The Influence of Counseling and Social Support on Depression in Mothers of Fragile Families

Megan E. Delaney
Montclair State University

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THE INFLUENCE OF COUNSELING AND SOCIAL SUPPORT
ON DEPRESSION IN MOTHERS OF FRAGILE FAMILIES

A DISSERTATION

Submitted to the Faculty of
Montclair State University in partial fulfillment
of the requirements
for the degree of Doctor of Philosophy

by
MEGAN E. DELANEY
Montclair State University
Upper Montclair, NJ
2014

Dissertation Chair: Dr. Dana Heller Levitt
MONTCLAIR STATE UNIVERSITY
THE GRADUATE SCHOOL
DISSERTATION APPROVAL

We hereby approve the Dissertation

THE INFLUENCE OF COUNSELING AND SOCIAL SUPPORT ON DEPRESSION IN MOTHERS OF FRAGILE FAMILIES

of

Megan E. Delaney
Candidate for the Degree:
Doctor of Philosophy

Department of Counseling and Educational Leadership

Certified by:

[Signature]
Dr. Joan C. Ficke
Dean of The Graduate School

Date
4/22/14

Dissertation Committee:

[Signature]
Dr. Dana Heller Levitt
Dissertation Chair

[Signature]
Dr. Larry D. Burlew

[Signature]
Dr. Leslie Kooyman

[Signature]
Dr. Brian V. Carolan
ABSTRACT

THE INFLUENCE OF COUNSELING AND SOCIAL SUPPORT ON DEPRESSION IN MOTHERS OF FRAGILE FAMILIES

by Megan E. Delaney

The purpose of this study of mothers of fragile families was to examine the relationship between counseling and social support on levels of depression. Demographic variables as well as depression, counseling and social support (specifically, instrumental support) was examined over two waves of data from the Fragile Families and Child Wellbeing study. A logistic regression was used to create predictor models for future depression including counseling, social support, current depression and relevant covariates. The findings are discussed and implication for practice and future research are included.
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Chapter One

The Influence of Counseling and Social Support on Depression in Mothers of Fragile Families

Introduction

A shifting demographic in American society is the increase of children being born to unmarried mothers. This trend has seen significant growth since the 1970s when the birthrate of children to unmarried women was close to 10%. Today more than 40% of U.S. births are by unmarried women (Martin et al., 2011). Some of the change is the emergence of non-traditional families such as those families who choose not to get married as well as same-sex couples having children (especially the majority of same-sex couples still unable to legally marry in the majority of states). While each family has its own challenges, the focus of this dissertation is on the women who represent the majority of unmarried mothers. Typical demographic characteristics for these mothers include under the age of 25 at the birth of their first child, increased rates of poverty, less educational attainment and limited employment opportunity or unstable employment history (Broussard, Joseph, & Thompson, 2012).

To differentiate these families from others, researchers use the term "fragile families" (McLanahan, Garfinkle, & Mincy, 2001; Reichman, Teitler, Garfinkel, & McLanahan, 2001). The word "fragile" is used to describe the greater risk that these particular families face including high rates of poverty, low employment and job retention and higher rates of physical and mental issues (Broussard et al., 2012; Kalil & Ryan, 2010; McLanahan et al., 2001). For the purposes of this dissertation, fragile
mothers are defined as unwed (in the traditional sense of heterosexual marriage) women with children who are in a romantic relationship with, but unmarried, to the fathers at the birth of their child. While these women may have hopes of a committed future with the fathers, thirty percent (30%) of fathers in fragile families effectively disappear from the mother and child’s life within three years (McLanahan, Garfinkel, Mincy, & Donahue, 2010). The term “single mothers” is used interchangeably from time to time in this dissertation based on literature being reviewed or discussed.

Births to unmarried mothers are highest to Hispanic women, followed by black women; Asian and white women non-marital birth rates are much lower (Martin et al., 2011). The majority of teen births are to unmarried women (86%) and 60% of women aged 20-24 are unmarried at the time of the birth of their first child (U.S. Census Bureau, 2012a). Policy makers and health officials have long debated best practices associated with issues of poverty, employment, safe neighborhoods and the educational and health outcomes of fragile families. Most of the concern is the impact on the family including family structure, economic stability and emotional, cognitive and health outcomes. Government programs such as the Welfare to Work Act and No Child Left Behind intend to reduce the growing educational and achievement gap between America’s poorer and wealthier families. These researchers and policy makers are most concerned about the ways that poverty, fatherless-families, and other stressors affect the educational, emotional and social outcomes of children of fragile families (Broussard et al., 2012; Kalil & Ryan, 2010; McLanahan et al., 2010).
While ensuring the mental and physical health of the children born to fragile families is extremely important, one must also consider the support and welfare of the mother. Fragile mothers are younger, less-educated, have little job security or employment opportunity and are more likely to be living in poverty and be the primary support for their families than married mothers (Cairney, Boyle, Offord, & Racine, 2003; Cooper, McLanahan, Meadows, McLanahan & Brooks-Gunn, 2009). As a result, these women are vulnerable to higher rates of mental and physical problems and illnesses. In particular, research has shown that fragile mothers have high rates of stress and depression (Broussard et al., 2012; Kalil & Ryan, 2010), especially when compared to the average depression rates for women in the United States (Manuel, Martinson, Bledsoe-Mansori, & Bellamy, 2012).

Theorists, counselors, psychologists, and others who study the human condition have also developed ideas, techniques, and philosophies that conceptualize the differences in families. For the purposes of this study, the counseling theories of Feminism and Relational-Cultural Theory (RCT) are used as a framework and guide to understanding the influences on a woman and mother’s mental health (Brown, 2010; Corsini & Wedding, 2008; Enns, 1997; Jordon, 2010; & Worell & Remer, 2003). Furthermore, since the role of social support has been well researched within this population as a buffer to stress and an influential factor in the emotional and physical health of fragile mothers, the framework of social support is also used to understand the relationship between depression and help seeking behaviors (Cairney et al., 2003; Hlebec, Mrzel, & Kogovšek, 2012; Henly, Danziger, & Offer, 2005; Manuel et al., 2012).
Feminism and Relational-Cultural theories were developed by theorists and scholars as a result of frustration in the traditional form of mental health theory and services (Brown, 2010; Jordan, 2010). These theories are guided by the idea that a woman’s experience and perspective are largely left out of traditional conceptualization of the human condition as well as in treatment options for mental health issues. Feminist and Relational-Cultural theorists believe that characteristics typical of women, including expressing emotions, care-giving qualities, and relating with others through emotional connections are undervalued in a male-dominated society. Furthermore, roles and responsibilities of women, including childcare and other nurturing tasks are often seen as less important work and often go unrewarded (Brown, 2010; Enns, 1997; Jordan, 2010).

Feminists argue that our patriarchal society favors and rewards those from the dominant group (wealthier white males). Characteristics often seen as attributes in bringing power and financial reward include being self-promoting, aggressive and authoritarian. In contrast, those typically viewed as feminine, including empathy, cooperation and care-taking are not always considered leadership qualities and as a consequence, are not typically valued or promoted in our society (Enns, 1997; Gilligan, 1982; Worell & Remer, 2003). Furthermore, relational cultural theorists point out that the way human development has been conceptualized by traditional theorists include the idea of “separation-individualization” which implies that a person must discover their sense of self individually (Jordan, Kaplan, Miller, Stiver, & Surrey, 1991). Instead, Relational-Cultural theorists argue that the backbone of human development is in relationships which in has a long term impact on social development.
Relationships provide context and meaning to our lives as well as help us when we need support and encouragement (Jordan, 2010; Jordan et al., 1991). This concept is often called “social support” in the literature and is defined as a feeling of being cared for, loved, supported and valued by a social group that could include friends, family, a partner or spouse and/or religious, social and community groups and organizations (Lin, Ye & Ensel, 1999). Mothers in fragile families often rely on social support to cope with multiple demands in their lives (Henly, Danziger, & Offer, 2005). Social support can be instrumental as it may include financial support and childcare help as well as emotional support, such as friendship, intimacy and encouragement (Manuel et al., 2012). Social support is known to provide some buffer for stress and depression in fragile mothers (Cairney et al., 2003; Henly et al., 2005; Manuel et al., 2012).

Fragile mothers, through the lens of Feminism, RCT and social support theories, have multiple factors that influence their status, rights, power and positioning in society. Feminists see that as women, fragile mothers are already marginalized by their gender especially with opportunity and equal pay (Israeli & Santor, 2000; U.S. Department of Labor, 2009; Worell & Remer, 2003). Fragile mothers are more often from minority racial groups, are more likely to be poor and have less education, compounding the marginalized status of these women (McLanahan et al., 2001). Fragile mothers are also more likely to be or become the primary caretakers of their children and this responsibility may result in financial hardships (Waldfogel, Craigie, & Brooks-Gunn, 2010). Children and families are often viewed as distractors in work productivity for women (although ironically, not for men) and since the bulk of the responsibility of child
and family care often does fall on the shoulders of women, it is not surprising that women often struggle with the stress of caring for children and families and, if applicable, their work responsibilities (Correll, Benard, & In, 2007; Gottfried & Gottfried, 2008).

A feminist’s perspective of fragile mothers acknowledges that patriarchal influence and marginalization of these women creates a greater strain on their ability to get ahead but also influences their mental health. RCT and social support theorists also view the importance of relationships for the emotional and logistical support in supporting the mental health and wellbeing of fragile mothers (Lin et al., 1999). With the great demands and limited resources influencing their lives, it is not surprising that fragile mothers are at greater risk of depression (Atkins, 2010; Cairney et al., 2003; & Cooper et al., 2009).

**Problem Statement**

While depression affects 1 out of 20 citizens in the United States, depression rates for women, on average, are higher than men (CDC, 2007). In addition, Blacks, Hispanics, and non-Hispanics of different races or multiple races also have higher rates of depression (CDC, 2007). Since fragile mothers are women as well as over-represented from minority races, it is likely that they are more susceptible to higher rates of depression. In fact, research conducted on fragile mothers show higher rates of depression than married women (Crandall, Sridharan, & Schermer, 2010; Heflin & Iceland, 2009; Meadows, McLanahan & Brooks-Gunn, 2007; Seto, Cornelius, Goldschmidt, Moriamoto, & Day, 2005; Turney, 2011). There could be many causal pathways that lead to maternal depression, and it may be hard to determine the
directionality of these pathways, but the unfortunate consequence is that fragile mothers suffering from depression are more likely to be in poor/fair health, have higher rates of unemployment and more likely to use alcohol and drugs (Heflin & Iceland, 2009; Waldfogel et al., 2010).

Mothers who suffer from depression can have a harder time adjusting to the demands of parenting (Bowen, Bowen, Butt, Rahman, & Mahajarine, 2012). Furthermore, the first years of a child’s life are a critical time for the child’s development. In order for a baby to thrive, important attachment relationships must be established during the earliest times in his or her life (Ainsworth, 1991; Bowlby, 1973) as early relationships have a long term effect on the quality of adult relationships (O’Connor, Bureau, Mccartney, & Lyons-Ruth, 2011). If a mother is suffering from depression, she may have difficulty bonding with her baby or giving her baby attention and care (Bowen et al., 2012). Children of depressed mothers have higher rates of behavioral problems as well as have a greater chance of developing their own mental illness such as anxiety or depression (McLanahan et al., 2010; Meadows et al., 2007). Therefore, the consequences of maternal mental health are far greater than just the health and well-being of the mother, but extend beyond to the health and development of her children.

The causes of depression with these women may include biological influences and/or post-partum depression. However, fragile mothers are more likely to have other stressors in their lives, such as poverty, low social and emotional support, little to no support from the father, job insecurity or unemployment, poor and/or unsafe living
conditions and worries about providing for the family perhaps with money for food or housing. These factors are shown to influence her mental health and level of depression (Heflin & Iceland, 2009; Meadows et al., 2007; Seto et al., 2005).

There are different ways that those suffering from depression deal with the associated symptoms. Sometimes depression symptoms can lessen over time or be isolated to a specific event (as may be the case with post-partum depression). Some people use pharmaceutical treatment to alleviate the symptoms of depression. Others seek solace within social support networks such as friends, family and their faith, while some seek professional guidance from counselors and psychotherapists. Untreated depression, however, can become chronic and may create major disruption in the lives of the families it effects (Gavin, Gaynes, & Lohr, 2005; Gottfried & Gottfried, 1998; Turney, 2011). Counseling provides an outlet for those suffering from mental illness to find ways of coping and hopefully overcoming symptoms of mental illness. However, counseling services are often not used or underutilized, especially with certain ethnic populations and those in lower socioeconomic brackets (Vogel, Wester, & Larson, 2007).

There are several reasons that people do not seek professional help, such as counseling, for mental illness. Some people are unaware of resources, including free resources, which might be available to them. Others may lack health insurance or other financial assistance to help pay for mental health services. Often, as is especially the case with some cultures and religions, people seek guidance and assistance from friends, families, pastors and religious leaders (Hendricks, 2005). Some people may not consider seeking the assistance of a person outside of their family or community for help with
depression. This reservation or resistance in seeking help may be for a multitude of reasons such as stigma or religious beliefs or the opinions of family members or close friends (Henly et al., 2005; Vogel et al., 2007). Furthermore, since these mothers have other critical needs, such as housing, food and childcare, policy makers and government agencies may first triage these issues as critical, supporting programs that provide these type of logistical assistance whereas mental health or counseling services are not seen as critical and therefore underfunded or not financially supported (Kalil & Ryan, 2010).

What is known about fragile mothers is that on average, they suffer from a higher rate of depression than married mothers, women in general and men (Kalil & Ryan, 2010). Aside from the use of social support as a buffer to mental health issues, little is known from the literature how fragile mothers seek professional help or assistance in dealing with depression. And since depression, whether chronic or episodic, can have lasting effects on both the individual and her children (Gavin, Gaynes, & Lohr, 2005; Gottfried & Gottfried, 1998; Turney, 2011), and counseling is known to be an effective treatment for adult depression (Cuijpers et al., 2012; Padfield 1976; Smith & Glass, 1977; Wilner et al., 1986), it is important to study if counseling can be an effective method of treatment for depression in fragile mothers.

**Purpose of the Study**

It is reported that women in the United States suffer from higher rates of depression than men. It is also known that fragile mothers have even higher rates of depression than women in the general U.S. population (CDC, 2007; Crandall et al., 2010; NCS, 2003). While studies have shown that social support is a way that lower-income
families and fragile mothers cope with depression (Cairney et al., 2003; Ciabattari, 2007; Manuel et al., 2012), little is known if whether fragile mothers seek counseling assistance for coping with depression. Also unstudied in the literature is if counseling has an impact on depression for this particular population.

While research has been conducted on several factors pertaining to mothers of fragile families including the influence of social support networks (Henly et al., 2005; Vogel et al., 2007) and government policies (Greenberg & Robins, 2011), little research has been conducted on how mental health issues, specifically depression, are addressed and treated with this particular subsample of the population. There are no studies that address how counseling, in particular, influences rates of depression with *fragile* mothers. Therefore, the purpose of this study was to explore the relationship between counseling and depression as well as the moderating factor of social support for fragile mothers. Findings from this study will contribute to the body of literature on fragile mothers and depression.

**Primary Research Questions**

The primary research questions that guided this study include:

1. After controlling for relevant characteristics, is there a significant relationship between counseling and depression in fragile mothers?

2. Does social support moderate the relationship between counseling and depression in fragile mothers?

Based on these research questions, the following hypotheses were tested:
**Hypothesis 1.** Controlling for demographic and other relevant characteristics, fragile mothers who participate in counseling will have reduced rates of depression.

**Hypothesis 2.** Social support significantly moderates counseling and depression in fragile mothers.

By studying the stated research questions, and based on the guidance from the supporting literature, it is expected that participation in counseling will lessen the symptoms and levels of depression for fragile mothers. Since the influence of social support is known in the literature to be a buffer for stress and depression (Cairney, et al., 2003; Henly, et al, 2005; Meadows, 2011), it is also expected that emotional and instrumental social support combined with counseling in fragile mothers will effect rates of depression.

**Significance of the Study**

This study is unique as it explored an understudied area in the literature: whether counseling influences levels of depression in fragile mothers. This study’s findings increase the knowledge base about best practices and policies for practitioners (counselors, therapists and social workers) working with depressed mothers. Turney’s (2012) recent study on the prevalence and influence of depression on fragile mothers shows that employment and relationship status were among the sociodemographic influences on depression rates and change. In her discussion section, Turney notes “…depressed mothers – at least the mostly unmarried mothers in this sample – are not necessarily receiving treatment for their condition” (p. 8) and recommends that future analysis explore this topic. Understanding the relationship between counseling and
depression in this population helps those who work with fragile mothers find the best support needed. This includes strengthening social support networks and also increasing access to counseling services. Counselors and group therapists could reach out to these mothers to offer support and services and to educate the population on the experience and benefits of counseling. Furthermore, since advocacy, empowerment and social change are tenets of Feminist and Relational-Cultural theories, these counselors could be especially active in providing services or advocating for government support for mental health services.

**Research Design**

The Fragile Families and Child Wellbeing (FFCW) study is a longitudinal study that followed a birth cohort of 4,898 children (born between 1998-2000) and includes demographic, social-emotional, occupation, and employment data from married (n=1,186) and unmarried (n=3,712) parents. Access to this data set was granted from the principal investigators at Princeton University (see appendix) for this study. Five separate waves of FFCW data have been collected including Baseline (birth of child); and when the child was 1, 3, 5, and 9 years of age (delineated as year 1, year 3, and so forth). The analytic sample included mothers from two separate waves: year 3 and year 5. Year 3 was specifically chosen over the Baseline year (birth of the child) and year 1 to minimize the possibility of depression levels being influenced by post-partum effects. Furthermore, since the development of infants is critical in the first years of life (Ainsworth, 1991), and depression is known to influence an infant’s developmental
trajectory (O’Connor et al., 2011), year 3 and year 5 of the data was chosen specifically due to the representative age of the child.

This research utilized multiple subsampling criteria. The first criterion included mothers with a previous depression score at year 3. The second criterion was a valid depression measure at year 5 (dependent variable). The third criterion was a valid measure of the two covariates of interest including counseling (independent variable) and social support (moderating variable). Logistic regression analysis was utilized, because of the nature of the data, all analyses had a number of controls.

**Organization of the Dissertation**

This dissertation proposal is presented in three chapters. In the second chapter, a review of the literature pertaining to this study is included. An overview of the theoretical framework for this study, Feminist and Relational-Cultural Theory, is included as a way to conceptualize the multifaceted issues affecting fragile mothers and their families. The influence of social support is also outlined and explained. Following this overview, the historical considerations of motherhood are discussed as well as current issues and concerns for fragile mothers. Literature supporting the dependent variable (depression) as well as the independent variable (counseling) is included as well as expected influential variable, the moderating effect of social support.

Chapter 3 includes methodology, information regarding the Fragile Families and Child Wellbeing study, and information about the dependent, independent, moderating variable, and the statistical analysis procedures and design and hypothesis tested. Ultimately, the purpose of this dissertation was to add to literature information regarding
the use of counseling and the influence of social support on rates of depressive symptoms for fragile mothers.

**Definition of Terms**

**Fragile Families**

Fragile families are defined as unwed (in the traditional sense of heterosexual marriage) mothers and children with either cohabitating but unmarried, involved but not cohabitating, or uninvolved fathers (Reichman et al., 2001).

**Fragile Mother**

Fragile mothers are defined as women, at the birth of their child, who are unwed but may be involved or cohabitating with the child’s father. Relationship status of these mothers may change over time. Fragile mothers are more likely to be from minority populations, have lower educational attainment, lower socioeconomic status and may also have higher rates of depression and other mental health issues (McLanahan et al., 2001). The term is differentiated from single mothers in that single mothers are more often married at the birth of their children and may become single mothers due to divorce, separation, or death, although single mothers and non-partnered fragile mothers face similar challenges and difficulties.

**Counseling**

Counseling is defined as individual work with a trained professional (counselor, social worker, psychologist), voluntary or mandated, in order to alleviate symptoms that may result from a variety of emotional issues including depression, stress, anxiety, parenting concerns, and/or relationship issues (ACA, 2013). Counseling is defined here
in the traditional sense but is a limitation for this study since we cannot be sure (as it is not documented) what type of counseling was received by participants in the FFCW study, only that participants reported receiving counseling for specific reasons, one being depression.

**Depression**

As defined by the *Diagnostic and Statistical Manual of Mental Disorder, 5th edition* (DSM-V; 2013), depression consists of five (or more) symptom criteria including depressed mood, diminished amount of interest or pleasure in daily activities, fatigue, feelings of worthlessness, diminished ability to concentrate and possibly thoughts of death. Additional considerations for depression include feeling tired, worthless, changes in weight, trouble sleeping or difficulty concentrating (Crandall et al., 2010; Kessler & Walters, 1998).

**Social Support**

Social support is defined as *instrumental* assistance (financial or logistical support, such as childcare assistance or loaning money) and *emotional* support (including relationship status with the father or others) that offer encouragement, affection and help to fragile mothers when needed (Manuel et al., 2012). Social support is most likely provided by family, friends, neighbors or community members. For this study, the social support variable was created within the framework of *instrumental* support (financial, childcare and living assistance) and *emotional* (being in a relationship).
Chapter Two

Introduction

The past several decades have seen shifts in family structures and parenting trends in the United States. A significant change is the rise of unmarried women who become mothers, which now accounts for 40% of women who gave birth to children in 2010 (U.S. Census Bureau, 2012a). While in the past, society may have pressured the young pregnant woman into marriage, changing trends have women remaining unmarried rather than marrying. Regardless of this trend, the demographics of unmarried mothers remain with the higher percentages of such mothers who are young (under 25), living in poverty and from minority groups (McLanahan et al., 2001; U.S. Census Bureau, 2012a, b). In addition, there are higher rates of substance use, lower educational attainment, lower employment rates and occupation trajectories and issues surrounding the outcomes and wellbeing of their children (Heflin & Iceland, 2009; Waldfogel et al., 2010). Because of the multiple stressors that can be experienced by unmarried mothers, they are often at greater risk of parental stress, depression and other psychological issues (Cairney et al., 2003; Cooper et al., 2009; Seto et al., 2005).

This chapter provides an overview of the multiple factors of motherhood in the United States with special emphasis on unmarried and fragile mothers. An overview of the historic changes of motherhood in the United States is highlighted including the differentiation between married, unmarried and fragile mothers. In addition, current issues including the impact of poverty, the gender gap divide, employment considerations, state and federal policies and child outcomes are also discussed. A
discussion of the mental health issues of mothers is included with specific emphasis on maternal depression and the issues that compound and influence depression in fragile mothers. This chapter also includes an overview of mental health counseling for women with depression, in particular, what the literature currently discusses regarding counseling mothers, fragile mothers and mothers with depression. Furthermore, the influence of social support is explored, especially how social support may mediate counseling seeking behaviors and treatment for depression for fragile mothers. Feminist and Relational-Cultural Theory serve as the theoretical conceptualization regarding the influence of society, history, politics, gender, culture and relationship on the mental health of women, in particular fragile mothers.

**Review of the Theoretical Framework**

Feminism and Relational-Cultural Theory, more than other theories, frame the concepts of relationships, parenting and mental health through the lens of gender (Jordan, 2010; Worell & Remer, 2003). Gender differences, roles and expectations are an important framework for fragile mothers since they often hold traditional roles of women (for example, being the primary childcare provider). Furthermore, as is explained in the discussion of the tenets of both theories, the influence of our patriarchal society, one which typically benefits white males, as well as institutionalized racism and classism, has a direct impact on the potential trajectory of the lives of these women and their families. First, it is important to understand how Feminism and Relational-Cultural theories emerged and developed.
Feminist Theory

Traditional theories of human psychology and development were developed by many influential men such as Freud, Piaget, Rogers, and Erikson. While their work will remain groundbreaking and important, some aspects can be criticized as being insensitive and incomplete in the most effective way to conceptualize, diagnose and treat women and people of diverse cultural backgrounds (Enns, 1997; Sue, 1978; Worell & Remer, 2003). Early theories of human development and psychology often view characteristics more typical in women, such as being emotional or expressing emotion, as signs of pathology (Enns, 1997). In response, women began to talk and write about a new psychology for women; a way to reframe what is seen as negative “feminine qualities” into strengths, as well as offer alternative considerations for the way women are diagnosed and treated (Enns, 1997; Gilligan, 1982; Israeli & Santor, 2000; Miller, 1976; Worell & Remer, 2003). During the 1960s feminists and feminist theorists in particular spearheaded the debate and momentum for rethinking the way that society views, promotes and supports women as well as conceptualizes women’s mental health.

The concept of feminism has different interpretations and meanings to different people. Feminism has long been a contentious term, to some invoking ideas of radicalism or hatred toward men (Brown, 2010). These misconceptions often underrate the actual message of feminism which is to bring voice to gender differences and find value in all human characteristics. Common themes in feminism include viewing gender in a social context; finding the differentiation and inequalities of power in society problematic; valuing feminine qualities and attributes; and advocating for change for
equality within society (Worell & Remer, 2003). Additionally, feminist theory identifies patriarchal biases and reframes depression and mental illness within a societal context. Feminist theorists seek to raise consciousness and awareness of discrimination and inequity often most felt by women and minority populations (Brown, 2010).

**Relational-Cultural Theory**

Relational-Cultural Theory (RCT) developed in tandem with the feminist movement in the 1970s and first emerged from the writings of Jean Baker Miller. Dr. Miller as well as her colleagues Irene Stiver, Judith Jordan and Janet Surrey created RCT with the premise that, throughout the life span, human beings grow through and toward connections with others (Jordan, 2010; Jordan & Hartling, 2002). The theorists stated that we need connections with others to flourish, even to stay alive. Furthermore, isolation is a major contributor to suffering of people at the personal and cultural levels. Social activism and change is at the core of this theory. RCT provides a model that emphasizes movement out of isolation into mutually beneficial relationships and challenges those theories that suggest that independence is the highest achievement in development (Jordan, 2010). RCT theorists believe that in order to grow and establish mutually empathetic relationships with others, one must develop skills of authenticity, mutual empathy and empowerment.

Feminist theory and RCT reframe behaviors, symptoms and often pathology as coping mechanisms and the result of living within an oppressive environment (Enns, 1997; Jordan, 2010). Both theories offer theoretical perspectives on the multiple factors that may be influencing rates of depression in fragile mothers (Davis-Gage, Kettleman
Besides being women, a population already oppressed in American society, fragile mothers are unmarried and more likely to be young, poor and from underrepresented racial groups. Through the lens of Feminist theory, the combination of these oppressed, multi-faceted and complex characteristics is seen as a potential barrier to success. Furthermore, feelings of depression, stress and sadness may be largely induced by these unconscious influences of a patriarchal society compounded, as in the case with fragile mothers, with demands of frequently being the sole provider for her home and children (Cairney et al., 2003).

In the next section of this chapter, social, political and contextual influences on the lives of fragile mothers are explored. Feminists and Relational-Cultural theorists state that it is impossible to understand a woman’s life outside of the context of society and the gender stereotypes learned as children and/or rooted in cultural norms. Too often, practices embedded in society stereotype, stratify and label individuals based on race, gender, class and sexual orientation (Jordan & Hartling, 2002). Since fragile mothers can be categorized into several stereotypes, most of which are marginalized, understanding this context is important when considering their lives and their mental health.

**Fragile Mothers**

The United States has a long history of implementing policies and regulations in support of the traditional version of marriage (the union between a man and a woman) and married couples raising children (Human Rights Watch, 2011). At the same time, non-marital childbirth has been increasing in the United States and now accounts for 40%
of all births (Hamilton, Martin, & Ventura, 2012). Half of Hispanic children and over 70% of Black children are born to unmarried mothers. The rise in unmarried births continues to be a debate in society and with government policies (McLanahan, 2010). For some, the rising trend in unmarried births shows progress in society including the inclusion of non-traditional and gay couples, single women choosing to have children on their own and “traditional” couples choosing not to follow the formal routes of marriage. On the other end of the debate, others believe that these birth trends show little foresight into family planning, rising trends of fathers being both financially and emotionally uncommitted to their children and the disintegration of the “strength” of the family-bond (McLanahan et al., 2010).

Definition of Fragile Families

The term fragile families is used to describe a particular subset of families (McLanahan et al., 2001; Reichman et al., 2001). More specifically, these families are unmarried, are more likely to be from minority populations, have greater risk of family instability or dissolution as well as have social and economic problems (McLanahan et al., 2001). The term is used to dispel assumptions that unwed births are only the result of just casual relationships. Half of fragile families are typically living together and another 30% are together but living apart at the birth of their child (McLanahan et al., 2010). In the beginning, these couples typically indicate that they are hopeful that they will eventually be able to get married but most do not. Another factor that defines these families is that within three years, one-third of the fathers are completely uninvolved and not present in the lives of their children (McLanahan et al., 2010). These factors weigh
into the outcomes of everyone in the family, including mother, father, relatives and children.

**Motherhood**

Becoming a mother can be one of the most life-changing events in a woman’s life. The demands of a newborn require the attention of a gentle caregiver. For many women, becoming a mother is a joyful experience, one that brings profound connection and love (Jordan et al., 1991). Yet, even with resources and a partner sharing equal responsibility, a person can struggle with the emotional and physical demands of raising children. When a person is overwhelmed with the demands of parenting and believes that her own personal resources as well as her social support is not sufficient to meet those demands, she is vulnerable to higher levels of stress (Cooper et al., 2009; Mulsow, Caldera, Pursley, Reifman & Huston, 2002). Parental stress is one of the leading disruptors of family cohesion and can have long-term effects for both the parents and the children (Mulsow et al., 2002).

When a mother, especially a new mother, is experiencing other daily stressors, such as limited income, inconsistent social support, limited resources and other challenges, her ability to cope is further compromised (Cairney et al., 2003). Several factors can contribute to a mother’s mental health including her history of mental health issues or illness, potential experience of post-partum depression, history of drug and/or alcohol use, relationship with the father(s) of her child(ren), social supports, and any financial stressors such as stable employment or income and health insurance (Najman, Anderson, Bor, O’Callaghan, & Williams, 2000). These factors, whether in isolation or
compounded, contribute to the stability of her household and the mental and physical health of both the mother and her children.

**Socioeconomic Status**

Historically, the United States has been plagued with pockets of poverty in certain sectors of society especially with particular racial groups, immigrants (documented and non-document) and within urban areas. Poverty, as defined by the United States government, is measured by poverty thresholds and family income as compared to those thresholds. The poverty threshold in 2012 was $23,833 for a family of four (two adults and two children) and $15,825 for one adult living with one child (U.S. Census Bureau, 2012c). Women who are the head of the household (without a husband or father) have a median income level in the U.S. of $29,770, on average not much higher than the poverty rates for families. More than 42% of mother-only families with children under the age of 18 lived below the poverty threshold in 2010. Of these mother-only families, 32.7% are White, 47.1% are Black and 50.3% are Hispanic (U.S. Census Bureau, 2012b). When compared with median income levels for married families ($71,627) and even households headed by a man (no mother or wife present, $41,501), it is apparent that women who are sole providers are more likely to be struggling with financial constraints.

Families who live in poverty have multiple stressors that influence all areas of their lives. Often housing and living conditions can be unsafe (with incidents of violence or drug-related activity) and/or unhealthy, including substandard buildings and polluted streets and neighborhoods (Broussard et al., 2012; Heflin & Iceland, 2009). Issues of basic survival include gaining or maintaining employment that pays enough to cover
monthly bills, reliance on public assistance or public health insurance, and difficulty finding and/or maintaining quality childcare arrangements. Fragile mothers are approximately four times more likely to be living in poverty than married mothers (Kalil & Ryan, 2010). As a result, these fragile mothers are more likely to be in poor/fair health, have higher rates of depression and have higher rates of alcohol and drug use than married mothers (Broussard et al., 2012; Kalil & Ryan, 2010).

Children of fragile mothers can also be negatively influenced by poverty. Poverty is shown to have long-lasting impacts on development and achievement starting in preschool lasting throughout the lives of these children (Moore, Redd, Burkhauser, Mbwana, & Collins, 2009; Zilanawala & Pilkauskas, 2012). Research has found that poverty during early childhood and beyond has long-term negative consequences on educational outcomes including lower scores on reading assessments and higher high school dropout rates (Bembry, 2011; Moore et al., 2009). In addition, children living in poverty typically have higher rates of emotional and social problems including problems with peer relationships, behavioral issues, lower self-esteem and higher risk for teen pregnancy (Duncan & Brooks-Gunn, 1997; Moore et al., 2009). These issues in combination with societal problems, such as racism and discrimination, affect a majority of the children in fragile families (Kalil & Ryan, 2010).

**Employment**

The United States, despite its superpower status, wealth and opportunity, remains woefully behind the rest of the world in the rights of mothers. One issue is the access to maternity leave after the birth or adoption of a child. The federal Family and Medical
Leave Act (FMLA) allow workers with new children to take unpaid job-protected leave to care for new children (U.S. Department of Labor, 2012). However, unpaid leave is typically only accessible to the women who have the means to do so. Only two states in the U.S., California and New Jersey, offer paid maternity leave and these policies have restrictions. The benefit is available to women in companies with over 50 employees and only provides 6 weeks of paid leave (Human Rights Watch, 2011). Some of the consequences to inadequacy of maternity leave and rights for working women directly involve the children of these women. This includes delay of immunizations and health care visits for babies due to lack of funds, physical and mental health impacts on parents, shortened breastfeeding and little employer support for pumping, financial problems including an increase in debt, as well as demotions or denial of promotions and/or raises at work (Human Rights Watch, 2011; Price, Choi, & Vinokur, 2002; Tan, 2008). For women who have little to no job security, the birth of a child may end a job or limit ability to secure employment.

In the United States, women continue to be penalized in terms of equal pay and career advancement because of motherhood. The implication is that once a woman becomes a mother, her commitment and time for her job is less (Correll et al., 2007; Tan, 2008). Unequal wages, especially for working mothers, is an ongoing issue as a woman makes 77 cents to the man’s dollar (U.S. Department of Labor, 2009). This disadvantage in wages has especially hard consequences for families when a mother may be the only source of income to support a family. Working families often juggle work-life balance which often includes maintaining employment, providing enough income to cover family
expenses, balancing time at work with time at home, meeting the emotional and
developmental needs of children as well as the demands of the partnered relationship.
Most working parents express feelings of work-family conflict (Bromberger & Matthews,
1994; Roehling, Jarvis, & Swope, 2005). Socio economic status, the number of children,
and employer support are influential factors in a person’s level of stress as well as her
ability to obtain or maintain employment.

While maternal positive attitude of work-life balance improves outcomes
including less behavioral problems for children, increases family cohesion and parental
satisfaction, obtaining that balance is frequently complicated (Gottfried & Gottfried,
2008). Often, in response to a stressful imbalance of work and life issues, mothers tend
to reduce work hours (Budig & England, 2001). But this is not always an option for
those women who are the sole income providers for their families. Low-income women
report higher levels of work-life conflict and are consequently less likely to be employed
(Ciabattari, 2007). Often, inflexible work arrangements and having little or no benefits
(such as health insurance or paid sick-leave) influence the ability of a mother to balance
her responsibilities at work and home.

One of the consequences of unemployment, in particular, is the stress on a
woman’s health (Price, Choi, & Vinokur, 2002). Prolonged unemployment can have a
negative impact on mental health and can influence levels of depression (Bromberger &
Matthews, 1994; des Rivieres-Pigeon, Seguin, Goulet, & Descarries, 2001). Employed
women have lower levels of depression than unemployed women. Furthermore,
unemployed women are also known to develop depressed symptoms (Mascaro, Arnette, Santana, & Kaslow, 2007; Vinokur, Schul, Vuori, & Price, 2000).

**Depression**

Over the last few decades, society has become more aware of the complex issues of mental health, especially regarding rates, causes and influences of depression. Depression can be sporadic, episodic or chronic (Sterk, Theall, & Elifson, 2006). While depression manifests differently in each individual, there is no doubt that there are long-term and devastating effects for the people and families who cope with depression. As many as 1 out of every 20 U.S. citizens report episodes of depression within a period of 12 months (CDC, 2007). Furthermore, gender, racial and cultural differences are important considerations and have several compounding factors with rates and prevalence of depression.

**Definition and Prevalence**

Major depressive disorder, as defined by the *Diagnostic and Statistical Manual of Mental Disorder, 5th edition* (DSM-V) (2013), consists of five (or more) symptom criteria including depressed mood and loss of interest or pleasure in daily activities for more than two weeks, impaired social, occupational, educational function, fatigue, feelings of worthlessness and/or inappropriate guilt, diminished ability to concentrate and possibly thoughts of death. Additional symptoms of depression include feeling tired, worthless, changes in weight, trouble sleeping or difficulty concentrating (Crandall et al., 2010;
Kessler & Walters, 1998). It is important to note that there is a difference between depressive symptoms and clinical depression as described here.

The National Comorbidity Survey (NCS, 2003), a nationally representative study conducted by the Harvard Medical School assessing the prevalence of mental health disorders, showed the prevalence of major depressive disorder in the U.S. population at 16.2%. According to data from both the NCS (2003) and Center of Disease Control (CDC) (2007), the prevalence of depression is higher in those individuals from minority races including Blacks, Hispanics, non-Hispanics of different races or multiple races, as well as those with less than a high school education, previously or never married, unable to work or unemployed and without health insurance. Specifically, white/non-Hispanic individuals report rates of any type of depression at 8% and major depression at 3.7%. African American rates are higher, 12.9% of any depression and 5% of major depression. Rates for Hispanic populations are 11.7% for any depression and 4.7% for major depression. Furthermore, depression rates in women are also higher, on average, than men (CDC, 2007) and depression rates for unmarried women are nearly four times higher than married women (Kalil & Ryan, 2010).

**Depression in Women**

The prevalence of depression in women is not fully understood; multiple explanations include biological, social and behavioral factors that have a daily effect on a woman’s life (Schwartz, Lent, & Geihsler, 2011). Depression for women can vary across the lifespan. Gender differences in early childhood, cultural expectations and upbringing for girls, as well as ways that women cope with stressful or harmful experiences can all
influence whether someone develops depressive symptoms or chronic depression (Suyemoto, 2003). Furthermore, the learned helplessness of girls can influence long-term feelings of depression and hopelessness (Jackson & Williams, 2006). This can be compounded by societal expectations and/or norms of racial inequality as well as opportunities for girls of lower socioeconomic status.

Feminists and Relational-Cultural theorists have made it part of their mission to educate our society of these differences, noting that issues of gender and race/ethnicity create a heightened level of depression for both women and people of color (Davis-Gage et al., 2010; Hendricks, 2005; Jordan et al., 1991; Worell & Remer, 2003). Women and ethnic minorities have more direct experiences of negative events in their lives and report on average a lower sense of control over their life circumstances. Discrimination, unfortunately still a universal event in the lives of ethnic minorities and women, can also lead to higher rates of stress and/or depression (Williams, Yu, Jackson, & Anderson, 1997).

**Maternal Depression**

Pregnancy and post-partum periods can be a time associated with great joy but also can trigger feelings of depression. Researchers have found new onsets of depression can be especially high in the postpartum period (Gavin et al., 2005). Women who suffer from depression before childbirth are more likely to remain depressed or experience chronic depression after having children (Najman et al., 2000). Chronically depressed mothers versus their counterparts who have never experienced depression are less likely to be married or in a partnered relationship, experience more frequent arguments with
friends and family, have less social support overall, are less educated, have lower income levels and more financial strain, and are more likely to use substances (Seto et al., 2005). All of these compounding factors can have considerable effects on the well-being of the family structure and especially the health (mental and physical) of the mother and the health, well-being and long-term outcomes of her children (Seto et al., 2005; Turney, 2011).

One of the stronger associations with maternal depression is socioeconomic status. Poverty-related stress and single mothers can manifest into anxiety regarding employment, suitable housing, having enough food for the family, an increase in medical issues and exposure to violence and discrimination (Broussard et al., 2012). A strong link between the adverse effects of poverty on health has been shown in the literature (Heflin & Iceland, 2009; Seto et al., 2005). Research conducted on the effects of poverty and mental health show greater short and long-term incidences of depression, anxiety and substance use with individuals with lower socio-economic status (Jackson & Williams, 2006; Kessler & Waters, 1998). In addition, there are strong relationships between material hardships, such as reliance on food assistance, inability or difficulty in paying bills and unstable housing situations and depression (Heflin & Iceland, 2009). Whether poverty creates depression or depression affects an individual’s ability to maintain employment and therefore affect their socio-economic status, the consequences are the same.

When mothers are depressed, they can withdraw emotionally and physically. This can cause problems both with their primary support, such as the infant’s father, as
well as her social support networks, such as caregivers, grandparents and other sources of help. But depression can have serious consequences on her primary relationships, especially the one with her baby (Bowen et al., 2012; Davis-Gage et al., 2010). When a mother withdraws, she can neglect the emotional and physical needs and demands of her infant which consequently influence mother and baby attachment. Experts believe that in order for a baby to best thrive, important attachment relationships must be established during the earliest times in a child’s life (Ainsworth, 1991; Bowlby, 1973). When strong, caring relationships are not available to an infant, their ability to create and maintain their own healthy relationships as adults may be compromised (O’Connor et al., 2011). Maternal depression and anxiety are also linked with greater chances of young children developing anxiety, depression, attention deficit disorder and oppositional defiant disorder (Meadows et al., 2007; Moore et al., 2009; Turney, 2011).

For those women who struggle with depression, long-term economic hardship, deficiencies in parenting ability and problems with relationships can contribute to the cause or symptomology of depression (Bowen et al., 2012). Women who suffer from depression often have the symptoms reoccur which can result in chronic depression. Chronic depression can be especially debilitating. The cycle of depression can cause an individual to never fully cope enough to find stable employment or long-term career advancement. Furthermore, when a woman who suffers chronic depression also has children, the consequences can have a rippling effect throughout the household. Chronic and/or untreated depression can have the potential to disrupt families, and create health problems for both mothers and children (Broussard, Joseph, & Thompson, 2012).
Current treatment trends for depression include use of psychotropic medications and the increase in physician involvement and less often, use outpatient treatment and therapy (Bowen et al., 2012; Oflson et al., 2002). In fact, the use of antidepressants is the most standard treatment of major depressive disorder followed by cognitive-behavior therapy or a combination of therapy with medication (Dobson et al., 2006). While counseling is one way that individuals cope with depression, little is known about the counseling-seeking behaviors of mothers and even less is known about fragile mothers and if counseling, in particular, helps reduce or diminish levels of depression.

**Counseling**

Although over 44 million American adults have a diagnosable mental illness, less than half seek help (CDC, 2007). Help seeking for mental illness is even less likely for racial and ethnic minorities (Hendricks, 2005; Pederson, 2000; Schwarzbaum & Thomas, 2008; Vogel et al., 2007). Historically, counseling emerged from psychologists, psychiatrists and medical professionals who developed theories of understanding the complexities of the human mind as well as ways and methods of treating mental illness and other psychological illnesses. Changes over the decades expand the ways that counselors work with clients including greater understanding on how sex, gender, race, sexuality, socioeconomic status, ethnic and cultural differences influence mental health and impact diagnosis and treatment (Enns, 1997; Hendricks, 2005; Israeli & Santor, 2000; Jordan, 2010; Jordan & Hartling, 2002; Jordan et al., 1991; Pederson, 2000; Schwarzbaum & Thomas, 2008; Sue, Arredondo, & McDavis, 1992).
**Definition and Historical Considerations**

Counseling is the guidance or assistance received by a trained individual who uses specific methods, techniques, measures and assessments to help individuals through what most often is a stressful or difficult time in their lives (Corsini & Wedding, 2008). The American Counseling Association (ACA) defines counseling as:

… a professional relationship that empowers diverse individuals, families, and groups to accomplish mental health, wellness, education, and career goals. Professional counselors help clients identify goals and potential solutions to problems which cause emotional turmoil; seek to improve communication and coping skills; strengthen self-esteem; and promote behavior change and optimal mental health. (American Counseling Association, 2013)

There are different types of counseling services including individual, couples, family and group counseling. Furthermore, there are subspecialties within the profession such as addictions, child/adolescent, gerontological, LGBTQ and military counseling (ACA, 2013). Ultimately, counselors work together with clients on ways to cope and solve problems and challenges in everyday living.

From history and experience, different styles and types of counseling theories, services and treatment options emerged. Community mental health counseling, for example, developed from the more traditional forms of psychology and psychiatry. Community counselors often specialize in the unique needs of the community that they serve and often provide a variety of services that may encompass the overarching needs of their clients (Smith, 2012). And yet, despite the changes and increase in accessibility
for counseling services, there still remains a large gap in treatment rates (CDC, 2007; Vogel et al., 2007).

Influenced by the Civil Rights era and alongside the feminist movement, theorists and others began to emphasize the importance of race and ethnic identity for the understanding of differences in human development (Schwarzbaum & Thomas, 2008; Sue, 1978). In the counseling profession, developing the experience and skill on how to both understand and treat individuals while respecting differences calls for greater multicultural competencies (Pederson, 2000; Sue et al., 1992). One such consideration is cultural beliefs about counseling. Some cultures may not seek the help of professional counselors for help with mental health issues due to traditional beliefs or perceptions about seeking help outside of the family or community (Martinez & Lau, 2011).

**Help-Seeking Behavior**

There are many influences on an individual’s help-seeking behaviors including views and beliefs about counseling, cultural norms and expectations on treatment of mental illness and access to care (both financial and logistical). Access and affordability of mental health care is one influence on whether one seeks help. Managed care organizations, expanded in the 1990s, serve as one avenue to creating affordable care by helping to control the costs of health delivery. At the same time, the expansion of government policies to view mental health as other “illnesses” allows more treatment options and opportunities (Smith, 2012).

Community mental health services provide a critical role for those who could not otherwise afford care. On average, community mental health organizations serve those in
the local area on a wide array of issues including counseling services, job placement, childcare and other assistance. Other avenues for accessing mental health services exist, especially in impoverished neighborhoods. Mental health services are sometimes accessible in local community centers that might also provide afterschool activities, pre- and post natal care and physician services (Smith, 2012). Primary care doctors, family physicians and gynecologists are also critical in identifying the signs of depression and other mental illnesses during medical exams and check-ups. Issues of mental health may not always be addressed during visits with primary care physicians. This omission can result in undiagnosed, untreated and prolonged mental health issues (Olfson et al., 2001).

There are many other avoidance factors that are associated with a large percentage of people not seeking professional help for treatment of mental health disorders. These factors can include social stigma, fears of treatment and self-disclosures, social norms or not understanding treatment options (Vogel, Wester, & Larson, 2007). Some cultures and ethnic groups feel shame or defeat when expressing feelings of depression, sadness and helplessness; others view asking for help as a sign of failure (Hendricks, 2005; Schwarzbaum & Thomas, 2008). Others may think that seeking professional help is only to be considered as a last resort or when attempts to handle the issues by oneself have been exhausted. There are often strong cultural beliefs and social norms about help-seeking behaviors. Some cultures stress going to elders or religious officials for help. Furthermore, attitudes and experiences by others within families and communities can influence a person’s decision to seek counseling services (Vogel et al., 2007).
The limited research with fragile mothers on help-seeking behaviors indicates that these mothers seek support primarily from family and friends including the father or her current partner, as well as support from close family members (e.g. parents, siblings, cousins) and the community (Broussard et al., 2012; Henly et al., 2005; Meadows, 2011). There is no known research on whether fragile mothers seek counseling services for alleviation of depression. Social networks or social support, therefore, is an important consideration in alleviating stress, depression and other mental health issues in fragile mothers.

**Social Support**

Parenting involves multiple responsibilities including providing love and support but also the basic and critical needs of food, clothing, education and a healthy living environment (Gross, 2008; Jordan et al., 1991; Cooper et al., 2009). Often parents need to rely on partners, friends, family, childcare providers and their places of employment in order to accomplish the daily demands of balancing family demands and potentially work and other commitments. Social support is one way that a parent can get help with the daily resources necessary to take care of their homes and children (Manuel et al., 2012). Social support can be leveraged to help people get ahead or advance from their current situation as well as provide networking and employment opportunities and access to information and resources (Cairney et al., 2003; Henly et al., 2005).

Social support can be *instrumental* such as financial support and childcare as well as *emotional* support such as friendship, intimacy and encouragement (Manuel et al., 2012; Meadows et al., 2007). Instrumental support is especially needed when one needs
financial assistance for paying bills, borrowing a car, or help with childcare. Emotional support is needed to maintain healthy relationships such as with partners, family or friends. Emotional support in the form of mutually beneficial relationships is necessary in order to have the social connections needed for good mental health and quality of life (Jordan, 2010). One of the greatest forms of social support can be that of a spouse or a partner, especially with the daily care of raising children. Typically, a father’s daily presence both emotionally and financially can provide the mother with emotional support as well as sharing instrumental support (Henly et al., 2005; Kalil & Ryan, 2010). When that support is compromised, either with an absent or abusive father, a mother can become the sole provider of the family. For women, relationship status significantly influences their perception of support with unmarried and un-partnered women reporting the lowest rates of support and the highest rates of mental health problems (Cairney et al., 2003; Meadows et al., 2007).

For a woman to work, often she needs to find support to help with family and household needs. One ongoing issue in work-life balance is affordable and quality childcare. The bulk of the responsibility of childcare is still being done by women, even in two-parent households, despite an increase in a woman’s commitment to work outside the home (Milkie, Raley, & Bianchi, 2009; Tan, 2008). While current research has shifted from focusing on effects of non-maternal care to the influence on quality childcare on child development and outcomes (Gottfried & Gottfried, 2008), finding high-quality and affordable childcare remains a challenge for most families but especially lower-income families (Bianchi & Milkie, 2010). Often mothers must rely on social support from
family and friends to either provide childcare or help with household needs in order to maintain their employment (Cairney et al., 2003; Ciabattari, 2007; Henly et al., 2005).

Fragile mothers, whether by choice or circumstance, traditionally carry the responsibility of supporting their households. Research shows that these mothers rarely earn enough to support their households and are at greater risk to multiple issues including higher rates of poverty, less educational attainment, less job advancement, mental and physical problems and higher rates of substance abuse (Bembry, 2011; Broussard et al., 2012; Kalil & Ryan, 2010; McLanahan et al., 2010). These mothers support their families in several ways including the assistance of public programs as well as many non-public options such as family, friends, boyfriends and others who may be able to help. The impact of the mental health issues for mothers of fragile families can severely influence their ability to provide for their household as well as impact the well-being and development of their children (McLanahan et al, 2010).

Research shows that families living in poverty, including fragile mothers, often need instrumental and emotional support to make ends meet (Heflin & Iceland, 2009; Kalil & Ryan, 2010; Manuel et al., 2012). In the case of fragile mothers, they may rely on family or neighbors for help with instrumental support such as living arrangements, financial assistance and especially childcare assistance. Furthermore, research shows that social support may be a way that fragile mothers get relief with mental health issues such as stress and depression (Manuel et al., 2012). Fragile mothers who have both emotional support of her partner as well as instrumental support report lower rates of depression (Cairney et al., 2003; Manuel et al., 2012; Meadows et al, 2007).
In addition, social support is also known to be a moderator for use of mental health services. Those with greater support may be less likely to use professional help for mental health issues (Martinez & Lau, 2011). Also, some cultures with strong family ties rely on family support for logistical and emotional support and do so before seeking help outside the family (Medina & Magnuson, 2009; Vogel et al., 2007). The role of social support in moderating the relationship between counseling use and depression is unknown. The present study looked at this relationship and how this factor can be addressed in the research and treatment of fragile mothers.

Chapter Summary

The conceptual and theoretical frameworks of Feminism and Relational-Cultural theory help to frame the complex and multifaceted concept of womanhood and provide ways that therapy can help heal and empower. The framework of social support helps explain how relationships, society and culture can also play on a woman’s wellbeing and emotional health. Motherhood adds another layer of complexity that influences a woman’s mental health as well as the welfare of her family (Medina & Magnuson, 2009). If a mother is also from a fragile family, her circumstances are often even more complicated and stressful. The influence of government policies and support programs, family and social support and relationship and partner status has been studied as factors or influences for assisting these mothers, but no research exists on the influence of counseling with fragile mothers. Therefore, the purpose of the current study was to investigate the influence of counseling on levels of major depression in mothers of fragile families as well as to explore the moderating effect of social support.
Chapter Three

Method

Women in the United States suffer from high rates of depression and in particular, mothers in fragile families have even higher rates of depression than women in the general U.S. population (CDC, 2007; Crandall et al., 2010; NCS, 2003). While studies show that social support is a way that lower-income families and fragile mothers cope with depression (Ciabattari, 2007; Manuel et al., 2012), less is known if mothers in fragile families seek counseling for coping with depression. Also unknown is if counseling, when controlling for other relevant characteristics, can have a long-term influence on depression for these particular women. Therefore, the primary research questions guiding this study included:

1. After controlling for relevant characteristics, is there a significant relationship between counseling and depression in fragile mothers?

2. Does social support moderate the relationship between counseling and depression in fragile mothers?

Based on these research questions, the following hypotheses were tested:

**Hypothesis 1.** Controlling for demographic and other relevant characteristics, fragile mothers who participate in counseling will have reduced rates of depression.

**Hypothesis 2.** Social support significantly moderates counseling and depression in fragile mothers.
Dataset

This dissertation used data from the Fragile Families and Child Wellbeing (FFCW) study, a longitudinal study that followed a birth cohort of 4,898 children (born between 1998-2000) and includes demographic, social-emotional, occupation, and employment data from married (n=1,186) and unmarried (n=3,712) parents. The Fragile Families and Child Wellbeing Study is a unique and significant set of data since it offers longitudinal information on a particular subset of the U.S. population previously under-studied. The term "fragile families" differentiate these parents from other parents (McLanahan et al., 2001). At the birth of their child, couples from fragile families may be living together like a married couple or may have a close relationship but are living in separate households. This differs from single parents who more often are married at the birth of children and later divorce or separate. Families interviewed for the FFCW study were termed fragile families “because of the multiple risk factors associated with non-marital childbearing and to signify the vulnerability of the relationships within these families” (Reichman, Teitler, Garfinkel, & McLanahan, 2001, p. 306). The FFCW study includes a sizable sample of mothers who are more likely to live in lower-income families and have absent or unstable relationships with the fathers of their children. In addition, the FFCW study has a large sample of Black and Hispanic mothers.

Families were recruited using a stratified random sample of all cities within the United States with a population of 200,000 or more. The researchers further vetted cities in accordance with policy environments and labor market conditions in order to additionally diversify their sample (Reichman et al., 2001). Researchers used national
weights to make the data of 16 of the 20 cities representative of births in 77 U.S. cities with populations over 200,000. As of 2010, researchers have collected nine waves of data. Each wave of data collection coincides with the age of the child and is labeled as Baseline (at birth of the child) and years 1, 3, 5 and 9.

**Analytic Sample**

For the purposes of this dissertation, the analytic sample included mothers from two separate waves (year 3 and year 5). Mothers with a valid score of major depression (MD) and a valid score of use of counseling in year 3 and year 5 were included as the sample population. In this study, major depression was assessed by a series of questions asked by the researchers from the Composite International Diagnostic Interview Short Form (CIDI-SF) Version 1.0 (see dependent variable information below for scoring and psychometric data for this instrument; Kessler & Walters, 1998). Data from years 3 and 5 were specifically chosen for this study since these are critical years in a child’s development. As reported in the literature, young children of depressed mothers have greater risk to long-term difficulties such as issues with attachment, behavioral problems and delays in academic achievement (Bowen et al., 2012; Meadows et al., 2007; O’Connor et al., 2011). Maternal depression can be chronic or triggered by certain events; post-partum depression is one such trigger. Since post-partum depression is most prevalent soon after the birth of a child and more likely to dissipate within a year of a child’s birth (Najman et al., 2000), baseline data or year 1 was not used. Therefore, data collected at year 3 and year 5 was included in order to control for some possibility of post-partum depression.
Multiple subsampling criteria were employed. The first criterion includes mothers with a valid major depression score as reported by a subset of questions derived from the CIDI-SF at year 3 (dependent variable). The second criterion was a valid depression measure on the CIDI-SF at year 5. The third criterion was a valid measure of the two covariates of interest including counseling (independent variable) and social support (moderating variable).

Variables

Dependent Variable

**Depression.** The primary dependent variable for both research questions was depression. Depression was determined by a diagnosis of probable major depression using the Composite International Diagnostic Interview Short Form (CIDI-SF) Version 1.0 (Kessler & Walters, 1998). The FFCW researchers note that they used the term “probable” because they recognize that this is just one measure and not a full professional assessment of major depression (Center for Research on Child Wellbeing, 2006). The CIDI-SF is a standardized instrument based on criteria listed in the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised* (American Psychiatric Association, 1994). Short-form versions of standard instruments are often used in large scale studies due to their brevity and cost-savings. Patten, Brandon-Christie, Devji and Sedmak (2000) evaluated the short-form version of the CIDI for its performance in comparison to a longer version of the CIDI and found that the short-form had a positive
predictive value (for depression) of 75.1\% (95\% CI = 69.1-79.8\%) and a negative predictive value of 97.8\% (95\% CI = 94.1 – 99.3\%).

Andrews and Peters (1997) and Wittchen (1994) provide reviews of multiple studies utilizing the CIDI and report the psychometric properties of the CIDI include excellent inter-rater reliability, good test-retest reliability, and good validity. The Cronbach’s alpha for test-retest reliability for depression is .78 and .87 for internal consistency (Gigantesco & Morosini, 2008). Test-retest reliability is important since in this proposed study, CIDI-SF scores were explored at multiple waves. Procedural validity standards for the CIDI-SF are shown to be reliable with kappa levels at .84 for major depression (Wittchen, 1994). While reliability and validity studies of the CIDI are somewhat scarce, others have reported the instrument as having good reliability and validity (Kessler & Walters, 1998; Reed et al., 1998). Furthermore, there are also some noted limitations. The instrument is reported to be best used in large scale research projects and while the test is reliable in detecting depression, reviewers of the instrument caution in using it on its own in making clinical diagnoses (Aalto-Setala et al., 2002; Chittooran, 2000; Link, 2002). Additionally, reviewers suggest that some of the slang language used in questions may not translate well in all cross-cultural circumstances (Williams, 2000).

At year 3 and year 5, mothers from 20 cities were asked a subset of questions from the CIDI-SF. Mothers were asked if they have had depressed feelings or have been unable to enjoy what was previously pleasurable in the past year and if these feelings lasted two weeks or more. Those who reported yes to one of these two criteria were then
asked follow-up questions including if they felt tired, worthless, if they had changes in weight, thoughts of death, trouble sleeping or difficulty concentrating. Participants who met three or more of these symptoms are considered to have a diagnosable case of major depression. Scale documentation and the question code books provided by the FFCW study (Center for Research on Child Wellbeing, 2006) pre-determined the questions associated with the CIDI-SF (see Appendix A). The CIDI-SF has a scoring criterion from 0 (not depressed) to 8 (highest level of depression). Based on previous reports, those who score between 0-2 are not considered depressed; those with a score of 3-8 are considered having a probable case of major depression. Provided within the FFCW dataset is binary constructed variables for depression. For the purposes of this study, a valid score of depression (yes/no) was utilized at year 3 and year 5.

**Independent Variable**

**Counseling.** At year 3 and year 5, researchers asked questions to mothers about their use of counseling services (see Appendix A for detailed question). The researchers asked mothers if they received counseling or therapy for personal problems such as depression, anxiety, alcohol, or drug use problems. Participants were also able to identify (write-in) other reasons for receiving counseling. Questions in wave three data are included in Appendix A (the same questions were asked in year 5). Those who had a valid answer for counseling (yes/no) were included in the analytic design of this study. This is a binary measure with response of yes = 1 and no = 0 (year 3). In addition, a dichotomous variable was also created for counseling use in both years 3 and 5. The variable was created by combining both counseling year 3 and counseling year 5 and then
recoding the variable to yes = 1 (counseling was received in both years) and no=0 (counseling was either not received or only received in either year 3 or year 5).

Within the framework of Feminism and Relational-Cultural therapy, there are multiple factors that may prompt women to seek counseling services including relationship issues or abuse, grief, drug and/or alcohol use, parenting challenges, and societal pressures such as discrimination, marginalization, sexism, classism and other influences. Depression may be comorbid with many different issues such as drug and alcohol use, anxiety, stress and other factors. All are extremely important but beyond the limits of this dissertation. Instead, the focus was on depression as a factor for seeking counseling. Chapter 5 discusses the importance and potential of future studies (using FFCW data or other data) for exploring relationships between counseling and other variables, especially with this particular sample population.

**Moderating Variable**

**Social support.** Guided by the literature on social support, a variable of social support based on mothers’ responses was created. How to measure social support quantitatively varies by theoretical perspective, what specific aspects of social support one wants to measure as well as what data one has available. There are advantages and disadvantages to each approach but it is important to note that it is also subjective and open to interpretation (Hlebec, Mrzel, & Kogovšek, 2012). Therefore, a measure of social support was created after a factor analysis with series of questions about perceived relational, financial and logistical support for fragile mothers. These questions were chosen from the code book provided by FFCW of questions regarding social support.
Previous studies using FFCW data have used similar questions in order to measure levels of perceived support (Ciabattari, 2007; Manuel et al., 2012). The following dichotomous questions from the FFCW study (E1, E2, H2, H3, H4, and H5) were chosen to be reviewed in order to build a social support variable.

E1. Are mother and father living together all, most or some of the time?

E2. Are you currently involved in a romantic relationship with someone (other than [Father])?

H2. In the past 12 months, have you received any financial help or money from anyone other than (FATHER)? Please include your relatives and friends, and his relatives and friends, but don’t include help from any government or private agency.

H3. If you needed help during the next year, could you count on someone to loan you $200?

H4. Is there someone you could count on to provide you with a place to live?

H5. (Is there someone you could count on to) help you with emergency child care?

**Potential Confounding Variables**

In order to isolate the relationship between counseling and social support with depression, several demographic and socioeconomic factors were included as control variables. These variables included mothers’ demographic factors as well as employment and socioeconomic status. As discussed in the literature review, each of these control factors may contribute to a mother’s level of depression as well as her perception or use.
of counseling to alleviate feelings of depression. Basic demographic variables were included from baseline data: mother’s age at birth of child, education (less than high school, high school, some college, college and above, with high school as the reference category), and race/ethnicity (Black, White, Hispanic, other, with White as the reference category). Other variables were time-varying (relationships status, poverty, employment, number of children). Relationship status with father was also included. In addition poverty was assessed based on whether or not income (reported by the mother) was at or below 100% of the federal poverty level. Weekly hours worked were used to average the number of hours the mother reported working during each wave.

**Analytic Strategy**

The following section includes the analytic procedure followed in order to analyze the data and test the hypotheses. Steps include data cleaning and management, descriptive procedures and preliminary data analysis, construction of the moderating variable, model building and regression analysis.

**Data Cleaning**

In order to begin the data analysis procedure, the SPSS files for year 3 and year 5 were downloaded from the restricted access section of the FFCW data pages. From these two files, using the codebooks supplied by FFCW, the list of variables needed for the data analysis were identified including constructed measures such as mothers ID (baseline, year 3 and year 5) and mothers five-year national replicate weights. FFCW
researchers used national weights to make the data of 16 of the 20 cities representative of births in 77 U.S. cities with populations over 200,000.

After isolating the variables needed for the study from year 3 and year 5, unnecessary variables were deleted and the final version combined into one SPSS file. Following this procedure, the missing variables were recoded into one (-9= missing) and dummy variables created for education, race, and relationship (married/unmarried). Frequencies were run on all variables to check for accuracy in the data conversion. Finally, the file was filtered by selecting cases used in the final study. Missing data was excluded. Cases included were: mothers interviewed in both year 3 and year 5, valid score of depression in year 3 and year 5 and valid score of counseling use in year 3 and 5 making the final N=3,325.

With the data filtered by the selected cases (interviewed year 3 and year 5; valid score of depression year 3 and year 5 and valid score of counseling use in year 3 and year 5), descriptive statistics were run for demographic information (race, educational level, marriage status, age, poverty level, number of children in the household and hours worked per week) in regards to level of depression and counseling use.

**Descriptive Procedures**

With the filtered data file, a report of descriptive information was generated with counseling as the independent variable and all of the analytic variables. Categorical variables included race, poverty level, education level, and marital status. Continuous variables included age, hours worked per week and number of children. After this procedure, significance tests were conducted including chi-square for the categorical
variables for mothers with a valid score of depression and a valid score for use of counseling. T-tests were used for the continuous variables of depression and counseling use to determine significance. Descriptive statistics and significance are reported in table 1 in chapter four.

**Social Support Variable**

For the social support variable, descriptive information was analyzed for the social support questions (listed previously on page 51) to determine the size of the N and whether the questions were appropriate to keep. A factor analysis was conducted to see what questions explained the most variance in social support (see detailed account of factor analysis results in chapter 4). The factor analysis determined that E1 (current living arrangement with father) and E2 (relationship with someone other than father) and H2 (financial help from anyone other than father) did not contribute enough to the variance and consequently dropped from the analysis. From the three remaining binary items, one composite measure was created that reflected the summed scale indication level of perceived social support. From this summed scale, a dichotomous variable was created with yes = 1 (social support was received) and no = 0 (no social support was received).

For the moderating variable, the counseling year 3 and binary social support variable was combined in SPSS to create an interaction term. The result was a binary variable of yes = 1 (both social support and counseling received in year 3) or no = 0 (either social support or counseling was received in year 3 or not at all). The variable was created to test the interaction of social support with counseling on depression.
Data Analysis

Preliminary data analysis was conducted using SPSS software. Final analysis that included the national weights was conducted in Stata. For research question one, exploring the relationship between counseling (year 3) and depression (year 5), a logistic regression model was utilized. Logistic regression was appropriate because it allowed for testing models that predicted outcomes with a dichotomous dependent variable (Field, 2013). The first step in this regression was to measure the contribution of the descriptive control variables. The control variables included (1) age, (2) race, (3) education level, (4) number of children, (5) hours worked per week, (6) poverty level and (7) marital status. The statistical analysis with the first step in this model provided data on the association of these demographic aspects on depression (Field, 2013). In the second step of this model, depression year 3 was added to the demographic variables. In the third step, depression year 3 was removed and counseling year 3 was added. These two steps were conducted to see the influence of these two individual variables. In the fourth step of this model, both depression year 3 and counseling year 3 were added along with the demographic variables. In the fifth step of this model, counseling year 3 was removed and replaced with counseling year 3 and year 5. Results are outlined in regression tables 2 through 6 in chapter 4.

To test the second research question, the influence of social support on both depression as well as the moderating effect of social support, a logistic regression was also utilized. In the first step of the model, all descriptive variables were added including depression year 3 and counseling year 3 and then the binary measure of social support.
To test the interaction of counseling and social support on depression level, the
demographic variables were used as well as depression year 3, counseling year 3 and the
interaction variable for social support. Results are outlined in table 7 and 8 in chapter 4.

Throughout the data analysis a significance level of .05 was used to determine
significance. Because this study was exploratory with the objective of exploring the
relationships between counseling and depression as well as counseling, social support and
depression, a slight higher level of risk of error was allowable (Remler & Ryzin, 2011).
The significance level of .05 was chosen since is most widely utilized and it used with
data, as is the case with this study, in which variables have a wide range in answer rates
(Field, 2013). Findings are reported and interpreted in Chapter 4. Furthermore, all
analysis was conducted with national weights. National weights were used in order to get
unbiased statistical estimates and makes the results of the data in this study, originally
collected in 16 randomly selected cities, representative of large U.S. cities (cities with
population sizes over 200,000) (Center for Research on Child Wellbeing, 2008). Chapter
5 includes a discussion of the results, implications, limitations, and direction for future
research based on the findings.
Chapter Four

Introduction

The focus of this study was on fragile mothers and the influence of counseling and social support on rates of depression. Specifically, the relationship of counseling use on rates of depression as well as the moderating effect of social support. Age, race, education level, number of children, socioeconomic status and relationship with the father were considered control variables in all aspects of this research. The sample included data from the Fragile Families and Child Well Being study, a longitudinal study that followed a birth cohort of 4,898 children (born between 1998-2000) and included demographic, social-emotional, occupation, and employment data from married (n=1,186) and unmarried (n=3,712) parents. For the purposes of this dissertation, the analytic sample included mothers from two separate waves of data collection (year 3 and year 5). Mothers with a valid score of major depression and a valid score of use of counseling in year 3 and year 5 were included as the sample population.

This chapter summarizes the results of the data analysis used to answer the research questions: (1) After controlling for relevant characteristics, is there a significant relationship between counseling and depression in fragile mothers? and question (2) Does social support moderate the relationship between counseling and depression in fragile mothers? The following chapter includes a description of all demographic information, followed by results of significant tests of these demographic variables. The process of creating the social support variable is explained including factor analysis procedures and the final product of the social support variable. Logistic regression analysis was used to
measure the predictive power of the independent variables in this study. A summary of the results of this 5-step logistic regression (question 1) and 2-step logistic regression (question 2) are described and discussed.

Results

Analytic Sample

The analytic sample, mothers with a valid score of major depression and a valid score of use of counseling in years 3 and 5 were included for a total subsample (N) of 3,325. Over 50% of this sample identified as Black, with the majority of the others identifying as White (22%) and Hispanic (23%). Most of the sample had less than a high-school degree and less than 10% had a college degree or more. In addition, over 70% of the sample at year 3 identified as being unmarried. The average age of participants (taken at baseline) was 28 with a standard deviation of 6 and the average number of children (at year 3) was 2. Most participates worked an average of 36 hours per week. Poverty level was measured at the ratio of total household income to the official poverty thresholds established by the U.S. Census Bureau established one year before the data wave. In reviewing the descriptive information on poverty, 42.8% the household income on the selected cases were at or below the poverty levels for the year the data was collected.

Measuring Social Support

For the social support variable, a confirmatory factor analysis was conducted in order to get a better sense of the structure of the selected social support variables. Factor
analysis allows a researcher to explain the maximum amount of variance that is common among the constructs or factors (Field, 2013). The large sample size of the Fragile Families and Child Wellbeing dataset made the results of the factor analysis more generalizable (Tinsley & Tinsley, 1987).

A principal axis factor analysis was conducted on 6 items (questions E1, E2, H2, H3, H4 and H5, see appendix for questions) chosen from the FFCW study to represent social support. Questions involved living arrangements, romantic relationships, financial support, childcare and housing. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = .677 (‘mediocre to middle’ according to Hutchenson and Sofroniou, 1999 as cited in Field, 2013), and all remaining KMO values for individual items were greater than .63 which is above the acceptable limit of .50 (Field, 2013).

An initial analysis was run to obtain eigenvalues for each factor in the data. One factor had an eigenvalue over Kaiser’s criterion of 1 and explained 64.9% of the variance. The questions within this factor had very similar loadings and included questions H3 (KMO=.806), H4 (KMO=.880) and H5 (KMO=.846). The factor analysis determined that E1, E2 and H2 did not contribute enough to the variance and consequently dropped from the analysis. The items remaining clustered on one factor which represented immediate instrumental support (having a place to stay, loaning money and childcare). The scree plot also confirmed retaining one factor. This factor was retained because of the large sample size, the connection of the scree plot and Kaiser’s criterion on this value (Field, 2013).
In order to check the results of the factor analysis, a continuous variable was created by combining the following dichotomous questions (H3, H4, and H5) in SPSS. This composite measure reflected a summed scale indication level of perceived social support (0 – 3). The relationship between the factor analysis and this composite measure of support was investigated using Pearson product-moment correlation coefficient. There was a strong, positive correlation between the two variables (the factor analysis measure and the composite measure), \( r = .99, N = 3,232, p < .001 \), indicating the two variables are measuring the same information. From these three binary items, one composite measure was created that reflected the summed scale indication level of perceived social support. Results indicated a skew in the summed scale indicating that those who received one form of social support were more likely to have received all three (childcare, financial help and a place to stay if needed). Therefore, from this summed scale, a dichotomous variable yes = 1 (social support was received) and no = 0 (no social support was received) was created. This binary measure was used in the regression analyses as the social support variable.

**Descriptive Results**

**Socio-demographic characteristics:** Using the theoretical framework of Feminist and Relational-Cultural Theory, as well as information gathered from the literature review, specific socio-demographic characteristics were included in this analysis. These socio-demographic variables were chosen based on their potential influence of the mental health of mothers and include race, socio-economic status, education level, employment and marital status. The following bivariate statistics were
performed to develop a better understanding of the relationship between the socio-demographic variables and depression in fragile mothers.

**Depression:** In examining descriptive information on depression in this sample, 20% of the sample had a probable case of major depression. In this study, major depression was assessed by a series of questions asked by the researchers from the Composite International Diagnostic Interview Short Form (CIDI-SF) Version 1.0 (Kessler & Walters, 1998). The FFCW data set included a dichotomous coded indicator of a probable case of depression for mother in both years 3 and 5.

A chi-square test of independence was performed to examine the relationship between categorical demographic characteristics (year 3) and depression in mothers (year 5). The results indicated that there is a significant relationship between depression and the following categorical demographic variables: education $\chi^2 (1, n = 3,322) = .075, p <.001$, poverty $\chi^2 (1, n = 3,247) = .064, p <.05$, marriage $\chi^2 (1, n = 3,320) = .051, p <.05$ and social support $\chi^2 (1, n = 3,325) = .127, p <.001$ (Table 1).
Table 1

Demographic Information for Fragile Mothers - Depression Selected Cases (unweighted)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Depression Yes</th>
<th></th>
<th>Depression No</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
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<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td><strong>Race</strong></td>
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<td></td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>278</td>
<td>(8%)</td>
<td>1,408</td>
<td>(42%)</td>
<td>1,686</td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>140</td>
<td>(4%)</td>
<td>602</td>
<td>(18%)</td>
<td>742</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>108</td>
<td>(3%)</td>
<td>670</td>
<td>(20%)</td>
<td>778</td>
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<tr>
<td>Other Race</td>
<td>16</td>
<td>(1%)</td>
<td>99</td>
<td>(3%)</td>
<td>115</td>
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</tr>
<tr>
<td></td>
<td>542</td>
<td></td>
<td>2,779</td>
<td></td>
<td>3,321</td>
<td></td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than HS</td>
<td>212</td>
<td>(6%)</td>
<td>990</td>
<td>(30%)</td>
<td>1,202</td>
<td></td>
</tr>
<tr>
<td>HS or equivalent</td>
<td>133</td>
<td>(4%)</td>
<td>748</td>
<td>(23%)</td>
<td>881</td>
<td></td>
</tr>
<tr>
<td>Some college, technical</td>
<td>161</td>
<td>(5%)</td>
<td>706</td>
<td>(21%)</td>
<td>867</td>
<td></td>
</tr>
<tr>
<td>College or graduate school</td>
<td>35</td>
<td>(1%)</td>
<td>337</td>
<td>(10%)</td>
<td>372</td>
<td></td>
</tr>
<tr>
<td></td>
<td>541</td>
<td></td>
<td>2,781</td>
<td></td>
<td>3,322</td>
<td></td>
</tr>
<tr>
<td><strong>Poverty Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At or below poverty level</td>
<td>259</td>
<td>(8%)</td>
<td>1,165</td>
<td>(36%)</td>
<td>1,424</td>
<td></td>
</tr>
<tr>
<td>1.1 to 2.0 times poverty level</td>
<td>140</td>
<td>(4%)</td>
<td>677</td>
<td>(21%)</td>
<td>817</td>
<td></td>
</tr>
<tr>
<td>1.2 2.1 to 3.0 times poverty level</td>
<td>54</td>
<td>(2%)</td>
<td>312</td>
<td>(10%)</td>
<td>366</td>
<td></td>
</tr>
<tr>
<td>3.1 and above poverty level</td>
<td>77</td>
<td>(2%)</td>
<td>563</td>
<td>(17%)</td>
<td>640</td>
<td></td>
</tr>
<tr>
<td></td>
<td>530</td>
<td></td>
<td>2,717</td>
<td></td>
<td>3,247</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>141</td>
<td>(4%)</td>
<td>900</td>
<td>(27%)</td>
<td>1,041</td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>401</td>
<td>(12%)</td>
<td>1,878</td>
<td>(57%)</td>
<td>2,279</td>
<td></td>
</tr>
<tr>
<td></td>
<td>542</td>
<td></td>
<td>2,778</td>
<td></td>
<td>3,320</td>
<td></td>
</tr>
<tr>
<td><strong>Social Support</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>214</td>
<td>(6%)</td>
<td>673</td>
<td>(20%)</td>
<td>887</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>328</td>
<td>(10%)</td>
<td>2,110</td>
<td>(64%)</td>
<td>2,438</td>
<td></td>
</tr>
<tr>
<td></td>
<td>542</td>
<td></td>
<td>2,783</td>
<td></td>
<td>3,325</td>
<td></td>
</tr>
</tbody>
</table>

*Poverty levels are the ratio of total household income to the official poverty thresholds established by the U.S. Census Bureau

*p<.05, **p<.001

An independent samples t-test was conducted to compare continuous variables (age, hours of work per week and number of children in the household in year 3) with depression in mothers in year 5 with the outcomes indicating that none of the continuous variables were significant (Table 2).
Table 2

Demographic Information for Fragile Mothers – Depression Selected Cases

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Depression Yes</th>
<th></th>
<th></th>
<th>Depression No</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>542</td>
<td>27.8</td>
<td>6.0</td>
<td>2,782</td>
<td>28.3</td>
<td>6.1</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>512</td>
<td>36.2</td>
<td>11.1</td>
<td>2,666</td>
<td>36.6</td>
<td>11.3</td>
</tr>
<tr>
<td>Number of Children</td>
<td>538</td>
<td>2.4</td>
<td>1.4</td>
<td>2,775</td>
<td>2.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

**Counseling:** A chi-square test of independence was performed to examine the relationship between categorical demographic characteristics and use of counseling. Similar to the demographic variables and depression, the results indicated that the following categorical demographic variables had a significant relationship with counseling: race $\chi^2 (1, n = 3,321) = .047, p <.001$; education level $\chi^2 (1, n = 3,322) = .053, p <.05$; marriage $\chi^2 (1, n = 3,320) = .037, p <.05$; and social support $\chi^2 (1, n = 3,325) = .049, p <.05$ (Table 3).
Table 3

Demographic Information for Fragile Mothers – Use of Counseling Selected Cases (unweighted)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Counseling Yes</th>
<th></th>
<th>Counseling No</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td><strong>Race</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>102</td>
<td>(3%)</td>
<td>1,585</td>
<td>(48%)</td>
<td>1,686</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>75</td>
<td>(2%)</td>
<td>667</td>
<td>(20%)</td>
<td>742</td>
</tr>
<tr>
<td>Hispanic</td>
<td>44</td>
<td>(1%)</td>
<td>734</td>
<td>(22%)</td>
<td>778</td>
</tr>
<tr>
<td>Other Race</td>
<td>3</td>
<td>(.1%)</td>
<td>112</td>
<td>(3%)</td>
<td>115</td>
</tr>
<tr>
<td>**Total</td>
<td>224</td>
<td></td>
<td>3,098</td>
<td></td>
<td>3,321</td>
</tr>
<tr>
<td><strong>Education Level</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than HS</td>
<td>87</td>
<td>(3%)</td>
<td>1,115</td>
<td>(34%)</td>
<td>1,202</td>
</tr>
<tr>
<td>HS or equivalent</td>
<td>40</td>
<td>(1%)</td>
<td>841</td>
<td>(25%)</td>
<td>881</td>
</tr>
<tr>
<td>Some college, technical</td>
<td>69</td>
<td>(2%)</td>
<td>798</td>
<td>(24%)</td>
<td>867</td>
</tr>
<tr>
<td>College or graduate school</td>
<td>27</td>
<td>(1%)</td>
<td>345</td>
<td>(10%)</td>
<td>372</td>
</tr>
<tr>
<td>**Total</td>
<td>223</td>
<td></td>
<td>3,099</td>
<td></td>
<td>3,322</td>
</tr>
<tr>
<td><strong>Poverty Level</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At or below poverty level</td>
<td>110</td>
<td>(3%)</td>
<td>1,314</td>
<td>(41%)</td>
<td>1,424</td>
</tr>
<tr>
<td>1.3 to 2.0 times poverty level</td>
<td>43</td>
<td>(1%)</td>
<td>774</td>
<td>(24%)</td>
<td>817</td>
</tr>
<tr>
<td>1.4 2.1 to 3.0 times poverty level</td>
<td>28</td>
<td>(1%)</td>
<td>338</td>
<td>(10%)</td>
<td>366</td>
</tr>
<tr>
<td>3.1 and above poverty level</td>
<td>39</td>
<td>(1%)</td>
<td>601</td>
<td>(19%)</td>
<td>640</td>
</tr>
<tr>
<td>**Total</td>
<td>220</td>
<td></td>
<td>3,027</td>
<td></td>
<td>3,247</td>
</tr>
<tr>
<td><strong>Marital Status</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>56</td>
<td>(8%)</td>
<td>985</td>
<td>(30%)</td>
<td>1,041</td>
</tr>
<tr>
<td>Unmarried</td>
<td>168</td>
<td>(5%)</td>
<td>2,111</td>
<td>(64%)</td>
<td>2,279</td>
</tr>
<tr>
<td>**Total</td>
<td>224</td>
<td></td>
<td>3,096</td>
<td></td>
<td>3,320</td>
</tr>
<tr>
<td><strong>Social Support</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>78</td>
<td>(2%)</td>
<td>809</td>
<td>(24%)</td>
<td>887</td>
</tr>
<tr>
<td>No</td>
<td>146</td>
<td>(4%)</td>
<td>2,292</td>
<td>(69%)</td>
<td>2,438</td>
</tr>
<tr>
<td>**Total</td>
<td>224</td>
<td></td>
<td>3,101</td>
<td></td>
<td>3,325</td>
</tr>
</tbody>
</table>

*Poverty levels are the ratio of total household income to the official poverty thresholds established by the U.S. Census Bureau

* p<.05, **p<.001

An independent samples t-test was conducted to compare continuous variables (age, hours of work per week and number of children in the household) with use of counseling in mothers in year 3. Age was the only variable to be significant with
counseling no \((M = 28.0, SD = 6.0)\) and counseling yes \((M = 29.6, SD = 6.2)\); \(t(3322) = 3.80, p < .001\), two-tailed) (Table 4).

### Table 4

**Demographic Information for Fragile Mothers – Use of Counseling Selected Cases**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Counseling Yes</th>
<th>Counseling No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N)</td>
<td>(M)</td>
</tr>
<tr>
<td>Age**</td>
<td>225</td>
<td>29.6</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>212</td>
<td>36.1</td>
</tr>
<tr>
<td>Number of Children</td>
<td>221</td>
<td>2.4</td>
</tr>
</tbody>
</table>

**\(p < .001\)**

Considering the differences in the covariates, each was controlled for in the following regression models.

### Analytical Results

In order to explore the first research question, the relationship between counseling (year 3) and depression (year 5), a logistic regression model was used. Since the dependent variable (depression) was a dichotomous variable, the use of logistic regression was appropriate (Field, 2013). The first step in this regression was to measure the contribution of the descriptive control variables. The control variables included age, race, education level, number of children, hours worked per week, poverty level and marital status. The statistical analysis with the first step in this model provided data on the relationship of these demographic aspects on depression. In the second step of this model, depression year 3 was added to the demographic variables. In the third step, depression year 3 was removed and counseling year 3 was added. These two steps were conducted to see the influence of these two individual variables. In the fourth step of this
model, both depression year 3 and counseling year 3 were added along with the
demographic variables. In the fifth step of this model, counseling year 3 was removed
and replaced with counseling years 3 and 5.

**Counseling and depression**

**Demographic variables:** Most demographic variables did not have a significant
relationship with depression including the age of the mother, hours she worked, number
of children or her marital status. Whites, however, were 1.5 times more likely to be
depressed, and having a college degree and being three times the poverty level
significantly predicted a lesser likelihood of depression than that of the reference
categories (being Black, less than a high school degree and at or below the poverty level).
The regression analysis using only the demographic variables to predict depression,
however, only explained a very small amount of the variation in depression, only 1.6%.
Model 1

Predictors of Depression in Fragile Mothers (N=3,003) - Demographic Variables (Weighted)

<table>
<thead>
<tr>
<th>Variable</th>
<th>b (SE)</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.23 (.010)</td>
<td>1.00</td>
<td>[.983 1.02]</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>3.32 (.207)</td>
<td>1.55**</td>
<td>[1.19 2.01]</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-1.06 (.118)</td>
<td>.866</td>
<td>[.664 1.13]</td>
</tr>
<tr>
<td>Other</td>
<td>-0.45 (.287)</td>
<td>.860</td>
<td>[.447 1.66]</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS or equiv</td>
<td>-0.57 (.123)</td>
<td>.928</td>
<td>[.716 1.20]</td>
</tr>
<tr>
<td>Some College or Tech</td>
<td>1.41 (.168)</td>
<td>1.22</td>
<td>[.927 1.59]</td>
</tr>
<tr>
<td>College or Grad</td>
<td>-1.98 (.153)</td>
<td>.609*</td>
<td>[.372 .995]</td>
</tr>
<tr>
<td>Number of Children</td>
<td>0.43 (.040)</td>
<td>1.02</td>
<td>[.941 1.10]</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>-0.08 (.004)</td>
<td>.999</td>
<td>[.990 1.01]</td>
</tr>
<tr>
<td>Poverty Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1-2.0 times pov lvl</td>
<td>-0.67 (.119)</td>
<td>.917</td>
<td>[.711 1.18]</td>
</tr>
<tr>
<td>2.1-3.0 times pov lvl</td>
<td>-1.02 (.150)</td>
<td>.831</td>
<td>[.583 1.19]</td>
</tr>
<tr>
<td>3.1-above pov lvl</td>
<td>-2.30 (.121)</td>
<td>.650*</td>
<td>[.451 .938]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-1.33 (.122)</td>
<td>.836</td>
<td>[.641 1.08]</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.37 (.059)</td>
<td>.193**</td>
<td>[.106 .352]</td>
</tr>
<tr>
<td>$X^2$</td>
<td></td>
<td>41.09</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td></td>
<td>.016 (1.6%)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Reference categories include: race – Black; education level - less than HS; poverty level – at or below. OR = Odds Ratio; CI = confidence interval.
* $p < .05$, ** $p < .001$

**Demographic variables and depression:** In Model 2, having a valid score of depression in year 3 was added. A valid score of depression in year 3 was a highly significant predictor of depression in year 5. The mothers depressed in year 3 were 6.5 times more likely to be depressed in year 5. Being White was also a significant predictor of depression. White women were 1.5 times more likely to be depressed in year 5. Also, a college education was a significant predictor of less depression (approximately 40% less likely to be depressed). By adding depression, the model summary changed from
1.6% (Model 1 $X^2 = 41.09$) of the variance to 13% (Model 2 $X^2 = 329.93$). Previous depression as a significant contributor to future depression was consistent with other studies that analyze depression in this population and its persistence over time (Turney, 2011; Turney, 2012).

### Model 2

**Predictors of Depression in Fragile Mothers - includes Depression Y3 (N=3,003) (Weighted)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$b$ (SE)</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.55 (.011)</td>
<td>1.01</td>
<td>[.985 1.03]</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.83 (.214)</td>
<td>1.50*</td>
<td>[1.13 1.98]</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-0.05 (.143)</td>
<td>.993</td>
<td>[.749 1.32]</td>
</tr>
<tr>
<td>Other</td>
<td>-0.43 (.302)</td>
<td>.860</td>
<td>[.431 1.71]</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS or equiv</td>
<td>0.03 (.141)</td>
<td>1.00</td>
<td>[.762 1.32]</td>
</tr>
<tr>
<td>Some College or Tech</td>
<td>1.11 (.174)</td>
<td>1.18</td>
<td>[.882 1.57]</td>
</tr>
<tr>
<td>College or Grad</td>
<td>-1.68 (.168)</td>
<td>.642*</td>
<td>[.383 1.08]</td>
</tr>
<tr>
<td>Number of Children</td>
<td>0.42 (.043)</td>
<td>1.02</td>
<td>[.936 1.10]</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>-0.85 (.005)</td>
<td>.996</td>
<td>[.986 1.00]</td>
</tr>
<tr>
<td>Poverty Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 – 2.0 times pov lvl</td>
<td>0.06 (.139)</td>
<td>1.01</td>
<td>[.787 1.32]</td>
</tr>
<tr>
<td>2.1 – 3.0 times pov lvl</td>
<td>-0.22 (.185)</td>
<td>.959</td>
<td>[.657 1.40]</td>
</tr>
<tr>
<td>3.1 – above pov lvl</td>
<td>-1.10 (.158)</td>
<td>.805</td>
<td>[.548 1.18]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.43 (.136)</td>
<td>.941</td>
<td>[.710 1.26]</td>
</tr>
<tr>
<td>Depression Y3</td>
<td>17.08 (.736)</td>
<td>6.64**</td>
<td>[5.35 8.27]</td>
</tr>
<tr>
<td>Constant</td>
<td>-7.02 (.032)</td>
<td>.096**</td>
<td>[.050 .185]</td>
</tr>
<tr>
<td>$X^2$</td>
<td>329.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$df$</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>.126 (13%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Reference categories include: race – Black; education level - less than HS; poverty level – at or below. OR = Odds Ratio; CI = confidence interval.*

* $p < .05$, ** $p < .001$

**Demographic variables and counseling:** In Model 3, depression was removed and use of counseling in year 3 was added. Results indicated that use of counseling
significantly predicted an increased likelihood of depression and that those mothers who sought counseling in year 3 were over 3.5 times more likely to be depressed in year 5. In this Model, being White also significantly predicted depression, 1.5 times more likely. Also in this Model, having a college degree predicted 45% less likelihood of depression and being 3 times the poverty level also predicted less likelihood of depression, close to 30%.

Model 3

Predictors of Depression in Fragile Mothers - Includes Counseling Y3 (N=3,081) (Weighted)

<table>
<thead>
<tr>
<th>Variable</th>
<th>b (SE)</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.22 (.010)</td>
<td>.998</td>
<td>[.979 1.02]</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.74 (.192)</td>
<td>1.44**</td>
<td>[1.11 1.87]</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-1.25 (.114)</td>
<td>.844</td>
<td>[.647 1.10]</td>
</tr>
<tr>
<td>Other</td>
<td>0.35 (.338)</td>
<td>1.11</td>
<td>[.612 2.02]</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS or equiv</td>
<td>-0.55 (.122)</td>
<td>.930</td>
<td>[.718 1.20]</td>
</tr>
<tr>
<td>Some College or Tech</td>
<td>1.26 (.163)</td>
<td>1.19</td>
<td>[.908 1.56]</td>
</tr>
<tr>
<td>College or Grad</td>
<td>-2.23 (.143)</td>
<td>.573*</td>
<td>[.351 .935]</td>
</tr>
<tr>
<td>Number of Children</td>
<td>0.50 (.040)</td>
<td>1.01</td>
<td>[.944 1.10]</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>-0.40 (.004)</td>
<td>.998</td>
<td>[.989 1.01]</td>
</tr>
<tr>
<td>Poverty Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 – 2.0 times pov lvl</td>
<td>-0.13 (.126)</td>
<td>.983</td>
<td>[.763 1.26]</td>
</tr>
<tr>
<td>2.1 – 3.0 times pov lvl</td>
<td>-1.04 (.151)</td>
<td>.827</td>
<td>[.578 1.18]</td>
</tr>
<tr>
<td>3.1 – above pov lvl</td>
<td>-1.85 (.131)</td>
<td>.711</td>
<td>[.496 1.02]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-1.02 (.116)</td>
<td>.872</td>
<td>[.671 1.13]</td>
</tr>
<tr>
<td>Counseling Y3</td>
<td>8.29 (.573)</td>
<td>3.66**</td>
<td>[2.69 4.97]</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.27 (.201)</td>
<td>.201**</td>
<td>[.111 .366]</td>
</tr>
<tr>
<td>$X^2$**</td>
<td></td>
<td></td>
<td>107.17**</td>
</tr>
<tr>
<td>df</td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td></td>
<td></td>
<td>.039 (4%)</td>
</tr>
</tbody>
</table>

Note: Reference categories include: race – Black; education level - less than HS; poverty level – at or below. OR = Odds Ratio; CI = confidence interval.

* p <.05, ** p < .001
Demographic variables, counseling and depression: In Model 4, a valid score of depression in year 3 was added back with counseling. In this Model, depression and counseling significantly predicted an increase likelihood of depression, however adding counseling to this model slightly reduced the odds ratio for depression. Counseling predicted 1.7 times and depression predicted 6 times the likelihood of future depression. Also in this model, being White was significant compared to the reference categories with 1.5 times the likelihood of depression in year 5.
Model 4

Predictors of Depression in Fragile Mothers - includes Depression Y3 and Counseling Y3 (N=3,003) (Weighted)

<table>
<thead>
<tr>
<th>Variable</th>
<th>b (SE)</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.30 (.010)</td>
<td>1.00</td>
<td>[.982 1.02]</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.53 (.207)</td>
<td>1.44*</td>
<td>[1.08 1.91]</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-0.11 (.142)</td>
<td>.984</td>
<td>[.742 1.31]</td>
</tr>
<tr>
<td>Other</td>
<td>-0.34 (.311)</td>
<td>.887</td>
<td>[.447 1.76]</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS or equivalent</td>
<td>0.14 (.144)</td>
<td>1.02</td>
<td>[.774 1.35]</td>
</tr>
<tr>
<td>Some College or Tech</td>
<td>1.09 (.174)</td>
<td>1.17</td>
<td>[.878 1.57]</td>
</tr>
<tr>
<td>College or Grad</td>
<td>-1.74 (.167)</td>
<td>.631</td>
<td>[.377 1.06]</td>
</tr>
<tr>
<td>Number of Children</td>
<td>0.35 (.043)</td>
<td>1.01</td>
<td>[.933 1.10]</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>-0.85 (.005)</td>
<td>.996</td>
<td>[.986 1.00]</td>
</tr>
<tr>
<td>Poverty Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 – 2.0 times pov lvl</td>
<td>0.19 (.142)</td>
<td>1.05</td>
<td>[.782 1.35]</td>
</tr>
<tr>
<td>2.1 – 3.0 times pov lvl</td>
<td>-0.25 (.185)</td>
<td>.929</td>
<td>[.651 1.39]</td>
</tr>
<tr>
<td>3.1 – above pov lvl</td>
<td>-1.03 (.160)</td>
<td>.816</td>
<td>[.555 1.20]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.31 (.137)</td>
<td>.957</td>
<td>[.722 1.27]</td>
</tr>
<tr>
<td>Depression Y3</td>
<td>15.63 (.699)</td>
<td>6.06**</td>
<td>[4.83 7.59]</td>
</tr>
<tr>
<td>Counseling Y3</td>
<td>2.94 (.299)</td>
<td>1.68**</td>
<td>[1.19 2.38]</td>
</tr>
<tr>
<td>Constant</td>
<td>-6.81 (.034)</td>
<td>.102**</td>
<td>[.053 .197]</td>
</tr>
</tbody>
</table>

\[X^2 = 338.32\]
\[df = 15\]
\[Nagelkerke R^2 = .129 (13\%)\]

*Note: Reference categories include: race – Black; education level - less than HS; poverty level – at or below. OR = Odds Ratio; CI = confidence interval.*

* p < .05, ** p < .001

**Demographic variables, counseling over time and depression:** Model five explored the use of counseling over time and the prediction of depression. In this Model, there was a significant relationship between depression and counseling in mothers that received counseling in years 3 and 5. Those who received counseling in year 3 and year 5 were over 6 times more likely to be depressed in year 5.
Model 5

Predictors of Depression in Fragile Mothers - includes Depression Y3 and Counseling Y3 and Y5 (N=3,080) (Weighted)

<table>
<thead>
<tr>
<th>Variable</th>
<th>b (SE)</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.31 (.010)</td>
<td>1.00</td>
<td>[.982 1.02]</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.24 (.198)</td>
<td>1.38*</td>
<td>[1.04 1.83]</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-0.43 (.134)</td>
<td>.940</td>
<td>[.711 1.24]</td>
</tr>
<tr>
<td>Other</td>
<td>0.18 (.341)</td>
<td>1.06</td>
<td>[.563 1.99]</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS or equivalent</td>
<td>-0.24 (.140)</td>
<td>.968</td>
<td>[.736 1.27]</td>
</tr>
<tr>
<td>Some College or Tech</td>
<td>0.91 (.147)</td>
<td>1.14</td>
<td>[.857 1.52]</td>
</tr>
<tr>
<td>College or Grad</td>
<td>-2.01 (.264)</td>
<td>.587*</td>
<td>[.350 .986]</td>
</tr>
<tr>
<td>Number of Children</td>
<td>0.51 (.043)</td>
<td>1.02</td>
<td>[.940 1.11]</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>-1.31 (.005)</td>
<td>.994</td>
<td>[.985 1.00]</td>
</tr>
<tr>
<td>Poverty Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 – 2.0 times pov lvl</td>
<td>0.49 (.147)</td>
<td>1.07</td>
<td>[.817 1.40]</td>
</tr>
<tr>
<td>2.1 – 3.0 times pov lvl</td>
<td>-0.46 (.179)</td>
<td>.914</td>
<td>[.622 1.34]</td>
</tr>
<tr>
<td>3.1 – above pov lvl</td>
<td>-0.80 (.167)</td>
<td>.855</td>
<td>[.582 1.25]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.40 (.134)</td>
<td>.944</td>
<td>[.714 1.25]</td>
</tr>
<tr>
<td>Depression Y3</td>
<td>16.12 (.657)</td>
<td>5.94**</td>
<td>[4.79 7.38]</td>
</tr>
<tr>
<td>Counseling Y3 and Y5</td>
<td>6.52 (1.82)</td>
<td>6.39**</td>
<td>[3.66 11.15]</td>
</tr>
<tr>
<td>Constant</td>
<td>-6.66 (.037)</td>
<td>.112**</td>
<td>[.059 .214]</td>
</tr>
<tr>
<td>X²</td>
<td>386.82**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nagelkerke R²</td>
<td>.142 (14%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Reference categories include: race – Black; education level - less than HS; poverty level – at or below. OR = Odds Ratio; CI = confidence interval.

* p < .05, ** p < .001

Demographic variables, depression, counseling and social support: To test the second research question, the influence of social support on both depression as well as the moderating effect of social support, a logistic regression was conducted. In the first step of this Model, all descriptive variables, depression year 3, counseling year 3 and then the binary measure of social support were added. This step was to test the direct effect, not the moderating effect of social support. Findings support what was indicated in
previous models, that there was a significant relationship between being White (1.5 times more likely to be depressed), depression year 3 (5.7 times more likely to be depressed) and counseling (over 1.7 times more likely to be depressed in year 5). The results, however, indicated that there was a significant relationship between social support and depression and that those who have social support were 40% less likely to be depressed in year 5.
Model 6

Predictors of Depression in Fragile Mothers - Includes Counseling Y3, Depression Y3 and Social Support Y3 binary (N=3,003) (Weighted)

<table>
<thead>
<tr>
<th>Variable</th>
<th>b (SE)</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.08 (.011)</td>
<td>1.00</td>
<td>[.980 1.02]</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.82 (.218)</td>
<td>1.50*</td>
<td>[1.13 2.00]</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.01 (.144)</td>
<td>1.00</td>
<td>[.754 1.33]</td>
</tr>
<tr>
<td>Other</td>
<td>-0.43 (.303)</td>
<td>.858</td>
<td>[.429 1.71]</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS or equiv</td>
<td>0.33 (.148)</td>
<td>1.04</td>
<td>[.793 1.38]</td>
</tr>
<tr>
<td>Some College or Tech</td>
<td>1.36 (.182)</td>
<td>1.22</td>
<td>[.914 1.64]</td>
</tr>
<tr>
<td>College or Grad</td>
<td>-1.54 (.176)</td>
<td>.664</td>
<td>[.395 1.12]</td>
</tr>
<tr>
<td>Number of Children</td>
<td>0.07 (.043)</td>
<td>1.00</td>
<td>[.922 1.09]</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>-0.85 (.005)</td>
<td>.996</td>
<td>[.986 1.00]</td>
</tr>
<tr>
<td>Poverty Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 – 2.0 times pov lvl</td>
<td>0.51 (.150)</td>
<td>1.07</td>
<td>[.816 1.41]</td>
</tr>
<tr>
<td>2.1 – 3.0 times pov lvl</td>
<td>0.12 (.200)</td>
<td>1.02</td>
<td>[.698 1.50]</td>
</tr>
<tr>
<td>3.1 – above pov lvl</td>
<td>-0.47 (.181)</td>
<td>.910</td>
<td>[.616 1.34]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.21 (.139)</td>
<td>.970</td>
<td>[.731 1.28]</td>
</tr>
<tr>
<td>Depression Y3</td>
<td>15.07 (.668)</td>
<td>5.75**</td>
<td>[4.58 7.22]</td>
</tr>
<tr>
<td>Counseling Y3</td>
<td>2.99 (.302)</td>
<td>1.70*</td>
<td>[1.20 2.41]</td>
</tr>
<tr>
<td>Social Support</td>
<td>-4.04 (.074)</td>
<td>.610**</td>
<td>[.481 0.775]</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.44 (.052)</td>
<td>.150**</td>
<td>[.075 .297]</td>
</tr>
<tr>
<td>(X^2)</td>
<td>338.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nagelkerke (R^2)</td>
<td>.129 (13%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Reference categories include: race – Black; education level - less than HS; poverty level – at or below. OR = Odds Ratio; CI = confidence interval.

* \(p < .05\), ** \(p < .001\)

Social support as a moderator: Finally, the last Model answered the second research question: Does social support moderate the relationship between counseling and depression in fragile mothers? In this Model, the demographic variables were included as well as depression year 3, counseling year 3 and the binary measure of social support. In this Model, an interaction term for counseling and social support was added. As with
previous models, being White predicts 1.5 times the likelihood of depression and a
previous case of depression (in year 3) continues to be a strong predictor of depression
(5.7 times the likelihood). The binary measure of social support continues to predict a
40% decrease in the likelihood of depression. The moderating effect of social support
with counseling, however, was not a significant predictor of depression. In fact,
counseling was not significant in this model at all.
Model 7

*Predictors of Depression in Fragile Mothers - Includes Depression Y3 and an interaction term for Counseling use and Social Support Y3 (N=3,003) (Weighted)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>b (SE)</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.07 (.011)</td>
<td>1.00</td>
<td>[0.980 1.02]</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.79 (.217)</td>
<td>1.50*</td>
<td>[1.12 1.99]</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.00 (.144)</td>
<td>1.00</td>
<td>[0.753 1.32]</td>
</tr>
<tr>
<td>Other</td>
<td>-0.44 (.303)</td>
<td>0.910</td>
<td>[0.428 1.71]</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS or equivalent</td>
<td>0.34 (.148)</td>
<td>1.05</td>
<td>[0.794 1.38]</td>
</tr>
<tr>
<td>Some College or Tech</td>
<td>1.36 (.182)</td>
<td>1.22</td>
<td>[0.914 1.64]</td>
</tr>
<tr>
<td>College or Grad</td>
<td>-1.55 (.175)</td>
<td>0.663</td>
<td>[0.394 1.11]</td>
</tr>
<tr>
<td>Number of Children</td>
<td>0.08 (.043)</td>
<td>1.00</td>
<td>[0.922 1.09]</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>-0.86 (.005)</td>
<td>0.995</td>
<td>[0.986 1.00]</td>
</tr>
<tr>
<td>Poverty Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 – 2.0 times pov lvl</td>
<td>0.50 (.150)</td>
<td>1.07</td>
<td>[0.815 1.41]</td>
</tr>
<tr>
<td>2.1 – 3.0 times pov lvl</td>
<td>0.12 (.200)</td>
<td>1.02</td>
<td>[0.697 1.50]</td>
</tr>
<tr>
<td>3.1 – above pov lvl</td>
<td>-0.47 (.181)</td>
<td>0.911</td>
<td>[0.616 1.35]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.20 (.139)</td>
<td>0.971</td>
<td>[0.732 1.28]</td>
</tr>
<tr>
<td>Depression Y3</td>
<td>15.04 (.668)</td>
<td>5.75**</td>
<td>[4.57 7.22]</td>
</tr>
<tr>
<td>Counseling Y3</td>
<td>1.54 (.480)</td>
<td>1.59</td>
<td>[0.879 2.87]</td>
</tr>
<tr>
<td>Soc Support binary</td>
<td>-3.93 (.077)</td>
<td>.603**</td>
<td>[.469 .776]</td>
</tr>
<tr>
<td>Coun/Social Support</td>
<td>0.28 (.402)</td>
<td>1.10</td>
<td>[.541 2.25]</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.37 (.053)</td>
<td>.151**</td>
<td>[.076 .301]</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td></td>
<td>354.38</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td></td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td></td>
<td>.135 (14%)</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Reference categories include: race – Black; education level - less than HS; poverty level – at or below. OR = Odds Ratio; CI = confidence interval.

* $p < .05$, ** $p < .001$

Full discussion of the results as well as implications for counseling and other professionals, limitations and considerations for future research are discussed in chapter five.
Chapter Five

Introduction

There has been a significant rise of children born to unmarried parents; currently 40% of U.S. births are by unmarried women, an increase from 10% of all birth in the 1970s (Martin et al., 2011). While some couples are intentionally deciding not to marry, women are choosing to have children on their own and same-sex couples (who may not have the legal right to marry) with children are also contributing to this changing trend. Still, a disproportionate percentage of unmarried births are occurring in low-income, minority populations. To differentiate these families from others, researchers use the term fragile families (McLanahan, Garfinkle, & Mincy, 2001; Reichman, Teitler, Garfinkel, & McLanahan, 2001). Fragile is used to describe the increase in risk that these particular families face including high rates of poverty, low employment and job retention and higher rates of physical and mental issues (Broussard et al., 2012; Kalil & Ryan, 2010; McLanahan et al., 2001). Health care professions and policy makers continue to be concerned about best interventions for coping with issues of poverty, employment, safe neighborhoods and the educational and health outcomes of fragile families. A common concern is the impact on family structure, economic stability as well as emotional and physical health outcomes (McLanahan et al., 2010).

One particular health risk seen in the mothers in fragile families is depression. Since depression, whether chronic or episodic, can have lasting effects on both the individual and their children (Gavin, Gaynes, & Lohr, 2005; Gottfried & Gottfried, 1998; Turney, 2011), and counseling is known to be an effective treatment for adult depression.
(Cuijpers et al., 2012; Padfield 1976; Smith & Glass, 1977; Wilner et al., 1986), the purpose of this study was to explore the relationship between counseling and depression of fragile mothers. Previous research on fragile mothers has shown that fragile mothers have higher rates of depression than married women (Crandall et al., 2010; Heflin & Iceland, 2009; Meadows et al., 2007; Seto et al., 2005; Turney, 2011).

In the literature, little is known if fragile mothers seek help from counselors or other mental health professionals for dealing with symptoms of depression. In particular, no research has been conducted on the use and outcomes of counseling with depression within this population. What is known from the literature, however, is social support (emotional or instrumental) can have a beneficial effect on depression and stress in mothers (Cairney et al., 2003; Hlebec et al., 2012; Henly et al., 2005; Manuel, et al., 2012). The other purpose of this study was to explore the moderating effect of social support with counseling on levels of depression.

The primary research questions that guided this study were:

1. After controlling for relevant characteristics, is there a significant relationship between counseling and depression in fragile mothers?
2. Does social support moderate the relationship between counseling and depression in fragile mothers?

Based on these research questions, the following hypotheses were tested:

Hypothesis 1. Controlling for demographic and other relevant characteristics, fragile mothers who participate in counseling will have reduced rates of depression.
**Hypothesis** 2. Social support significantly moderates counseling and depression in fragile mothers.

This chapter includes a discussion of the research findings outlined in chapter four. Following the discussion, the limitations of this study are explored. Implications for practitioners, counselors, social workers and policy makers are outlined. Direction and suggestions for future research are also discussed.

**Discussion**

What is most surprising and interesting from the results of this study is that the predicted directions of both hypotheses were not supported. Findings indicate that counseling does not predict reduced rates of depression nor does social support have a moderating effect on depression when combined with counseling. Yet, according to the models represented here, both counseling and social support were both highly significant factors in predicting depression in fragile mothers. These findings need to be considered in the context of the overall model fit. The highest model fit (as measured by Nagelkerke $R^2$) was only 20%, meaning that the variables presented in this study only accounted for 20% of what predicts depression in fragile mothers. The findings indicate that consistently, only a few variables were significant in predicting depression and include being White, depression, and participation in counseling.

The results are thought provoking, especially in the context of the theoretical perspective. It was predicted that socio-demographic variables such as race (other than White), educational level, socio-economic status, employment and marital status would all be important influences in the mental health of fragile mothers. This may indicate that
the models presented in this dissertation are most likely limited. Further research is
needed to get a full picture of relationship between these variables. And yet, the results
still raise important questions including the following: what exactly is happening with
this population to cause depression to be persistent? If social support is such a significant
factor in predicting less depression, are practitioners, counselors and other mental health
professionals checking with their clients on availability and access to social support. The
following discussion section explores these questions, organized by each variable within
this study.

**Counseling and Depression**

Results from this study indicated that counseling was a significant predictor of
future depression for fragile mothers who were measured as depressed in Year 3 of the
FFCW study. In fact, those mothers who were depressed in year 3 and receive
counseling were 1.5 times more likely to be depressed in year 5. In order to gain insight
into this relationship and understand the influence of other covariates, demographic
information was first explored. Initial results indicated that having more education as
well as a higher socioeconomic status significantly predicted less depression. This aligns
with the literature that states poverty and economic hardship can contribute to depression
(Heflin & Iceland, 2009) and that education attainment helps propel people out of poverty
(Broussard et al., 2012; Kalil & Ryan, 2010). The preliminary model of demographic
information, however, only explained about 2.5% of the variance and therefore was only
a very small piece in the overall picture of the variables that influence depression.
Being White is also a significant predictor of depression. Within all the models in this study, being White predicted 1.5 times the likelihood of depression than the reference categories. This brings to mind the concept of privilege (Pederson, 2000; Schwarzbaum & Thomas, 2008; Sue et al., 1992) and what the results may be indicating that a White woman may have certain societal expectations in terms of status, income and success in her life, that as a fragile mother, she might not have achieved which consequently may contribute to a state of depression. Marginalized populations do not have the same privilege within our society (Sue et al., 1992) and may not have the same expectations in terms of achievement, status and standard of living.

A probable case of depression is an extremely important piece of this puzzle. Previous depression significantly predicts future depression. In fact, findings from this study showed that those mothers who were depressed in year 3 can be up to 5 times more likely to be depressed in year 5. This finding is consistent with and corroborates other findings that major depression can be chronic and persistent (Bowne et al., 2012; Cairney et al, 2003; Dobson et al., 2008; Gavin et al., 2005; Seto et al., 2005; Turney; 2001).

The purpose of this study was to explore the relationship of counseling and depression in fragile mothers. For the purposes of this study, counseling is defined as individual work with a trained professional (counselor, social worker, psychologist), voluntary or mandated, in order to alleviate symptoms that may result from a variety of emotional issues including depression, stress, anxiety, parenting concerns, and/or relationship issues (ACA, 2013). Social support is defined as instrumental assistance (financial or logistical support, such as childcare assistance or loaning money) and
emotional support (including relationship status with the father or others) that offer encouragement, affection and help to fragile mothers when needed (Manuel et al., 2012). Social support is most likely provided by family, friends, neighbors or community members. For this study, the social support variable was created within the framework of instrumental support (financial, childcare and living assistance) and emotional (being in a relationship). Based on the literature, it was hypothesized that participation in counseling would predict a reduction of depression in future waves. The results from this study, however, indicated the opposite. Counseling significantly predicted higher rates of depression in the two waves of data included in this analysis. Those mothers who participated in counseling in year 3 were 1.5 times more likely to be depressed in year 5. Counseling continued to be a significant predictor of future depression in the remainder of the regression models, including those that included the binary social support variable. With these results, the question is raised: Why is counseling predicting higher rates of depression and what does that mean for counselors and counselor educators?

In order to begin to think about the results involving counseling and depression, it is important to think about the uniqueness of this sample. The preliminary analysis of demographic information showed that a large proportion of fragile mothers are depressed. Of the subsample used in this analysis, those with a valid score of depression and a valid score for counseling in years 3 and 5 (n=3,225), 674 (20%) mothers had a probable case of depression (assessed by questions answered in the CIDI-SF; Kessler & Walters, 1998). This rate was at the higher end of the reported average from the FFCW study (between 16 – 21% of all women throughout the FFCW study had a probable case of depression) and
is likely skewed by the selection criteria (valid score of depression and counseling). Yet, within this sample only 224 women reported receiving counseling for personal problems. Further questions asked by the FFCW research team asked the women to indicate why they went for counseling (choices included depression, anxiety, attention problems, alcohol, drug use or any other problems). Most women (160 out of 224) indicated that they sought counseling for depression. When the demographic characteristics of those depressed mothers who sought counseling, a preliminary picture was painted. Depressed mothers who seek counseling were more likely to be White, have a college degree or higher and be above the poverty level (see Table 5 in appendix). This could indicate that women above the poverty level and/or with a college degree may have health insurance, be employed or have enough money to enable them to seek counseling services. Also, White women may have less cultural inhibitions toward counseling and therefore were more likely to seek out counseling as a treatment option (Sue, 1992).

When one considers the unique needs and stressors on this particular population, the results of this study (counseling predicts future depression) being opposite than the original hypotheses (counseling reduces rates of depression) actually makes intuitive sense. Since the number of mothers who sought counseling was such a small number compared to those who are depressed, the results may indicate that the mothers in this sample who sought counseling could be suffering from chronic depression. This idea is strengthened when we explore those mothers who indicated that they received counseling in both years 3 and 5. The actual number of mothers seeking counseling in both years 3 and 5 is small, only 81 women, when compared to the number of the total depressed (an
average of 600 women in both years). This particular subsample (mothers who received counseling in both years) were over 6.5 times more likely to be depressed, which seems to indicate that depression can be persistent (Sterk, Theall, & Elifson, 2006).

The interpretation of these results is also limited by the gaping holes in what is unknown about the type of counseling, duration and the experiences of the participants as well as some limitations of using secondary data. However, the results could indicate that those seeking counseling are chronically depressed and that counseling (depending again on the type, duration and length of treatment) may not be enough to help alleviate some or all of the symptoms of depression. Counseling may be a part of the help these mothers seek to get through the activities of daily life. These results may also indicate that as counselors, we are not helping this population appropriately. Perhaps in counseling, the immediate needs of these mothers must be addressed before analysis can go deeper.

Social Support

The second research question explored the moderating effect of social support on levels of depression in fragile mothers. Within this study, the social support variable was a combination of questions asked to mothers regarding instrumental support. Results indicated that social support (as measured in this study) was a significant predictor of decreased depression. In fact, social support predicted a 40% decrease in depression in fragile mothers over the two waves of data analyzed. The moderating effect of social support with counseling, however, was not a significant predictor of depression. That social support was a factor in reduced levels of depression was consistent with other
studies that look at social support as a resiliency factor with mothers (Cairney et al., 2003; Hlebec et al., 2012; Henly et al., 2005; Manuel, et al., 2012; Lin, et al., 1999). However, it was social support alone, and not when combined with counseling, that predicted a decrease in depression. Expanding upon ideas expressed above, it seems that for fragile mothers, the immediate needs (food, shelter, childcare) may be most critical and having this level of social support was an important influence on their mental health.

The findings of the social support variable brings to mind Maslow (1943) and his groundbreaking theory of human motivation. Maslow’s theory, often depicted in a pyramid (see appendix), explains a tiered-level trajectory of human development. The model starts with the physiological needs that are required for survival, such as shelter, food and water. Maslow’s model includes the next level, or safety needs (security, being free of fear) which need to be met before one can explore the next level, love and belonging. The highest levels of development include the concepts esteem and self-actualization. Maslow’s theory suggests that the most basic level of needs must be met before an individual can be able to work toward another level. Results from this study, that social support but not counseling buffered depression, may suggest that the fragile mothers’ physiological and/or safety needs are the most pressing. Considering Maslow’s model, perhaps counselors are focusing on higher levels, such as esteem and self-actualization and that this population may not be at the able to move toward that higher level. Instead, counselors working with mothers may need to address physiological and safety needs before moving on to more esoteric concepts. This idea, among others, is further expanded in the implications section below.
Implications

There are several implications from this study for mental health professionals, counselor educators and others who work with fragile mothers and fragile families. The following section will address these questions beginning with counseling and depression, counseling combined with social support and finally, implications for counselor educators.

Counseling and Depression

Findings from this study indicated that fragile mothers who participate in counseling were more likely to be depressed. These results can be interpreted in several different ways, as discussed previously. But it also begs the question: As counselors, are we effectively treating this population, especially for depression? Perhaps we are not and need to think collectively about ways to refine our interventions with this population to make counseling more effective. To do so, we must ask a series of questions, including: how is counseling viewed in this population? Are there barriers and or beliefs preventing fragile mothers from seeking counseling? Which methods, theories and techniques are being used and are they effective? How can we refine our preferred theoretical beliefs and interventions to accommodate the unique needs of these women?

Counseling and therapy is sometimes viewed a last resort, something to do when everything else has failed. For some, counseling may evoke strong feelings of fear and vulnerability (Vogel et al., 2007). It is clear that there is some reluctance to seek counseling within this population just by comparing the number of depressed women to the actual number of those who sought counseling for depression. We know from the
literature that there are avoidance factors that contribute to the reluctance of individuals seeking counseling (Hendricks, 2005; Vogel et al., 2007). Some of these factors include fear of the emotions treatment may bring. Other factors include racial and cultural beliefs toward sharing personal and private details with a stranger, someone outside a network of family and friends. For others, cultural or religious views toward mental health may inhibit some from seeking assistance from a counselor (Pederson, 2000; Sue, 1992). Some of these factors may be contributing to low numbers of fragile mothers seeking mental health services and therefore, as counselors, we must continue to be aware of these barriers. We must also strive to cross over these barriers not necessarily by trying to fit our preferred method of treatment with this population, but perhaps by adapting our interventions to meet our clients’ unique needs.

Implications for effective counseling within this population are limited because the nature of counseling received is unknown. The results of this study only indicated that symptoms of depression were not alleviated by counseling. Therefore counselors working with this population may need to adjust their interventions to be more gender-sensitive and culturally aware (Bartholomew, 2003) starting with the therapeutic relationship. Feminist and Relational-Cultural therapists strongly believe that the relationship between the client and therapist must be based on a safe, confidential, comfortable and equalitarian (Duffy & Somody, 2011; Jordan et al., 1991; Worell & Remer, 2004). Fragile mothers coming to counseling for the first time may have had experiences in other relationships that may lead them to be wary and untrusting of the new relationship, in this case with a counselor. It may take time, conversation and
reassurance to build up the necessary trust in the counseling setting before the relationship can be productive. Relational-Cultural therapists also believe that empathy and mutuality is needed for therapeutic change. RCT stresses that the relationship established within the therapeutic process can be an ideal example for how all relationships should function, promoting mutual respect, understanding and growth (Duffey & Somody, 2011).

Another important concept in RCT is the idea of disconnection or the inevitability of change (disconnection) in every relationship. This can happen in everyday relationships when people disappoint each other or are hurtful, but it can also happen within minority populations when they experience racism, sexism or marginalization (Duffey & Somody, 2011; Jordan, 2010). Disconnections can lead to symptoms of depression. Fragile mothers may have experienced disconnections in their lives, for example within the relationship with the father of their child(ren) which, within this population, has a high rate of dissolution (Bembry, 2011). Fragile mothers could also be experiencing disconnection within their social networks or other important relationships. It would be important for a counselor to explore these concepts within the therapeutic process.

Working with a fragile mother in counseling may also include understanding her through her unique gender lens (Gilligan, 1982) as Feminist therapist view clients, including sexism she may encounter and demands placed upon her because of her gender. These encounters and demands influence her identity as a woman, partner and mother (Suyemoto, 2002; Worell & Remer, 2003). Using a Feminist viewpoint and techniques
to discuss and explore these multiple roles as well as the expectations set upon her by a dominantly patriarchal society may be important issues to explore within the therapeutic relationship. These conversations may be extremely salient to a fragile mother who may be the primary provider for her children and may be receiving little or no support (co-parenting or financial) from the father. The same conversations are important to have around her experiences of race, racism and cultural beliefs (Pederson, 2000; Sue, 1992). Symptoms of stress and depression increase in Women of Color who experience sexism and racism simultaneously (Wyche, 2001). All of these factors could be underlying causes and influences on her depression, whether she is aware of these underlying issues or not.

Feminist therapists believe that there is a social action component to counseling work (Brown, 2010; Worell & Remer, 2003). A feminist therapist would act as an advocate for her client, not just in finding her help for more basic needs, but also by advocating with higher powers such as politicians, government officials and other policy makers, on making the rights and needs of this population better known. This may be promoting more funding to support counseling work within populations who may not otherwise be able to afford counseling. All counselors, regardless of theoretical preference, need to be a collective voice for advocating for the mental health support of clients. This may be as simple as sitting down with a client and helping her understand her mental health benefits through any insurance plan she might have or calling the insurance provider on behalf of the client to gain preapproval (if required) or extending treatment to those who may not have insurance (through a sliding scale).
Another important consideration is the accessibility of counseling for this population. In the context of improving their relationships with the birth fathers, mothers were asked by FFCW researchers “if program/counseling were available for free, how interested would you be?” 2,151 indicated that they would be interested to very interested (67% of respondents). Considering only just over 200 mothers reported receiving counseling but over 2,000 indicated that they would be interested in counseling if it was free, there is an enormous gap in what is available to this population or a lack of education about free and affordable services. Counselors may need to be educating and advocating for better access to counseling services and more affordable options for fragile mothers. Education and social marketing campaigns within communities may be one way to effectively increase knowledge of available treatment (Vogel et al., 2007). Using social networks that have utilized counseling services may also be a successful way to get others into treatment (Martinez & Lau, 2011). It may also be prudent to be in contact local physicians and pediatricians to educate these doctors on how to refer to local mental health clinics or individual counselors for treatment options.

Counseling and Social Support

The results of this study indicated that social support, especially logistic support, did significantly predict a reduction in depression in fragile mothers. These findings support other studies that indicate that social support is of critical importance in lessening the daily burden of issues pertaining to stress, poverty and depression in fragile mothers (Cairney, et al., 2003; Henly, et al, 2005; Meadows, 2011). As counselors, we need to advocate on behalf of our clients for these basic rights and needs, but we also have to
shift the conversation in therapy to ensure that issues of social support are addressed directly. These conversations may need to happen before any other deeper issues can be discussed or addressed.

Within the framework of Maslow’s (1943) hierarchy of needs, if a woman’s most critical needs, her physiological and safety needs such as food, clothing, shelter and childcare are not being met she may not have the time or energy for anything further. Counselors may need to explore those topics immediately in the counseling process and help their clients strategize ways to take care of their most pressing needs. A counselor who addresses the higher ranges within Maslow’s hierarchy first, may be discussing topics that are too abstruse; for example, a counselor who talks with a client about ways to realize their own personal potential (Maslow’s self-actualization stage) before strategizing issues of safety. Instead, counselors may first want to identify sources of social support and explore ways that clients could seek assistance for their most immediate needs. After a client has satisfied and addressed her basic needs, any deeper issues that may be contributing to depression could be explored.

Providing counseling that fits within the structure of the demands of life seems extremely important with this population. In their work counseling fragile couples, Young and Carlson (2011) found that they needed to adapt to the needs of their clients. They stated:

The main barriers involve engaging men, providing childcare, and dealing with missed sessions caused by irregular work schedules and transportation.

Counseling for fragile couples cannot really be offered in the traditional manner;
it must be adapted rather than asking the clients to mold themselves to the normal treatment regime… The counselor must be willing to focus on solving economic crises by finding temporary assistance and helping couples deal with practical problems such as finding employment in a down economy. (Young & Carlson, 2011, p. 11)

These preliminary findings provide useful insight to counselors adapting and adjusting to the immediate needs of their clients, such as employment, housing and childcare. Young and Carlson’s (2011) work is supported by the social support findings within this dissertation.

Relational-Cultural therapists see that these relationships are the backbone of success (Duffey & Somody, 2011). Within an RCT context, it is possible to conceptualize the social support as grounded in relationships. While the social support variables within this study are instrumental, assistance in a place to live, childcare and a financial loan, in order for a fragile mother to seek this support, she must have relationships with people she trusts. She must have a reliable network of friends, relatives or providers in which she can entrust the care of her own children. She also must feel comfortable and safe to ask for financial assistance or housing from friends, relatives and other acquaintances. A counselor working with fragile mothers could expand the ideas behind the strength of these relationships or building relationships that could result in the support that the mother may need.
Counselor Educators

Implications for counselor educators include how to best prepare future counselors to serve the mothers represented in this study. Best practice for counseling women are discussed in most classes and often considered when discussing different theories as well as multicultural perspectives. Occasionally, classes devoted to gender issues specifically are also offered. Women’s issues are often centered upon gender inequality, sexism, abuse, motherhood and working and employment. Multicultural issues are also often addressed, often in the perspective of women of color. The findings from this study, however, suggest that counselor educators may need to further the discussion to include this population (fragile families, fragile mothers). Since fragile mothers are more likely to be poor, marginalized, under-supported and depressed, it would be important to discuss specific interventions that are most effective as well as theoretical orientations that may work best with this population. It would also be important to consider this population (unmarried mothers in particular but also unwed parents) when having conversations about race, gender, parenting styles, the effects of incarceration and socioeconomic status.

Furthermore, since this study further supports the importance of social support as a buffer to stress and depression in fragile mothers, it is important to have conversations about how, as counselors, we can ensure that our clients have the social support they need. Discussions could include how to assess immediate needs, how to advocate and provide assistance and ensuring that clients are stable (in terms of financial needs, housing and childcare, for example) before moving into further counseling work.
Incorporating Maslow’s (1943) hierarchy of needs into the conversation would help conceptualize the concept of social support within this population. It would be interesting to use a “fragile mother” in a case study presentation in almost any class. For example, how would other theoretical orientations conceptualize and then assist this client? What are the overarching themes from different theoretical populations? How would you assess this case within Maslow’s hierarchy and based on that assessment, how would you approach the treatment plan with this client? How would you treat depression in a fragile mother?

Finally, with the prevalence and persistence of depression not just with fragile mothers but within our society, it may be appropriate to address this particular mental health issue on its own. If counseling does not always alleviate symptoms of depression, how can we address this within our field and how future practitioners are trained? Counselor educators may need to expand the conversation by training future counselors to think of the treatment of depression in collaboration with other interventions, for example, using Feminist, RCT and Family Systems theories (Corsini & Wedding, 2008). Counseling may be a piece of a larger treatment plan (which may include medication, government and public assistance, incorporating family and social support networks) designed to alleviate symptoms of depression. Future research on the effectiveness of counseling with depression, alone or in combination with other types of treatment, is needed.
Limitations

While the benefits of using a large dataset are the large national sample and the longitudinal and generalizability of the findings (Remler & Ryzin, 2011), using secondary data has limitations. Using secondary data only permits the researcher to explore answers to questions within the context of what data has been collected. The most significant limitation for this particular study is the counseling variable. Researchers from the FFCW study asked participants to self-report if they sought counseling for personal problems. From this question and from follow up questions, we know that the majority of those seeking counseling did so for depression rather than attention deficit problems, anxiety and even drug or alcohol use. Yet, there is much left unknown. First what is the type of counseling sought and for how long did counseling last? How counselors were trained; were they prepared to work with this particular population; were the counselors from a particular theoretical base and if so, was this method effective or ineffective? What were the experiences of the mothers who sought counseling and their perceptions of its effectiveness? What were the motivating factors that led them to seek counseling? Not knowing the answers to these questions limits the discussion of the results and further research (quantitative and qualitative) is needed to explore these questions further.

Another limitation to this study is the social support variable. Social support is a topic that has a wide interpretation in the literature (Hlebec et al., 2012; Lin et al., 1999). For the purposes of this dissertation, social support was explored within the concepts of instrumental and emotional support. The questions chosen to be included in the social
support variable were used in other studies using the Fragile Families and Child Wellbeing study (Henly et al., 2005; Manuel et al., 2012; Meadows, 2011) but also based on the theoretical framework guiding the study. There were a limited number of questions asked by FFCW researchers regarding relationships outside of immediate family. Most of the questions asked were about the relationship between the mother and the birth father or the mother and her current partner. No questions were asked about other substantial relationships such as those that the mother might have with her parents, siblings, cousins, friends, religious leaders and even counselors or doctors. Without knowing anything about these relationships, it is hard to know who the mothers in this study may rely on for emotional support. Results from the factor analysis within this study included factors that only represented instrumental support. If additional questions regarding emotional support were available within the FFCW study, this may have added another factor to the social support variable that may have measured emotional support.

As a result, only instrumental support was included in this study.

Another limitation was the overall fit of the regression models. The highest model fit (as measured by Nagelkerke $R^2$) was only 20%, meaning that the variables presented in this study only accounted for 20% of what predicts depression in fragile mothers. There is obviously much more to the overall story that is not represented in this study. Expanding upon this study as well as future research is needed to complete the full picture on the predictors of depression.
Directions for Future Research

There are ways to expand upon the findings of this study as well as implications for future research. First of all, this is the first known study that explored counseling as a variable in the Fragile Families and Child Wellbeing study. Considering the multiple waves of data and the amount of information within this dataset, further studies could expand upon these findings. For example, it would be very interesting to use this dataset to explore what variables predict counseling use with fragile mothers. This type of study could help counselors, practitioners, social workers and policy makers become better informed on what influences a mothers’ help seeking behavior and use of counseling. This understanding will help with the interpretation of the findings from this study as well as provide insight to counselors and counselor educators on ways to provide the appropriate counseling services to meet the needs of fragile mothers.

Furthermore, it would be interesting to expand upon this study to see if counseling influences other variables outside of depression by using FFCW data. For example, future studies could explore the relationship between counseling and employment, relationships, parenting skills and child outcomes. Additional studies could expand on the relationship between counseling and other issues such as drug and alcohol use, attention deficit problems or anxiety. Furthermore, another study could explore additional questions within the FFCW study that specifically ask about counseling use and relationship status with the father. The influence of counseling and the relationship of the mother and father would be an additional research topic worth exploring especially in the context of Relational-Cultural theory and the concept of “disconnections.”
could be studied by looking at marriage over time, over the change in partner status including new partnerships.

Furthermore, depression was a binary measure in this study. The FFCW study includes a detailed list of which questions were used to create the binary CIDI score for depression. It is possible to recreate the depression variable as a continuous measure. With a continuous measure of depression, future research could explore more specifically if counseling influences the rate of depression on a continuous scale. This would be especially useful in looking at cases of mothers who may have chronic depression and if there is any change in the level or severity of her depression.

Finally, it would be important to follow up the findings of this study to try and explore help seeking behaviors and what types of counseling are an effective influence on depression in fragile mothers and fragile families. Young and Carlson’s (2011) study on counseling fragile couples is a good example on the type of research needed with population. Research is needed to expand upon the findings from this study; in particular, does incorporating social support specifically within the intervention process improve effectiveness of counseling with depressed fragile mothers.

Finally, a qualitative study with this particular population would be extremely insightful. Qualitative research could shed light on the unanswered questions about counseling participation as well as the experiences of the mothers that have participated in counseling and those who have not. Qualitative work has been conducted with the FFCW participants mostly surrounding the relationship of the couple and parenting styles (England & Edin, 2007) however, there is no known qualitative work that explores the
mental and physical health of fragile mothers and fragile families. It would be very interesting to conduct an in-depth qualitative study with fragile mothers that explored issues of depression as well as experiences with counseling. This type of study could have considerable impact on how mental health practitioners work with this population.

**Conclusion**

The results of this study provided information on the relationship between counseling and social support on levels of depression in fragile mothers. The results indicated that while fragile mothers’ participation in counseling predicted higher rates of depression and social support was a significant predictor of reduced depression. These findings are important for the field of counseling and mental health. Since the results indicated that counseling significantly predicts higher rates of depression, counselors, counselor educators and policy makers may need to rethink how this population is being served for issues of mental health. Specifically, it seems that further research is sorely needed in best practices for alleviating depression in women. Counseling research has often been focused around only certain types of interventions (i.e. cognitive behavior and/or medication) with depression (Bowen et al., 2012; Dobson et al., 2008; Jackson & Williams, 2006; Olfson et al., 2002; Sterk et al., 2006). Empirical evidence is especially needed to study the interventions of other theoretical perspectives and/or techniques used to treat depression.

Finally, since social support was a highly significant predictor in reduced rates of depression, it seems extremely important that fragile mothers have access to the social support that they need. This may be within relationships that they have with family and
friends who help provide instrumental support such as housing, financial assistance and childcare. Social support also comes from public assistance (such as government subsidies for affordable housing and monetary assistance) and it is imperative that access to this support is available to fragile mothers. While there is no standard practice for treating depression, different strategies are needed to accommodate the individual needs of each client. Since counselors often provide emotional support for their clients who are working on issues of depression (ACA, 2013), incorporating concepts of social support within the counseling relationship may be the next step in building evidence for effective counseling interventions with fragile mothers.
References


Bowen, A., Bowen, R., Butt, P., Rahman, K., Muhajarine, N. (2012). Patterns of


doi:10.1080/13811118.2010.494143


Heflin, C. M., & Iceland, J. (2009). Poverty, material hardship, and depression. Social


In M. B. Ballou, & L. S. Brown, L. S. (Eds.), *Rethinking mental health and disorder: Feminist perspectives* (pp. 48-70). New York: Guilford Press.


Martinez, J. I., & Lau, A. S. (2011). Do social networks push families toward or away
from youth mental health services?: A national study of families in child welfare.


doi:10.1016/j.socscimed.2012.07.034


alternative to “personality.” In M. B. Ballou, & L. S. Brown, L. S. (Eds.),
Rethinking mental health and disorder: Feminist perspectives (pp. 71-98). New
York: Guilford Press.

and women: The case of the disadvantaged inner-city woman. In C. L. M. Keyes
& S. H. Goodman, (Eds.). Women and depression: A handbook for the social,
behavioral and biomedical sciences (pp. 382-416). Cambridge, MA: Cambridge
University Press.

Tan, S. J. (2008). The myths and realities of maternal employment. In A. Marcus-
Newhall, D. F. Halpern & Tan, S. J. (Eds.). The changing realities of work and
families (pp. 9-24). Malden, MA: Blackwell Publishing Ltd.

0167.34.4.414.

Turney, K. (2011). Chronic and proximate depression among mothers: Implications for

depression: Evidence from the Fragile Families and Child Wellbeing Study.
PLOS ONE, 7(9), e45709.


U.S. Census Bureau (2012b). Preliminary estimate of weighted average poverty
thresholds for 2012. Retrieved from:

U.S. Census Bureau (2012c). Income, expenditures, poverty, & wealth. Retrieved from:


health treatment interventions: A review of 211 random assignment studies.


Appendix

Appendix A: Questions used in the Depression Index (CIDI-SF)

Year 3 CIDI-SF

(J5, J6, J7, J8, J9, J10, J11, J12, J13, J13A, J14, J14A, J15, J16, J17)

J5. During the past 12 months, has there ever been a time when you felt sad, blue, or depressed for two or more weeks in a row?

YES ................................................................. 1

NO ................................................................. 2

NO, ON MEDICATION/ANTI-DEPRESSANTS (VOLUNTEERED) .. -14

J6. For the next two questions, please think of the two-week period during the past 12 months when these feelings were worst. During that time, did the feelings of being sad, blue, or depressed usually last . . .

All day long, .....................................................1

Most of the day, ...............................................2

About half of the day, or ..................................3

Less than half the day? ...................................4

J7. During those two weeks, did you feel this way . . .

Every day.........................................................1

Almost every day, or ........................................2

Less often? .....................................................3

J8. During those two weeks did you lose interest in most things like hobbies, work, or activities that usually give you pleasure?
J9. During the past 12 months, has there ever been a time lasting two weeks or more when you lost interest in most things like hobbies, work, or activities that usually give you pleasure?

YES ........................................................................ 1
NO ........................................................................ 2

NO, ON MEDICATION/ANTI-DEPRESSANTS (VOLUNTEERED).. -14

J10. For the next few questions, please think of the two-week period during the past 12 months when you had the most complete loss of interest in things. During that two-week period, did the loss of interest usually last . . .

All day long, .........................................................1
Most of the day, ....................................................2
About half of the day, or .......................................3
Less than half the day? ..........................................4

J11. Did you feel this way every day, almost every day, or less often during the two weeks?

EVERY DAY ..........................................................1
ALMOST EVERY DAY ...........................................2
LESS OFTEN .......................................................3

J12. Thinking about those same two weeks, did you feel more tired out or low on energy than is usual for you?
J13. During these two weeks, did you gain or lose weight without trying, or did you stay about the same?

PROBE: We are still talking about the same two weeks.

GAIN .................................................................1

LOSE ....................................................................2

IF VOLUNTEERED: BOTH GAINED AND LOST WEIGHT ............3

STAY ABOUT THE SAME...............................4

IF VOLUNTEERED: WAS ON A DIET ...........5

J13A. About how much did (you gain/you lose/your weight change) during these two weeks?

|___|___| POUNDS

DON’T KNOW .............................................-2

REFUSED ......................................................-1

J14. Did you have more trouble falling asleep than you usually do during those two weeks?

YES .................................................................1

NO ...................................................................2

J14A. Did that happen every night, nearly every night, or less often during those two weeks?

EVERY NIGHT .......................................................1
NEARLY EVERY NIGHT ........................................2
LESS OFTEN .......................................................3

J15. During those two weeks, did you have a lot more trouble concentrating than usual?

YES ........................................................................1
NO ........................................................................2

J16. People sometimes feel down on themselves, no good, or worthless. During that two week period, did you feel this way?

YES .................................................................1
NO ...................................................................2

J17. Did you think a lot about death—either your own, someone else's, or death in general during those two weeks?

YES .......................................................................1
NO .......................................................................2

Appendix B: Questions in FFCW study regarding Counseling:

J43A. During the past 12 months, did you receive counseling or therapy for personal problems, for example, feelings of depression, worry, alcohol, or drug use problems? (yes/no)

J43B. Was this counseling or therapy for . . . (circle all that apply)

J43B_1 Depression?
J43B_2 Anxiety?
J43B_3 Attention problems?
J43B_4 Alcohol problems?
J43B_5 Drug use problems?

J43B_6 Anything else?

Appendix C: Questions from FFCW study used in to create the Social Support variable:

E1. Are mother and father living together all, most or some of the time?

E2. Are you currently involved in a romantic relationship with someone (other than [Father])?

H2. In the past 12 months, have you received any financial help or money from anyone other than (FATHER)? Please include your relatives and friends, and his relatives and friends, but don’t include help from any government or private agency.

H3. If you needed help during the next year, could you count on someone to loan you $200?

H4. Is there someone you could count on to provide you with a place to live?

H5. (Is there someone you could count on to) help you with emergency child care?
Appendix D: Maslow’s Hierarchy of Needs

Appendix E: Codebook for variables used in study

<table>
<thead>
<tr>
<th>Year 3/year 5</th>
<th>Coding</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>MomIDY3/MomIDY5</td>
<td></td>
<td>Encrypted mother's ID</td>
</tr>
<tr>
<td>ConstMomIntY3/Y5</td>
<td>-9=missing</td>
<td>Was mother interviewed at year 3/5(constructed)</td>
</tr>
<tr>
<td></td>
<td>0=no</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1=yes</td>
<td></td>
</tr>
<tr>
<td>ConstMomAgeY3</td>
<td>-9=missing</td>
<td>Mothers age at year 3</td>
</tr>
<tr>
<td></td>
<td>range 16-50</td>
<td></td>
</tr>
<tr>
<td>PovY3Categ PovY5Categ</td>
<td>-9=missing</td>
<td>Poverty</td>
</tr>
<tr>
<td></td>
<td>1=at or below pov level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2=1.1 to 2.0 times pov</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3=2.1 to 3.0 times pov</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4=3.1 and above</td>
<td></td>
</tr>
<tr>
<td>MomEducation</td>
<td>-9=missing</td>
<td>Mothers education at baseline (own report)</td>
</tr>
<tr>
<td></td>
<td>1=less hs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2=hs or equiv</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3=some coll,tech</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4=coll or grad</td>
<td></td>
</tr>
<tr>
<td>MomRace</td>
<td>-9=missing</td>
<td>Mothers race at baseline (own report)</td>
</tr>
<tr>
<td></td>
<td>1=black</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2=white</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3=hispanic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4=other</td>
<td></td>
</tr>
<tr>
<td>MomHrsWkY3 MomHrsWkY5</td>
<td>-9=missing</td>
<td>How many hours do you work (continuous)</td>
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<tr>
<td></td>
<td>range 1-120</td>
<td></td>
</tr>
<tr>
<td>MarriedY3 MarriedY5</td>
<td>-9=missing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0=no</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1=yes</td>
<td></td>
</tr>
<tr>
<td>ConstMomkidsY3 ConstMomkidsY5</td>
<td>-9=missing range 0-11</td>
<td>number of children in the household</td>
</tr>
<tr>
<td>CIDIdepressionLiberalY3 CIDIdepressionLiberalY5</td>
<td>-9=missing range 0-11</td>
<td>Constructed - Mother meets depression criteria (liberal)</td>
</tr>
<tr>
<td></td>
<td>0=no</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1=yes</td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>MomCounselingY3</td>
<td>Whether or not mother received counseling for personal problems</td>
<td></td>
</tr>
<tr>
<td>MomCounselingY5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CounselingY3andY5</td>
<td>Whether or not mother received counseling for personal problems in both years</td>
<td></td>
</tr>
<tr>
<td>SocialSupport Binary</td>
<td>Combined binary for social support with 1, 2, 3 = yes and 0 = no</td>
<td></td>
</tr>
<tr>
<td>interactionSSandCounY3</td>
<td>Combined interaction term for social support and counseling year 3</td>
<td></td>
</tr>
<tr>
<td>CounselingforDepressionY3</td>
<td>Whether or not counseling was for depression</td>
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</tr>
<tr>
<td>Loan$200Y3</td>
<td>If you needed help in the next year, could you count on someone to loan $200</td>
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<tr>
<td>Loan$200Y5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PlacetoLiveY3</td>
<td>Is there someone you could count on to provide you with a place to live?</td>
<td></td>
</tr>
<tr>
<td>PlacetoLiveY5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmergencyChildCareY3</td>
<td>Is there someone you could count on to provide you with emergency child care?</td>
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<tr>
<td>EmergencyChildCareY5</td>
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</table>
**Appendix F: Comparison of counseling use and a probable case of depression**

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<tr>
<th></th>
<th>Depression Yes</th>
<th>Counseling Yes</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>( N = 674 )</td>
<td>( N = 224(%) )</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>147</td>
<td>75 (51%)</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>375</td>
<td>102 (27%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>134</td>
<td>44 (33%)</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>3 (17%)</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than HS</td>
<td>282</td>
<td>87 (31%)</td>
</tr>
<tr>
<td>HS or equivalent</td>
<td>165</td>
<td>40 (24%)</td>
</tr>
<tr>
<td>Some college, technical</td>
<td>184</td>
<td>69 (38%)</td>
</tr>
<tr>
<td>College or graduate school</td>
<td>41</td>
<td>27 (66%)</td>
</tr>
<tr>
<td><strong>Poverty Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At or below poverty level</td>
<td>354</td>
<td>73 (21%)</td>
</tr>
<tr>
<td>1.1 to 2.0 times poverty level</td>
<td>160</td>
<td>27 (17%)</td>
</tr>
<tr>
<td>2.1 to 3.0 times poverty level</td>
<td>61</td>
<td>19 (31%)</td>
</tr>
<tr>
<td>3.1 and above poverty level</td>
<td>83</td>
<td>23 (28%)</td>
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<tr>
<td><strong>Marital Status</strong></td>
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<tr>
<td>Married</td>
<td>145</td>
<td>56 (39%)</td>
</tr>
<tr>
<td>Unmarried</td>
<td>528</td>
<td>168 (32%)</td>
</tr>
</tbody>
</table>
Appendix G: MSU IRB approval for study

June 6, 2013

Ms. Megan Delaney
Montclair State University
College of Education and Human Services
Counseling and Educational Leadership
Montclair, NJ 07043

Re: IRB Number: 001179

Project Title: The Influence of Counseling and Social Support on Levels of Major Depression in Mothers in Fragile Families

Dear Ms. Delaney,

After an exempt 4 review, Montclair State University's Institutional Review Board (IRB) approved this protocol on June 4, 2013.

Before requesting amendments, extensions, or project closure, please reference MSU's IRB website and download the current forms.

Should you wish to make changes to the IRB-approved procedures, prior to the expiration of your approval, submit your requests using the Amendment form.

For Continuing Review, it is advised that you submit your form 60 days before the month of the expiration date above. If you have not received MSU's IRB approval by your study's expiration date, ALL research activities must STOP, including data analysis. If your research continues without MSU's IRB approval, you will be in violation of Federal and other regulations.

After your study is completed, submit your Project Completion form.

If you have any questions regarding the IRB requirements, please contact me at 973-655-5189, reviewboard@mail.montclair.edu, or the Institutional Review Board.

Sincerely yours,

[Signature]

Dr. Karen Belliley
IRB Chair

to: Dr. Dana Levitt, Faculty Sponsor
Appendix H: Fragile Families approval for to use data

FF Public Use Data

Subject: FF Public Use Data
From: archive <archive@opr.princeton.EDU>
Date: 11/16/2012 11:22 AM
To: "delaneym@mail.montclair.edu" <delaneym@mail.montclair.edu>

Dear Megan: Your request to use FF Public Use Data has been approved. Log into the OPR data archive at: http://opr.princeton.edu/archive/restricted Then follow the FF download link. Please feel free to let us know if you have any problems. Thank you. Fragile Families Project (opr.princeton.edu/archive/ff)