mothers

Since the 1960's we have seen accelerating changes in family structure. In 1965, Moynihan shared a specific concern centered on an increasing number of African American children that were growing up in single-mother homes. The increase in single-mother homes was partly due to the accelerating rate of African American out-of-wedlock births that had already risen to 25% (Moynihan). Moynihan argued that this trend of family structural change would have a corresponding increase in poverty, educational attainment, and other social problems. And while the report faced many criticisms for a variety of reasons, the phenomenon of the rise in single-mother homes among African Americans was not unique. It was increasingly being experienced universally across all lines of races and ethnicity in the U.S. Over the years the change has primarily been in the rise in single parent households, but has also includes increases in adopted, cohabitating, divorced, step-parents, and same-sex parents.

There were diverse factors contributing to the increase in single-parent family structures that included the escalation of marriage dissolutions and the decline in marriage rates, which also increased the likelihood of non-marital births. In the case of non-marital births, it was legally easier for the parents to separate because of the absence of a contract of marriage. While the decline in marriage and marriage dissolutions were the major contributors, other contributors may have had cumulatively added to the increase in single-parent households. From 1940 to

1986 the Census Bureau had reported single-parent households doubling from 12% to 24% of all family households (Glick, 1988). When measuring the percentage of all children under 18 in single-parent households the increase was a higher rate of 15%, climbing from 9% in 1960 to 24% in 1986 (Glick). However, the increase in the rate of children under 18 in single-parent homes was most dramatic among African American children, who experienced a 31% increase, from 22% to 53% in the same time period between 1960 and 1986 (Glick).

Marital Dissolution. The United States has been found to have one of the highest divorce rates among developed countries (Glick, 1988). Divorce was on the increase throughout the 20th century but rapidly rose in the 1970's before peaking in 1980 and leveling off at that high rate (Cherlin, 2010; Goldstein, 1999). Two factors that have contributed to the accelerated upsurge of marital dissolution were the no-fault divorce laws that were enacted in the 1970s and the devaluing of maintaining intact marriages (Glick, 1988). For some, no-fault divorce laws made getting out of a terminally unhealthy situation possible; for others it became an easier option than working through some of the difficult but manageable challenges of marriage. Culturally, the perceived value of marriage was waning and the negative stigma associated with divorce was dissipating (Glick). In addition, the prevailing ideology of women, with their growing options for equity and independence, was perceived as counter to traditional marriage (Coontz, 2007).

Reporting the divorce rate can be complicated by the function of who gets counted (married, remarried, separated, divorced), the source of the data, and the analytical technique used (Mitchell, 2010). Nearly all research studies point to a lifetime marital dissolution probability of 40% to 50% (Stevenson & Wolfers, 2007). General trends of divorce by race, the portion of ever-married women divorced from their first marriage by age 40 to 44, rose acutely between 1970 and 1995 (Teachman, Tedrow, & Crowder, 2000). The increase over that time

period was smallest for Hispanic women from less than 20% to 27%, which was followed by

White women whose increase was 20% to 35% (Teachman et al.). African American women

shared a similar increase in the percent divorced as White women but held the highest rates of

any race from 30% to 45% (Teachman et al.). African Americans were nearly two times more

likely to divorce than Whites, which further heightened the rates of father absence (Kposowa,

1998).

Decline in Marriage. The decline in the percentage of married couple households

dropped 25% from 78% to 52% of all family households from 1940 through 2000 (Hobbs &

Stoops, 2002). This decline has been partially driven by an increase in those who delay

marriage. Between 1975 and 1998 a trend of delaying marriage among women aged 20 to 24 was

observed. During that time period marriage rates declined from 64% to 32% for White women

aged 20 to 24 while among African American women the rate declined from 47% to 15%

(Teachman, Tedrow, & Crowder, 2000). One of the implications of this delay in marriage was a

higher risk for non-marital births.

Women who have not married by age 35 to 39 are more likely to never marry (Rodgers &

Thornton, 1985; Schoen, 1987). Between the years 1975 and 1998 the percentage of ever

married White women declined 7% (Teachman, Tedrow, & Crowder, 2000). The percentage of

African Americans women ever married by age 35 to 39 declined from nearly 90% in 1975 to

just over 65% in 1998 (Teachman et al.). This result implies that nearly one in three African

American women may never marry.

Even though women may not marry, there exists the possibility that they will enter into

non-marital unions. Part of the decline in marriage rates have been matched by an increase in the

rate of non-marital unions (Teachman, Tedrow, & Crowder, 2000). This is particularly true when

reviewing the data on African American non-marital cohabitation rates. A major concern with non-marital cohabitation is that these relationships are less stable than marital unions and a non-marital birth from this union is more likely to lead to a single-parent household (Goldstein, 1999; Teachman et al.).

Non-Marital Childbearing. Corresponding to the delay of marriage for women was a reduction of childbearing years within marriage, which created more opportunities for non-marital births. Additionally, the stigma once associated with having a child out of wedlock diminished to the point of having little to no negative connotation. The social acceptance of non-marital childbearing has grown with the increasing rate of non-marital births.

When comparing the rate of non-marital births for White women and Black women there has been an increase over a forty-year time period but from two different bases (Ventura & Bachrach, 2000). Between 1963 and 1999 the rise in rates for White women went from 3% to 32% while for African American women it went from over 23% to 69% (Moynihan, 1965; Ventura & Bachrach). For Black women there has almost been an inversion of the percentages for non-marital and marital births over this time period. Recently, the African American non-marital childbearing rate was at 68.5% (Hamilton, Martin, Ventura, Sutton, & Menacker, 2005).

The decline and delays of today's marriages have also given rise to an increase in cohabitation partnerships. Cohabitation partnerships form a highly unstable family structure (Heuveline, Timberlake, & Furstenberg, 2003). Children growing up in cohabitation partnerships are twice as likely to see their parents separate as those whose parents were married at the time of their births (Heuveline et al.).

Single Mother Outcomes for Children. Children from single-mother homes compared against two-parent families are more likely to experience a broad range of negative outcomes

(McLanahan & Sandefur, 1994; McLanahan, Tach, & Schneider, 2013). In the U.S. most research findings on the outcomes of children from single-parent homes have remained consistent over the past few decades. Children from single-parent families have higher rates of poverty, with lower levels of educational and occupational attainment (McLanahan & Sandefur; McLanahan et al.).

Same-sex Parents

Past research has tended to place the biological two-parent married families and single mother families as the book ends in family structures. In family structures, with the former showing on average the best overall outcomes for children and the latter showing the opposite. Over the years because of the prevalence of these family structures, they both have received the majority of research attention. However, the idea of the intact, biological, married two-parent family as the "gold standard" for family life has been challenged by more recent research. As the number of other family structures continue to grow, an increasing amount of research attention is being given to these structures including adoptive, cohabitating, step-parent, and same-sex parent families. This section focuses on reviewing the research on the homosexual family structures primarily to review claims that challenge the need and importance of the father.

The "Family Wars" of the 1990's moved to another battleground in the 2000's. The focus moved from the importance of the intact, biological, married two-parent family to the benefits of the two-parent homosexual family. While there are claims that there are more gay men than lesbian women, there has been more research on lesbian mothers because there are fewer identified gay fathers (Stacey & Biblarz, 2001). During this time the research began to claim that there were few, if any, differences between the outcomes of children of same-sex parents and heterosexual parents (Tasker & Golombok, 1995; Wainright & Patterson, 2008). Even if there

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were differences, many felt such differences should not necessarily be considered as deficits. More recent research has made consensual claims that same-sex parenting, particularly for lesbian mothers, has shown better outcomes for children (Biblarz & Stacey, 2010).

Same-sex parenting research has important implications because the findings may influence policy decisions on marriage, and the custody and care of children through adoption and foster care by same-sex parents. This requires social researchers to acknowledge and put aside their own personal convictions and strive for objectivity. Researchers are better able to serve their field through their support of the science rather than politics. Over the past two centuries in the U.S., even before documented family research the prevailing cultural and societal norm was that two heterosexual married parents were best for children. For social scientists, whose personal convictions are not supportive of homosexual parents, this historical context provided an advantage and heightened the stakes to dismiss or downplay contrary research results. For social scientists that are personally supportive of homosexual parenting today, our country's civil rights history provides a growing advantage of public acceptance of the "rights" of minorities also heightens the stakes to dismiss or downplay contrary research results. Overall, the implications provide a sense of sobriety for all researchers to not undermine the next two centuries of a beneficial U.S. society built on the foundation of a thriving family rather than an alternative outcome. The scientific facts or unscientific opinions of the social sciences have an influence on the public that may institute policies to the health or detriment of society.

In the *American Sociological Review*, Stacey and Biblarz (2001) challenged the findings that there were differences between the outcomes for children whose parents were homosexual and heterosexual. They claimed that most of the findings, primarily from psychological researchers, had found no notable differences between the two family types, but that it was a

combination of heterosexism and a defensive framework by many social scientists had together helped stifle advancement in the field (Stacey & Biblarz). They also argued that in cases where there were differences, such as children of lesbian mothers being more likely to have engaged in a homoerotic relationship or open to engaging in one, these should not necessarily be considered as harmful outcomes (Biblarz & Stacy, 2010).

Stacey and Biblarz (2001) reviewed research prior to 2000s, which had examined homosexual families. They reviewed four prevailing challenges surfacing from this research that still stand today. The first is determining the actual number of lesbian and gay men and how many children reside with them. Using statistical estimates based on national surveys and a strict definition of a lesbian or gay parent as one who self-identifies, this population of parents represents 1 percent of the U.S. population of adults (Stacey & Biblarz). The population increased to 12 percent when using a broader definition of a lesbian or gay parent as one who reports that even the idea of homoerotic sex is appealing (Stacey & Biblarz). Schumm and Crawford (2015) showed in their article how the inflated and unsubstantiated number of same-sex couples parents in the "millions" has been used by social science, medical, and legal scholars for more than 30 years rather than the more accurately estimated 200,000.

The second challenge involves the complexity of sampling a population that does not have a straightforward definition of sexual orientation due to its fluid nature (Stacey & Biblarz, 2001). The second challenge relates to the first challenge, by the way social scientists define parents as a lesbian, gay, bisexual, or heterosexual and also how parents define themselves. For example, does a single thought, act, or desire constitute an identity or does it require a series of these over a period of time?

The third challenge is that the once private LGBT (Lesbian, Gay, Bisexual, Transgender) family structure is a more recent public research phenomenon and most of the children in this family structure were born from heterosexual marriages that later dissolved (Stacey & Biblarz, 2001). Many formerly married lesbians retained custody of their children. The transition of switching from a heterosexual to a homosexual identity complicated the impact of sexual orientation through other factors such as divorce, transition to a homosexual lifestyle, re-partnering, and the social adjustment to the lifestyle.

The fourth challenge relates to most studies having relied on small convenience samples that were unrepresentative of the general population (Stacey & Biblarz, 2001). One reason for methodologically weak samples ties back to the first challenge of the deficit of data on the number of these families and the lack of access to large samples of this population. Schumm and Crawford (2015) reiterated the problems with methodology in this area and shared examples of national random samples of same-sex parents that has been used for research. The next U.S. census represents an opportunity to design the data collection to provide more useful same-sex parent families population data.

Same-sex Parent Outcomes for Children. A cluster of over fifty empirical studies of same-sex parents, which included some type of child outcome measure, has grown since 1995 (Allen, 2015). The four challenges identified by Stacey and Biblarz (2001) were shared by these same-sex studies. There have been mixed results, but the majority of the studies have concluded that children of same-sex parents do as well as children of opposite-sex parents. The majority of the results support the claim there is no-difference in child outcomes based on family structure. While this conclusion may or may not be true, it is not warranted on the basis of the lack of

strength and substance in the methodology of many of these studies that prevents scientific generalizations of the results.

The majority of these studies draw their conclusions outside the realm of robust scientific methodology. Many of these studies were deficient in: random samples, comprehensive and balanced (opposing views) literature reviews, valid and reliable measures, reporting of effect sizes, controls for social desirability response, and resistance to report the science (Allen, 2015; Schumm, 2015). Most of the studies before 2004 were based on non-random and unrepresentative convenience data samples. Some of the more recent studies have used random and nationally representative data along with stronger research methodology but closer investigations are revealing challenges that still need to be addressed (Wainright, Russell, & Patterson, 2004; Wainright & Patterson 2006, 2008; Biblarz & Stacey, 2010; Biblarz & Savci, 2010; Rosenfeld, 2010, 2015). There is also a growing number of robust studies that are challenging the no-difference conclusions (Allen, 2013; Allen, Pakaluk, & Price, 2013; Sullins, 2015a, 2015b, 2015c; Regnerus, 2012).

Wainright, Russell and Patterson (2004) and Wainright and Patterson (2006; 2008) research studies used the large random sample from the National Longitudinal Survey of Adolescent Health (Add Health) to compare the same 44 adolescents parented by same-sex couples and 44 adolescents parented by opposite-sex couples. All three of these studies concluded that on the variables examined the two family types did not differ in a way that would disadvantage the same-sex couple family. However, Sullins (2015a) found a major flaw of the three studies which only 17 of the 44 adolescents clearly had same-sex parents as reported by the adolescent describing not having a resident male father and parents describing themselves as unmarried and as involved in a marriage or marriage-like relationship with a same-sex partner.

The remaining 27 adolescents according to their own report had opposite-sex parents but were miscoded as same-sex parents. Sullins (2015a) noted two other design difficulties: 1) the studies compared boys and girls in the family types separately which further reduced the already small sample size and 2) the studies compared the children with same-sex parents with a matched sample of opposite-sex parents, essentially not utilizing the full statistical power of the very large (N = 20,000) Add Health adolescent sample. Sullins (2015a) replicated the studies and in analyzing the data found adolescents with same-sex parents experienced significantly lower autonomy and higher anxiety but also better school performance. The "no-difference" conclusion of the Wainwright, Russell, and Patterson studies were not upheld in Sullins' study.

In 2010 Biblarz and Stacey article, "How does the gender of the parents matter?" they drew a number of conclusions about lesbian parenting from the research literature. The major conclusions were that lesbian parents were likely more effective than heterosexual parents and the need of a father was questioned. Schumm (2010, 2011) challenged the scientific correctness of these conclusions. He responded by reviewing their research findings and concluded they had failed the most important challenge of the science behind the research:

> "Theoretical models have not been well-developed, particularly in terms of intervening or mediating variables, much less interaction effects. Often some of the weakest approaches for testing null hypotheses have been adopted, to the exclusion of stronger approaches. Basic methods of science, including the use of large sample sizes, reporting of effects sizes, statistical control for between-group differences, control for selection effects or social desirability, and even the basic reporting of mean scores and standard deviations have often been ignored." (Schumm, 2011, p. 117).

Schumm (2011) challenged the conclusions of Biblarz and Stacy (2010) and Biblarz and Savci (2010) as being scientifically incorrect. He rejected their conclusion of lesbians making better parents than heterosexuals or that fathers are not really necessary as parents, on the basis that the conclusions were not supported by sound scientific methodological research.

Rosenfeld (2010) used data from the 2000 U.S. Census to research the association between same-sex parenting and child outcomes. Rosenfeld's study concluded that children raised by same-sex parents did not have deficits in making normal progress through school compared to heterosexual married couples. Researchers Allen, Pakaluk, and Price (2013) used the same 2000 U.S. Census data to replicate Rosenfeld's findings using alternative comparison groups and alternative sample restrictions. They found a difference in normal school progress between children residing in same-sex households and those in traditional married homes and in heterosexual cohabitating households. There was a statistically significant difference at the .001 level that children raised in same-sex couples were 35% less likely to make normal progress through school when compared to children from traditional married homes.

Allen (2013) used the 2006 Canada census data to examine the association of household type and the high school graduation rate of children who report living with same-sex parents. The random sample was large enough to evaluate the differences between gay and lesbian families, gender between parents and children and to control for marital status (Allen). He found that children living in gay and lesbian families were about 65% less likely to graduate as compared to children living in opposite-sex marriage families. Daughters with same-sex parents had a considerably lower graduation rate.

Biblarz and Savci shared that a major advance in the last decade has been, "Timidity about covering controversial issues (e.g., abuse in relationships, breakup rates, inequalities

between partners, differences in child's gender and sexual repertoires, and so on) declined"
(Biblarz & Savci, 2010, p. 294). Schumm (2008, 2010, 2011) countered that studies that showed
adverse outcomes for lesbian children have been marginalized in the literature while favorable
outcomes were more likely to be cited even in spite of weaker methodological approaches. He
has shared some specific examples such as not reporting important findings concerning the
intergenerational transmission of sexual orientation or the associations between childhood sexual
abuse and subsequent adult sexual orientation (Schumm, 2011, 2013).

Regnerus (2012a) conducted research on a large nationally representative sample of 175
adult children respondents that reported their mother having had a same-sex romantic
relationship. Regnerus found that these respondents when compared to still married heterosexual
biological parents reported statistically significant differences on 25 (scored lower on outcomes
including on those obviously suboptimal) of the 40 different outcomes variables. Regnerus
concluded that, "children appear most apt to succeed well as adults-on multiple counts across
multiple domains-when they spend their entire childhood with their married mother and father"
(Regnerus, 2012a, p. 766). Cheng and Powell (2015) had numerous concerns about the Regnerus
study. The most serious was the lack of consistent or accurate measuring of the independent
variable that defined the category of the family structure. Other concerns included missing data
and answers to survey questions that were out of the range of norm responses. Most all
limitations pointed out by Cheng and Powell and other critics of the Regnerus study can be found
in many of the accepted studies on same-sex parents (Schumm, 2012).

Sullins (2015b) used aggregate data for 1997-2010 from the U.S. National Health
Interview Survey from a representative sample of children from 207,007 households that
included 512 same-sex parents. His research found emotional problems were over twice as

prevalent for children with same-sex parents than for children with opposite-sex parents. Having joint biological parents was associated with the lowest rate of child emotional problems by a factor of 4, relative to same-sex parents, accounting for the bulk of the overall same-sex/opposite sex difference. Sullins (2015c) in another study using the same sample found the prevalence of ADHD was more than twice as prevalent among children with same-sex parents than the general population. The children with ADHD were over seven time more likely to suffer stigmatization due to impaired interpersonal coping skills.

Family Instability and Transitions

The research on family transitions and instability compares the outcomes for children from intact married two biological parent families against the children in other family structures. Some of the other family structures that are often compared against the intact married parent families include: step parent families, single parent families, and cohabiting parent families. As the concepts of instability and transition suggest, family structures are not always static but often are fluid. For example, a family structure can begin as a cohabiting two-parent family that through marriage becomes a two married parent family (first transition) that through a divorce becomes a single-parent family (second transition) that through remarriage becomes a stepparent family (third transition) and through a second divorce becomes a single-parent family again (Spruijt & Goede, 1997).

Rosenfield (2015) re-analyzed Regnerus's (2012a) New Family Structure Study and found that family instability explained most but not all of the negative outcomes that had been attributed to gay and lesbian parents. Regnerus had originally attributed the negative outcomes to same-sex family structures. Rosenfeld's replication of Regnerus's model with a simple control for family transitions reduced the number of negative outcomes for children with a "gay" defined

father from 18 to five: suicidal ideation; depression; having had sexually transmitted infections more female partners for female participants, and more voting. For children with "lesbian" defined mothers, the number of negative outcomes reduced from 24 to two: less exclusive heterosexuality, and more female sexual partners for their female children. Rosenfeld concluded that many different types of childhood family transitions are associated with later negative outcomes and not as a result of same-sex parenting.

Transitions most often represent a disruption in the family structure that brings about changes that may reflect added stress in the family that may result in poorer outcomes for children (Brown, 2006; Spruijt & Goede, 1997). And while some aspects of a transition may bring relief, such as in the case of a conflictual marriage that ends in divorce or a single mother family where the mother's marriage adds more income to the family, transitions may also bring new stresses. In the case of the stepfamily having a new parent and possibly new siblings, which has the potential to create many challenges. And even with the case of an amicable divorce, splitting their lives between two households presents a challenging situation for the children.

There are a few factors to consider for child outcomes in a divorced family structure. Most divorces happen in the context of marital conflict, which has been shown to have deleterious impact for children regardless of whether the marriage ends in divorces, or continues in conflict (Amato, 1995; Booth & Amato, 2001). The economic impact on the family may result in the custodial parent (most often the mother) being less available and under higher stress. In the case of a continued high conflict relationship between the divorced parents, the noncustodial parent (most often the father) may have lower quantity or quality of contact with the children. Children are parent-dependent in their development and require from their parents teaching, modeling and nurturing and having one or both parents unavailable will impact child outcomes.

Transition Outcomes for Children. The concern about the impact of family structure transitions on the development of children has grown more salient with the rate of divorce and the increasing rate of cohabitation. Each of these transitions is thought to bring about stress whose cumulative effect on children is negative. For example, the transition from a two-parent family to a single parent family is associated with lower school engagement, poorer cognitive achievement, and more behavior and emotional problems (Fomby & Cherlin, 2007; Magnuson & Berger, 2009).

Amato and Keith (1991) performed a meta-analysis of 37 studies that compared the psychological well-being, family well-being, socioeconomic well-being, and physical health of adults who experienced the divorce of their parents and those who parents were continuously married. They found that the adults who experienced family transitions had lower levels of well-being than those whose parents remained married (Amato & Keith). They also raised the issue if it was the instability of the divorced family structure that resulted in the lower outcomes or if other factors were influencing the outcomes.

Father Involvement, Presence and Absence Outcomes

As mentioned in chapter 1, the construct of fatherhood has transitioned over time in American history. These shifting constructs of fatherhood are society's value and beliefs of what fathers should do as compared to the conduct of what fathers actually do. Another aspect of shifting cultural norms that shapes the perception of fathers and father involvement is public policy. The federal government's involvement in advocating responsible fatherhood was a case of research impacting public policy (Doherty, Kouneski, & Erickson, 1998). The connection between fathers who made choices to willfully abandon their personal and financial responsibility to their children and the cost to the federal government to fulfill those obligations

provided the motivation for promoting responsible fathering. Nock and Einolf's (2008) study

estimated at least $99.8 billion was spent by the federal government to support "father-absent

homes" in 2008. Additionally, the research suggesting the negative impact of father absence on

the well-being of children and the positive impact of healthy father involvement on the well-

being of children further incentivized the Federal government to champion this idea.

The major component of responsible fatherhood is a fathers' healthy engagement or

involvement in the well-being of his child. The reason for this emphasis is the research

supporting the benefits of the presence of a healthy involved father for child well-being. The

challenge is to create a universally applicable definition of father involvement across the diverse

spectrum of fathers, fathering situations, and circumstance. Assisting in this challenge is an

intersection of research that broadly supports common components of father involvement.

It wasn't until the late 1960's and 1970's that societal concern about the impact of

fatherlessness began to emerge (Lamb, 2000). During this time social scientists shifted their

focus from a qualitative (masculinity) perspective to a quantitative perspective (how much time

fathers were spending with their children) (Lamb). The sprawling research studies on different

aspects of the social nature of fatherhood can be grouped into three dimensional groups (Lamb).

Lamb's dimensions include: 1) the responsible fatherhood dimension that examines taking care

of material needs as a "bread winning" role, 2) the co-parenting dimension investigating the

father-mother's relationship impact on the child, and 3) the nurturing dimension that explores a

father's emotional and social involvement with his child. This research focuses on the nurturing

dimension's impact on the outcomes for children in how involvement and engagement are

measured.

The Lamb (2000) research was a start in addressing the major challenge of the father involvement research to develop a consistent measure of involvement that would span various fathering situations. There was a need for a measure that allowed comparisons across studies. This measure would also be inclusive of fathering situations such as non-resident fathers who may have little to no access to their children and low-income fathers who have little or no resources. Most early fatherhood research followed the same protocol of other research of the time in using data sources that were predominantly white middle class families partially because these were more readily available. The researchers quest to define the concepts of father involvement fit well for this narrow group of white middle class fathers. Later it was realized that the father involvement concepts needed to be adapted to be inclusive of other fathering groups.

In the last two decades of the responsible fatherhood movement social scientists, policy makers and practitioners seeking to define father involvement (Doherty, Kouneski, & Erickson, 1998) have made progress in their inclusion. Lamb, Pleck, Charnov, and Levine's (1987) paternal involvement concept was defined by interaction with, access to and responsibility for the child and has served as a foundation to latter concepts of involvement. A decade later their work was followed by Levine and Pitt (1995) who included: 1) maturity for fathering readiness, 2) establishment of paternity, 3) a partnership with the mother for care, and 4) financial support. Both of these concepts for father involvement were more inclusive and encompassed the low-income African American father, especially, since fathers can be involved with their children without living together (Mott, 1990).

Lamb, Pleck, Charnov, and Levine's (1987) components can be framed as society's perception of what children need from fathers (responsibility), how available the fathers are to

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meet their children's needs (accessibility) and how responsive fathers are to the needs of their children (engagement). A simplistic view of father involvement utilizing these components is the quantity and quality of father involvement. These measures can help answer the question of the quantity of time the father involves with his child (accessibility) that also factors in the number of key transitional periods he is present and the quality of that involvement (engagement and responsibility).

Father Presence. Rohner and Veneziano (2001) in reviewing evidence from six categories of empirical studies showing the powerful influence of father love on children's development and well-being found the comparative level of importance of father love. Much of the evidence suggested that the influence of father love on a child's social, emotional, and cognitive development and functioning was equally important and in some cases more important than the influence of mother love (Rohner & Veneziano). Some studies showed that father love was the sole significant predictor of specific outcomes for children (Rohner & Veneziano). Overall, the effects of loving fathers on their children can facilitate psychological well-being while buffering against an array of behavioral problems (Rohner & Veneziano).

Many other studies confirm Rohner and Veneziano's findings documenting the positive benefits fathers bring to their children socially, behaviorally, and academically. A study on empathy in adulthood found that the strongest predictor of empathy for others (men and women) was the level of care and support by fathers in childhood (Koestner & Weinberger, 1990). Another series of investigations reported higher levels of self-control and fewer behavioral problems in school children with involved fathers (Amato & Rivera, 1999). In addition, these children were found to have higher levels of social skills, self-esteem, and general life skills (Amato & Rivera). Data from the National Study of Families and Households showed when

fathers were positively involved, children experienced fewer behavior problems and anxieties, got along better with others, and were more responsible (Mosely & Thomson, 1995). Summarizing an early study on a father's influence on young children, researchers indicated that a father's interest and involvement in the early years was strongly associated with higher cognitive functioning and greater academic achievement among school-age children (Biller & Kimpton, 1997). A Department of Education study found that children whose fathers were highly involved in their schools were more likely to do well academically, enjoy school, participate in extracurricular activities and were less likely to repeat a grade or be expelled out of school than children whose fathers were not involved (Nord & West, 2001).

Father Absence. Father absence in the U.S. is widespread. It is estimated that 27% (over 20 million) children live absent their biological father and nearly one third of fathers live absent their biological children (U.S. Census, 2010). There is not a one-to-one relationship between fathers living absent their biological children and father involvement. Many of these fathers manage to stay engaged in the lives of their children. This statistic begs the question why so many fathers are absent and the more fundamental question of why are fathers absent? The reasons behind father absence can be grouped into two broad categories of systemic and personal choices.

Father absence is a permanent or temporary state in which systemic or personal pressure influences choices that prevent a father 's involvement of the provision of his resources as social capital for his child. An example of a choice to prevent father involvement is when systemic barriers make a decision independent of the father that make it not possible for the father to involve in his child's life. In this case the choice of others (i.e. systemic barriers) prevents father involvement such as death, war, severe mental or physical disability, a hostile divorce or

separation, and cases of wrongful incarceration. The other example is when a father makes a personal choice that prevents his involvement. In this case his choices (i.e. personal barriers) prevents his own involvement such as addiction, lack of physical and mental health maintenance, risky behaviors, irresponsibility, abandonment, crime, career choices, child abuse and neglect, and incarceration. It is possible the reason for the absence may lessen aspects of the impact on the child; however, the results are the same no matter the circumstances and that is the forfeiture of the provision of social capital for the child.

These reasons for absence can be framed using the concepts of the ecological system. As presented in the proceeding sections the mesosystemic barrier that systemically pressures father absence is the failure to obtain and/or maintain longstanding interrelational health between the father and mother of the child. The failure may be the result of divorce, separation, or a brief consensual but solely sexual relationship that results in a non-marital child birth. The microsystemic barrier in the pattern of a father's intrapersonal interrelations is reflected in his choice to use his social capital to abuse substances or provide his social capital for the well-being of his child. While my research study does not address an exosystemic barrier, an example may be a father who receives a court order for child support but does not respond and as a result he is excluded from the decision process that affects him. And finally a macrosystemic barrier is the influence of culture of the society on the severity of a non-support charge for the father and whether it is criminal or civil and whether it results in incarceration or a fine (Bronfenbrenner, 1979).

The reasons for father absence are diverse and complex. Regardless of the reason for the absence or withdrawal of social capital the question arises as to the impact of that withdrawal on the child. Research links father absence with a host of negative social outcomes for children.

When fathers are absent their children are at higher risk of suffering from negative outcomes including: emotional and behavioral problems, poverty, child abuse and neglect, substance abuse, low educational attainment, and teen pregnancy (McLanahan & Sandefur, 1994; Angel & Angel, 1996; Mott, Kowaleski-Jones, & Menaghen, 1997; Hoffmann & Johnson, 1998; Brown, Cohen, Johnson, & Salzinger, 1998). From this list of outcomes poverty, substance abuse, and teen pregnancy are likely to increase the chances of the sons repeating the cycle of father absence for another generation.

Childhood poverty in America is affected by a father's absence in the family. Less than a third of children living in two parent homes lived below poverty level, while 70% of children living in single-mother families lived below the poverty level in 2009 (Mather, 2010). Poverty can be viewed as an accelerator to the many other outcomes because of the inherent lack of support and resources of this condition.

Data from the National Longitudinal Survey of Youth indicated that a father's absence significantly increased by two times the likelihood of difficulties with peers, depressive behavior in boys, and other behavioral challenges for girls (Mott, 1993). A population-based survey study, that included one million children, revealed that children from single-parent homes were at twice the risk of mental disorders, suicide and attempted suicide, and alcohol or drug abuse compared to two-parent families (Weitoft, Hjern, Haglund, & Rosen, 2003). Students living in father-absent homes were twice as likely to repeat a grade and 1.7 times more likely to drop out of high school than children living with both parents (McNeal, 1995; Nord & West, 2001).

Biological vs. Social Fathers

There has been a reversal among some social scientists who were once proponents of the unique contributions of fathers in child development and well-being. Prominent researchers

Lamb (1997) and Pruett (2000) have expressed reservations about the importance of the parent's gender in effective parenting. This consensus is growing among some social scientists whose outcome findings for children are not showing distinct differences based on the gender of the parents. Although it may feel like deja vu pertaining to the early 1990's discussion of whether fathers are necessary, it is more akin to what type of social father can buffer a child against negative outcomes when the biological father is not available.

The changes in family structures over the past few decades have kept this conversation relevant. The estimate that half of U.S. children born in the 1980's at some point spent time in a home without two married biological parents makes this research necessary (McLanahan & Carlson, 2002). This is not to say that fathers are unnecessary but rather to discover ways to assist family structures without the biological father to avoid negative outcomes for children. Avoiding negative outcomes introduces the more recent research around the role of a social father as someone who is not the biological father of a child. How do their outcomes compare against the biological father?

Determining the definition of a social father is the first step in comparing outcomes. A basic and broad definition of a social father may consist of a person who functions in the role of a second parent. While this definition may include someone who is a male, resident with the child, and a non-relative, because of the definition's broadness, it may also include any combination of characteristics that include someone who is non-resident with the child, a relative and/or female. Tamis-LeMonda and Cabrera (1999) defined a social father as a male relative or family associate who demonstrates parental behaviors and is like a father to the child. Jayakody and Kalil (2002) found a difference in the associated outcomes depending on whether the father was a male relative or the mother's romantic partner. In this study of primarily low-income

African American families with preschool age children, the male relative social fathers were associated with higher levels of children's school readiness, whereas mothers' romantic partner social fathers were associated with lower levels of emotional maturity (Jayakody & Kalil).

Studies comparing the biological father with the social father have produced a mix bag of results including differences and sameness. One study that looked at the challenging situation of families frequently reported to child protective services (CPS) for child maltreatment to examine the effects of fathers and father figures (Marshall, English, & Stewart, 2001). In this study the presence of a father or father figure resulted in lower levels of aggression and depression observed for children by age 6 (Marshall et al.). However, for children at age 4 it seemed to make little difference in behavioral problems (Marshall et al.).

Berger and colleagues defined a social parent as a, "married or cohabiting partner of a child's biological parent (usually the mother) whom the child is not biologically related" (Berger, Carlson, Bzostek, & Osborne, 2008, p. 625). In their study using the Fragile Families and Child Well-being, data they found that social fathers exhibited significantly higher levels of cooperation in parenting than biological fathers (Berger et al.). In the event of a mother's absence for a week, she was more likely to trust the biological fathers to care for the child over the social fathers. There were no differences in the engagement with the child or shared responsibility of parenting between the biological and social father. Marriage was associated with higher levels of engagement among social fathers but not biological fathers (Berger et al.).

While the presence or absence of a father or social father is important in determining outcomes for the children there are many other factors. A population of women receiving treatment for substance use disorder or domestic violence reported on the presence of a non-abusive biological/adoptive or step father, an abusive biological/adoptive or step father, or the

absence of a father figure (Downs & Rindel, 2004). The levels of adulthood depression, anxiety and trauma symptoms were compared for these women who reported during childhood presence or absent of the various father figures (Downs & Rindel). The absence of a father figure was associated with lower measures of depression, anxiety, and physical abusive compared to those with an abusive father figure during childhood (Downs & Rindel).

Another study that examined father-daughter relationships among low-income African American families found the relationships were generally similar for biological and social fathers (Coley, 2003). However, the daughters reported lower quality attachment relationships with biological fathers as compared to social fathers (Coley). It may be that social fathers are able to avoid bring baggage from past experiences and the inherent parenting difficulties from interfering with the development of the social father-daughter relationship. The study was not about simply fulfilling the role of a father through his presence that was linked to child outcomes but rather a combination of low father contact and high anger or low trust that led to poor outcomes for the adolescent daughters (Coley).

And while there has been an increase in research on fathers and social fathers, this trend needs to continue to catch up with the on-going research on mothering and parenting. This research study can make a critical contribution to fathering research. Its potential support of the idea that fathers may provide a unique contribution that influences the outcomes of children could build on the knowledge base on fathering. It also could challenge other social scientists to seek to close the gap in fathering studies and other meta-analyses on fathering as the number of new studies grow. A greater knowledge of fathering may be of immense help to children, families, communities and society as a whole.

Chapter 3 - Methodology

The purpose of this dissertation is to investigate factors related to quantity and quality of biological father involvement and family support in non-intact families and their association with young adult child outcomes. This dissertation examines how the biological father's number of years living with his child, during early, middle and late developmental periods present, number of transitions, and relationship quality of the adult child's childhood are correlated to the well-being outcomes of his young adult child. The well-being outcomes were sexual health and select variables from five distinct domains that have emerged from the research literature: 1) educational, 2) economic, 3) physical, 4) social, and 5) emotional. These positive indicators provide a current view of the adult child's overall well-being at the time of the survey.

Although the literature on fathers has been growing, there are gaps in the literature that require on-going study of father involvement. The findings from father involvement research have helped inform and guide the field in identifying those gaps. These gaps include research that explores the outcomes of young adult children, the number of father transitions, the father's presence during key developmental periods, and the father outside the intact family. Exploring the impact of biological father involvement on the outcomes of young adult children gives another perspective from the voice of adult children and adds to the breadth and depth of the research literature. While there has been a growing amount of research literature on family structure transitions impact the outcomes of children, a gap remains in researching the impact of the transitions of fathers in and out of the lives of their children. There has also been a lack of research in comparing the impact of the father's presence during key developmental periods over the child's life (birth to age 18) and the associated outcomes. Additionally, the need for these two

research topics generates the need for researching the father's presence in transitions and developmental periods to be compared against his life long absence.

The findings from fathering research have also identified cultural shifts over time that require the replication of studies. These shifts such as the increase in single mother households and other family household structures including stepparents, adoptive parents, and gay or lesbian parents have highlighted the concern for the well-being of children and the role of family support. These trends have introduced new challenges for fathers to stay connected to their children and are contributors to the increases in the number of fathers living absent their biological children. The intent of this research is to understand the impact of the difference the presence or absence of the biological father at different age periods has on the adult outcomes of their children in various domains. This is an effort to take another step in answering these questions to make an incremental contribution to the research, theory and practice of father involvement that may benefit child well-being.

Research Questions

The research questions were generated to assist in explaining the associations between, the quantity and quality of biological father involvement and family support as a protective factor against negative outcomes for the adult children as defined by the *Father-Adult Child Involvement Relational Outcomes (FAIRO)* model (see figure 1.1). The research questions were as follows, for adult child outcomes for children with biological fathers from non-intact households:

1. How does the number of years the biological father lived with the child affect the well-being of the young adult child?

2. How does the number of biological father transitions during childhood affect the well-being of the young adult child?

3. How does father presence during different developmental periods of childhood influence the outcomes for the adult child?

    a. How does the number of developmental periods (early, middle and late childhood) the biological father is present during childhood affect the well-being of the young adult child?

    b. How does the developmental period the biological father is present during childhood affect the well-being of the young adult child?

4. How does the relational quality of involvement of the biological father during childhood affect the well-being of the adult child?

5. How does positive family support during childhood favorably affect the well-being of the adult child?

6. How do the six variables of biological father's years with the child, number of transitions, early, middle or late developmental periods present, and level of family support as a child jointly influence outcomes for adult children?

Research Hypotheses

These hypotheses derived from the research questions will help explore the relationship between the quantity and quality of biological father involvement and family support for young adult child outcomes. It is speculated that a high number of years present during key developmental periods with low transitions of high quality biological father involvement and positive family support will be associated with positive adult child outcomes. The following hypotheses will be used in this research:

Hypothesis 1: The greater the number of years the biological father is involved during childhood the more positive the outcomes are for the adult child.

Hypothesis 2: The lower the number of biological father transitions during childhood the more positive the outcomes for the adult child.

Hypothesis 3: Father presence during different developmental periods of childhood will have a positive influence on outcomes for the adult child.

Hypothesis 3a: The more the total number of different developmental periods for which the father is present during his child's childhood, the more positive the outcomes for the adult.

Hypothesis 3b: The earlier the developmental periods for which the father is present during his child's childhood, the more positive the outcomes for the adult child.

Hypothesis 4: The higher the relational quality of the biological father's involvement the more positive the outcomes are for the adult child.

Hypothesis 5: The more positive the family support during childhood the more favorable the outcomes are for the adult child.

Hypothesis 6: Adult child outcomes will be related to the main effects of the independent variables: biological father's years with the child, number of transitions, early, middle or late developmental periods present, and family support as a child and the dependent variables of adult child outcomes.

Data Source

The data selected for this research is a subsample of the New Family Structures Study (NFSS) (Regnerus, 2012a). NFSS sought to understand how young adults (ages 18-39) raised in different family structures fared on a variety of social, emotional, and relational outcomes,

especially when compared with young adults' experiences growing up in homes with their married biological parents and those raised in homes with other family structures including adoptive, step, divorced, and single mother parents. This study was undertaken by Regnerus (2012a) partly because there had been few large-scale studies of young adults who had spent time in households with two parents of the same-sex.

The young adult respondents were Knowledge Network sampled non-institutionalized adults aged 18 to 39 from a probability-based web panel designed to be representative of the United States (Regnerus, 2012a). The NFSS interviewed 2,988 respondents. Of those interviewed 175 respondents reported their mother having had a same-sex romantic relationship and 73 who said their father had a same-sex romantic relationship. This study is reported to be distinct from other studies due to the large sample of same-sex parents, the focus on the responses of young-adult children, and that it drew from a large, random sample of the U.S. population of young adults ages 18–39 (Regnerus, 2012a).

The NFSS concluded that young adult children raised in same-sex homes were more likely to experience adverse outcomes compared to off-spring from married, intact biological mother and father homes (Regnerus, 2012a). These findings were contrary to many other contemporary studies and prompted scrutiny and criticism from peer researchers. Regnerus (2012b) responded to some of the criticism in a follow-up journal article. In the article Regnerus sought to answer the criticism through commentary, analyses, and to pose questions for future analysis. The criticisms included questions about the accuracy of labeling the same-sex parents, the comparison of the same-sex parents to biological intact families, the decision to not control for relationship stability, the low number of stably-coupled lesbian families, mixed orientation marriages, overlooked bisexuality, and claim of lesbian parented adult children were more likely

to experience foster care (Regnerus, 2012b). This study is strictly focused on the biological

father in the non-intact family and does not examine, analyze, or report on the sexual orientation

of the respondent's fathers.

There are six reasons for selecting the NFSS data in this research. Together these reasons

present a compelling opportunity to explore the richness of this data for answers to my research

questions. The first is that the NFSS is drawn from a recent large nationally representative data

set. Secondly, the NFSS contain some items to measure the quality of the relationship with the

parents. Thirdly, the NFSS evaluated eight different groups of family structure household.

Fourth, the NFSS collected 40 adult child outcomes from a wide range of domains. Fifth, the

young adult children respondents are developmentally better able to articulate their childhood

experience. Finally, the NFSS aimed to collect new data in order to evaluate whether biological

relatedness and gender of young adults' parents are associated with important social, emotional,

and relational outcomes.

This dissertation will draw on a subsample (n = 1,080) of the 2,988 respondents of the

NFSS. This study examines biological fathers from non-intact families who have lived with their

child for at least a year. There were 1,793 respondents with biological fathers from non-intact

families but only 1,080 who lived with their child for at least a year. The mean scores will be

compared and analyzed for all the independent variables of the fathers who did not live with their

children (n = 713) and the fathers who lived with their children for between one to 18 years (n =

1,080). The reporting for this analysis will done in Chapter Four.

Operational Terms and Definitions

The proposed research questions and hypotheses require the components of the model in

this study to be operationally defined. The Father-Adult Child Involvement Relational Outcome

(FAIRO) model (see figure 1.1) provides a schematic representation of the construct

relationships used to explain the father involvement and family support factors and how those

constructs influence the adult child outcomes.

Theoretical Model Measures

The eight constructs defined by this model were the biological father's number of years

involved, number of transitions, number of developmental periods present, quality of relationship

involvement, and family support, personal well-being (educational, economic, physical, social,

emotional, sexual) paternal closeness, and parental success. The constructs were defined by the

following:

(A) *Number of Years Involved* – The number of years the biological father was involved

in his adult child's life during their childhood from birth to age 18.

(B) *Number of Transitions* – The number of times the biological father entered and

exited the household of the adult child's life during their childhood from birth to age 18.

(C) *Number of Developmental Periods Present* – The number of developmental periods

(early (0-6), middle (7-12), late (13-18)) the biological father was present in his adult child's life.

In order for the biological father to be counted as present in that period required that the father

lived with his child at least three years in that period. The intent was investigating these key

developmental points for children and the fathers being present for at least half of the period,

which allows time for a memorable connection and involvement.

(D) *Quality of Involvement* – The quality of the biological father's involvement was

measured by the adult child's report of awareness, closeness, and engagement during childhood.

(E) *Family Support* – The quality of the family support was measured by security,

happiness, love, and peace about any negative experiences by the adult child during childhood.

(F) *Paternal Closeness* – The current quality of the biological father's involvement was measured by the adult child's report of closeness, communication, affection, engagement, assistance, and interests.

(G) *Parental Success* – The current quality of the young adult child's report of satisfaction as a parent and feeling close to their child.

(H) *Personal Well-being* – Adult child well-being was a multi-domain measure using a select number of positive indicators that provided a current snapshot of an adult child's overall well-being in life from sexual health variables and five distinct domains that have emerged from the research literature: 1) physical, 2) educational, 3) social, 4) emotional, and 5) economic (Pollard & Lee, 2003; Lippman, 2007; Bzostek, 2008).

Operationalization of Research Variables

Predictor Variables

The predictor variables within the Father-Adult Child Involvement Relational Outcome (FAIRO) model are the variables that influence the outcome variables. The predictive variables in the FAIRO Model were biological father involvement comprised of number of years involved, the number of transitions, the number of developmental periods present, and quality of involvement, and family support.

Number of Years Involved. The number of years involved was defined by the total number of years the father lived with the adult child during childhood. This variable was the BioFatherYears.

Number of Transitions. The number of transitions was defined by the total number of times the father entered and exited the household of young adult child during childhood. FatherTransitions was computed by comparing BIO_FATHER_BIRTH through

BIO_FATHER_18. The FatherTransitions was initialized to the value 1 to account for the first transition. Each time the values changed from 1 to 0 or 0 to 1 the FatherTransitions was incremented by 1. The corresponding question for the NFSS survey was the usage of the matrix after Q21.

Number of Developmental Periods Present. The number of developmental periods [early (0-6), middle (7-12), late (13-18)] that the biological father was present in his adult child's life were examined. Three variable counters for early, middle, and late were created to examine the table matrix of ages lived with the biological father (BIO_FATHER_BIRTH through BIO_FATHER_18) and add one count to the variable for every year the father spent living with his child during each period. If the father was present in that period the corresponding EarlyPeriod, MiddlePeriod, and LaterPeriod flags which were initialized to 0, were set to 1. The PeriodsPresent variable was incremented by 1 for each period present. The corresponding question for the NFSS survey was the usage of the matrix after Q21.

Past Quality of Involvement. The quality of involvement was defined as the adult child's perception of the biological father's involvement when in middle and high school. The quality of involvement in middle and high school was measured by three constructs of awareness, closeness, and engagement. All items were on a five point Likert scale with 1 being "Never," 2 being "Rarely," 3 being "Sometimes," 4 being "Most of the time," and 5 being "Always." The first construct of awareness was comprised the following items: "My father knew who my friends were;" "My father knew what I was doing after school;" and "My father knew how I spent my money." The corresponding question numbers from the NFSS survey were Q26_Parent2_A, Q26_Parent2_B, and Q26_Parent2_C. The second construct of closeness was comprised of the following items: "I talked with my father about how I was doing with school

work;" "When I got home, I told my father what I did with friends;" and "My father was warm and responsive; our relationship was comfortable." The corresponding question numbers from the NFSS survey were Q26_Parent2_D, Q26_Parent2_G, and Q26_Parent2_J. The third construct of engagement was comprised of the following items: "My father asked me about my day at school;" "My father talked with the parents of my friends;" and "My father talked with my friends when they came to our house." The corresponding question numbers from the NFSS survey were Q26_Parent2_E, Q26_Parent2_H, and Q26_Parent2_I.

Past Family Support. The quality of involvement was defined as the adult child's perception of the supportiveness of the family while growing up. The supportive items were: "My family relationships were safe, secure, and a source of comfort;" "We had a loving atmosphere in our family;" "All thing considered, my childhood years were happy;" and "I feel at peace about anything negative that happened to me in the family in which I grew up." The corresponding question numbers from the NFSS survey were Q28_A, Q28_B, Q28_C, and Q28_F. The construct of support used a Likert scale with a range of 1 as "Never" to 5 as "Always" to measure quality of involvement variable, determined by taking the total sum of the four items.

Outcome Variables

Personal Well-being. The young adult child's well-being was a multi-domain measure using a select number of positive indicators to provide a current snapshot of an adult child's overall well-being. There were six distinct domains including: 1) educational, 2) physical, 3) physical, 4) emotional, 5) relational, and 6) sexual health. Education was measured by the categorical variable PPEDUCAT.

The physical health domain was measured by the response to the questions: "How is your physical health;" "Has a doctor, nurse or other health care provider ever told you that you have or had high blood pressure or hypertension;" "Has a doctor, nurse or other health care provider ever told you that you have or had high blood sugar or diabetes;" and "Do you have asthma." The corresponding question numbers from the NFSS survey were Q54, Q57, Q58, and Q59.

There were six items that comprised the economic domain that include: Employment (PPWORK); Household Income (PPINCIMP); "Do you have enough money to pay your bills on time every month;" "How hard have you been hit financially by the recent economic recession;" "Are you currently receiving some form of public assistance;" and "In the past 12 months, has there been a time when you had no health insurance." The corresponding question numbers from the NFSS survey were Q39, Q40, Q41, and Q42.

Social Attachment was measured by responses to three questions from an attachment index to assess elements of secure attachment. The four items that comprise relational health included: "I find it relatively easy to get close to others;" "I am comfortable depending on others;" "I am comfortable having others depend on me;" and "I know people will be there when I need them." The corresponding question numbers from the NFSS survey were Q75_A, Q75_F, Q75_M, and Q75_N.

Emotional health was measured by responses to six questions of a depression index to assess how true the questions were over the past seven days. The three questions from the index to assess emotional well-being included: "You felt happy;" "You enjoyed life;" and "You felt confident in your ability to handle your personal problems." The corresponding question numbers from the NFSS survey were Q76_G, Q76_H, and Q75_K. The three items not from the index were" "Taking all things together, how happy or unhappy are you with your life these

days;" "Are you currently in counseling or therapy for any problem connected with anxiety, depression, relationships, etc.;" and "During the past 12 months, have you ever seriously thought about committing suicide." The corresponding question numbers from the NFSS survey were Q79, Q80, and Q81.

Sexual health was measured by three items including: "Have you ever had a sexual relationship with someone else while you were married (or living with another romantic partner);" "Have you ever been physically forced to have any type of sexual activity against your will;" and "Has a parent or other adult caregiver ever touched you in a sexual way, forced you to touch him or her in a sexual way, or forced you to have sexual relations." The corresponding question numbers from the NFSS survey were Q127, Q128, and Q130.

Parental success. Parenting attainment was defined as the adult child's perception of current success as a parent. The next items measure parenting success: "I am happy in my role as a parent;" and "I feel close to my child(ren)." The corresponding question numbers from the NFSS survey were Q34_A and Q34_B. The construct parental success used a Likert scale with a range of 1 as "Never" to 5 as "Always" where the total value for all items ranged from 2 to 10.

Paternal closeness. The quality of involvement in their current relationship was measured by the two constructs of closeness and engagement. The following items defined the first construct of closeness: "How often do you talk openly with your father about things that are important to you;" "How often does your father really listen to you when you want to talk;" and "How often does your father explicitly express affection or love for you." The corresponding question numbers from the NFSS survey were Q27_Parent2_A, Q27_Parent2_B, and Q27_Parent2_C. The following items defined the second construct of engagement: "Would your father help you if you had a problem;" "If you needed money, would you ask your father for it;"

"How often is your father interested in the things you do;" and "Does your father show interest in your own children and family." The corresponding question numbers from the NFSS survey were Q27_Parent2_D, Q27_Parent2_E, Q27_Parent2_F, and Q27_Parent2_G. The constructs closeness and engagement used a Likert scale with a range of 1 as "Never" to 5 as "Always" where the total value of all items in both constructs ranged from 4 to 20.

Plan of Analysis

The objective of my research was to investigate factors related to quantity and quality of biological father involvement in non-intact families and their association with young adult child outcomes. The quantity of engagement was explored by the number of years the father spent living with his child from birth to age 18, the number of transitions in and out of his child's life and the number of years spent at key developmental periods living with his child. The quality of engagement was based on the adult children's evaluation of their relationship with their biological father as the primary or secondary parent related to awareness, engagement, and closeness. The constructs of the quantity and quality of biological father involvement was investigated to evaluate the influence of these two factors on commonly researched well-being indicators of the adult children including: educational, economic, physical, emotional, sexual, and social health.

My research approach started with simple analyses using basic statistical analysis and expanded to use more advance statistical analyses. The research began with basic univariate analyses and descriptive statistics to help explain and describe elements of the sample. To test my research hypotheses, I applied bivariate analyses such as one-way analysis of variance and correlations. I used ordinary least squares multiple regression to assess the relative importance of predictors used together for explaining adult child outcomes.

The hypotheses preselect the statistical test and analysis to be used in each model of the study. All statistical analysis of the quantitative results were conducted using Statistical Package for Social Sciences software (SPSS). I used items from the New Family Structure Study to create targeted scales. To check the reliability of scales derived from multiple items, I used the most common measure of internal consistency reliability, Cronbach's alpha (Field, 2005).

Analyses

Before beginning the statistical analysis of the survey results a preliminary analysis was done to help identify multicollinearity in the data by univariate and multivariate analysis (Field, 2005). There was no perfect linear relationship between two or more predictors. The preliminary analysis also included descriptive statistics for all the independent and dependent variables including, mean, median, mode, standard deviations, variances, and range of scores for the variables (Weiss, 2008). A frequency distribution and histogram was used to look for valid response percentages, missing data, outliers, and non-normality in the distribution (Sirkin, 2006). These descriptive statistics were summarized and reported for the items.

Bivariate Analyses

A bivariate approach was used to determine associations between two variables within the sample. The hypotheses were tested through bivariate analyses through ANOVA and correlations.

Hypothesis 1: The greater the number of years the biological father is involved during childhood the more positive the outcomes will be for the young adult child.

Hypothesis 1 was tested with a simple regression model to explain the relationship between the predictor number of years the biological father was involved during childhood and each of the young adult child outcomes.

Hypothesis 2: The lower the number of biological father transitions during childhood the more positive the outcomes will be for the adult child.

Hypothesis 2 was tested with a simple regression model to explain the relationship between the predictor number of transitions of the biological father and each of the adult child outcomes.

Hypothesis 3: Father presence during different developmental periods of childhood will have a positive influence on outcomes for the adult child.

Hypothesis 3a: The more the total number of different developmental periods for which the father was present during his child's childhood, the more positive the outcomes will be for the adult child.

Hypothesis 3b: The earlier the developmental periods for which the father was present during his child's childhood, the more positive the outcomes will be for the adult child.

Hypothesis 3a was tested with a simple regression model to explain the relationship between the predictor number of developmental periods present of the biological father and each of the adult child outcomes. Hypothesis 3b was tested with a simple regression model to explain the relationship between the predictor number of earlier periods present of the biological father and each of the adult child outcomes.

Hypothesis 4: The higher the relational quality of the biological father's involvement the more positive the outcomes will be for the adult child.

Hypothesis 4 was tested with a simple regression model to explain the relationship between the predictor relational quality of the biological father and each of the adult child outcomes.

Hypothesis 5: The more positive the family support during childhood the more favorable the adult child outcomes.

Hypothesis 5 was tested with a simple regression model to explain the relationship between the predictor positive family support and the more favorable adult child outcomes.

Multivariate Analyses

The purpose of multiple regression is to assess the direct relationship of each independent variable to the dependent variable, controlling for all the other independent variables. Within each model, the relative sizes of the standardized beta coefficients convey information about the relative strength of each of the independent variables for explaining differences in the dependent variable. The unstandardized regression coefficients may be used to predict actual outcomes for the dependent variables.

Hypothesis 6: Adult child outcomes will be related to the main effects of the independent variables: biological father's years with the child, number of transitions, early, middle or late developmental periods present, and level family support as a child and the dependent variables of adult child outcomes.

Hypothesis 6 was tested with multiple regressions to explain the relationship between the independent variables: biological father's years with the child, number of transitions, early, middle or late developmental periods present, and family support as a child and the dependent variables of adult child outcomes.

Chapter 4 - Results

This current investigation tested the Father-Adult Child Involvement Relational Model as it pertains to the relationship between quantity and quality of biological father involvement and adult child outcomes. This was accomplished through analysis of the NFSS data, comparing the involvement of biological fathers and their adult child's corresponding well-being indicators. This chapter is divided into three sections with a focus to explain the current investigation's findings. The first section provides information on the sample population through simple descriptive statistics. The data is examined and hypotheses are tested in the second section using bivariate analysis and the third section using multivariate analyses.

Descriptive Statistics

Simple descriptive statistics provide a basic statistical overview of the data evaluated in this dissertation. The descriptive statistics examining the sample population of young adults will be explored first, followed by initial examining the descriptive statistics on the predictor and outcome variables. The data was draw from a subsample of the original 2,988 respondents of the NFSS. There were 1,793 respondents with biological fathers from non-intact families. This study focused on biological fathers from non-intact families who have lived with their child for at least part of a year (n = 1,080). The descriptive statistics are presented for this sample (n = 1,080). The presentation of the examined data will be done through frequency tables and described in succeeding paragraphs.

Age, Gender, Race, Ethnicity, and Region

The ages of the young adult respondents had a range of 21 years from a minimum age of 18 years to a maximum of 39 years. The median age was 28 years ($SD = 6.4$) and a modal age of 23 years. The post-stratification process for the sample split up the ages into four categories. The

number of respondents in each category was 18-24, 38.5% (n = 416); 25-29, 17.6% (n = 190);

30-34, 21.7% (n = 234), and 35-39, 22.2% (n = 240). There were no missing responses for age.

Over two thirds of the young adult children in the sample were females (67.7%) and less than

one third men (32.7%). For race and ethnicity, the majority of the sample are White Non-

Hispanic, 62.4% (n = 674). This majority is followed by two categories of race and ethnicity that

were oversampled resulting in a composition of Hispanic, 16.7% (n = 180) and Black Non-

Hispanic, 13.4% (n = 145). The amounts for the remaining categories were Other Non-Hispanic,

3.6% (n = 39) and Two or More Races Non-Hispanic, 3.9% (n = 42). The majority of the

respondents were from the South, 34.7% (n = 395) with the remaining from the Northeast (n =

163) Midwest (n = 243), and West (n = 279). The majority of the respondents resided in

relatively high population density metropolitan areas (n = 910) and the remaining were from

non-metropolitan areas (n = 170). There were no missing responses for any of these demographic

variables. These young adult child demographic descriptive statistics are listed in Table 4.1.

Father Types/Categories

The biological father was the focus of examination in this dissertation. There are five

other type or categories of father-figures collected in the data that include the stepfather,

mother's boyfriend/partner, mother's girlfriend/partner, grandfather, and adoptive father. The

data was collected for the number of years ranging from 1 years to 18 years that these fathers and

social fathers spent with the child. Contrasting the biological parents from non-intact families,

100% (n = 1,080) of the young adults lived at least four months in one or more years with their

father compared to 98.3% (n = 1,062) of respondents that lived the same period with their

mother.

The four categories of parents (DOV_Parent1, DOV_Parent2, DOV_Parent3, and DOV_Parent4) classifies parent figures with whom respondent reported living with at least 3 years on childhood calendar by length of time spent in household. The Parent1 and Parent2 categories were used to identify biological fathers who lived at least three years with their child

Table 4.1

Descriptive Statistics of Young Adults' Demographic Variables

Variable	Coding Scheme	n	%
Age	18-24	416	38.5
	25-29	190	17.6
	30-34	234	21.7
	35-39	240	22.2
Gender	Female	731	67.7
	Male	349	32.3
Race and Ethnicity	White, Non-Hispanic	674	61.4
	Hispanic	180	15.7
	Black, Non-Hispanic	145	13.9
	Other, Non-Hispanic	39	3.6
	Two or More Races, Non-Hispanic	42	3.9
Statistical Regions	Northeast	163	15.1
	Midwest	243	22.5
	South	395	36.6
	West	279	25.8
MSA Status	Non-Metro	170	15.7
	Metro	910	84.3

Note: No missing responses for these variables.

and had quality of father involvement data (see Table 4.2). The Parent1 spent the longest amount of time and the Parent4 the shortest amount of time. There were 83 missing responses for Parent1. The majority, over two-thirds (67.9%), of the Parent1 were biological mothers (n = 733). The Parent1 percentages and numbers for the fathering categories are: biological father

14.7% (n = 159), stepfather .3% (n = 3), mother's boyfriend/partner .3 % (n = 3), adoptive father

.3% (n = 3), and grandfather .2% (n = 2). Just over half (53%) of the Parent2 were missing (n =

508). The Parent2 percentage and number for the fathering categories are: biological father 16%

(n = 173), mother's boyfriend/partner 9.4% (n = 102), stepfather 8.1% (n = 87), adoptive father

1.3% (n = 14), and grandfather 2.1% (n = 23).

Table 4.2

Descriptive Statistics of Parenting Categories and Fathering Types

Variable	Coding Scheme	n	%
Parent 1	Biological father	159	14.7
	Biological mother	733	67.9
	Mother's Boyfriend/partner	3	.3
	Stepfather	3	.3
	Adoptive father	3	.3
	Grandfather	2	.2
	All others	94	8.7
Parent 2	Biological father	173	16
	Biological mother	44	4.1
	Mother's boyfriend/partner	102	9.4
	Stepfather	87	8.1
	Adoptive father	14	1.3
	Grandfather	23	2.1
	All others	142	13.1

Note: There are 83 missing responses for Parent1 and 508 for Parent2.

Predictor Variables

Quantity of Father Involvement

The construct of the quantity of parent involvement was comprised of three variables.

These variables are the number of years the parent was involved, the number of transitions, and

whether the father was present for at least 3 years in each of the three developmental periods.

Number of Years Involved. The number of years involved was defined by the total number of years the parent had lived with the child from age 1 to age 18 (e.g. BioFatherYears). This variable was a total of the eighteen variables in the table matrix that represents each of the years from 1 through 18 (e.g. BioFather_1 through BioFather_18) the child lived with the parent.

The Number of Transitions. The number of transitions was defined by the total number of times the parent transitions in and out of the child's residence from age 1 to age 18 (e.g. FatherTransitions). This value was derived from a counter that was incremented each time the value in the table matrix that represent each of the years from 1 through 18 (e.g. BioFather_1 through Bio Father_18) changed from present to absent or absent to present. The counter is started at the value 1 to represent the transition into the child's life through conception.

Developmental Periods Present flag. This construct represents three developmental periods (early (birth-6), middle (7-12), late (13-18)) the parent was present in the adult child's life. Three variable counters were incremented for early, middle and late developmental periods by examining the table matrix of the ages the child lived with the parent from age 1 to age 18 (e.g. BIO_FATHER_BIRTH through BIO_FATHER_18). An early, middle, late flag was set if the parent spent 3 or more years living with the child in that period (e.g. EarlyPresence, MiddlePresence, LatePresence).

Quality of Father Involvement

The quality of involvement was defined as the adult child's perception of the father's involvement when in middle and high school. The quality of involvement in middle and high school was measured by three constructs: awareness, closeness, and engagement. All items were on a five point Likert scale with 1 being "Never," 2 being "Rarely," 3 being "Sometimes," 4

being "Most of the time," and 5 being "Always." The higher scores indicated more positive outcomes.

The first construct of awareness was comprised of the items including, "My parent knew who my friends were" (Q26_Parent1_A, Q26_Parent2_A), "My parent knew what I was doing after school" (Q26_Parent1_B, Q26_Parent2_B), and "My parent knew how much money I spent" (Q26_Parent1_C, Q26_Parent2_C). A factor analysis was performed to ensure the variables had a common factor. The three items in the awareness scale had good internal consistency and reliability with an $\alpha = .843$ for Parent1 and $\alpha = .910$ for Parent2.

The second construct of closeness was comprised of the items including "I talked with my parent about how I was doing with school work" (Q26_Parent1_D, Q26_Parent2_D), "When I got home, I told my parent with I did with my friends" (Q26_Parent1_G, Q26_Parent2_G), and "My parent was warm and responsive; our relationship was comfortable" (Q26_Parent1_J, Q26_Parent2_J). A factor analysis was performed to ensure the variables had a common factor. The three items in this closeness scale had a good reliability with an $\alpha = .831$ for Parent1 and $\alpha = .879$ for Parent2.

The third construct of engagement was comprised of the items including "My parent asked me about my day at school" (Q26_Parent1_E, Q26_Parent2_E), "My parent talked with the parents of my friends" (Q26_Parent1_H, Q26_Parent2_H) and "My parent talked with my friends when they came to our house" (Q26_Parent1_I, Q26_Parent2_I). A factor analysis was performed to ensure the variables had a common factor. The three items in this engagement scale had an acceptable reliability with an $\alpha = .796$ for Parent1 and a good reliability with an $\alpha = .874$ for Parent2.

Childhood Family Support

The quality of family support was defined as the adult child's perception of the supportiveness of the family while growing up. The construct of support used a Likert scale with a range of 1 as "Never" to 5 as "Always", the quality of involvement variable and was determined by taking the total sum of the items. The supportive items for the construct were "My family relationship were safe, secure, and a source of comfort" (28A), "We had a loving atmosphere in our family" (Q28B), "All things considered, my childhood years were happy" (Q28C), and "I feel peace about anything negative that happened to me in the family in which I grew up" (Q28F). These four items in this childhood family support scale had a good reliability with an α = .867.

Outcome Variables

Personal Well-being

Personal well-being was a multi-domain measure using a select number of positive and negative indicators to provide a current snapshot of an adult child's overall well-being in life from five distinct domains that have emerged from the research literature: 1) physical, 2) social, 3) emotional, 4) education, and 5) economic (Pollard & Lee, 2003; Lippman, 2007; Bzostek, 2008). An additional measure that was included for Adult child well-being was sexual health.

Physical Health. The measure for physical health was a categorical self-report to the questions of the respondent including "In general, how is your physical health" (Q54), "Has a doctor, nurse or other health care provider ever told you that you have or had high blood pressure or hypertension" Q57, "Has a doctor, nurse or other health care provider ever told you that you have or had high blood sugar or diabetes" (Q58), and "Do you have asthma" (Q59). For physical health majority (83.8%) reported their health were in the categories good to excellent (n = 905)

and 15.8% reported their health was poor to fair (n = 171). The mean was 2.59 (*SD*=1.0). There

were .4% (n = 4) who refused to disclose their health. There were 13.8% (n = 149) who reported

they had high blood pressure or hypertension, with .6% (n = 6) who refused to respond. There

were 6.5% (n = 70) who reported they had high blood sugar, with .8% (n = 9) who refused to

disclose respond. There were 14.4% (n = 156) who reported they had asthma. There were .7% (n

= 8) missing because they refused to disclose their health.

Social Attachment. The social attachment scale used four items from the attachment scale

to measure social health. The items included "I find it relatively easy to get close to others"

(Q75_A), "I am comfortable depending on others" (Q75_F), "I am comfortable having others

depend on me" (Q75_M), and "I know that people will be there when I need them" (Q75_N).

These four items for the relational health scale had a good reliability with an α = .721.

Emotional Health. The emotional health scale used the responses to three questions from

the depression index to assess how true the questions were over the past seven days. The items in

the emotional health scale included "You felt happy" (Q76_G), "You enjoyed life" (Q76_H),

and "You felt confident in your ability to handle your personal problems" (Q76_K). These three

items for the emotional health scale had a good reliability with an α = .875.

The other items related to emotional health were the responses to these questions "Taking

all things together, how happy or unhappy are you with your life these days" (Q79), "During the

past 12 months, have you ever seriously thought about committing suicide" (Q81), "Have you

ever had legal problems because of your drinking, like being cited for disturbing the peace or

arrested for driving under the influence of alcohol, or anything else" (Q83) and "Have you ever

used other illegal drugs (like cocaine, meth, etc.)" (Q85). Over three quarters (75.7%, n = 814) of

respondents were somewhat to very happy with .4 (n = 4) missing responses. There were 8.7% (n

= 94) that had seriously thought of suicide in the past 12 months with .5 (n = 5) missing

responses. There were 10.4% that had legal problems because of drinking with .2 (n = 2) missing

responses. There were 22.8% that had used other illegal drugs with 1% (n = 11) missing

responses.

Sexual Health. The sexual health was measured by the responses to these questions which

included "Have you ever had a sexual relationship with someone else while you were married"

(Q127), "Have you ever been physically forced to have any type of sexual activity against your

will" (Q128), and "Has a parent or other adult caregiver ever touched you in a sexual way,

forced you to touch him or her in a sexual way, or forced you to have sexual relations" (Q130).

For the item of having a sexual relationship while married or living with another romantic

partner 14.1% (n = 152) affirmed the question. Over half of the respondents reported sexual

fidelity (53.4%) (n = 577); however, there were 32.5% (n = 351) missing responses. There were

36.2% (n = 1092) responses missing and n = 27 who refused to answer the question. For the item

of rape there were 22.2% (n = 240) who had been raped one or more times, 74.5% (n = 805) who

had never been raped and n =35 missing responses. The majority of the respondents had never

been sexually assaulted by a parent or adult caregiver (83.1%) (n = 1,080), while 13% had once

or more than once, with 3.2% (n = 35) missing responses.

Educational Attainment. The education variable for the highest degree received did not

have any missing responses. There was a 14-item response scale for this variable ranging from 1

to 14. The modal response was the category of some college without a degree (31.8%, n = 341),

which was also the median and mean (*SD* = 1.82). The next two highest categories were those

that graduated with a high school diploma or the equivalent G.E.D. were 22.3% (n = 241) and

those with a bachelor's degree 17% (n = 184). In combining categories, those with a college

degree of an associate degree or above were 36.2% (n = 382) and those that did not complete

high school were 9.5% (n = 104). These educational statistics were listed in Table 4.3.

Economic Attainment. Economic attainment was determined by the adult child's current

status of achieving a level of employment and income that improves or maintains a comfortable

living situation. The employment and income items are categorical measures followed by the

outcome measures for the items public assistance, having enough money, current recession, and

health insurance.

Table 4.3

Descriptive Statistics of Young Adults' Education

Variable	Coding Scheme	n	%
Education	No formal education	2	.2
	1st, 2nd, 3rd and 4th grade	0	
	5th or 6th grade	0	
	7th or 8th grade	8	.7
	9th grade	14	1.3
	10th grade	24	2.2
	11th grade	21	1.9
	12 grade, no diploma	35	3.2
	High school diploma or the equivalent (GED)	241	22.3
	Some college, no degree	341	31.8
	Associate degree	124	11.5
	Bachelor's degree	184	17.0
	Master's degree	61	5.6
	Doctorate degree	23	2.1

Note: There were no missing data.

There were seven categories for employment. The majority of the respondents were in

the "Working – as paid employee" 55.4% (n= 598) category. The other working category was for

those "Working – self-employed" 6.3% (n = 68). The largest category not working were for

those "Not working – looking for work" 18.6% (n = 201), followed by "Not working – other"

13.5% (n=146). The four remaining categories were: "Not working – temporary layoff from a

job;" "Not working – retired;" "Not working – disabled;" and "Not working – other." There was

1 response missing from this variable (n = 1079). These employment statistics were listed in

Table 4.4.

Table 4.4

Descriptive Statistics of Young Adults' Employment

Variable	Coding Scheme	n	%
Employment	Working – as a paid employee	598	55.4
	Working – self-employed	68	6.3
	Not working – on temporary layoff from a job	15	1.4
	Not working – looking for work	201	18.6
	Not working – retired	1	.1
	Not working – disabled	50	4.6
	Not working – other	146	13.5

Note: There was one missing response.

The household income variable was comprised of 19 levels ranging from less than $5,000

to $175,000 or more (see Table 4.5). There was no missing data. The median household data was

in the range of $40,000 to $49,000 9.2% (n = 99). There were 12.7% (n = 106) of the households

that were under the federal guideline for poverty for individuals with incomes under $10,000.

The four items that measure the economic status included: "Do you have enough money to pay

your bills on time every month" (Q39), "How hard have you been hit by the financial recession"

(Q40), and "Are you currently receiving some form of public assistance" (Q41). The majority

were barely able pay their bills on time every month, 47.1% (n = 509), while 32.5% (n = 351)

were comfortably able and 20.2% (n = 218) were unable. The respondents that were currently

receiving some form of public assistance were 33.7% (n = 364). Most of the respondents

reported being hit somewhat to extremely hard, 58.4% (n = 630) by the current recession.

Table 4.5

Descriptive Statistics of Young Adults' Household Income

Variable	Coding Scheme	n	%
Household Income	Less than $5,000	60	5.6
	$5,000 to $7,499	44	4.1
	$7,500 to $9,999	32	3.0
	$10,000 to $12,499	52	4.8
	$12,500 to $14,999	42	3.9
	$15,000 to $19,999	54	5.0
	$20,000 to $24,999	76	7.0
	$25,000 to $29,999	68	6.3
	$30,000 to $39,999	69	7.9
	$40,000 to $49,999	99	9.2
	$50,000 to $59,999	73	6.8
	$60,000 to $74,999	94	8.7
	$75,000 to $84,999	65	6.0
	$85,000 to $99,999	66	6.1
	$100,000 to $124,999	49	4.5
	$125,000 to $149,999	24	2.2
	$150,000 to $174,999	13	1.2
	$175,000 or more	11	1.0

Note: There were no missing responses.

Parenting Success

Parenting success was defined as the adult child's perception of current success as a

parent. The items in the NFSS survey that measured parenting success were "I am happy in my

role as a parent" (Q34A) and "I feel close to my children" (Q34B). The construct parenting

success used a Likert scale with a range of 1 is "Never" to 5 is "Always" where the total value

for all items ranged from 2 to 10. These two items for a parenting success scale had a good

reliability with an $\alpha = .838$.

Paternal Closeness

Current parental closeness was measured by three items "How often do you talk with

your parent about things that are important to you?" (Q27_A), "How often does your parent

really listen to you when you want to talk?" (Q27_B), and "How often does your parent

explicitly express affection or love for you?" (Q27_C). The constructs closeness and engagement

used a Likert scale with a range of 1 is "Never" to 5 is "Always" where the total value of all

items in both constructs ranged from 3 to 15. These three items for a current parental closeness

scale had an excellent reliability with an $\alpha = .903$.

Bivariate Hypothesis Testing

The five hypothesis were tested using bivariate analysis using the Pearson r correlations

and Spearman rho. It was decided to report the results of the parametric test even though the

nonparametric test often showed a larger effect.

Hypothesis 1

The first hypothesis stated that "The greater the number of years the biological father is

involved during childhood the more positive the outcomes for the adult child." There was some

support for this hypothesis from the results of the Pearson r correlations in Table 4.6. There was

a significant positive relationship with number of years the biological father lived with the child

with 9 of the 21 outcome variables. Those variables included the Educational Attainment

variable ($r = .174, p < .001$) and four Economic Success variables including income ($r = .089, p$

$= .003$), having Enough Money ($r = .108, p < .001$), Low Recession Impact ($r = .076, p = .012$),

and No Public Assistance ($r = .139, p < .001$), Social Attachment ($r = .062, p = .044$), Paternal

Closeness ($r = .196, p < .001$), No Suicidal Ideation ($r = .060, p = .048$), and No Parent/Adult

Rape ($r = .083, p = .008$). There was a positive relationship with other variables, however, the

Table 4.6

Correlations for the number of years the biological father lived with the child, the number of transitions and the developmental periods present

Variables	# of Years R	# of Years p	#Trans. R	#Trans. p	#Periods Present R	#Periods Present p
Education	.174**	.000	-.099**	.001	.131**	.000
Employment	.054	.051	-.054	.077	.014	.637
Income	.089**	.003	-.017	.580	.095**	.002
Enough Money	.109**	.000	-.045	.138	.115**	.000
Low Recession Impact	.076**	.012	-.052	.087	.105**	.001
No Public Assistance	.139**	.000	-.113**	.000	.092**	.003
Physical Health	-.035	.245	.049	.107	.025	.410
Blood Pressure	-.032	.299	.035	.246	-.009	.763
Diabetes	.022	.480	.002	.946	.064*	.036
Asthma	.004	.903	-.031	.306	.012	.695
Social Attachment	.062*	.044	-.004	.890	.023	.448
Paternal Closeness	.196**	.001	-.142*	.015	-.126*	.031
Parental Success	-.032	.444	.039	.344	.065	.115
Emotional Health	.040	.190	-.024	.443	.014	.645
Happiness	-.027	.385	.005	.872	-.008	.792
No Suicidal Ideation	.060*	.048	.013	.664	.034	.269
No Alcohol Legal Problem	-.009	.771	.034	.269	-.077*	.012
No Illegal Drug Use	.056	.066	.038	.218	.020	.523
Sexual fidelity	.001	.979	-.074*	.047	-.002	.960
No Rape	-.035	.262	.073*	.018	.028	.369
No Parent/Adult Rape	-.083**	.008	.080**	.010	-.011	.715

$**p \leq .01$ (2-tailed), $*p \leq .05$ (2-tailed).

relationships were not statistically significant.

Hypothesis 2

The second hypothesis stated that "The lower the number of biological father transitions during childhood the more positive the outcomes for the adult child." This hypothesis had a small amount of support from the Pearson r correlation results in table 4.6. There was a significant negative relationship with the number of biological father transitions and 6 of the 21 outcome variables. The variables included the Educational Attainment variable ($r = -.099$, $p <$ .001), the Economic Status variable No Public Assistance ($r = -.113$, $p < .001$), Paternal Closeness ($r = -.142$, $p = .015$), Sexual Fidelity ($r = -.074$, $p = .047$), and No Parent/AdultRape (r = .080, $p = .010$).

Hypothesis 3a

The third hypothesis stated that "The higher the number of developmental periods the biological father is present during childhood the more positive the outcomes for the adult child." There was support for this hypothesis from the results of the Pearson r correlations in Table 4.6. There was a significant positive relationship with the number of developmental periods the father was present during childhood with 8 of the 21 outcome variables. The variables included the Educational Attainment variable ($r = .131$, $p < .001$) and five Economic Status variables including Income ($r = .095$, $p = .002$), having Enough Money ($r = .115$, $p < .001$), Low Recession Impact ($r = .105$, $p < .001$), and No Public Assistance ($r = .092$, $p = .003$). The Social Attachment domain variable included Parental Closeness ($r = .105$, $p = .001$) and the Emotional Health variable included No Alcohol Legal Problems ($r = -.077$, $p = .012$).

Hypothesis 3b

This hypothesis stated that "The earlier developmental periods the biological father is present during childhood the more positive the outcomes for the adult child." There was support

for this hypothesis from the results of the Pearson r correlations in Table 4.7. There was a significant positive relationship with the number of developmental periods the father was present during childhood with 6 of the 21 outcome variables for the early period, 7 for the middle period and one for the late period. The results for the variables for the early period were Education Attainment ($r = .150$, $p < .001$), Income ($r = .070$, $p = .022$), having Enough Money ($r = .134$, $p < .001$), Low Recession Impact ($r = .102$, $p = .001$), No Public Assistance ($r = .079$, $p = .010$), Parental Success ($r = .093$, $p = .025$), and No Alcohol Legal Problems ($r = -.076$, $p = .013$). The results for the variables for the middle period are Education Attainment ($r = .117$, $p < .001$), Income ($r = .106$, $p < .001$), having Enough Money ($r = .110$, $p < .001$), Low Recession Impact ($r = .085$, $p = .005$), No Public Assistance ($r = .093$, $p = .002$), and No Alcohol Legal Problems ($r = -.069$, $p = .013$). The results for the sole variable for the late period measure was Paternal Closeness ($r = -.153$, $p = .009$).

Hypothesis 4

The fourth hypothesis stated that "The higher the relational quality of the biological father's involvement the more positive the outcomes are for the adult child." There was support for this hypothesis from the results of the Pearson r correlations in Table 4.8. There was a significant positive relationship with the relational quality of the biological father's involvement during childhood with 7 of the 21 outcome variables for awareness, 5 for closeness and 3 for engagement. The results for the variables for awareness were having physical health ($r = -.121$, $p = .029$), asthma ($r = -.124$, $p = .026$), social attachment ($r = .264$, $p < .001$), paternal closeness ($r = .685$, $p < .001$), and happiness ($r = -.120$, $p = .030$). The results for the variables for closeness were having Enough Money ($r = .116$, $p = .036$), Physical Health ($r = -.131$, $p = .018$), No Asthma ($r = -.150$, $p = .007$), Social Attachment ($r = .171$, $p = .002$), Paternal Closeness ($r =$

.584, $p < .001$), Happiness ($r = -.122$, $p = .043$), and No Illegal Drug Use ($r = -.121$, $p = .029$).

The results for the variables for engagement were Physical Health ($r = -.138$, $p = .013$), Social

Table 4.7

Correlations for developmental periods the father was present living with the child

Variables	Early R	Early p	Middle R	Middle p	Late R	Late p
Education	.150**	.000	.117**	.000	.009	.779
Employment	.013	.693	.017	.574	.002	.960
Income	.070*	.022	.106**	.000	.031	.310
Enough Money	.134**	.000	.110**	.000	-.003	.915
Low Recession Impact	.102**	.001	.085**	.005	.044	.151
No Public Assistance	.079**	.010	.093**	.002	.026	.395
Physical Health	.011	.711	.022	.473	.025	.407
Blood Pressure	-.016	.598	.004	.901	-.009	.781
Diabetes	.060	.050	.035	.256	.051	.096
Asthma	.027	.379	.016	.606	-.023	.459
Social Attachment	.039	.208	.041	.183	-.039	.206
Paternal Closeness	-.070	.233	-.105	.074	-.153**	.009
Parental Success	.093*	.025	.048	.247	-.010	.804
Emotional Health	-.011	.717	.026	.403	.020	.508
Happiness	.006	.848	-.024	.434	.001	.982
No Suicidal Ideation	.013	.680	.036	.232	.028	.352
No Alcohol Legal Problem	-.076*	.013	-.069*	.023	-.021	.499
No Illegal Drug Use	.008	.792	.040	.192	-.008	.797
Sexual fidelity	.049	.182	-.038	.302	-.021	.580
No Rape	.038	.219	.020	.526	.000	.987
No Parent/Adult Rape	-.010	.736	-.017	.582	.005	.884

** $p \leq .01$ (2-tailed), * $p \leq .05$ (2-tailed).

Attachment ($r = .162$, $p = .004$), and Paternal Closeness ($r = .646$, $p < .001$).

Hypothesis 5

The hypothesis stated that "The more positive the family support during childhood the more

favorable the adult child outcomes." There was support for this hypothesis from the results of the

Pearson *r* correlations in Table 4.9. There was a significant positive relationship with the family

Table 4.8

Correlations for the quality of the relationship of father involvement

Variables	Aware R	Aware *p*	Close R	Close *p*	Engage R	Engage *p*
Education	-.020	.715	-.002	.973	-.027	.634
Employment	.102	.065	.023	.684	.102	.066
Income	-.008	.886	-.001	.983	-.038	.499
Enough Money	.116*	.036	.067	.225	.064	.250
Low Recession Impact	.036	.520	-.001	.993	-.021	.709
No Public Assistance	.043	.443	.029	.599	.022	.690
Physical Health	-.131*	.018	-.121*	.029	-.138*	.013
Blood Pressure	-.030	.585	.006	.918	.029	.603
Diabetes	.042	.453	.037	.502	.025	.658
Asthma	-.150**	.007	-.124*	.026	-.097	.083
Social Attachment	.171**	.002	.264**	.000	.162**	.004
Paternal Closeness	.584**	.000	.685**	.000	.646**	.000
Parental Success	.127	.104	.131	.095	.039	.621
Emotional Health	.022	.698	.067	.230	.043	.446
Happiness	-.122*	.043	-.120*	.030	-.099	.076
No Suicidal Ideation	-.011	.843	.025	.653	.037	.513
No Alcohol Legal Problem	-.032	.562	.009	.876	.057	.310
No Illegal Drug Use	-.121*	.029	-.059	.293	.013	.816
Sexual fidelity	.084	.212	.110	.103	.034	.612
No Rape	-.090	.109	-.068	.226	-.063	.269
No Parent/Adult Rape	-.107	.056	-.092	.098	-.048	.395

** p ≤ .01 (2-tailed), * p ≤ .05 (2-tailed).

support during childhood with 19 of the 21 outcomes. The results for the variables for family

support were Education ($r = .131, p < .001$), Employment ($r = .067, p = .029$), Income ($r = .091$, $p = .003$), having Enough Money ($r = .160, p < .001$), Low Recession Impact ($r = .205, p < .001$), No Public Assistance ($r = .163, p < .001$), Physical Health ($r = -.235, p < .001$), Social Attachment ($r = .299, p < .001$), Paternal Closeness ($r = .456, p < .001$), Paternal Success ($r =$

Table 4.9

Correlations for the quality of family support

Variables	Family Support R	Family Support p
Education	.131**	.000
Employment	.067*	.029
Income	.091**	.003
Enough Money	.160**	.000
Low Recession Impact	.205**	.000
No Public Assistance	.163**	.000
Physical Health	-.234**	.000
Blood Pressure	.064*	.039
Diabetes	.045	.142
Asthma	.066*	.031
Social Attachment	.299**	.000
Paternal Closeness	.456**	.000
Parental Success	.133**	.001
Emotional Health	.316**	.000
Happiness	-.249**	.000
No Suicidal Ideation	.223**	.000
Alcohol Legal Problems	-.043	.164
Illegal Drug Use	-.141**	.000
Sexual fidelity	.083*	.026
No Rape	-.263**	.000
No Parent/Adult Rape	-.269**	.000

** p ≤ .01 (2-tailed), * p ≤ .05 (2-tailed).

.133, $p = .001$), Emotional Health ($r = .316$, $p < .001$), Happiness ($r = -.249$, $p < .001$), No

Suicidal Ideation ($r = .223$, $p < .001$), No Illegal Drug Use ($r = .141$, $p < .001$), Sexual Fidelity (r

$= .083$, $p = .026$), No Rape ($r = -.252$, $p < .001$), and No Parent/Adult Rape ($r = -.269$, $p < .001$).

Multivariate Hypothesis Testing

Hypothesis 6

The sixth hypothesis stated that "Adult child outcomes will be related to the main effects

of the independent variables: biological father's years with the child, number of transitions,

early, middle or late developmental periods present, and family support as a child and the

dependent variables of adult child outcomes." Multiple regression was used to predict the 21

outcome variables for the six independent variables BioFatherYears, FatherTransitions,

EarlyPresence, MiddlePresence, LatePresence, PeriodsPresent, and FamilySupport in this

hypothesis.

Education Attainment. The SPSS model summary table, ANOVA table and the

coefficient table showed the model was a good fit. The multiple correlation coefficient R = .254,

translated to a medium effect according to Cohen (1988). The R^2 value showed the independent

variables explained 6.5% of the variability of Education. The ANOVA table showed the

independent variables statistically significantly predicted Education, $F(6,1051) = 12.09$, $p < .001$.

BioFatherYears, EarlyPresence, and FamilySupport added statistically significantly to the

prediction ($p < .001$), after controlling for the other variables in the model. The unstandardized

coefficient (B) for EarlyPresence predicted that for every increase of one year was associated

with a .229 increase in the level of Education. The higher values of BioFatherYears,

EarlyPresence and FamilySupport tended to be associated with a higher level of educational

attainment. The regression coefficients and standard errors can be found in Table 4.10.

Employment Attainment. The multiple regression model did not statistically significantly predict Current Employment Status, $F(6,1051) = 1.67$, $p = .125$. There was a low degree of correlation, R = .097 and the R^2 for the overall fit of the model was 0.9%, a minimal

Table 4.10

Summary of Multiple Regression Analysis for Variables Predicting Education Attainment

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	2.219	.143		15.505	.000
BioFatherYears	.022	.006	.147	3.636	.000
FatherTransitions	-.036	.028	-.044	-1.292	.197
EarlyPresence	.229	.062	.125	3.687	.000
MiddlePresence	.030	.080	.015	.370	.711
LatePresence	-.134	.081	-.056	-1.659	.097
FamilySupport	.030	.007	.135	4.542	.000

effect according to Cohen (1988).

Household Income. The multiple regression model statistically significantly predicted Household Income, $F(6,1051) = 4.18$, $p < .001$. There was a low degree of correlation, R = .153 and the R^2 for the overall fit of the model was 2.3%, a small effect according to Cohen (1988). FamilySupport added statistically significantly to the prediction, $p = .001$. The regression coefficients and standard errors can be found in Table 4.11.

Enough Money. The multiple regression model statistically significantly predicted Enough Money, $F(6,1050) = 10.176$, $p < .000$. There was a low degree of correlation, R = .235 and the R^2 for the overall fit of the model was 5.5%, a small effect according to Cohen (1988). The two variables EarlyPresence and FamilySupport added statistically significantly to the

Table 4.11

Summary of Multiple Regression Analysis for Variables Predicting Household Income

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	p
(Constant)	6.301	1.143		5.511	.000
BioFatherYears	.060	.049	.051	1.209	.227
FatherTransitions	.033	.230	.005	.145	.885
EarlyPresence	.358	.506	.025	.708	.479
MiddlePresence	1.215	.658	.080	1.848	.065
LatePresence	-.255	.659	-.013	-.387	.699
FamilySupport	.177	.055	.098	3.190	.001

prediction, p = .003 and p < .001 while the variable BioFatherYears reflected a trend toward significance (p = .055). The regression coefficients and standard errors can be found in Table 4.12.

Table 4.12

Summary of Multiple Regression Analysis for Variables Predicting Enough Money

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	p
(Constant)	1.562	.113		13.845	.000
BioFatherYears	.009	.005	.080	1.924	.055
FatherTransitions	-.006	.023	-.009	-.275	.783
EarlyPresence	.151	.050	.103	3.014	.003
MiddlePresence	.084	.065	.055	1.295	.196
LatePresence	-.103	.065	-.054	-1.584	.113
FamilySupport	.029	.005	.162	5.359	.000

No Recession Impact. The multiple regression model statistically significantly predicted No Recession Impact, $F(6,1046) = 110.398$, $p < .001$. There was a low degree of correlation, R = .249 and the R^2 for the overall fit of the model was 6.2%, a medium effect according to Cohen

(1988). The two variables EarlyBioFather and FamilySupport added statistically significantly to the prediction, $p = .011$ and $p < .001$. The regression coefficients and standard errors can be found in Table 4.13.

No Public Assistance. The multiple regression model statistically significantly predicted No Public Assistance, $F(6,1042) = 9.923$, $p < .001$. There was a low degree of correlation, R =

Table 4.13

Summary of Multiple Regression Analysis for Variables Predicting No Recession Impact

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	p
(Constant)	1.432	.154		11.541	.000
BioFatherYears	.003	.007	.019	.467	.641
FatherTransitions	-.031	.031	-.034	-.995	.320
EarlyPresence	.174	.068	.087	2.559	.011
MiddlePresence	.109	.088	.053	1.237	.216
LatePresence	.063	.089	.024	.706	.480
FamilySupport	.052	.007	.210	6.963	.000

.232 and the R^2 for the overall fit of the model was 5.4%, a small effect according to Cohen (1988). The two variables EarlyBioFather and FamilySupport added statistically significantly to the prediction, $p = .035$ and $p < .001$. The regression coefficients and standard errors can be found in Table 4.14.

Physical Health. The multiple regression model statistically significantly predicted Physical Health, $F(6,1048) = 10.631$, $p < .001$. There was a low degree of correlation, R = .240 and the R^2 for the overall fit of the model was 5.7%, a small effect according to Cohen

Table 4.14

Summary of Multiple Regression Analysis for Variables Predicting No Public Assistance

Model	Unstd. Coeff. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	1.388	.075		18.574	.000
BioFatherYears	.006	.003	.078	1.888	.059
FatherTransitions	-.033	.015	-.076	-2.200	.028
EarlyPresence	.050	.033	.052	1.503	.133
MiddlePresence	.049	.043	.049	1.147	.252
LatePresence	-.003	.043	-.002	-.071	.944
FamilySupport	.019	.004	.161	5.314	.000

(1988). FamilySupport added statistically significantly to the prediction, *p* = .001. The regression

coefficients and standard errors can be found in Table 4.15.

Table 4.15

Summary of Multiple Regression Analysis for Variables Predicting Physical Health

Model	Unstd. Coeff. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	3.412	.155		22.047	.000
BioFatherYears	-.009	.007	-.058	-1.401	.162
FatherTransitions	.000	.031	.000	-.013	.989
EarlyPresence	.013	.069	.006	.188	.851
MiddlePresence	.046	.089	.022	.519	.604
LatePresence	.052	.089	.020	.587	.557
FamilySupport	-.058	.008	-.232	-7.678	.000

Normal Blood Pressure. The multiple regression model did not statistically significantly

predicted Normal Blood Pressure, $F(6,1046) = 1.277$, $p = .265$. There was a low degree of

correlation, R = .085 and the R^2 for the overall fit of the model was 0.7%, a minimal effect

according to Cohen (1988).

No Diabetes. The multiple regression model did not statistically significantly predict No Diabetes, $F(6,0143) = 1.289$, $p = .259$. There was a low degree of correlation, R = .086 and the R^2 for the overall fit of the model was 0.7%, a minimal effect according to Cohen (1988).

No Asthma. The multiple regression model statistically significantly predicted No Asthma, $F(6,1044) = 1.273$, p = .267. There was a low degree of correlation, R = .085 and the R^2 for the overall fit of the model was 0.7%, a minimal effect according to Cohen (1988). FamilySupport added statistically significantly to the prediction, $p = .040$. The regression coefficients and standard errors can be found in Table 4.16.

Table 4.16

Summary of Multiple Regression Analysis for Variables Predicting No Asthma

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	1.807	.057		31.572	.000
BioFatherYears	-.002	.002	-.031	-.733	.464
FatherTransitions	-.012	.011	-.038	-1.065	.287
EarlyPresence	.011	.025	.015	.433	.665
MiddlePresence	.034	.033	.046	1.042	.298
LatePresence	-.024	.033	-.026	-.726	.468
FamilySupport	.006	.003	.064	2.055	.040

Social Attachment. The multiple regression model statistically significantly predicted Social Attachment, $F(6,1023) = 18.907$, $p < .001$. There was a low degree of correlation, R = .316 and the R^2 for the overall fit of the model was 10%, a medium effect according to Cohen (1988). The two variables BioFatherYears and FamilySupport added statistically significantly to the prediction, $p < .05$. The regression coefficients and standard errors can be found in Table 4.17.

Table 4.17

Summary of Multiple Regression Analysis for Variables Predicting Social Attachment

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	8.121	.486		16.692	.000
BioFatherYears	.051	.021	.099	2.435	.015
FatherTransitions	.153	.097	.054	1.580	.114
EarlyPresence	.146	.215	.023	.682	.496
MiddlePresence	.067	.278	.010	.239	.811
LatePresence	-.509	.278	-.062	-1.832	.067
FamilySupport	.238	.024	.303	10.113	.000

Paternal Closeness. The multiple regression model statistically significantly predicted Paternal closeness, $F(6,278) = 13.563$, $p < .001$. There was a low degree of correlation, R = .476 and the R^2 for the overall fit of the model was 22.6%, a large effect according to Cohen (1988). FamilySupport added statistically significantly to the prediction, $p < .001$. The regression coefficients and standard errors can be found in Table 4.18.

Table 4.18

Summary of Multiple Regression Analysis for Variables Predicting Paternal Closeness

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	3.308	1.428		2.316	.021
BioFatherYears	.107	.069	.114	1.553	.122
FatherTransitions	-.032	.222	-.011	-.142	.887
EarlyPresence	.126	.711	.017	.177	.859
MiddlePresence	-.352	.665	-.047	-.529	.597
LatePresence	-.163	.590	-.022	-.276	.783
FamilySupport	.411	.051	.430	7.999	.000

Parental Success. The multiple regression model statistically significantly predicted

Parental Success, $F(6,566) = 2.770$, $p = .012$. There was a low degree of correlation, R = .169

and the R^2 for the overall fit of the model was 2.9%, a small size effect according to Cohen

(1988). FamilySupport added statistically significantly to the prediction, $p = .001$. The regression

coefficients and standard errors can be found in Table 4.19.

Emotional Health. The multiple regression model statistically significantly predicted

Emotional Health, $F(6,1032) = 19.988$, $p < .001$. There was a low degree of correlation, R = .323

and the R^2 for the overall fit of the model was 10.4%, a medium size effect according to Cohen

(1988). FamilySupport added statistically significantly to the prediction, $p < .001$. The regression

coefficients and standard errors can be found in Table 4.20.

Table 4.19

Summary of Multiple Regression Analysis for Variables Predicting Paternal Success

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	p
(Constant)	8.493	.276		30.77	.000
BioFatherYears	-.012	.013	-.056	-.970	.333
FatherTransitions	.013	.055	.011	.233	.816
EarlyPresence	.209	.127	.078	1.650	.100
MiddlePresence	.165	.169	.057	.979	.328
LatePresence	-.058	.169	-.016	-.344	.731
FamilySupport	.044	.014	.134	3.215	.001

Happiness. The multiple regression model statistically significantly predicted Happiness,

$F(6,1048) = 12.171$, $p < .001$. There was a low degree of correlation, R = .255 and the R^2 for the

overall fit of the model was 6.5%, a medium size effect according to Cohen (1988).

Table 4.20

Summary of Multiple Regression Analysis for Variables Predicting Emotional Health

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	5.839	.368		15.885	.000
BioFatherYears	.006	.016	.014	.348	.728
FatherTransitions	.013	.074	.006	.172	.864
EarlyPresence	-.117	.163	-.024	-.718	.473
MiddlePresence	.193	.211	.038	.915	.361
LatePresence	.207	.211	.033	.980	.327
FamilySupport	.193	.018	.322	10.849	.000

FamilySupport added statistically significantly to the prediction, *p* < .001. The regression

coefficients and standard errors can be found in Table 4.21.

No Suicide Ideation. The multiple regression model statistically significantly predicted

Table 4.21

Summary of Multiple Regression Analysis for Variables Predicting Happiness

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	3.087	.170		18.118	.000
BioFatherYears	-.003	.007	-.015	-.363	.718
FatherTransitions	-.017	.034	-.017	-.508	.612
EarlyPresence	.069	.075	.031	.921	.357
MiddlePresence	-.125	.098	-.054	-1.270	.204
LatePresence	.034	.098	.012	.341	.733
FamilySupport	-.070	.008	-.254	-8.430	.000

No Suicide Ideation, $F(6,1047) = 10.444$, *p* < .001. There was a low degree of correlation, R =

.238 and the R^2 for the overall fit of the model was 5.6%, a medium effect according to Cohen (1988). FamilySupport added statistically significantly to the prediction, $p < .001$. The regression coefficients and standard errors can be found in Table 4.22.

Table 4.22

Summary of Multiple Regression Analysis for Variables Predicting No Suicide Ideation

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	p
(Constant)	1.629	.044		36.965	.000
BioFatherYears	.003	.002	.071	1.723	.085
FatherTransitions	.014	.009	.056	1.638	.102
EarlyPresence	-.005	.020	-.008	-.244	.807
MiddlePresence	.005	.025	.009	.209	.834
LatePresence	.005	.025	.007	.194	.846
FamilySupport	.016	.002	.231	7.630	.000

No Alcohol Legal Problems. The multiple regression model statistically significantly predicted No Drinking Legal Problems, $F(6,1050) = 2.603$, $p = .016$. There was a low degree of correlation, R = .121 and the R^2 for the overall fit of the model was 1.5%, a small size effect according to Cohen (1988). The two variables FatherTransitions and LatePresence added statistically significantly to the prediction, $p < .05$. The regression coefficients and standard errors can be found in Table 4.23.

No Illegal Drug Use. The multiple regression model statistically significantly predicted No Illegal Drug Use, $F(6,1042) = 5.073$, $p < .001$. There was a low degree of correlation, R = .168 and the R^2 for the overall fit of the model was 2.8%, a small size effect according to Cohen (1988). The two variables BioFatherYears and FamilySupport added statistically significantly to

Table 4.23

Summary of Multiple Regression Analysis for Variables Predicting No Alcohol Legal Problems

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	1.150	.072		16.030	.000
BioFatherYears	.006	.003	.081	1.914	.056
FatherTransitions	.029	.014	.071	2.025	.043
EarlyPresence	-.052	.032	-.057	-1.624	.105
MiddlePresence	-.084	.041	-.089	-2.043	.041
LatePresence	-.020	.041	-.017	-.494	.622
FamilySupport	-.005	.003	-.044	-1.418	.156

the prediction, *p* = .015 and *p* < .001. The regression coefficients and standard errors can be found in Table 4.24.

Sexual Fidelity. The multiple regression model statistically significantly predicted Sexual Fidelity $F(6,707) = 2.299$, *p* = .003. There was a low degree of correlation, R = .138 and the R^2 for the overall fit of the model was 1.9%, a small size effect according to Cohen (1988). The two variables EarlyPresence and FamilySupport added statistically significantly to the prediction, *p* = .030 and *p* = .049. The regression coefficients and standard errors can be found in Table 4.25.

No Rape. The multiple regression model statistically significantly predicted No Rape, $F(6,1017) = 13.767$, *p* < .001. There was a low degree of correlation, R = .274 and the R^2 for the overall fit of the model was 7.5%, a medium size effect according to Cohen (1988). FamilySupport added statistically significantly to the prediction, *p* < .001. The regression coefficients and standard errors can be found in Table 4.26.

Table 4.24

Summary of Multiple Regression Analysis for Variables Predicting BioFather Years

Model	Unstd. Coeff. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	1.716	.155		11.065	.000
BioFatherYears	.016	.007	.102	2.431	.015
FatherTransitions	.060	.031	.067	1.917	.055
EarlyPresence	-.022	.069	-.011	-.326	.744
MiddlePresence	.006	.089	.003	.068	.946
LatePresence	-.160	.090	-.062	-1.778	.076
FamilySupport	-.034	.008	-.138	-4.471	.000

Table 4.25

Summary of Multiple Regression Analysis for Variables Predicting Sexual Fidelity

Model	Unstd. Coeff. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	1.741	.077		11.648	.000
BioFatherYears	-.001	.003	-.012	-.238	.812
FatherTransistions	-.027	.016	-.074	-1.743	.082
EarlyPresence	.077	.035	.029	2.176	.030
MiddlePresence	-.062	.045	-.073	-1.390	.165
LatePresence	.020	.046	.019	.449	.654
FamilySupport	.007	.004	.074	1.971	.049

No Parent/Adult Rape. The multiple regression model statistically significantly predicted No Parent/Adult Rape, $F(6,1016) = 14.830$, $p < .001$. There was a low degree of correlation, R = .284 and the R^2 for the overall fit of the model was 8.1%, a medium size effect according to Cohen (1988). FamilySupport added statistically significantly to the prediction, $p < .001$. The regression coefficients and standard errors can be found in Table 4.27.

Table 4.26

Summary of Multiple Regression Analysis for Variables Predicting No Rape

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	1.833	.100		18.262	.000
BioFatherYears	-.004	.004	-.037	-.885	.377
FatherTransistions	.024	.020	.042	1.210	.227
EarlyPresence	.052	.045	.040	1.156	.248
MiddlePresence	.015	.058	.011	.259	.796
LatePresence	-.039	.058	-.023	-.675	.500
FamilySupport	-.042	.005	-.261	-8.561	.000

Table 4.27

Summary of Multiple Regression Analysis for Variables Predicting No Parent/Adult Rape

Model	Unstd. B	Coeff. Std. Error	Std. Coeff. Beta	t	*p*
(Constant)	1.738	.088		19.698	.000
BioFatherYears	-.007	.004	-.080	-1.929	.054
FatherTransistions	.015	.018	.030	.876	.381
EarlyPresence	.000	.039	.000	-.005	.996
MiddlePresence	.005	.051	.005	.106	.915
LatePresence	.014	.051	.010	.283	.778
FamilySupport	-.037	.004	-.266	-8.779	.000

Comparing Absent and Present Fathers

There were 1,793 respondents with biological fathers from non-intact families but only

1,080 had fathers who lived with them during childhood for at least a year. The remaining

respondents (n = 713) did not live with their biological fathers during childhood for at least a

year. The means were compared and analyzed for all the independent variables for the *present*

fathers (1,080) who lived with their children from 1 to 18 years and the *absent* fathers who did

not live with their children (n = 713). The information for the mean comparisons can be found in Table 4.28.

The respondents whose fathers lived with them during childhood did better on the outcomes variables than the respondents whose fathers never lived with them. In comparison of the 21 dependent variables for the respondents from the absent father group, the present father group had the eighteen mean scores that were the same or higher. The four variables for the absent father group had higher mean scores included No Public Assistance, No Asthma, No Alcohol Legal Problems and No Rape. The mean scores were equal for Normal Blood Pressure and No Parent/Adult Rape. The mean scores had significant difference for Education, Household Income, Enough Money, No Recession Impact, No Public Assistance, Social Attachment, Emotional Health, Happiness, No Alcohol Legal Problems and, No Illegal Drug Use. The three highest effects as calculated, by the mean scores divided by the standard deviations, were for No Recession Impact, $d = .17$, No Alcohol Legal Problems, $d = .17$, and Household Income, $d = .16$.

Table 4.28

Comparing Means

| Variable | Mean (SD) | | t | df | *p* | d |
	Absent Father	Present Father				
Education	2.69 (.903)	2.83 (.911)	-3.219	1791	.001	.15
Employment	1.58 (.495)	1.62 (.486)	-1.762	1791	.078	.08
Household Income	8.66 (7.55)	9.85 (7.10)	-3.381	1791	.001	.16
Enough Money	2.05 (.695)	2.12 (.716)	-2.218	1776	.027	.09
No Recession Impact	2.07 (.969)	2.24 (.978)	-3.585	1772	.000	.17
No Public Assistance	1.59 (.493)	1.66 (.474)	-3.080	1770	.002	.15
Physical Health	2.65 (.996)	2.59 (.990)	1.305	1779	.192	.06
Normal blood Pressure	1.86 (.350)	1.86 (.346)	-.209	1775	.835	.00
No Diabetes	1.95 (.228)	1.93 (.247)	.908	1763	.364	.08
No Asthma	1.84 (.362)	1.85 (.353)	-.563	1772	.574	.03
Social Attachment	11.77 (3.11)	12.20 (3.10)	-2.854	1721	.004	.14
Parental Success	9.05 (1.46)	9.18 (1.34)	-1.445	954	.149	.09
Paternal Closeness	--[a] (--)	10.14 (3.77)	--	--	--	--
Emotional Health	8.28 (2.38)	8.60 (2.38)	-2.757	1735	.006	.13
Happiness	2.20 (1.09)	2.08 (1.09)	2.347	1773	.019	.11
No Suicide Ideation	1.89 (.308)	1.91 (.283)	-1.305	1771	.192	.07
No Alcohol Legal Problems	1.05 (.512)	1.13 (.451)	-3.461	1791	.001	.17
No Illegal Drug Use	1.35 (.965)	1.47 (.990)	-2.573	1791	.010	.12
Sexual Fidelity	1.78 (.416)	1.79 (.407)	-.489	1116	.625	.02
No Rape	1.33 (.651)	1.32 (.634)	.358	1719	.721	.02

No Parent/Adult Rape	1.21 (.563)	1.21 (.555)	-.050	1717	.960	.00

^a No responses for the absent father group.

Chapter 5 - Discussion and Conclusion

Overview

The data for this dissertation was a subsample (n = 1,080) of the 2,988 young adult respondents ages 18 through 39 who were raised in different types of family arrangements from the New Family Structures Study (NFSS) random sample data (Regnerus, 2012a). Regnerus (2012a, b) sought to understand how young adults raised by same-sex parents fared on a variety of social, emotional, and relational outcomes when compared to young adults raised in households with their married biological parents, single-parents, step-parents, and adoptive parents. The data were collected by Knowledge Networks from August 19, 2011 through February 21, 2012 through a probability-based web panel designed to be representative of the United States.

The purpose of this dissertation was to investigate factors related to biological father involvement and their impact on young adult child outcomes. This dissertation examined how the biological father's number of years living with his child, early, middle and late developmental periods present, transitions, and relationship quality of the adult child's childhood were correlated to the well-being outcomes of his young adult child. The well-being outcomes were selected from five distinct domains that have emerged from the research literature: 1) physical, 2) emotional, 3) social, 4) education, and 5) economic. These positive indicators provided a view of the adult child's overall well-being. Sexual health was also examined as an outcome.

Substantial progress has been made over the past 30 years in fatherhood research catching up with the on-going research on mothering and parenting. As discussed in Chapter Two there are still identified gaps in the research literature that require additional studies. These gaps include research that explores the outcomes of young adult children, the number of father

transitions in an out of the child's life, the father's presence during key developmental periods; and when a father never lives in the child's home with the child. Exploring the impact of biological father involvement on the outcomes of young adult children gives another perspective from the voice of adult children and adds to the breadth and depth of the research. Over time changing family structures introduce new challenges for fathers to stay connected and require the replication of older studies. The intent of this research is to understand the impact of the difference of the presence or absence of the biological father at different age periods on the adult outcomes of their children in various domains. This is an effort to take another step in answering these questions to make an incremental contribution to the research, theory, and practice of father involvement that may benefit child well-being.

The *Father-Adult Child Involvement Relational Outcome* (FAIRO) model was developed to provide a view of how the quantity and quality of father involvement might impact young adult child outcomes. The model was based on current research literature and various theories. The general findings supported the overall FAIRO model; however, the effect on the outcomes had varying strengths for certain components of the model. In particular, the strongest effect was from family support followed by the quality of involvement and then quantity of non-intact biological father involvement on the young adult child outcomes. The evaluation of the differences in effects for the family support, quantity, and quality of father involvement on the outcomes will be discussed as they apply to the concepts within these hypotheses. This will be followed by a discussion of the limitations and implications of this research. In closing, suggestions for future research will be presented.

Research Questions & Hypotheses

The research questions were generated to look at the associations between the quantity and quality of biological father involvement (from a non-intact biological father family structures) as a protective factor against negative outcomes for their adult children as defined by the *Father-Adult Child Involvement Relational Outcomes (FAIRO)* model (see figure 1.1). The research questions were as follows, for adult child outcomes for children with biological fathers from non-intact households:

1. How does the number of years the biological father lived with the child affect the well-being of the young adult child?

2. How does the number of biological father transitions during childhood affect the well-being of the young adult child?

3. How does father presence during different developmental periods of childhood influence the outcomes for the adult child?

   a. How does the number of developmental periods (early, middle, and late childhood) the biological father is present during childhood affect the well-being of the young adult child?

   b. How does the developmental period the biological father is present during childhood affect the well-being of the young adult child?

4. How does the relational quality of involvement of the biological father during childhood affect the well-being of the adult child?

5. How does positive family support during childhood favorably affect the well-being of the adult child?

6. How do the six variables of biological father's years with the child, number of transitions, early, middle, or late developmental periods present, and level of family support as a child jointly influence outcomes for adult children?

These research questions were addressed by testing the six hypotheses. All six of the hypotheses were at least partially supported by the data. In this section I will discuss each hypothesis and relationships present between the independent variables number of years involved, the number of transitions, the number of developmental periods present, quality of involvement, and family support and the dependent variables for the young adult outcomes.

Hypothesis I

The first hypothesis stated that "The greater the number of years the biological father is involved during childhood the more positive the outcomes are for the adult child." This hypothesis was partially supported by finding positive young adult outcomes for three of the five well-being domains including education, economic, and social health. There was a significant positive relationship with numbers of years the biological father lived with the child and 9 of the 21 outcome variables (see Table 5.1). The variables include Education, Income, Having Enough Money, No Recession Impact, No Public Assistance, Social Attachment, Paternal closeness, No Suicidal Ideation, and No Parent/Adult Rape. There were no statistically significant relationships with the remaining variables. This research has found evidence for the more time the father spent living with the child the more positive the outcomes for the young adult child.

Paternal Closeness. The strongest effect was the positive association between BioFatherYears and Paternal closeness. The social capital of the father's time invested in living with his child may build a closer relationship with the father that lasts into adulthood. The fathers in the data studied are from non-intact families. It may also be that fathers who have invested

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more time in the relationship will compensate to maintain the relationship when they stop living with their child. Research has shown that children who feel close to their father following parental divorce experience better outcomes than those who do not (Amato & Gilbreth, 1999; Scott, Booth, King, & Johnson, 2007). The current closeness to the fathers in this study may be shielding the young adult children against negative outcomes of father absence.

Table 5.1

Quantity Independent Variable Table

Independent Variables	BioFather Years	Father Transitions	Early Presence	Middle Presence	Late Presence	Periods Present
Education	.174**	-.099**	.150**	.117**	--	.131**
Employment	--	--	--	--	--	--
Household Income	.089**	--	.070*	.106**	--	.095**
Enough Money	.109**	--	.134**	.110**	--	.115**
No Recession Impact	.076**	--	.102**	.085**	--	.105**
No Public Assistance	.139**	-.113**	.079**	.093**	--	.092**
Physical Health	--	--	--	--	--	--
Blood Pressure	--	--	--	--	--	--
No Diabetes	--	--	--	--	--	.064*
No Asthma	--	--	--	--	--	--
Social Attainment	.062*	--	--	--	--	--
Parental Success	.196**	--	--	--	--	--
Paternal Closeness	--	-.142*	.093*	--	-.153**	-.126*
Emotional Health	--	--	--	--	--	--
Happiness	--	--	--	--	--	--
No Suicide	.060*	--	--	--	--	--
No Alcohol Prob.	--	--	-.076*	-.069	--	-.077*
No Illegal Drugs	--	--	--	--	--	--
Sexual Fidelity	--	-.074*	--	--	--	--
No Rape	--	.073*	--	--	--	--
No Parent Rape	-.083**	.080**				

Note: -- represents a predictor variable with no statistical significance.

__Educational Attainment__. The next strongest effect was the positive association between the number of years the biological father spent living with the child and current young adult child's Educational Attainment. Research literature indicates fathers who are involved are associated with greater academic student achievement (Biller & Kimpton, 1997; McBride,

Schoppe-Sullivan, & Moon-Ho, 2005; Nord & West, 2001). Education is viewed as an important factor in breaking the cycle of poverty and achieving financial well-being. The statistical analysis only shows association, so the reasons for the results are left to educated speculation. The result may be attributed to the more time the father lives with his child the greater the opportunities for him to be involved in his child's early education. The motivation for his involvement could be driven by social exchange theory with one benefit being not having to be financially responsible for his child for the rest of his or her lifetime.

Economic Status. The research literature has linked father absence to an increased likelihood of poverty (Angel & Angel, 1996; Brown, Cohen, Johnson, & Salzinger, 1998; Hoffmann & Johnson, 1998; McLanahan & Sandefur, 1994; Mott, Kowaleski-Jones, & Menghen, 1997). Children in father-absent homes are five times more likely to be poor (U.S. Census, 2003). The findings in this study showed the father's presence was associated with Economic Status. The economic domain consisted of the 4 variables: Income, Enough Money, No Recession Impact, and No Public Assistance. This research found positive associations between BioFatherYears and Household Income, Having Enough Money, No Recession Impact, and No Public Assistance. This is consistent with the research literature that has found children with involved fathers are more likely to have higher levels of economic achievement (Amato, 1994; Harris, Furtenburg, & Marmer, 1998). This effect may be the result of social learning in direct and indirect lessons on money management or may be associated with the academic achievement that assists in obtaining higher paying employment.

Social Attachment. This research found that the more time the father spent living with his child, the higher the adult child's Social Attachment. The literature positively correlates father involvement with children's greater sense of social competence (Dubowitz et al., 2001).

The social attachment in my research may be related to the quantity and quality of the time spent by the father in social interactions that help form a more secure attachment as a secondary or primary caregiver. Although number of years with the child was positive and significantly associated with Social Attachment, it was one of the weakest correlation among the results.

The remaining variables had no associations that were statistically significant. The reported associations that were positively statistically significant are categorized as weak using Cohen's (1988) guidelines. I had expected to see stronger correlations and with more of the outcome variables for the more number of years spent living with the biological father but his influence outside the role of the intact biological two-parent family may be weaker. Nevertheless, the number of years the biological father spent living with his child predicted more positive education, economic, and social health young adult child outcomes.

Hypothesis 2

The second hypothesis stated that "The lower the number of biological father transitions during childhood the more positive the outcomes for the adult child." This hypothesis was supported by finding positive young adult outcomes for three of the five well-being domains including education, economic, and sexual health. There was a significant negative relationship with the number of biological father transitions living with the child and 6 of the 21 outcome variables (see Table 5.1). The variables included Education Attainment, No Public Assistance, Paternal Closeness, Sexual Fidelity, No Rape, and No Parent/Adult Rape. There were no statistically significant relationships with the remaining variables.

Transitions. The research on family transitions and instability has shown the association of higher number of transitions with negative outcomes for children (Brown, 2006; Fomby & Cherlin, 2007; Magnuson & Berger, 2009; Spruijt & Goede, 1997). There is a gap in the research

literature on the impact of the number of fatherhood transitions on adult child outcomes. The NFSS matrix provided the number of years the father lived with the adult child from birth to age 18, which allowed the determination of the number of biological father transitions for this study. This research found evidence for the lower the number of biological father transitions, the more positive the adult child outcomes. The results of the biological father transitions mirror the results of those for family transitions.

Paternal Closeness. The strongest effect was the positive association between the lower number of biological father transitions and the young adult child's current closeness to his or her father. This finding parallels the research on family transitions that results in instability of the family, which likely increases stress through the disruptions and adjustments of the members (Fomby & Cherlin, 2007; Magnuson & Berger, 2009). The lower number of father transitions allow for a more stable relationship with the child with the possibility of lower stress from fewer disruptions. In this context the relationship may have an increased likelihood of growing close.

No Public Assistance. The second strongest effect was with No Public Assistance, which was only one of six economic variables that was positively statistically significant. Intuitively, it was expected that the other income economic variables would also be positively statistically significant with lower number of father transitions. However, not all those that need public assistance or are qualified to receive it, obtain assistance for a variety of reasons.

Educational Attainment. There was an association between a lower number of biological father transitions and the current young adult child's educational attainment. In comparison with the number of years the biological father lived with the child's impact on education, there was a weaker correlation between transitions and education. The disruptive effect of the transitions

may be mitigated by the impact of the benefits of father involvement while present in the home. This would be explained theoretically as a loss of social capital to the child.

Sexual Health. A recent research study revealed a positive association between transitions in primary caregivers and the likelihood of early sexual debut (Goldberg, 2013). For my research the association with the sexual health variables were that Sexual Fidelity, No Rape, and No Parent/Adult Rape were positively associated with a lower number of biological father transitions. A research study showed that the quality of the parent-youth relationship was a factor in significantly decreasing the odds of risky sexual behavior (Dimbuene & Defo, 2010). The prediction of sexual fidelity in my research may be related to the lower number of transitions contributing to a higher quality of the biological father relationship, thereby reflecting a plausible social learning connection. The diverse and complex situations in which rape can occur without any fault of the victims make it a challenge to provide theory or speculation regarding its occurrence. The interesting finding for the variables No Rape and No Parent/Adult Rape is that there were positive associations between more transitions and more rapes and parent/adult rapes experienced. The disruptions that occur with transitions may be increasing the stress and decreasing the family's social resources possibly making the family at higher risk of experiencing rape.

Hypothesis 3

Hypothesis 3a

Hypothesis 3a stated that "The higher the number of developmental periods the biological father is present during childhood the more positive the outcomes for the adult child." This hypothesis was supported by finding positive young adult outcomes for three of the five domains including education, economic status, and sexual health. There was a significant positive

relationship with the number of developmental periods the father was present during childhood and 8 of the 21 outcome variables (see figure 1.2). The variables included Educational Attainment, Income, Having Enough Money, No Recession Impact, No Public Assistance, No Diabetes, Paternal Closeness, and No Alcohol Legal Problem. This research has found some evidence for the higher the number of developmental periods the biological father is present, the more positive the outcomes for the young adult child.

The number of developmental periods present has values from 0 to 3. If the father is present during the child's life from ages 0 to 6 which represent the early category, the period gets incremented 1. The same is true for periods ages 7 to 12 (middle period) and ages 13 to 18 (late period). There is a plethora of existing father involvement research that looks at child well-being from each of the three developmental periods listed above (Dubowitz et al., 2001; Hawkins, Amato, & King, 2007, Tamis-LeMonda, Kahana-Kalman, & Yoshikawa, 2009). The gap in the research is that few studies have examined all the developmental periods that span 18 years in a single study.

Education and Economic Status. The correlation strength for the positively statistically significant relationships for the young adult outcomes were slightly stronger for the number of developmental periods when compared to the number of transitions. Educational Attainment has one of the highest Pearson r's out of the outcome variables. The higher the number of developmental periods the father is present, the higher the adult child's educational attainment. The economic domain consisted of 4 of the 5 possible variables including: Income, Having Enough money, No Recession Impact, and No Public Assistance. Each of these economic status outcome variables were positively statistically significant in relationship to the number of developmental periods.

Diabetes. There was a positive association between the higher number of developmental periods present and No Diabetes. The variable No Diabetes is one of the health measures. Diabetes is a serious disease that can lead to heart disease, stroke, eye problems, nerve damage, kidney problems, gum disease, and loss of teeth (National Institutes of Health, 2016). It is an interesting thought that in the future, engaging fathers with their children could be viewed as a public health priority, although today it is not the case. This research found a statistically significant result where the more developmental periods fathers are present, the less likely the young adult children were to have diabetes.

No Alcohol Legal Problems and Paternal Closeness. The remaining two variables that had an association with the higher number of developmental periods were No Alcohol Legal Problems and Paternal Closeness. Unlike the other variables these associations were negatively statistically significant. The higher the developmental periods present the lower Paternal Closeness and the More Alcohol Legal Problems. One theory I have for these occurrences as anomalies is that the data for these particular two developmental periods resembled the transitions data. Instead of being present for continuous years in the period there may have been skipped years that created more transitions.

Hypothesis 3b

Hypothesis 3b was related to the number of developmental periods present. The three predictor variables used in this hypothesis are dichotomous variables that either signal the father was present during the developmental periods (early, middle, or late) for at least 3 years (approximately half of the period). These independent variables showed whether a specific period present had an association with the dependent variables.

The hypothesis stated that "The earlier developmental periods the biological father is present during childhood the more positive the outcomes for the adult child." This hypothesis was supported by finding positive young adult outcomes for 7 of the 21 outcome variables for the early, and 6 for the middle predictor variables and negative young adult outcomes for one variable for the late period (see Table 5.1). There were no statistically significant relationships with the remaining variables. This research found evidence that the earlier the biological father was present during childhood the more positive the outcomes for the young adult child.

There was a significant positive relationship with the EarlyPresence and the seven outcome variables Education, Income, Enough Money, No Recession Impact, No Public Assistance, Parental Success, and No Alcohol Legal Problem. There was a significant positive relationship with MiddlePresence and the six outcome variables Education, Income, Enough Money, No Recession Impact, No Public Assistance, and No Alcohol Legal Problem. There was one negative statistically significant relationship, between LatePresence and Paternal Closeness.

If the results of the association of the seven outcome variables were the same for the predictor variables for both EarlyPresence and MiddlePresence, this would support a null hypothesis. The same is true if the middle period associations with the 6 outcome variables had higher Pearson correlations. EarlyPresence and MiddlePresence shared 6 of the same outcome variables that were positively statistically significant. The Pearson r is higher for results for EarlyPresence for 4 of the 5 variables including: Education, Enough Money, No Recession Impact, and No Alcohol Legal Problems. EarlyPresence was also positively statistically significant with ParentalSuccess. The Pearson r was higher for the results for the MiddlePresence for Income and No Public Assistance. LatePresence was negatively associated with

ParentalCloseness. The earlier developmental periods the biological father was present predicted positive young adult child outcomes.

Hypothesis 4

The fourth hypothesis stated that "The higher the relational quality of the biological father's involvement the more positive the outcomes are for the adult child." This hypothesis was supported by finding positive young adult outcomes for the dependent variables quality of relationships including: Awareness, Closeness, and Engagement. There was a significant positive relationship with the relational quality of the biological father's involvement during childhood with 15 of the 21 outcome variables 7 for Awareness, 5 for Closeness and 3 for Engagement (see Table 5.2).

Table 5.2

Quality Independent Variable Table

Independent Variables	Awareness	Closeness	Engagement	Family Support
Education	--	--	--	.131**
Employment	--	--	--	.067*
Household Income	--	--	--	.091**
Enough Money	.116*	--	--	.160**
No Recession Impact	--	--	--	.205**
No Public Assistance	--	--	--	.163**
Physical Health	-.131*	-.121*	-.138	-.234**
Normal Blood Pressure	--	--	--	.064*
No Diabetes	--	--	--	--
No Asthma	-.150**	-.124*	--	.066*
Social Attainment	.171**	.264**	.162**	.299**
Parental Success	--	--	--	.456**
Paternal Closeness	.584**	.685**	.646**	.133**
Emotional Health	--	--	--	.316**
Happiness	-.122*	-.120*	--	-.249
No Suicide	--	--	--	.223**
No Alcohol Prob.	--	--	--	--
No Illegal Drugs	-.121*	--	--	-.141**
Sexual Fidelity	--	--	--	.083*
No Rape	--	--	--	-.263**
No Parent Rape	--	--	--	-.269**

Awareness, Closeness and Engagement. The correlations for Awareness and the

outcome variables were statistically significant for Enough Money, Physical Health, No Asthma,

Social Attachment, Paternal Closeness, Happiness, and No Illegal Drug Use. The correlations for

Closeness and the outcome variables were statistically significant for Physical Health, No

Asthma, Social Attachment, Paternal Closeness, and Happiness. The correlations for

Engagement and the outcome variables were statistically significant for Physical Health, Paternal

Closeness, and Social Attachment.

While parenting awareness has been suggested to play a role in positive adolescent

outcomes, this may depend on the quality of the parent-child relationship (Yoo, Feng, & Randal,

2013). The relationship quality of the biological father as measured by Awareness predicted

more positive outcomes variables for Enough Money, Physical Health, No Asthma, Social

Attachment, Paternal Closeness, Happiness, and No Illegal Drug Use. Paternal Closeness had

comparatively a very high correlation ($r = .584$), which Cohen (1988) classifies as a large effect.

Social Attachment ($r = .171$) had the second highest correlations followed by No Asthma ($r = .150$), Physical Health ($r = .131$), Happiness ($r = .122$), and No Illegal Drug Use ($r = .121$). In

one study the benefit of closeness to the non-resident father was the children exhibiting lower

levels of emotional distress (Stewart, 2003). Closeness predicted more positive outcome

variables for Physical Health, No Asthma, Social Attachment, Paternal Closeness, and

Happiness. Paternal Closeness and Social Attachment had the highest correlations ($r = .685$ and $r = .264$, respectively). Engagement predicted more positive outcomes for Paternal Closeness ($r = .646$), Social Attachment ($r = .162$), and Physical Health ($r = .138$). The higher the quality of the

father involvement relationship during childhood the closer the child will likely be to his or her father in adulthood.

In comparing quantity and quality, the quantity of father involvement independent variables were mostly associated with demographic variables with one exception. The quality of father involvement variables were mostly associated with the non-demographic variables with one exception. The quality of father involvement variables had fewer significant associations but most of the correlations were stronger than for the quantity of father involvement variables.

Hypothesis 5

The fifth hypothesis stated that "The more positive the family support during childhood the more favorable the adult child outcomes." There was support for this hypothesis from the results of the Pearson r correlations in Table 4.8. There was a significant positive relationship with the Family Support during childhood for 19 of the 21 outcomes (see Table 5.2). Research on family support has demonstrated the influence of family support on a wide range of outcomes. Examples are studies that have shown associations with educational outcomes and as a protective factor against substance abuse and antisocial behavior (Cheng, Ickes, & Verhotstadt, 2012; Schofield, Conger, Martin, Brody, Simons, & Cutrona, 2012; Warner, Krebs, & Fishbein, 2008). The results of the Family Support independent variable were the most salient among the results of the other independent variables. Not only were there more associations with the dependent variables but correlational values overall were higher. All six of the well-being domains were included in this, including Educational Attainment, Economic Status, Physical Health, Social Attachment, Emotional Health, and Sexual Health.

Educational Attainment and Economic Status. The correlation for Family Support was statistically significant for Educational Attainment. The higher the level of Family Support the

higher the Educational Attainment. The economic domain consisted of all five of the possible variables including: Employment, Income, Having Enough Money, No Recession Impact, and No Public Assistance. Notable results were Employment and Low Recession Impact. Besides Family Support, no other dependent variable had a statistically significant association with employment ($r = .067$). No Recession Impact had the highest correlation value ($r = .205$) among these variables. Each of these economic status outcome variables were positively statistically significant in relationship to the level of family support.

   Physical Health. The correlation for Family Support was statistically significant for Physical Health. The higher the level of family support the higher the physical health. The economic domain consisted 3 of the possible 3 variables including: Physical Health, No High Blood Pressure, and No Asthma. No other dependent variable had a statistically significant association with 3 of the physical health variables. Each of these physical health outcome variables were positively statistically significant in relationship to the level of family support.

   Social Attachment, Paternal Closeness and Parental Success. The correlation for Family Support was positively statistically significant for Social Attachment, Paternal Closeness, and Parental Success. No other dependent variable had a statistically significant association with all three of these variables. Social Attachment and Parental Success had the highest correlational values among all the dependent variables ($r = .299$ and $r = .133$). Paternal Closeness had a correlation of r = .456. The higher the Family Support for the young adult children the more likely they were socially attached, successful as parents and closer to their father as adults.

   Emotional and Sexual Health. The correlation for Family Support was positively statistically significant for Emotional Health, Happiness, No Suicidal Ideation, No Illegal Drug Use, Sexual Fidelity, No Rape, and No Parent/Adult Rape. No other dependent variable had a

statistically significant association with Emotional Health whose correlation was as high, $r =$ .316. No Rape ($r = .263$), No Parent/Adult Rape ($r = .269$), and Happiness ($r = .249$) had higher correlational values when compared to the other dependent variables. The other variables' correlational values were No Illegal Drug Use ($r = .141$), Sexual Fidelity ($r = .083$), and No Suicidal Ideation ($r = .223$). The research literature has shown high family support can moderate the risk of suicide among at-risk youth (Sharaf, Thompson, Walsh, 2009). Family support is associated with more emotional health, happiness, sexual fidelity and being less likely to use drugs, think about suicide, experience rape, or experience rape by a parent or another adult.

Hypothesis 6

The sixth hypothesis stated that "Adult child outcomes will be related to the main effects of the independent variables: biological father's years with the child, number of transitions, early, middle or late developmental periods present, and family support as a child and the dependent variables of adult child outcomes." Multiple regression was used to examine the relationship between 21 outcomes variables and the potential 6 predictor variables, BioFatherYears, FatherTransitions, EarlyPresence, MiddlePresence, LatePresence, PeriodsPresent and FamilySupport in this hypothesis (see Table 5.3).

BioFatherYears. The independent variable BioFatherYears was included in the model to predict the 21 outcome variables. The quality of the predictions of the independent variables for Educational Attainment, Social Attachment and No Illegal Drug Use was weak. BioFatherYears added statistically significantly to the predictions ($p < .001$, $p = .015$, $p = .015$), after controlling for the other variables in the model. The unstandardized coefficient (B) for BioFatherYears

predicted that for every increase of one year was associated with a .022 increase in the level of Education, a .051increase in the level of Social Attachment and a .016 increase in the level of No Illegal Drug Use.

I have heard numerous times as a fatherhood practitioner, just because a father is in the home does not mean that he is present. The quantity of the time spent with the children may not

Table 5.3

Multiple Regression Statistically Significant Predictor Variables

Independent Variables	BioFather Years	Father Transitions	Early Presence	Middle Presence	Late Presence	Family Support
Education	$p < .001$	--	$p < .001$	--	--	$p < .001$
Employment	--	--	--	--	--	--
Household Income	--	--	--	--	--	$p = .001$
Enough Money	--	--	$p = .003$	--	--	$p < .001$
No Recession Impact	--	--	$p = .011$	--	--	$p < .001$
No Public Assistance	--	$p = .028$	--	--	--	$p < .001$
Physical Health	--	--	--	--	--	$p < .001$
Blood Pressure	--	--	--	--	--	--
No Diabetes	--	--	--	--	--	--
No Asthma	--	--	--	--	--	$p = .040$
Social Attainment	$p = .015$	--	--	--	--	$p < .001$
Parental Success	--	--	--	--	--	$p = .001$
Paternal Closeness	--	--	--	--	--	$p < .001$
Emotional Health	--	--	--	--	--	$p < .001$
Happiness	--	--	--	--	--	$p < .001$
No Suicide	--	--	--	--	--	$p < .001$
No Alcohol Prob.	--	$p = .043$	--	$p = .041$	--	--
No Illegal Drugs	$p = .015$	--	--	--	--	$p < .001$
Sexual Fidelity	--	--	$p = .030$	--	--	$p = .049$
No Rape	--	--	--	--	--	$p < .001$
No Parent Rape	--	--	--	--	--	$p < .001$

Note: -- represents a predictor variable with no statistical significance.

be as influential. These results hint at support of this idea; however, there may be something else happening. These biological father in non-intact families may not actually be spending as much time as reported. That difference may occur because living four months out of the year with the child was the criteria for being credited with having lived with the child for that one year. There

were 59.4% (n =641) who lived 9 years or less (at least half the childhood) with their child during childhood, 12.2% (n = 132) spent 18 years and 19.8% (n = 214) spent a year or less. In some cases, there may have been an over count of the number of years the biological father lived with the child. In the extreme case a father could only spend 6 actual years (4 months x 18 years) living with the child but it would have been reported as 18 years. There was no way to account for these cases using the NFSS dataset.

Compared to the other independent variables BioFatherYears had added statistically significantly to the third most number of predictions. The higher values of BioFatherYears tended to be associated with a higher level of Educational Attainment, Social Attachment, and No Illegal Drugs. These are important and diverse outcomes yet only represent 3 of the 21 outcomes variables. For all other dependent variables BioFatherYears did not add statistically significantly to the predictions.

FatherTransitions. The independent variable FatherTransitions was included in the model to predict the 21 outcome variables. Weak but significant associations were found between Father Transitions and the outcome measures of No Public Assistance and No Alcohol Legal Problems. FatherTransitions added statistically significantly to the predictions ($p = .028$, $p = .043$), after controlling for the other variables in the model. The unstandardized coefficient (B) for FatherTransitions predicted that for every increase of one year was associated with a .033 increase in the level of No Public Assistance and a .029 increase in the level of No Alcohol Legal Problems.

In conjunction with the family transition research, the lower the number of FatherTransitions was expected to predict better adult child outcomes. The research found that the prediction power was weaker than expected. The same problem with the counting of the

number of years (four months may represent a year) may be contributing to an inaccurate count of transitions. In some cases, there may have been an undercount of transitions. The range for the FatherTransitions was 1-9, the mean number of transitions was 2.5 and 56% (n = 605) had one or two transitions. The maximum count for number of transitions occurs at a rate of one per year. In the extreme case under the year counting criteria the rate could triple to three per year. There was no way to account for these cases using the NFSS dataset.

This research gives us a hint at the potential findings of the influence of a father's transitions on the associations with the well-being of the adult child. This important topic needs to be investigated further using an alternate dataset to the NFSS. The lower values of FatherTransitions tended to be associated with a lower level of public assistance and alcohol legal problems. These are 2 of the 21 outcome variables are from the Economic Status and Emotional Health domains. For all other dependent variables FatherTransitions did not add statistically significantly to the predictions.

EarlyPresence. The independent variable EarlyPresence was included in the model to predict the 21 outcome variables. Weak but significant associations were found between EarlyPresence and the outcomes of Education, Enough Money, No Recession Impact and Sexual Fidelity. EarlyPresence added statistically significantly to the predictions ($p < .001$, $p = .003$, $p = .011$, $p = .030$), after controlling for the other variables in the model. The unstandardized coefficient (B) for EarlyPresence predicted that for every increase of one year was associated with a .229 increase in the level of Education, a .151 increase in the level of Enough Money, a .174 increase in the level of No Recession Impact, and a .077 increase in the level of Sexual Fidelity.

Compared to the other independent variables EarlyPresence had added statistically significantly to the third most number of predictions. The higher values of EarlyPresence tended to be associated with a higher level of educational attainment, having enough money, not being impacted by the recession and sexual fidelity. For all other dependent variables EarlyPresence did not add statistically significantly to the predictions.

MiddlePresence. The independent variable MiddlePresence was included in the model to predict the 21 outcome variables. A weak but significant correlation was found between MiddlePresence and the outcome variable No Alcohol Legal Problem. MiddlePresence added statistically significantly to the prediction ($p = .041$), after controlling for the other variables in the model. The unstandardized coefficient (B) for MiddlePresence predicted that for every increase of one year was associated with a .084 increase in No Alcohol Legal Problem.

The number of fathers involved during the middle period dropped almost half to 33.1% (n = 358). There was a dramatic drop in the number independent variables predicted by MiddlePresence compared to the four for EarlyPresence. This result provides further support for hypothesis 3a that stated, "The earlier developmental periods the biological father is present during childhood the more positive the outcomes for the adult child." Being involved later has lower prediction power for outcomes of adult children. This reinforces the message of fathers getting involved early and staying involved. The higher values of MiddlePresence tended to be associated with a lower level of an alcohol legal problem. For all other dependent variables MiddlePresence did not add statistically significantly to the predictions.

LatePresence. The number of fathers involved during the late period dropped again by almost half to 17.2% (n =186). The independent variable LatePresence was included in the model to predict the 21 outcome variables. LatePresence did not add statistically significantly to

the predictions after controlling for the other variables in the model. This result is also supportive of earlier developmental periods being associated with more positive adult child outcomes. This suggests that a father's late involvement (LatePresence) has no predictive power for any of the dependent variables. This is an interesting result that requires further investigation. This extreme finding hints at the possibility that late involvement (ages 13-18) is too late to make a difference in the outcomes of the children. The fathers who are involved later may have difficulty in making up the difference in outcomes by increasing their involvement because of the challenges of time and a weaker relationship.

FamilySupport. The independent variable FamilySupport was included in the model to predict the 21 outcome variables. Moderate and significant correlations existed between FamilySupport and the outcome variables of Education, Household Income, Enough Money, No Recession Impact, No Public Assistance, Physical Health, No Asthma, Social Attachment, Parental Success, Paternal Closeness, Emotional Health, Happiness, No Illegal Drug Use, Sexual Fidelity, No Rape and No Parent/Adult Rape were weak but existed. FamilySupport added statistically significantly to the predictions (mostly at $p \leq .001$), after controlling for the other variables in the model. The strongest prediction was for Paternal Closeness. The unstandardized coefficient (B) for FamilySupport predicted that for every increase of one year was associated with a .411 increase in the level of Paternal Closeness.

The higher values of FamilySupport tended to be associated with a higher level of educational attainment, household income, enough money, no recession impact, no public assistance, physical health, no asthma, social attachment, parental success, paternal closeness, emotional health, happiness, no illegal drug use, sexual fidelity, no rape, and no parent/adult rape. For the remaining dependent variables Employment, Normal Blood Pressure, No Diabetes

and No Alcohol Legal Problems, Family Support did not add statistically significantly to the predictions.

Family Support stood out among all the rest of the independent variables. While I expected Family Support would be significantly associated with the young adult child outcomes my expectations were exceeded. The Family Support scale was constructed by four questions about the family related to security, love, happiness and peace. The Family Support variable was positively statistically significantly associated with nineteen of the twenty-one outcome variables. This suggests that Family Support makes a significant difference in the outcomes of young adult children. Further research is required here to find out what specifically about Family Support produces these results and if it is possible to use these findings to strengthen fathers and families. It is also worth further research to determine if FamilySupport mediates relationships between demographic variables and child outcomes.

Summary. The multiple regression model did not statistically significantly predict Employment Status, Normal blood Pressure, or No Diabetes. However, as reported in the paragraphs above, the multiple regression model did statistically significantly predict Education Attainment, Household Income, Enough Money, No Recession Impact, Physical Health, No Asthma, Social Attachment, Parental Success, Paternal Closeness, Emotional Health, Happiness, No Suicide Ideation, No Alcohol Legal Problems, No Illegal Drug Use, Sexual Fidelity, No Rape, and No Parent/Adult Rape. These results are enough evidence to reject the null hypothesis. The young adult child dependent variables were related at least some of the time to the main effects of the independent variables: biological father's years with the child, number of transitions, early, middle or late developmental periods present and family support.

Limitations

The New Family Structures Study with its usage of the family history information matrix has been recognized as a rich source of data; however, there were some potential limitations in this research study. These potential limitations include partisan funding, partisan researchers, a knowledge network sample, use of secondary data, social desirability response bias, and missing data.

The funding of the NFSS was supported in part by grants from the Witherspoon Institute and the Bradley foundation. These foundations are known for their support of conservative causes. Additionally, many of the researchers involved would also be viewed as conservatives. Regnerus (2012a) self-disclosed the fact about the funding in the original study and attempted to reassure the research community that the funding sources played no role in the design or conduct of any aspect of the study or manuscript. In that climate and the present research climate it is necessary to make stronger attempts to find non-partisan funding for research or a planned collaboration of funding and research that is supported by both sides.

The data was conducted by Knowledge Networks (KN) that created an online research panel for academic projects. The members of this online research panel were randomly recruited by telephone and mail surveys, and households were provided internet access and computers if needed. The online research panel is designed to simulate a random, nationally-representative sample of the US population. KN's online research panel compares well with other nationally-representative samples. A potential limitation is that the members of the online research panel are sent emails three to four times a month inviting them to participate in a research projects. Another problem is related to *panel attrition*, or people dropping out of the panel (Dillman, Smyth, & Christian, 2009). This attrition can reduce the sample size, make the panel less

representative of the target population and can contribute to nonresponse error (Dillman, Smyth, & Christian). A strategy to replace those who drop out with someone with similar demographics could lessen the impact of attrition. A second problem is *panel conditioning*, a term that refers to the tendency for respondents to answer survey questions differently because of participation in previous surveys (Dillman, Smyth, & Christian). This conditioning can be problematic in respondents giving less than optimal responses, or if one survey influences the way another survey is answered, or in the most extreme case behavior is changed because of a previous survey (Dillman, Smyth, & Christian). A strategy to minimize the possibility of these problems is that panel members could be retired after a certain period or when showing poor response behavior.

The survey for the NFSS was designed to collect the data necessary to support their specific research inquiries. My usage of the NFSS as secondary data has the potential limitation that the data were not collected with the questions I needed to ask of my respondents, using the variables, data type and variations in the scales I wanted to measure. While initially researching the usage of NFSS for this dissertation I was using an incomplete codebook I retrieved from the University of Texas Austin website that did not contain the variables I needed. Before I decided against using the NFSS I did an internet search for another codebook. I found a complete online codebook at the Association of Religion Data Archives (ARDA) website. The NFSS data was used in this research because it was a recent large nationally representative dataset, the items to measure the quality of the relationship with the parents, the different family structure households, and the collection of 40 young adult child outcomes as reported by adult children. One solution to the limitation of secondary data would be to collect nationally representative data; however, the cost could be prohibitive. An alternative is looking for other secondary data

that may have better research questions, variables, and scales that align with the researcher's need.

The 40 young adult child outcome variables used in the NFSS were obtained by survey questions that involved many socially sensitive issues such as rape, alcohol and drug use, parenting, and personal health. Social desirability response bias refers to the tendency of survey respondents to be seen in a positive light rather than being associated with negative issues. A limitation of the study is that respondents may have not given accurate responses as a result of social desirability response bias, which was not measured directly in the NFSS.

The most serious potential limitation was the missing data in the NFSS that can affect results. Missing data can be caused for many reasons. Common reasons for missing data include the respondent's refusal to answer a question for privacy, not understanding the question, their desired response is not an option presented, and a loss of interest or survey fatigue. The possible problems that could occur are not having enough data to perform the analysis, or because of the small amount of data the results may not be statistically significant, or the data are not a random sample of all cases. For my research the variable Parent2 was used to identify the parent who has spent the second most time living with the child. For respondents raised in intact biological two-parent families the father was Parent2 (n = 1195). For respondents raised in non-intact biological parent families the father was the second highest Parent2 (n = 173) compared to mother's boyfriend (n = 176) and the stepfather (n = 124). There were 931 missing responses for Parent2. The reasons for this missing data could be one of the common reasons listed above but the most likely reason is that there was no second parent in the view of the respondent. The potential impact for research is the possibility that the data is not a random sample of all cases.

Implications

This research adds to the consensual base of knowledge that the role of a father is important to his child. Research articles over the past fifty years stand united as an anthology of the most important work men can perform – high quantity and quality involvement in the lives of their children. This is not in competition with the critical importance of mothers and other adults but complementary. The need for this fatherhood research is due to the large gap in comparison to research on the role of mothers that has been closing over this fifty-year period. In this section the discussion of the implications of this research will cover the transition of father absence and presence, the impact of quantity and quality biological father engagement, the powerful influence of family support, the importance of early father involvement, the danger of the message that fathers are not necessary, and recommendations to family life educators to approach father involvement.

Father Absence and Presence. Intuitively the biggest impact of a transition would be the biological father's permanent absence from his child's life. This section begins with reviewing the results of the mean comparisons of the outcomes for the father absence group and the father present group before looking at transitions.

It is estimated that 27% (over 20 million) children live absent their biological father or nearly one third of fathers live absent their biological children (U.S. Census, 2010). There were 1,793 respondents with biological fathers from non-intact families but only 1,080 had fathers who lived with them during childhood for at least a year. Using rounding, 40% (n =713) of the respondents spent their entire childhood in a household with their biological father absent. In comparison of the 21 dependent variables for the respondents from the absent father group, the present father group had the eighteen mean scores that were the same or higher. The three

highest effects as calculated, by the mean scores divided by the standard deviations, were for No

Recession Impact, $d = .17$, No Alcohol Legal Problems, $d = .17$, and Household Income, $d = .16$.

These results clearly show the advantage of the presence of the father on the outcomes of the

adult children. The research literature is consistent with these results for negative outcome

associations with father absence (McLanahan & Sandefur, 1994; Angel & Angel, 1996; Mott,

Kowleski-Jones, & Menghen, 1997; Hoffmann & Johnson, 1998; Brown, Cohen, Johnson, &

Salzinger, 1998) and positive outcome associations with father presence (Mosely & Thompson,

1995; Biller & Kimpton, 1997; Nord & West 2001; Amato & Rivera, 1999). From this research

we can deduce that there are cases that a conflictual absent father will result in better outcomes

for the adult child. The results of this study hint at this deduction in cases where the means for

three outcomes were the same or higher for the father absent group.

Number of Father Transitions. This research found some evidence for the lower the

number of biological father transitions the more positive the adult child outcomes. This research

was supported by finding positive young adult outcomes for 6 of the 21 outcome variables. This

supports the need for more research to close the gap in the literature on the impact of the number

of fatherhood transitions on adult child outcomes. How do these findings parallel the research on

family transitions that result in instability of the family that likely increases stress through the

disruptions and adjustments of the members (Fomby & Cherlin, 2007; Magnuson & Berger,

2009)? A notable finding was that the sexual health variables Sexual Fidelity, No Rape, and No

Parent/Adult Rape were positively associated with a lower number of biological father

transitions. Besides FatherTransitions, the only other dependent variable that had an association

with on all three sexual health variables was Family Support. What is the impact of transitions on

the overall family system that makes it more vulnerable to rape? There is a need for further

research to determine the connection between transitions and rape to possibly reduce the risk of children, adults and families facing the deleterious experience of rape.

Quantity of Father Involvement. There has been a debate about the difference between quantity of the time fathers spend with their children and the quality of that time. The quantity and quality of father involvement were explored for the associations on the outcomes of young adult children. The findings of this research showed that both quantity and quality of the father involvement had a positive statistically significant association with a number of the young adult outcomes. However, there was a difference. The quantity related independent variables had more significant correlations to the demographic variables such as education, employment, and income when compared to the quality variables. The number of years the father is present during childhood (BioFatherYears) and the number of developmental periods present from 0 to 3 (PeriodsPresent) were positively and significantly associated with almost half of the young adult outcomes. The exceptions were with the independent variables Late Presence and Family Support. Late Presence was only associated with one dependent variable. This extreme finding hints at two possibilities. The first is that late involvement (ages 13-18) is too late to make a difference in the outcomes of the children. The other implication is that fathers who only become involved later in a child's life may have greater difficulty making up the differences in child outcomes related to their earlier absence from the family.

Quality of Father Involvement. The quality related independent variables had more significant correlations with the non-demographic variables. The dependent variables included Physical Health, No Asthma, Social Attainment, Happiness, No Illegal Drugs, and Paternal Closeness. While the quality of the father involvement variables had fewer significant associations, most of the correlations were stronger than for the quantity variables. The outcome

variables that were more often associated with the quality variables, in my opinion are key to the overall well-being of children. I was surprised not to see more of the demographic variables related to education, employment, and income not correlated to the quality variables.

Family Support. The one independent variable that stood out among all the rest of the variables was Family Support. While I expected Family Support would be significantly associated with the young adult child outcomes my expectations were exceeded. The Family Support variable was associated with almost all of the dependent variables. The Family Support scale was constructed by four questions about the family related to security, love, happiness, and peace. The results from this scale had positively statistically significantly associations with nineteen of the outcome variables. Further research is required here to find out what specifically about Family Support produces these results and if it is possible to use these findings to strengthen fathers and families.

The family support scale can have different meaning to respondents based on their gender and age differences. For example, it is possible that family support might have had more impact because of better recall accuracy for those items than for demographics, some of which occurred before a child could remember them on their own; which likewise might explain some of the weaknesses of the demographic variables. One issue might be that younger participants (e.g., age 19) might recall their youth more accurately than older participants (e.g., age 39). It is also possible that their definition of what family support means can evolve with their developmental stages of life.

The quantity of father involvement variables was mostly associated with the demographic outcomes variables and quality of father involvement variables mostly associated with the non-demographic outcome variables. It is interesting that the quality Family Support variable was

associated with both of them. This prompts me to speculate whether the Family Support scale may be the reason. In future research I would like to see a quality of father involvement scale that is parallel to the Family Support scale, asking similar questions to father involvement. Another important future research issue is using Family Support and other variables as may be intervening or mediating variables between the demographic factors and the outcomes factors.

Importance of Early Father Involvement. This research found that there was a statistically significant positive association between early father involvement, living with the child at least three years during the period of birth through age 6 and positive outcomes for the child. There were few outcomes with weaker associations for middle father involvement during the period of 7 to twelve years old. For late father involvement over the period of 13 to 18 there were no significant associations for positive adult child outcomes.

There were 59.4% (n = 642) of the fathers who were present during the early period. The above results suggest that earlier father involvement is associated with positive adult child outcomes. This is consistent with the research literature and an important support of prevention strategies to get fathers to become involved early with their children. Early involvement is the strategy behind the federal programs including Healthy Start, Head Start and Early Head Start.

These findings are supported by previous research. One study suggested early father involvement had direct and indirect effects on the child's language and cognitive development (Tamis-LeMonda, Shannon, Cabrera, & Lamb (2004). Another research study showed father involvement through caregiving was the most significant predictor of secure infant attachment and later high self-esteem (Caldera, 2004). Getting fathers involved very early with their children increases the likelihood of continued involvement (Roggman, Boyce, Cook, & Cook, 2002). Studies are showing that children who attend Head Start and Early Head Start, which promote

early father and mother engagement, do better in their development than children who do not attend (Fenichel & Mann, 2001; Lee, Brooks-Gunn, Schnur, & Liaw, 1990).

As a fatherhood practitioner I have been involved in more intervention work than prevention. Yet, I have found truth in the statement of prominent abolitionist Frederick Douglass, "It is easier to raise healthy boys than repair broken men." My short tenure working for the state of Kansas as the director of Addiction and Preventions Services helped me understand the strategic framework of prevention. The benefits of early father involvement are clear. Assisting fathers to get involved early in their child's life is a prevention strategy. This research reinforces the need to provide encouragement and education to fathers in all fathering circumstances and situations to be involved early, starting prenatally, and staying involved for a life time. Early father involvement is another research topic whose benefits warrant more research investigation using other nationally representative datasets.

The Danger of the "Fathers are not necessary" Message. The majority of the NFSS participants see the necessity of fathers. The NFSS participants (n = 2,988) responded to some statements to share their opinion on various topics. One of the statements was, "Children are more likely to do well in life if they have a relationship with their father." There was a five-point Likert scale that ranged from Strongly Agree to Strongly Disagree. Over two-thirds of the respondents (68%) agreed or strongly agreed with the statement.

The cultural norms of the early 1990's have shifted, but the idea that fathers are not necessary is still out there. As discussed in Chapter Two, eighteen years later the idea of the dispensability of fathers continues to live on with the support of some researchers. As researchers we need to be wary of the unintended consequences of research questions which continue to be scientifically investigated becoming "cultural truths" prematurely. In my view

social scientists bear the responsibility to do no harm and when we follow our own guidelines, others are protected.

The question, "Are fathers necessary?" from "experts" can become in the minds of fathers a conscious or subconscious justification for not being involved in the lives of their children. This is especially true of fathers who may be marginalized, with access to fewer resources, and facing mounting challenges of survival that make it easy to be distracted from other intentions or responsibilities. There has been a deluge of research findings, as in this dissertation, that show a significant positive association between father involvement and positive outcomes for children. Social scientists are the heralds of the findings in these studies and support the practitioners with research, theory, and recommended practices to assist families.

Family Life Education

My research focused on the non-intact biological father family using the NFSS data containing information on many different family structures. The field makes room for family life education to address the needs of diverse individuals and families with differing structures and values across the life span (Arcus, Schavneveldt, & Moss, 1993). Family life education for the intact biological two parent family needs to continue and grow, especially since the majority of children live in this family structure (U.S. Census Bureau, 2010). The other area that needs an explosion of growth is educational help with the individuals in the family, specifically the father and his role. The recommendations for family life educators based on the findings and needs of fathers are adding value to fathers, fathering education, and intensive relationship education.

Adding Value to Fathers. The first recommendation is critically important for family life educators to counter-culturally view and treat fathers, when the culture dehumanizes fathers by treating them like a paycheck. Generativity is defined by Roy & Lucas (2006) as an inward

parental drive to be fulfilled, but it also is a cultural pressure that society demands. This is reflected in terms such as "responsible fathering" and "deadbeat dads." These terms suggest norms for evaluating fathers' behaviors that convey a moral meaning of right and wrong (Rodgers & White, 2009). The culture is using terms that convey the value society places on the role of the father. While fathers are appalled by some of the terminology, many value their role as a father. This is especially important for low-income fathers who may be making efforts to be good fathers but simply cannot afford to pay for the support of their child. They are assumed to be "deadbeat" fathers when they may actually be "dead broke" (Roy, 1999). These policies that are designed to promote financial involvement of low-income fathers may actually discourage father involvement altogether (Roy). Even though fathers may understand that they are more than a "dollar Bill" (Roy) to their children they still understand their responsibility and that "you can't eat love" (Roy, 2004). Family life educators have a great opportunity to take a strength-based approach in celebrating the efforts of the fathers, while encouraging them to do more.

Fathering Education. From my own personal and professional life experience, I believe one of the most important efforts of a family life educator for helping fathers is providing men with the education they need to become better fathers. In the prologue of this dissertation I shared my experience as a first time father. I did not know what to do; I wanted someone to tell me; but I never asked the question, would you tell me how to be a good father? In nearly two decades of working with fathers (mostly father in challenging circumstances and situations) all wanted to be better fathers, but most did not know how. A young man's quote spotlighted the need for education, "How can go another way unless you know another way?" I have also seen this need for information cut across differences in race, ethnicity, sexual orientation, religion, and social economic status.

In conducting this research, part of me was not surprised by the results that showed a weaker influence of fathers. The challenges of the diversity and complexity of being a man in American society alone are enough to derail efforts at effectiveness, not to mention adding the issue of ignorance about effective fathering. There are undoubtedly large numbers of fathers in American who are strongly influencing positive outcomes for their children, but there may be a large number of fathers who are not. Part of this issue can be attributed to how social learning takes place. A father absent rate impacting over 40% of US children (US Census, 2010) puts millions of males at risk of growing up without a significant positive model of manhood or fatherhood.

One of the greatest challenges of fathering education is bringing the education to the men who need it and want it but will not ask for it. Few men will attend a class. This education needs to reach men where they are, be relevant, engaging, easy to understand, and practical to apply. And this is the challenge and opportunity family life educators have before them. The benefits hold promise to be transformative for children, families, and communities.

Intensive Relationship Education. More intensive family life education is another recommendation that resonates as critical when coupled with the statistical data on non-marital childbearing rates, especially for African Americans of 68.5% (Hamilton, Martin, Ventura, & Sutton, 2005). There is a significant positive association between relationship quality and father engagement among nonresidential and nonromantic parents (Fagan & Palkovitz, 2011). The fathers that were examined in this dissertation all were from non-intact biological parent families. As family life educators I think we need to make widely available to fathers educational relationship classes to assist men in building, maintaining, or repairing of healthy respectable relationships with the child's mother. Roy and Dyson (2005) used of the term "Baby Mamma

Drama" highlighted the conflictual relationship that motivates the concept of maternal gatekeeping. In other words, the mother's efforts to monitor, discourage or encourage, deny or grant access to a father are critical (Allen & Hawkins, 1999). These important father-child interactions have the potential to intimately shape the nature of paternal involvement (Allen & Hawkins). Family life educators can assist fathers, especially non-resident fathers, learn to open the gate of access to their children and how to keep it open.

Suggestions for Future Research

This dissertation was a first step in adding literature on the impact of the quantity and quality of biological father involvement on young adult outcomes. While working on this dissertation I identified a few areas for future research that I think could benefit the field of fatherhood within family studies. These suggestions for future research are proposed to use the same NFSS data to research the gender differences in the outcomes of the adult children, make comparisons of the impact of differing fathering types from different family structures for young adult outcomes and between single mothers and single fathers.

Gender of the Adult Children. While conducting this research I wondered if the gender of the adult child would have made a difference on the influence of the quantity and quality of father involvement. A suggestion for future research using this same dataset is to take this research one step further by re-analyzing the data by gender. I was especially interested in the difference of association on the outcomes of social attachment, emotional health, paternal closeness, parental success, and sexual health. Research findings have shown similar correlations for prosocial and moral behaviors for boys and girls (Mosely & Thompson, 1995). Other research has shown differences, such as, in father absent homes boys are more likely to be more

depressed and girls are more likely to become overly dependent (Mott, Kowaleski-Jones, & Menaghen, 1997).

Differing Father and Family Types. For my research there were three main categories of the father and family structures which included fathers in the intact biological two-parent family, fathers in the non-intact biological father family and substitute fathers (i.e. stepfathers, mother's boyfriend or adoptive fathers) in non-intact families. The research question would be, "How do the young adult child's outcomes of fathers from my research compare with fathers in the two other groups?" The results from my research for the non-intact biological father families would be compared for the intact biological two-parent families and the substitute father non-intact families. Would adult child outcomes for intact biological father families have a stronger association with the outcomes than my research results? Would the substitute father family have a weaker association with outcomes than my results? The results of this suggested research could either confirm the importance of the role of the biological father and the intact biological father family structure or show substitute fathers and other family structures are associated with equal or better outcomes.

Single mothers and Single fathers. Demographers have noted a sharp growth in U.S. single parent households since the early 1960s. These households consisted largely of single and divorced mothers. Since that time these 1.9 million single mother households has increased more than 4 times to 8.6 million single mother households, in 2011, from 1.9 million in 1960 (Pew Research Center, 2013). In 1960, the number of single father households was less than 300,000; in 2011, that number increased nine times to more than 2.6 million (Pew Research Center). Today men are making up a growing share of the number of single parent households. In comparison to 1960 when about 14% of single parent households were headed by fathers, today

that number is 24% (Pew Research Center). In my analysis of the research data there was a noticeable number of young adult children who spent more time living with their fathers than their mothers. The growing number of single parents was reflected in the NFSS data. The NFSS data can be used to identify single parents and make comparisons of the quantity and quality of biological mother and father involvement and the young adult child's outcomes. The Pew Research Center report data was analyzed from Decennial Census and American Community Survey and showed that single fathers were younger and less educated.

The NFSS dataset is a rich source of data that is capable of meeting the requirements of future research projects; however, some research needs go beyond the limitations of the NFSS dataset. Future research suggestions using other nationally representative datasets could be in exploring (1) whether two mothers are better than a mother and father, and (2) whether gender is an important factor in parenting and are different measures required for mothers and fathers?

Two Mothers vs. Father and Mother. Research has made consensual claims that same-sex parenting, particularly for lesbian mothers, has shown better outcomes for children (Biblarz & Stacey, 2010). Some of the more recent studies are using random and nationally representative data along with stronger research methodology but closer investigations are revealing challenges that still need to be addressed (Wainright, Russell, & Patterson, 2004; Wainright & Patterson 2006, 2008; Biblarz & Stacey, 2010; Biblarz & Savci, 2010; Rosenfeld, 2010, 2015). There is also a growing number of robust studies that are challenging the no-difference conclusions (Allen, 2013; Allen, Pakaluk, & Price, 2013; Sullins, 2015a, 2015b, 2015c; Regnerus, 2012a, Schumm, 2011).

Different Gender Measures for Mothers and Fathers. There has been a reversal among some social scientists who were once proponents of the unique contributions of fathers in child

development and well-being. Prominent researchers Lamb (1997) and Pruett (2000) have expressed reservations about the importance of the parent's gender in effective parenting. This consensus is growing among some social scientists whose outcome findings for children are not showing distinct differences based on the gender of the parents. Although it may feel like deja vu pertaining to the early 1990's discussion of whether fathers are necessary, it is about answering the question if the gender of the parent makes a difference? Coupled with this question is the exploration of the idea that there may be the need for different measures for mothers and fathers. This research on the role of the gender of the parents opens the possibilities of establishing unique measures for the roles of fathers and mothers.

Conclusion

For the results of this study I had expected to see stronger associations with more of the young adult child's outcome variables for the quantity and quality predictor variables for father involvement. The reported associations were often categorized as weak using Cohen's (1988) guidelines. Based on the results of Family Support variable I would hypothesize the biological father's influence would be stronger inside the role of the intact biological two-parent family. Nevertheless, the quantity and quality of biological father involvement variables were correlated positively statistically significantly to many of the outcome variables. The higher the quantity and quality of the biological father involvement in the non-intact families the higher the level of outcomes for the young adult children. This seems to support the importance of the role of the father; that even in a non-intact family were the father spends time apart from his children, he is still able to influence the outcomes of his children.

The quantity of the father's involvement, measured by the number of years, the number of transitions, the early, middle and late periods present, and the total number of developmental

periods present gave some unique insight into the influence of the father. These quantity variables tended to have an effect on the demographic variables of the young adult child including education, employment, and income. Three of the key findings were related to the number of years, number of transitions, and the developmental periods present. The number of years the father is involved is suggested to be the most impactful influence on young adult child outcomes. The two other areas represent research topics that have gaps in the research literature for fathering involvement. The finding for the fatherhood transitions is they hint at influencing sexual health outcomes. The finding for development periods is that earlier fatherhood involvement appears to make more of a difference than later father involvement. There was virtually no impact for later father involvement except for paternal closeness.

The quality of the father involvement, measured by awareness, closeness, engagement, and family support had higher correlations with the outcome variables. These variables tended to have more of an influence on non-demographic variables such as social attainment, parental closeness, and happiness. In considering the arguments of quality over quantity I had expected the quality variables to have a more pronounced influence on the outcome variables and they did. The reported associations, specifically for Paternal Closeness, were categorized as weak or moderate using Cohen's (1988) guidelines. Yet out of all the predictor variables, Family Support had the highest number and strength of associations with the young adult outcomes, which highlights the need to study the influence of family support more closely.

The cultural shifts in the family over the past few years have required new and replicated fathering research studies. These shifts such as the increase in single mother households and other family household structures including stepparents, adoptive parents, gay and/or lesbian parents have highlighted the concern for the well-being of children and the role of family

support. These trends have introduced new challenges for fathers to stay connected to their children and are contributors to the increases in the number of fathers living absent their biological children. The intention of this research was to explore the influence of the difference the quantity and quality of the biological father's involvement at different age periods on the young adult children outcomes in various domains. This research takes a small step in adding to the knowledge about fathering and to the theory and practice of father involvement, which may benefit the future well-being of all children.

Figure 1.1

Father-Adult child Involvement Relational Outcome (FAIRO) Model
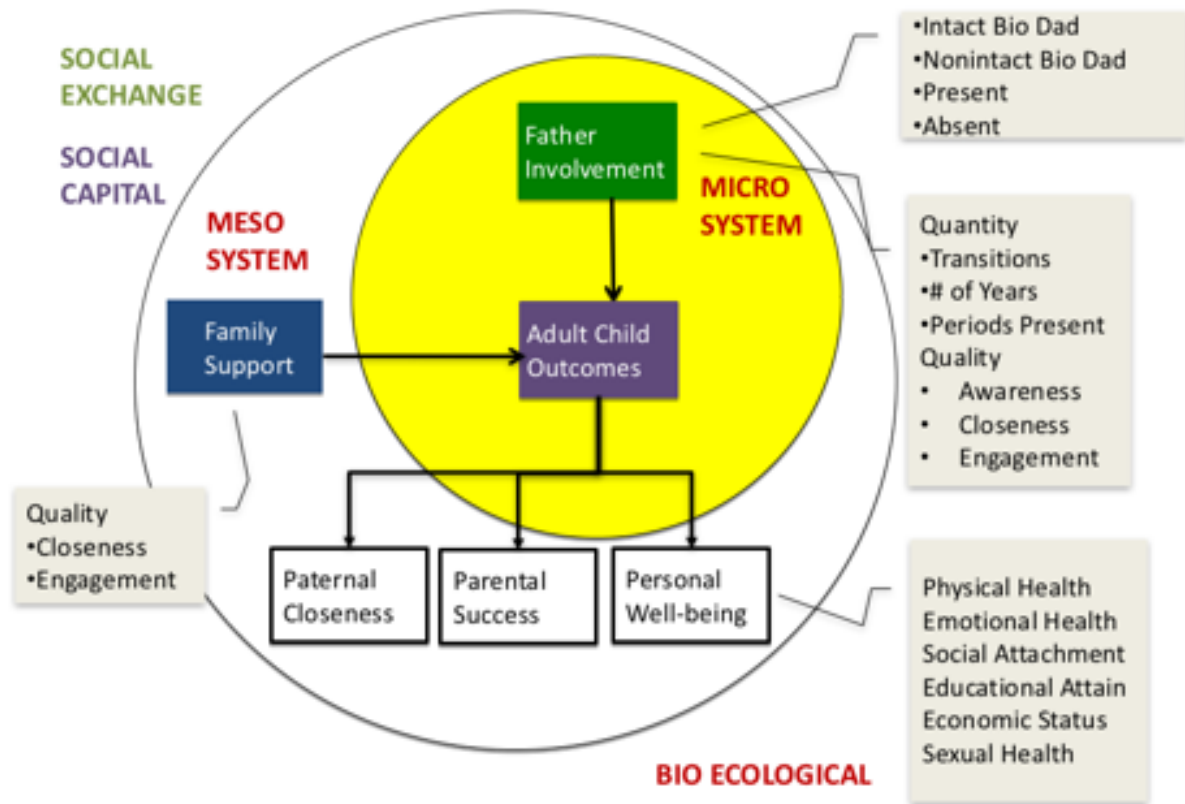
Figure 1.2

Father-Adult child Involvement Relational Outcome (FAIRO) Model
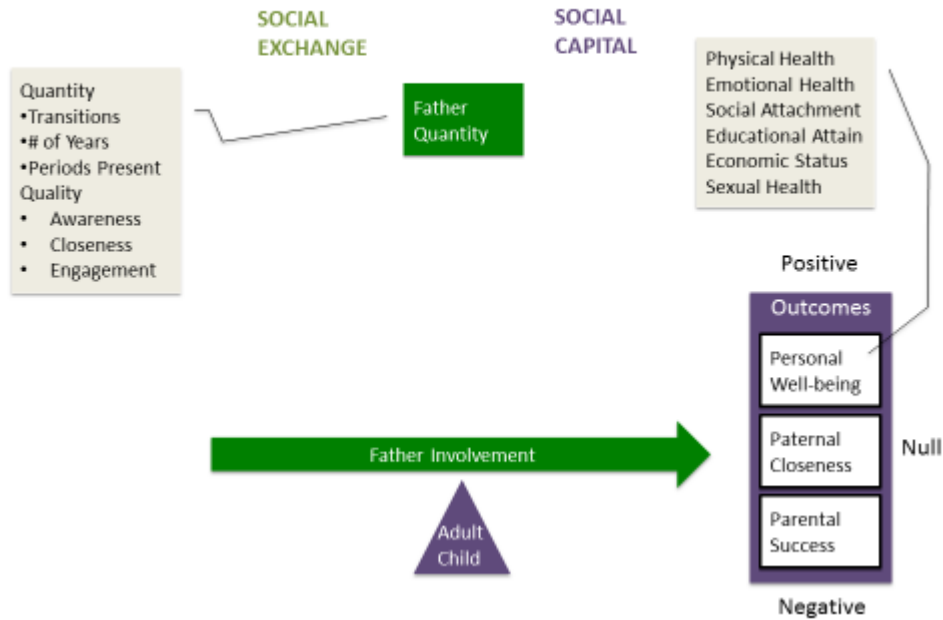
Figure 1.3

Father-Adult child Involvement Relational Outcome (FAIRO) Model
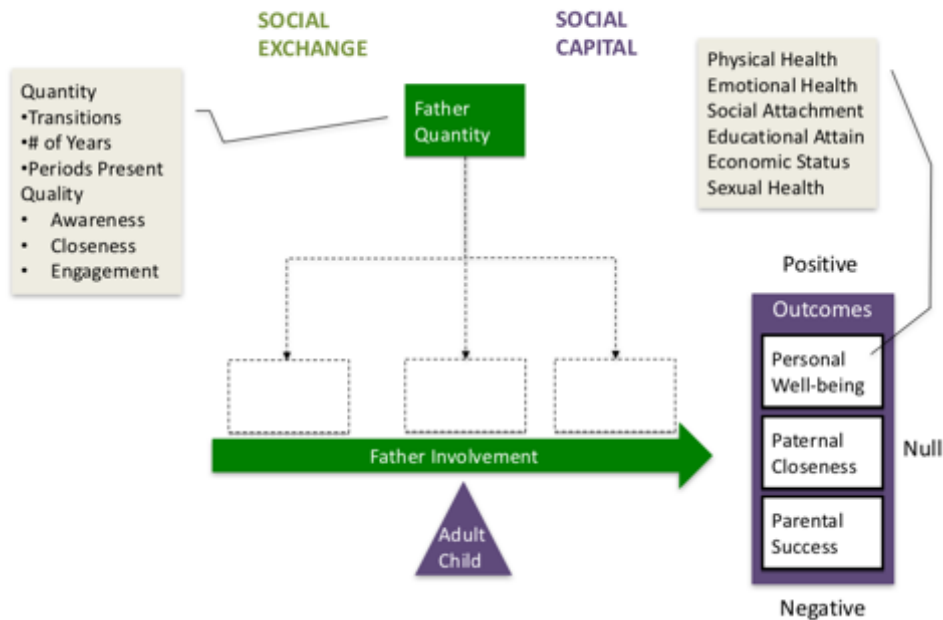
Figure 1.4

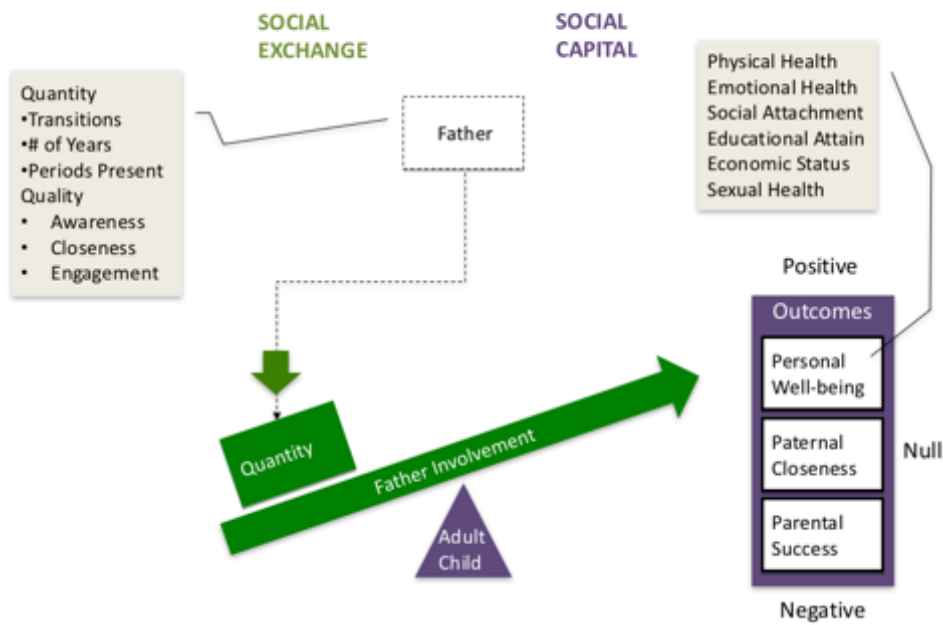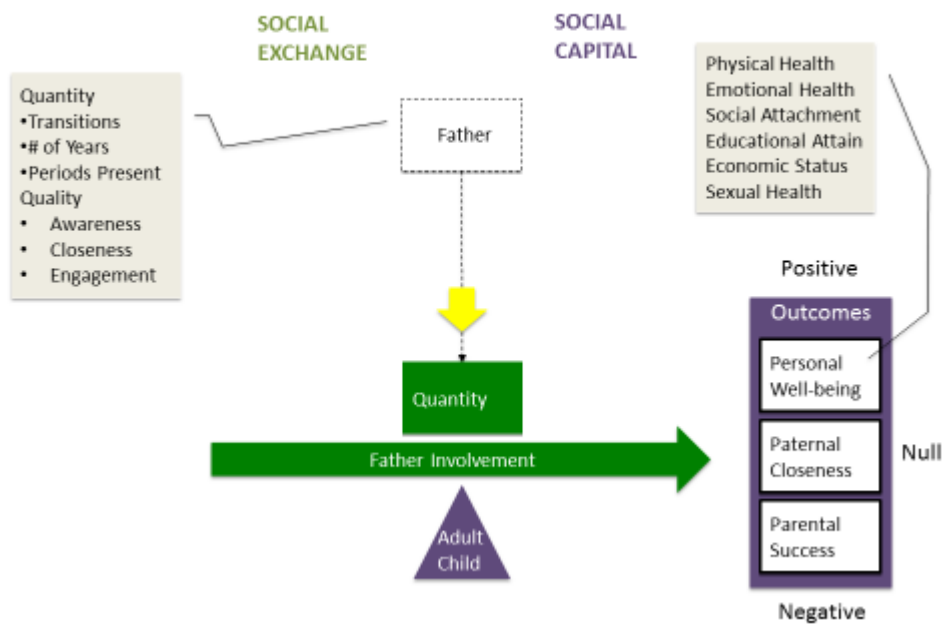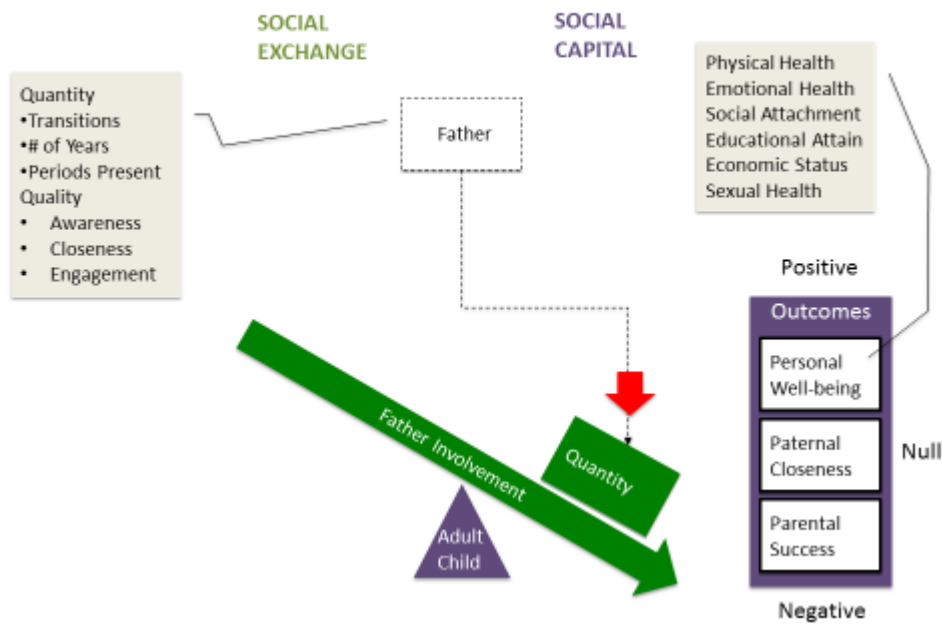Father-Adult child Involvement Relational Outcome (FAIRO) Model

Figure 1.5

Father-Adult child Involvement Relational Outcome (FAIRO) Model

Figure 1.6

Father-Adult child Involvement Relational Outcome (FAIRO) Model

Figure 1.7

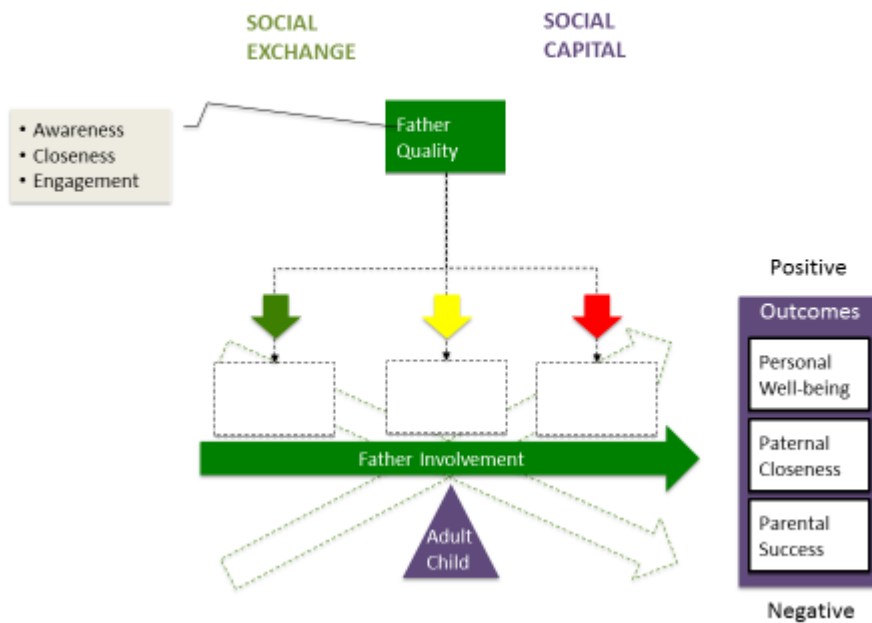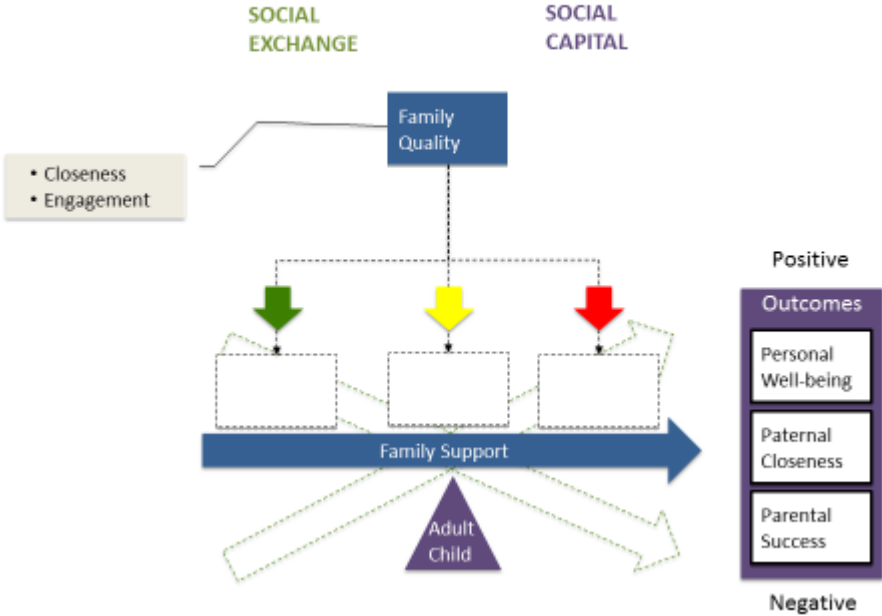Father-Adult child Involvement Relational Outcome (FAIRO) Model

Figure 1.8

Father-Adult child Involvement Relational Outcome (FAIRO) Model

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