ABSTRACT

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This study advanced knowledge regarding the demographics of a nationally representative sample of adoptive parents and their use and level of satisfaction with adoption agency services, specifically that they are functioning well both psychologically and in their marital relationships and are satisfied with the adoption agency services that are being offered and used. It also examined the contributions of (a) psychological functioning at nine months postpartum, (b) infertility experiences, (c) tangible resources, and (d) the marital relationship in predicting the psychological health of adoptive parents at 27 months postpartum. Findings revealed that the psychological health of adoptive parents at nine months was the strongest predictor of depressive and anxiety symptoms at 27 months for both adoptive mothers and fathers, with tangible resources also contributing unique variance to the prediction of fathers' depressive symptoms. Moreover, marital hostility was found to partially mediate the relationship between mothers' depressive symptoms at nine months and 27 months postpartum.

Adoptive Parents: At Risk or Resilient

By

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CHAPTER 1

Introduction

Adoption affects the lives of thousands of Americans with 58% of Americans having a personal connection to adoption and over one third considering adoption at least somewhat seriously (Evan B. Donaldson Institute, 1997). Approximately 135,000 adoptions occur in the United States every year, and over 1.5 million adopted children live in this country (Evan B. Donaldson Adoption Institute, 1997). Most of the research related to adoption focuses on children who were adopted; very few studies investigate the experiences and functioning of adoptive parents (Zamostny, O'Brien, Baden, & Wiley, 2003).

An integrative review of published empirical research on adoptive families noted that, on average and with non-special needs adoptions, adoptive parents functioned as well as the biological parents with whom they were compared (O'Brien & Zamostny, 2003). Given that adoptive parents often face social stigma and myriad challenges associated with creating families through adoption (Leon, 2002; Miall, 1987; Wegar, 2000), O'Brien and Zamostny proposed that adoptive parents may possess assets that enable them to function well in the face of adversity. This investigation advances knowledge regarding a sample of people rarely studied in psychological research (i.e., parents of infants adopted domestically) and their use of adoption services. Moreover, the factors related to psychological functioning among adoptive parents are assessed based on an indirect model of risk and resilience posed by Masten (2001). This work also addresses limitations associated with adoption research, specifically the focus on negative

outcomes, the presence of salient methodological problems, and a lack of theoretical foundation (O'Brien & Zamostny, 2003).

Use and level of satisfaction of adoption services

Adoption services provide many valuable resources to birth parents and adoptive families. These services can include educational and information sessions, clinical services, and material resources (Barth & Miller, 2000). These services typically are offered both before and after placement of the child. Most studies showed that some, but not most, adoptive families took advantage of the services available, particularly post placement (Berry, Barth, & Needall, 1996; Brooks, Allen, & Barth, 2002). In their overview of adoptive families, O'Brien and Zamostny (2003) found that adoptive parents wished that there were more adoption services and resources available to them. Most previous research has focused on use and satisfaction of special-needs adoption, therefore this study will focus on the use and satisfaction of non-special needs adoption.

Limitations Associated with Past Adoption Research

First, very little research focuses on positive outcomes and healthy aspects of adoptive families (Wegar, 2000). A number of studies that compared adopted and non-adopted children noted differences between these groups with the adopted children being cited as having more problems. Brodzinsky (1993) pointed out that much of the published research failed to recognize that the differences between adopted and non-adopted children often were not statistically significant and typically diminish over time. The current study, in the tradition of the field of counseling psychology (Gelso & Fretz, 2001), examines the totality of the experiences of adoptive families, including both strengths and challenges.

Second, some of the major methodological limitations of the research on adoption included a lack of longitudinal data and an over reliance on self-report data (O'Brien & Zamostny, 2003). A more comprehensive form of data collection would include obtaining data from multiple sources over time (e.g., gathering observational data on cultural influences, family relationships, and psychological functioning over several years). Another limitation was inconsistency in the process of data collection, with data being obtained using different procedures. A final limitation involved problems in interpreting results. Often, the magnitude and statistical significance of the differences between adopted and non-adopted samples were ignored. When they were examined, they were found to be small, demonstrating that differences between the two samples were not as salient as hypothesized. This study addresses these limitations by using a longitudinal data set with multiple sources of information and carefully attending to data collection procedures and interpretation.

Finally, and surprisingly, much of the research on adoptive families is atheoretical, resulting in a plethora of studies examining myriad variables in the absence of a cohesive theoretical foundation (O'Brien & Zamostny, 2003). Resilience theory (Masten, 2001) may provide a useful framework for understanding adoptive families. In her seminal work, Masten proposed that resilience is an ordinary and common human adaptive response to negative life events and/or trauma that can be defined as "good outcomes in spite of serious threats to adaptation or development" (p. 228).

Factors hypothesized to relate to resilience include being connected to caring others, having the ability to regulate cognitions and emotions, feeling good about oneself, and being motivated to function well (Masten, 2001). One might consider adoption

generally to be an intervention to promote resilience; children who may be at risk for complications in development are placed with families who ideally provide healthy attachments and supportive communities, facilitate positive self and cognitive development, and encourage motivation for successful achievements.

Resilience theory also may provide the foundation for understanding the experiences of adoptive parents who face adversity prior to, when forming, and throughout the life of their non-traditional families. According to recent research, 62% of adoptive parents adopt because of infertility (Evan B. Donaldson Adoption Institute, 1997), making infertility a salient precursor to adoption (Janus, 1997). Research has shown that infertility presents challenges that can affect mental health and relational functioning (Daniluk, 2001). As noted earlier, adoptive parents also face social stigma regarding their decision to adopt. Many parents receive little support and many negative reactions when sharing their adoption plans. In addition, the process of adoption can be experienced by some as intensive, intrusive and overwhelming. After finalization of the adoption, adoptive parents continue to experience stigma and negativity from others regarding adoption. Given that research has identified numerous strengths and few negative outcomes among adoptive parents, these individuals may be conceptualized as having overcome challenges associated with infertility and the adoption process to create healthy families (O'Brien & Zamostny, 2003).

Thus, Masten's (2001) indirect model of risk and resilience may be relevant for this population and provides the theoretical foundation for our work. In this model, the relationship between risks, assets, and desirable outcomes are mediated by salient compensatory factors. Applying a resilience framework to adoptive parents addresses

limitations in previous atheoretical research and allows us to examine strengths that may emerge during times of stress, crisis, or adversity (Walsh, 2003). Furthermore, past research on resilient children has challenged negative beliefs and advanced theory regarding disadvantaged children faced with adversity (Masten, 2001). It was hoped that this study is able to advance knowledge regarding adoptive parents.

Proposed model of risk and resilience among adoptive parents

In her seminal work on resilience theory, Masten (2001) provided an example of an indirect model of risk and resilience where the relationship between desired outcomes and risks and assets was mediated by adaptive influences. In our proposed model of risk and resilience among adoptive parents (See Figure 1), risks and assets include psychological functioning of the parents at nine months (operationalized as self-esteem, the presence of depressive symptoms and anxiety symptoms), infertility experiences, and tangible resources. Marital hostility is a possible mediator in predicting the presence of depressive and anxiety symptoms of the parents at 27 months based on their previous depressive and anxiety symptoms, respectively.

Risks and assets: Psychological functioning at nine months postpartum

Previous psychological health of each parent is likely to be predictive of the desired outcome in this investigation, current psychological functioning. Psychological functioning seems to be somewhat stable over time and relates to numerous other areas of functioning including parenting effectiveness, relationship quality, and work accomplishments (Belsky, 1984). Healthy psychological functioning can serve as an asset or strength contributing to the likelihood of positive psychological functioning in the

future, while psychopathology would be a risk that would be associated with negative mental health outcomes.

Risks and assets: Infertility experiences

The majority of the literature on adoption describes adoptive parents as being traumatized by infertility (Miall, 1996). Infertility is usually experienced early in the marriage and may be the first major stressor faced by the couple, before many have had the opportunity to solidify marital communication or conflict resolution skills (Eunpu, 1995). Infertility may affect sexual functioning, marital and relationship quality, identity, and relationships with friends and family (Peterson, Newton, Rosen, & Schulman, 2006).

Because of the stressors associated with infertility, one could speculate that marriages and relationships would dissolve in the face of such adversity. In addition, well-functioning couples can develop communication problems as a result of infertility issues (Janus, 1997). Couples who experience infertility often encounter challenges regarding initiating, engaging in and terminating medical treatment. Yet most of the empirical literature found that infertile and fertile couples have comparable levels of marital adjustment to one another (Greil, 1997). Many couples experiencing infertility reported high levels of love, support, and communication, possibly due to partners working through shared experiences of crisis and stigmatization (Callen, 1987). Couples who wanted children but were unable to have biological children reported higher levels of communication, more opinion sharing, and lower rates of extramarital relations than those with biological children. Infertile women also reported higher levels of marital satisfaction than women with children (Callen, 1987).

Despite contradictions related to research on the functioning of infertile couples, theorists agreed that partners experiencing infertility must address myriad feelings and relationship issues (Cudemore, 2005; Daniluk & Hurtig-Mitchell, 2003; Peterson et al., 2006). For example, couples often need to grieve the loss of having biological children. Decisions regarding pursuing (and terminating) infertility treatment must be addressed. Moreover, consideration of alternatives to having biological children (e.g., remaining child free or considering adoption) and coming together to embrace a decision are required if couples continue to function jointly. In fact, Brodzinsky (1993) suggested that subsequent challenges faced by adoptive families can be exacerbated by failure to work through issues related to infertility.

Risks and assets: Tangible resources

Parents who have access to tangible resources including high income, educational attainment, financial comfort, and employment opportunities likely experience fewer stressors and have higher levels of parenting functioning than individuals without these benefits. Adoptive parents tend to be equipped with readily available tangible resources (Berry et al., 1996; Mosher & Bachrach, 1996; Stolley, 1993). Adoptive mothers and fathers often have graduated from college suggesting that they have been exposed to information and resources that may serve as an asset against adversity and stressors. The adoption process itself is costly, suggesting that adoptive families are financially stable. Financial resources allow for better quality of life as well as access to needed services, such as psychotherapy and health care. High incomes also suggest employment situations that could contribute to healthy psychological functioning.

Possible mediator

One mediator was examined in this study, marital hostility. Studies examining resilience in marriages have identified flexibility, open communication, intimacy, cohesiveness and closeness to be salient predictors of strong, healthy marriages (Graham, 2000; Hawley & DeHaan, 1996; Patterson 2002). Resilient couples do not avoid crises but prepare for problems, seeing challenges as affecting the couple, not just the individual. They are able to manage expectations and offset pragmatism with optimism (Hawley & DeHaan, 1996). Santona and Zavattini (2005) suggested the importance of examining the marital relationship, particularly their interactions, as a means of understanding the transition of adoptive parents to parenthood. Marital hostility, in particular, has been associated with negative outcomes in marital functioning (Miller, Markides, Chiriboga, & Ray, 1995; Newton & Kiecolt-Glaser, 1995). Thus, because of the profound impact that marital hostility can have on marital functioning, marital hostility was examined as the mediator in the current study.

Outcome variables

Controversy exists among researchers studying resilience regarding the operationalization of outcome variables (Masten, 2001). Some investigations focused on indices of external achievement while others assessed internal functioning (e.g., psychological health). In this study, internal indicators of resilience were examined. Specifically, the psychological health of each parent was assessed using measures of self-esteem, depressive symptoms and anxiety symptoms.

Self esteem was used in this study as an indicator of psychological health. Self esteem has been found to be correlated negatively with high anxiety and anxiety-related

problems, while correlated positively with indicators of healthy psychological functioning (Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). Issues regarding self esteem may arise among adoptive parents (Cudmore, 2005), as they confront and work through infertility and adoption stigma.

Another indicator of psychological functioning used in this study was depressive symptoms. Depression is highly prevalent, affecting 1 in 5 females and 1 in 10 males at some point in their lives (Johnson & Flake, 2007). Due to a variety of challenging factors experienced by adoptive parents including adoption stigma and infertility (Vondra & Belsky, 1993), adoptive parents may experience symptoms of depression. Understanding depression among parents is important because of the potential effects of parental depression on child outcomes, such as behavioral, social-emotional, and cognitive problems (Johnson & Flake, 2007).

The presence of anxiety symptoms was the third indicator of psychological health in this study. Anxiety disorders affect around 40 million adults in the United States age 18 and older, representing approximately 18% of the population in any given year (Kessler, Chiu, Demler, & Walters, 2005). Johnson, Cohen, Kasen, Ehrensaft, and Crawford (2006) found associations between parental anxiety disorders and child rearing behavior, specifically, high parental possessiveness. These findings suggested that a parental personality disorder may be related to an increased likelihood of problematic parenting behaviors. Parenting in general may produce feelings of anxiety, but the adoption process may contribute additional stressors (Levy-Shiff, Goldshmidt, & Har-Even, 1991). The adoption process includes long, anxiety-producing periods of waiting

and uncertainty. Adoption stigma also may create feelings of anxiety in adoptive parents (Miall, 1987).

Summary of Proposed Work

To summarize, although many studies have assessed the functioning of adopted children, to date, few studies have investigated positive and negative outcomes among adoptive parents while addressing methodological limitations, and grounding the research in a theoretical framework. The first purpose of this study was to learn more about a sample of people rarely studied in psychological research, parents of infants adopted domestically. Specifically, we were interested in advancing knowledge regarding the demographics of a nationally representative sample of adoptive parents of non-special needs children, their psychological and marital functioning, experiences of the process of adoption, and use and satisfaction with services provided by adoptive agencies. A second purpose of the study was to ground the work in theory and identify the contributions of the risks and assets to psychological functioning. Finally, a third purpose investigated the degree to which marital hostility mediated the relationship between depressive symptoms and anxiety symptoms at nine months and 27 months, respectively, based on Masten's (2001) model of risk and resilience.

CHAPTER 2

Review of Literature

This review of the literature is organized into subsections. The first section is an overview of adoption in the United States, including past research on use and level of satisfaction with adoption services. The second section addresses limitations associated with adoption research, specifically the focus on negative outcomes, salient methodological problems, and a lack of theoretical foundation (O'Brien & Zamostny, 2003). Specifically, there will be a focus on resilience theory as the theoretical foundation of this work. The third section will focus on past research on the risks and assets associated with resilience theory, specifically previous psychological functioning, infertility experiences, and tangible resources, the possible mediator, specifically the marital relationship, and psychological functioning as an outcome variable.

Adoption facts, trends, and statistics

Some aspect of the adoption process affects approximately 58% of all Americans, either by direct involvement or by knowing a close friend or family member who has completed an adoption plan (Evan B. Donaldson Adoption Institute, 1997). Roughly 135,000 adoption plans are made annually in the United States (Evan B. Donaldson Adoption Institute, 1997), with approximately 2% to 4% of American families having adopted (Stolley, 1993). Yet despite its widespread existence in American society, adoption research has focused thus far primarily on the adopted children, with little attention dedicated to the experiences and functioning of adoptive parents (Zamostny et al., 2003). Moreover, because of the vast number of individuals personally connected to adoption in some way, it is inevitable that adoption-related issues arise in therapy

settings. Yet, doctoral programs infrequently train their students on adoption issues (Post, 2000), even though trainees have expressed strong needs for more adoption-related education (Sass & Henderson, 2000).

While there are many different types of adoptions including domestic, international, public, private, and special-needs adoptions, this project focuses only those adoptive parents that completed private domestic adoption plans. Domestic adoptions refer to adoptions of American-born children. Private adoptions refer to adoption plans made through non-profit agencies that are licensed by the state. Alternatively, private adoptions may involve a third party who helps birthparents place the child directly with the adoptive parents (Evan B. Donaldson Institute, 1997).

Accurate adoption statistics are difficult to obtain because of the lack of a consistent, complete, and thorough process of accumulating data (Stolley, 1993). However, estimates show the number of total adoptions has been consistently the same from 1987 to 2001. The total number of adoptions has ranged from a low of 118,138 in 1990 (Flango & Flango, 1995) to a high of 127,630 in 2000 (Child Welfare Information Gateway, 2004).

More than one-third of Americans have considered adopting a child (Evan B. Donaldson Adoption Institute, 1997), while less than 2% have adopted (Mosher & Bachrach, 1996). Approximately 500,000 women sought to adopt in 1995, while on average 5 to 6 individuals sought to adopt for every one completed adoption (Evan B. Donaldson Institute, 2002).

Data from a sample of 10,019 women from Cycle 5 of the National Survey of Family Growth (NSFG) was analyzed to help identify predictors of whether a woman

between the ages of 18 and 44 would seek to adopt a child. Chandra, Abma, Maza, and Bachrach (1999) found from the NSFG data that consideration of adoption, having taken steps towards adoption and actually adopting were more common characteristics among older women, those who never had children, those who experienced infertility issues, and those who had undergone infertility treatment. Furthermore, characteristics of un-related adopters included higher education and income. The majority of adopters were White and older in age. Approximately 508 (5.1%) out of the 10,019 women sampled had taken steps towards adopting, 322 (5.4%) of whom were White and 119 who were Black (5.2%) (Hollingsworth, 2000). While childless, married, White women who had a history of infertility issues and treatment, some college education and to whom religion was important had an increased probability of seeking to adopt, these characteristics did not seem to affect Black women's likelihood of adopting (Hollingsworth, 2000). In the case of most adoptions, the adoptive mother is between 25 and 34 years of age and almost all are married; however the number of single parent adoptions is increasing every year, with the majority being female (Bachrach, 1986; Stolley, 1993).

Use and level of satisfaction of adoption services

Adoption services are generally designed to provide information and support for members of the adoption triad, especially the adoptive families. Because adoption entails more than just placing a child into an adoptive family, adoption services are used both before and after finalization. Adoption services can be grouped into three categories (Barth & Miller, 2000). Educational and information services provide literature, seminars, and support groups to the parents about a variety of topics including the financial costs or special services offered. Examples of clinical services include marital,

individual, family, and crisis counseling. Material services such as adoption subsidies, health benefits, and respite care, also are helpful adoption services offered to adoptive parents (Barth & Miller, 2000). In an empirical review of 22 articles focusing on adoptive families, O'Brien and Zamostny (2003) found that most parents were satisfied with the adoption process; however some parents had wished that there were more resources available to them and the adoption process would have been quicker (Berry et al., 1996; McDonald, Propp, & Murphy, 2001).

Adoptions have been quite successful, suggesting that while adoption services may be helpful, they are not mandatory for predicting successful adoptions (Barth, Gibbs, & Siebenaler, 2001; Barth & Miller, 2000). Furthermore, the characteristics of adoptive children and their families as well as the family's satisfaction with the adoption may determine which families need services and support as well as the kinds of services and support that the families seek (Barth et al., 2001).

Individuals who adopt through private agencies generally are offered a multitude of services, including information about and communication with the birth parents, reading material on adoption, pre-adoption counseling, and information about and communication with other adoptive families, while independent adopters often are not offered any preparatory services at all (Berry et al., 1996). Despite the differences in services offered, both private agency and independent adopters feel quite prepared for the adoption.

While post-placement adoption services are still relatively new and less common (Barth & Miller, 2000), Berry et al. (1996) reported that around 37% of adoptive families received some sort of post-placement services by the second year of the adoption. Many

post-adoption services rarely were used, but some adoptive parents did take advantage of reading material, seminars, parent groups, and counseling (Brooks et al., 2002; O'Brien & Zamostny, 2003). Private agency adoptions more commonly used these post-placement services, compared to public agency and independent agencies. The need for adoption services increased over time (Groze, 1996) and the most commonly desired services included parent support groups and informal contact with other adoptive families (Groze & Rosenthall, 1993). Atkinson and Gonet's (2007) study examining in-depth interviews with 500 adoptive families that received adoption services following finalization through Virginia's Adoptive Family Preservation program supported the families' desire and need for continuing support after finalization, highlighting how helpful the support and information they received was to their adoption experience.

A salient limitation of the research thus far regarding adoption services and the level of satisfaction is that the focus of the available research relies on data from adoptions of special needs children. While this data is important, growing numbers of non-special needs adoptions increase the demand for understanding the use and level of satisfaction with adoption services of non-special needs adoptions.

Limitations on previous adoption research

After a thorough review of empirical adoption studies, O'Brien and Zamostny (2003) identified major limitations associated with adoption research. A major goal of this study is to address several of these noted limitations with adoption research (i.e., focusing on negative outcomes, the presence of salient methodological problems, and a lack of theoretical foundation).

Past Focus on Negative Outcomes

Adoption is not a singular, one-time event, but rather a life-long process in which there are positives and negatives present in all adoptions (Becker, Carson, & Seto, 2002). Despite the actual reality of many adoptive families' functioning, there has been little attention directed toward the positive outcomes of adoption (Wegar, 2000). Much of the past research on adoptive families has focused on negative outcomes of adoption, with the most consistent finding being that adoptive parents rated their children as having more problems, even though only a few of these children showed reason for any significant concerns (O'Brien & Zamostny, 2003).

Interestingly, an integrative analysis of research suggested that many adoptive families function well despite negative societal beliefs and attitudes about adoption (O'Brien & Zamostny, 2003). O'Brien and Zamostny examined 22 articles focusing on adoptive families and found overall positive outcomes with regard to familial functioning, communication between parent and child, and general satisfaction with the adoption. Despite negative societal beliefs regarding adoption, adoptive families did not report having more problems than biological families. Benson, Sharma, and Roehlkepartain (1994) discovered that only 30% of their sample of 881 adopted adolescents believed that people expected adopted children to have problems. Adoptions have even been described as successful and stable (Barth & Miller, 2000). Furthermore, the majority of the adoption research has focused on identifying factors that contribute to psychological problems of the adopted children, while the actual incidence of such problems compared to their non-adopted counterparts over the last 20-30 years has been controversial (Borders, Black, & Pasley, 1998; Wegar, 2000). It has even been suggested

that the negative characteristics associated with adoptive families are inaccurate (Marquis & Detweiler, 1985).

Many studies have found positive outcomes in adoption. Miall (1996), in her examination of adoptive parenting and adopted children as a more negative type of family form, found adoptive families to be functioning just as well and experiencing the same rewards and challenges as biological families.

Methodological Problems in Previous Studies

O'Brien and Zamostny (2003) suggested that the following methodological improvements be made to improve research on adoption: 1) use appropriate comparison groups, 2) include longitudinal multilevel assessments, 3) employ consistent means of data collection, and 4) exercise caution with data interpretation.

Often times, adopted children are compared to biological children who come from unbroken homes. This methodology falls short because it does not account for those adopted children who spent time in institutional settings, such as foster care, or who came from broken families. Additionally, methodological problems arise when the comparison groups do not account for differences between adoptive and biological children. O'Brien and Zamostny (2003) proposed that controlling for variables such as the age of adoption, gender, special needs, age of parents, availability of support, and experience of stigmatization, could improve the methodology of adoption research.

Assessment methods could be improved by collecting data from multiple sources, such as the adopted children, their parents, teachers, and friends (O'Brien & Zamostny, 2003). Also, others types of assessments beyond self-reports could provide important and informative data regarding adoption participants, such as collecting observational data.

Different studies that collected data from varied sources were compared to one another even though the comparison did not allow for valid conclusions (O'Brien & Zamostny, 2003). For example, a comparison was made between a study that collected data from teachers and another study that collected data from parents. Problems with validity emerged because the sources of data were different. In an attempt to diminish irrelevant effects on the studies' results, one methodological improvement would involve collecting data using the same procedures for all participants.

O'Brien and Zamostny (2003) also found problems in the way in which researchers interpreted their results in the studies that they reviewed. They found that the magnitude as well as the practical significance of the results were often times not discussed. They also found that the strengths of the correlations reported in the study often were not examined.

A need for theory-driven research

One major problem with the empirical research to date on adoption is that it lacks a common, unifying theory. The studies thus far have examined a plethora of variables, few of which have attempted to duplicate previous findings or advance theory (O'Brien & Zamostny, 2003). The majority of the studies failed to even address or test any theoretical assumptions. O'Brien and Zamostny found it difficult to draw conclusions because of the lack of consistency or unifying themes among the studies examined.

O'Brien and Zamostny (2003) proposed that adoptive parents may be equipped with personal resources that help those overcome challenges and adversity and allow them to function as well as their biological counterparts (Leon, 2002; Miall, 1987; Wegar, 2000). Resilience theory (Masten, 2001) may provide a useful framework for

understanding adoptive parents because of the adversities experienced by many parents prior to building their families through adoption. This study uses Masten's indirect model of risk and resilience to assess factors related to functioning among adoptive parents in hope that resilience theory will serve as a useful tool for formulating studies, designing interventions, and preventing negative outcomes in unfavorable conditions (Von Eye & Schuster, 2000).

Resilience can be described as a normal, innate human response to negative life events or adversity (Masten (2001). Flores, Cicchetti, and Rogosch (2005) added that resiliency is a dynamic process that influences an individual's capacity to adapt and function successfully despite experiencing chronic stress and adversity. Resilient individuals also can be described as having the capability of withstanding and rebounding from disruptive life challenges (Walsh, 2003). Resilience has been used to account for the reason why some people are able to stay psychologically grounded and healthy when faced with risks and hardships while others are not (Patterson, 2002).

Resilient individuals are able to regulate their thoughts and feelings, feel connected to caring others, have higher self-esteem, and function well (Masten, 2001). It is possible that adoption could serve as a way of promoting resilience because children who are at risk are ideally adopted into families that will provide healthy and positive environments in which the children can flourish.

Since adoptive parents tend to experience adversity before, during, and after the adoption process is completed, resilience theory may help to understand how these parents cope with myriad challenges. The latest data shows that infertility accounts for 62% of adoptive parents reasons for adopting (Evan B. Donaldson Adoption Institute,

1997). Infertility can have serious effects on both mental health and marital functioning (Daniluk, 2001).

In addition, the adoption process can be invasive and overwhelming for many adopting parents. Adoptive parents also may experience social stigma, little social support and negative feedback when they first share the news of their decision to make an adoption plan as well as after the adoption is finalized and beyond.

Based on previous research citing their many strengths and lack of negative outcomes, it seems reasonable that adoptive parents could be conceptualized as being resilient. Adoptive parents frequently have overcome challenges posed by both infertility issues and the adoption process to form successful adoptions (O'Brien & Zamostny, 2003). Thus, Masten's (2001) indirect model of risk and resilience may be used to examine the relations among the risks, assets, and desirable outcomes experienced by adoptive parents, which may be mediated by salient compensatory factors.

Because of the lack of unifying themes or theories in past adoption research, it is hoped that the resilience framework offered by Masten (2001) will help to advance understanding of adoptive parents. Masten's research on resiliency in children was pivotal in theoretical advances regarding at-risk children and therefore could be applicable when examining a population also at risk for challenges and adversity.

Applying resilience theory to adoptive parents also will promote the acknowledgement of the strengths that surface when faced with stress, crisis, or adversity (Walsh, 2003). The strengths that emerge help individuals overcome crises and grow as a result of the challenging experiences (Cowan, Cowan, & Schultz, 1996). Resilience theory goes beyond just explaining why and how adoptive parents may overcome the

myriad challenges with which they are faced, but also how they may have successful adoptions and healthy families.

Proposed model of risk and resilience among adoptive parents

Our model of risk and resilience among adoptive parents is modeled after Masten's (2001) indirect model of risk and resilience that described the relationship between desired outcomes and risk and assets. The study grounded the work in theory and identified the contributions of risks and assets to psychological functioning. Specifically we investigated the degree to which marital hostility mediates the relationship between psychological functioning at nine months and 27 months, based on Masten's (2001) model of risk and resilience.

Risks and assets: Previous psychological functioning

It is probable that previous psychological functioning will be a strong predictor of current psychological functioning. It appears that psychological functioning remains stable over time. Moreover, psychological function is often linked to relationship quality, parenting efficacy, and overall accomplishments (Belsky, 1984). Those with healthy psychological functioning may possess the strength and resilience to maintain their healthy psychological functioning over time while those with higher psychopathology may be at risk for poor psychological functioning in the future. Measures of previous psychological functioning included assessment of self-esteem, depressive symptoms and anxiety symptoms.

Because adoption and infertility issues are so closely related, it is common for adoptive parents to have lowered self-esteem as a result of the inability to biologically reproduce. When infertility has been attributed to one member of the married couple,

often that individual blames her or himself or feels blamed by their partner (Janus, 1997). Adoptive parents who are unable to reproduce reported having damaged and hurt self-image, and feeling disappointed in themselves. The self-esteem of males was a strong predictor of marital adjustment in men than in females, demonstrating that males' egos are tied to the ability to procreate (Raval, Slade, Buck, & Lieberman, 1987). Also, the constant bombardment of stigma can cause adoptive parents to question the authenticity of their parent status, making them feel second best (Miall, 1987). Many adoptive parents have even reported the adoption process to be humiliating, further lowering their self-esteem (Daly, 1989). Spector (2004) even suggested that while infertile individuals appear to be normal to others, they often feel abnormal about their inability to conceive. Self esteem also was found to be correlated with depression (Raval et al., 1987). In a meta-analysis of literature on infertility and psychological distress, infertile women were found to overall have lower self-esteem, be more depressed, report lower life satisfaction, and blame themselves more often, than their infertile male counterparts (Greil, 1997). Discussion of depressive and anxiety symptoms follows when reviewing literature on psychological functioning as an outcome variable.

Risks and assets: Infertility experiences

Bausch (2006) pointed out that it is common knowledge that infertility and subfecundity are the primary reasons why people adopt. Approximately 17% of couples experience some infertility issues (Daniluk & Hurtig-Mitchell, 2003) and in 1995, approximately 6.1 million women experienced impaired fecundity (Fertility, Family Planning, and Women's Health, 1997). There were 2.1 million couples experiencing infertility in 1995 as well (Freundlich, 1998). Approximately one third of the infertile,

married, childless women were between the ages of 35 and 44 (Freundlich, 1998), but no one race or socioeconomic group showed higher rates of infertility (Mosher & Bachrach, 1996).

Infertility causes financial stress attributed to high costs of treatment, career plans are often postponed or disrupted, and sexual expression is often repressed (Eunpu, 1995). Those most likely to utilize infertility services are White, college educated, older than 30, financially secure, married and childless and those who do seek treatment, undergo medical intervention for an average of three years before adopting (Barth, Brooks, & Iyer, 1995). In 1995, 2% of reproductive age women had received either medical advice or treatment for infertility in the previous year and an additional 13% had received some treatment at some point in their lives (Freundlich, 1998).

Infertility often is experienced early in the marriage and may be the first serious challenge or threat of crisis faced by the couple, frequently before many have had the opportunity to establish strong communication or conflict resolution skills (Eunpu, 1995). Furthermore, infertility may affect sexual functioning, relationship quality, identity, and relationships with close friends and family (Peterson et al., 2006).

Individuals who struggled with infertility needed to come to closure and mourn the loss of a biological child (Daniluk & Hurtig-Mitchell, 2003). The individuals first had to decide if they wanted to be parent, but also had to learn to separate the desire to have biological children from their desire to be a parent in general. The decision to adopt was supported by separating dealing with the reality of infertility and life without children. Failure of treatment causes individuals to assess the situation and think of the next step. Those undergoing long term infertility treatment frequently are known as survivors

because of the hardships they endure (Callen, 1987). These individuals needed to transform their identity from biological parents to adoptive parents, after making the decision to adopt (Daniluk, 2001).

Because of all the negative aspects associated with infertility, it would be expected that individuals would experience relational and marital problems as a result. However, research shows many positive outcomes that arose because of couples' experiences with infertility (Callen, 1987; Griel, 1997; Schmidt, Holstein, & Christensen, 2005). There is some evidence that couples experiencing infertility report high levels of love, support, and communication. This could be an effect of partners bonding over shared experiences of crisis and stigmatization (Callen, 1987). Infertile, childless couples desiring children reported higher levels of communication, more opinion sharing, and lower rates of extramarital relationships than those with biological children. Peterson, Newton, and Rosen (2003) found that couples who experience congruent levels of infertility-related stress had experienced greater levels of marital adjustment than those who were incongruent. Overall, in their study, respondents had relatively high levels of marital satisfaction, consistent with Griel 's (1997) findings that the levels of marital satisfaction of those experiencing infertility was as high or even higher than those not infertile.

A qualitative study on the effects of infertility on couples showed that couples were able to express the positive impact the process of infertility had on their marital relationship (Daniluk, 2001). Another study also found that two-thirds of the participants either agreed strongly or somewhat that infertility both strengthened the couples' relationship and/or brought them closer together (Schmidt et al., 2005). Callen (1987)

found that infertile women had higher levels of marital satisfaction than parents. Those individuals undergoing in-vitro fertilization reported having higher emotional support. Couples that chose to share their emotions with each other only, as opposed to a counselor, actually strengthened their relationship (Edelmann & Connolly, 1987). The fear of abandonment due to infertility issues was assuaged as the couple remained together, despite experiencing struggles together.

However, infertility does not always lead to positive outcomes in couple functioning. Because for many adoptive parents, infertility and adoption are closely tied, the joys of transitioning to parenthood are often tainted by the complex losses associated with infertility (Cudemore, 2005). Males and females experiencing infertile issues may feel shame, anxiety, blamed, depressed (Spector, 2004) and may lose confidence in themselves as capable and competent partners (Cudemore, 2005). They are faced with a power imbalance, as they are constantly at the mercy of doctors and adoption agency workers who are helping them with infertility treatments or obtaining a baby (Daniluk & Hurtig-Mitchell, 2003). Infertility causes added stress and may create added tension for the infertile couple, leading to possible separation or even divorce.

Risks and assets: Tangible resources

Adoptive parents are generally equipped with many tangible resources (Berry et al., 1996; Mosher & Bachrach, 1996; Stolley, 1993). They tend to be older in age and have more life experiences and maturity that tend to make individuals more ready to be parent. Stolley (1993) reported that adoptive mothers fall between the ages of 25 and 34, above the average age of first time mothers, with the mean age of an adoptive mother being mid-to late-30s (Berry et al., 1996). Adoptive parents tend to be of middle or upper

class status homeowners (Bausch, 2006) with a mean household income between $46,000 and $70,000 (Berry et al., 1996). Adopting from a private agency can cost anywhere from $4,000 to $30,000 (National Adoption Information Clearinghouse, 2002), further illustrating the financial status of many adoptive families making private adoption plans. The majority of adoptive parents studied had at least some college education (Bausch, 2006; Berry et al., 1996; Chandra et al., 1999). Also, the majority of adoptive parents are married, meaning that the child entered into a two-parent home in which there were two caregivers.

The above tangible resources may equip the adoptive parents with sources for addressing challenges. Because of the strong likelihood of available tangible resources, adoptive parents may experience fewer stressors, and thus have higher levels of parenting functioning than individuals without these benefits. High education levels suggest exposure to pertinent information that adoptive parents can use when faced with challenges. Financial resources allow for fewer economic stressors and better quality of life as compared to those lacking these financial resources, specifically access to health care and mental health services. High incomes also suggest steady employment situations that could contribute to healthy psychological functioning.

Possible mediator

The marital relationship has been found to be important in understanding the transition of adoptive parents to parenthood (Santona & Zavattini, 2005) since the level of satisfaction and the functioning of the marital relationship predicts how well a family as a whole may function (Lindahl, Clements, & Markman, 1997). Marriage has been found to have a protective quality against psychological distress by providing spouses'

with a greater sense of meaning in life, allowing individuals to fill multiple social roles, and ensuring that there is someone to provide a consistent source of emotional and social support (Waite & Gallagher, 2000). High levels of trust, love and liking of partners are all characteristic of healthy and happy marriages (Kurdek, 2002). Moreover, a meta-analysis of the relationship between marital quality and personal well-being found that higher levels of marital quality are related to higher levels of personal well-being (Proulx, Helms, & Buehler, 2007).

A plethora of studies illustrated the negative effects of hostility on the marital relationship. Hostility has been linked to marital separation and divorce (Miller et al., 1995). A study examining the marital quality of newlywed couples over a three year period showed that higher hostility in husbands was associated with lower marital quality for both husbands and wives (Newton & Kiecolt-Glaser, 1995). Unhappy marriages are often described as having greater levels of negativity and lower levels of positive affect (Matthews, Wickrama, & Conger, 1996). Moreover, partners who perceive hostility from their spouses are prone to unstable marriages (Matthews et al., 1996) and these perceptions may influence the future of the marriage (Gottman, 1994).

An understanding of marital hostility may provide insight into the psychological health of parents. With regard to close relationships, such as marriage, a hostile individual is likely to contribute to the development of an unsupportive environment filled with conflict which, over time, may produce feelings of distress or depression for spouses (Smith, Sanders, & Alexander, 1990). The presence of psychological symptoms also has been found to influence how couples' cope with marital conflict, with those who are more psychologically distressed withdrawing and often feeling more physically

distressed (Papp, Goeke-Morey, & Cummings, 2007). Compelling evidence using a variety of research designs and assessment strategies supports the relationship between marital distress and depression (Heene, Buysse, & Van Oost, 2007). A study examining marital hostility in dyads found that hostility and depression were related closely and that for both men and women, the presence of hostility may have an impact on depressive symptoms (Brummett, Barefoot, Reaganes, Yen, Bosworth, & Willams et al., 2000). The study also suggested that both hostility and depression may act together to increase the likelihood of experiencing both simultaneously. Moreover, spousal similarities with respect to psychosocial risk factors were also identified.

Anxiety symptoms have been found to be associated with poor relationship functioning and greater emotional and behavioral impairment during problem-solving discussions (Addis & Bernard, 2002; Chambless, Fauerbach, Floyd, Wilson, Remen, & Renneberg, 2002). Specifically, a study examining the associations between marital distress and DSM-IV psychiatric disorders (Whisman, 2007) found that one of the highest associations was between marital distress and Generalized Anxiety Disorder. Papp et al. (2007) found that during in times of marital conflict, wives were more likely than their husbands to delay the end of an argument, possibly due to increased anxiety.

Marital hostility has serious effects on children, as children exposed to hostile parents are at an increased risk for maladjustment (Du Rocher Schudlich, Papp, & Cummings, 2004). Marital hostility and parents' depressive affect co-occur frequently, thus increasing the likelihood of problematic behaviors in children (Franck & Buehler, 2007). Marital conflict, often characterized by marital hostility, has been known to affect

children negatively, in the form of conduct disorder, aggression, antisocial behavior, depression and withdrawal (Grych & Fincham, 1990).

Outcome variables

Researchers have yet to determine which variables accurately assess resiliency (Masten, 2001). Some choose to focus on indicators of external achievement while others, such as this study, focus on internal functioning, such as psychological health. Measures of depressive symptoms and anxiety symptoms will be used to operationalize the psychological health of each adoptive parent at twenty seven months postpartum. A parent's psychological health plays a strong role in shaping a child's psychosocial development (Long, 1996), therefore it is important to have a thorough understanding of the psychological health of adoptive parents.

Unlike birth parents that have nine months in which to prepare for the arrival of a baby, adoptive parents' transition to parenthood is often more chaotic. Levy-Shiff, Bar, & Har-Even (1990) highlighted the connection between birth parents' personal growth and adjustment during the expectancy period and its correlation with parent-child interactions subsequently. Because many adoptive parents chose to adopt due to infertility, the adoption process follows a long, stressful period that may be filled with psychological problems, specifically issues with self-image, sense of femininity and masculinity, and couple adjustment (Levy-Shiff et al., 1990). Consequently when problems are not addressed sufficiently or when adoption is used in lieu of addressing the issues, both individual and marital problems may develop (Menning, 1980). These issues may manifest themselves in impaired self-esteem, depression, and general anxiety disorders.

Adoptive parents are faced with challenges that if and when internalized, may manifest themselves in depression. Specific stressors, such as infertility or marital conflict can result in depression (Vondra & Belsky, 1993). Infertility specifically has been suggested to lead to depression (Mahlstedt, 1985). Along with depression, often comes a weakening of marital and sexual relations (Raval et al., 1987). Feelings such as sadness, depression, embarrassment, and disappointment, as well as behaviors such as disorganization, moodiness, unpredictability, and exhaustion were found to be associated with the psychological impact of infertility, specifically experiences of crisis, loss, and multiple stressors commonly associated with infertility (Valentine, 1986).

Another effect of the risks and challenges faced by adoptive parents is anxiety. Infertility was found to be a major contributor to high anxiety levels in adoptive parents (Raval et al., 1987). A strong predictor of anxiety for infertile individuals was the avoidance of children, mainly due to the feelings that seeing other children evoked in the infertile adoptive parents. The adoption process itself, specifically the actual adopting of a new baby, is anxiety-producing (Levy-Shiff et al., 1991). Much uncertainty exists in the beginning and throughout the adoption process, such as the possibility that the parents will fail to meet the requirements or standards in place to adopt, that they will have to wait an exceedingly long period of time for a baby to arrive, or that the child, once placed in their care, will be taken away from them before the finalization process is complete (Levy-Shiff et al., 1991).

In sum, a review of the literature has demonstrated the complexities, challenges and strengths faced by adoptive parents. Research regarding the use and level of satisfaction with services provided by adoption agencies was discussed. Risks and assets

faced by adoptive parents have been presented, as well as how these risks and assets are mediated by adaptive influences to predict a desired outcome. The variables of interest in this study including psychological functioning of adoptive parents postpartum, infertility experiences, and tangible resources were reviewed. Research addressing the importance of psychological functioning was highlighted. Additionally, the presence of a mediating variable of the relationship between psychological functioning at nine and 27 months (hostility in the marital relationship) was investigated. Finally, an indirect model of risk and resilience was proposed as a theoretical framework for understanding the psychological functioning of adoptive parents.

Research Questions and Hypotheses

Purpose 1

The first purpose of this study was to learn more about a sample of people rarely studied in psychological research, parents of infants adopted domestically. Specifically, I was interested in advancing knowledge regarding the demographics of a nationally representative sample of adoptive parents, their experiences with the process of adoption, and their psychological and marital functioning.

Research Question 1. How can this sample be described with regard to financial satisfaction, educational background, employment situation, religion/spirituality, age, ethnicity, and reasons for adopting?

Analyses

Descriptive statistics were calculated for all variables with this sample of adoptive parents to determine the demographics of a nationally representative sample of adoptive parents, their experiences of the adoption process, and their psychological and marital

functioning. Furthermore, the correspondence between mother and father scores on measures of psychological health, infertility and the marital relationship was assessed. A MANOVA was calculated to investigate differences between mothers and fathers on these salient constructs.

Purpose 2

The second purpose of the study was to assess the use and level of satisfaction with services provided by adoptive agencies.

Research Question 2. What adoption services are being offered by adoption agencies and utilized by adoptive parents and how often are they utilized?

Research Question 3. What is the level of satisfaction with the services being offered and utilized by the adoptive parents?

Analyses

Descriptive statistics were calculated for all variables with this sample of adoptive parents to determine the use and level of satisfaction with services provided by the adoption agencies.

Purpose 3

The third purpose of this study was to examine the relationships among the factors hypothesized to be associated with the psychological health of a sample of adoptive parents.

Research Question 4. How are the variables of interest in this study (i.e., psychological functioning at nine months postpartum, infertility experiences, tangible resources, the marital relationship, and psychological functioning at 27 months postpartum) related to one another with this sample of adoptive parents?

Analyses

Pearson r correlations were calculated to assess the bivariate relations among all variables.

Purpose 4

The final purpose of this study was to conduct preliminary analyses to examine the degree to which psychological functioning of the adoptive mother and father at nine months postpartum, infertility experiences, tangible resources and the marital relationship would predict adoptive mothers' and adoptive fathers' psychological health at 27 months postpartum. Moreover, the degree to which marital hostility mediates the relationship between depressive and anxiety symptoms at nine months postpartum and 27 months postpartum was studied.

Analyses

We first conducted a multiple regression analysis to examine the contributions of the psychological functioning of the adoptive mother and adoptive father at nine months postpartum, infertility experiences, tangible resources, and the marital relationship in predicting adoptive mother's psychological health at 27 months postpartum. A total of four hierarchical multiple regression analyses were conducted. Two assessed the contributions of the independent variables in predicting the dependent variables (depressive symptoms and anxiety symptoms) for adoptive mothers and two used data from adoptive fathers. Psychological health (self-esteem, depression and anxiety scores) from mothers and fathers at nine months postpartum was entered in the first block in all regression equations. Mother and father scores on the infertility experiences scale were entered in the second block and then the tangible resources subscales were entered as the

third block. The scales assessing marital relationship were entered as the final block in the regression equations.

Hypothesis 1a. Psychological functioning of adoptive mothers and adoptive fathers at nine months postpartum will contribute to the prediction of depressive symptoms for adoptive mothers, with healthier psychological functioning of both adoptive mothers and fathers at 9 months relating positively to a lack of depressive symptoms at 27 months.

Hypothesis 1b. Adoptive mothers' and adoptive fathers' infertility experiences will contribute to the prediction of depressive symptoms for adoptive mothers, with fewer challenges for both adoptive mothers and fathers regarding infertility relating positively to a lack of depressive symptoms at 27 months.

Hypothesis 1c. Tangible resources of adoptive mothers and fathers will contribute to the prediction of depressive symptoms for adoptive mothers with greater tangible resources relating positively to a lack of depressive symptoms at 27 months.

Hypothesis 1d. Positive reports regarding the marital relationship from the adoptive mothers and fathers will contribute to the prediction of depressive symptoms for adoptive mothers, with healthier marital relationship ratings relating positively to a lack of depressive symptoms at 27 months.

Hypothesis 2a. Psychological functioning of adoptive mothers and adoptive fathers at nine months postpartum will contribute to the prediction of anxiety symptoms for adoptive mothers, with healthier psychological functioning of both adoptive mothers and fathers at 9 months relating positively to a lack of anxiety symptoms at 27 months.

Hypothesis 2b. Adoptive mothers' and adoptive fathers' infertility experiences will contribute to the prediction of anxiety symptoms for adoptive mothers, with fewer challenges for both adoptive mothers and fathers regarding infertility relating positively to a lack of anxiety symptoms at 27 months.

Hypothesis 2c. Tangible resources of adoptive mothers and fathers will contribute to the prediction of anxiety symptoms for adoptive mothers with greater tangible resources relating positively to a lack of anxiety symptoms at 27 months.

Hypothesis 2d. Positive reports regarding the marital relationship from the adoptive mothers and fathers will contribute to the prediction of anxiety symptoms for adoptive mothers, with healthier marital relationship ratings relating positively to a lack of anxiety symptoms at 27 months.

Hypothesis 3a. Psychological functioning of adoptive mothers and adoptive fathers at nine months postpartum will contribute to the prediction of depressive symptoms for adoptive fathers, with healthier psychological functioning of both adoptive mothers and fathers at 9 months relating positively to a lack of depressive symptoms at 27 months.

Hypothesis 3b. Adoptive mothers' and adoptive fathers' infertility experiences will contribute to the prediction of depressive symptoms for adoptive fathers, with fewer challenges for both adoptive mothers and fathers regarding infertility relating positively to a lack of depressive symptoms at 27 months.

Hypothesis 3c. Tangible depressive of adoptive mothers and fathers will contribute to the prediction of depressive symptoms for adoptive mothers with greater tangible resources relating positively to a lack of depressive symptoms at 27 months.

Hypothesis 3d. Positive reports regarding the marital relationship from the adoptive mothers and fathers will contribute to the prediction of depressive symptoms for adoptive fathers, with healthier marital relationship ratings relating positively to a lack of depressive symptoms at 27 months.

Hypothesis 4a. Psychological functioning of adoptive mothers and adoptive fathers at nine months postpartum will contribute to the prediction of anxiety symptoms for adoptive fathers, with healthier psychological functioning of both adoptive mothers and fathers at 9 months relating positively to a lack of anxiety symptoms at 27 months.

Hypothesis 4b. Adoptive mothers' and adoptive fathers' infertility experiences will contribute to the prediction of anxiety symptoms for adoptive fathers, with fewer challenges for both adoptive mothers and fathers regarding infertility relating positively to a lack of anxiety symptoms at 27 months.

Hypothesis 4c. Tangible resources of adoptive mothers and fathers will contribute to the prediction of anxiety symptoms for adoptive fathers with greater tangible resources relating positively to a lack of anxiety symptoms at 27 months.

Hypothesis 4d. Positive reports regarding the marital relationship from the adoptive mothers and fathers will contribute to the prediction of anxiety symptoms for adoptive fathers, with healthier marital relationship ratings relating positively to a lack of anxiety symptoms at 27 months.

Finally, exploratory analyses were conducted to assess if marital hostility mediated the relationship between adoptive mothers' and adoptive fathers' depressive and anxiety symptoms at nine months and 27 months. Using the method for testing mediation outlined by Frazier, Tix, and Barron (2004), the first equation regressed

depressive symptoms at 27 months on depressive symptoms at nine months postpartum for adoptive mothers. Second, marital hostility was regressed on depressive symptoms of the adoptive mothers at nine months postpartum. Last, depressive symptoms at 27 months were regressed on both depressive symptoms at nine months and marital hostility. The mediated model would have been present if there was no relation between depressive symptoms at nine months and depressive symptoms at 27 months, when controlling for marital hostility (Frazier et al., 2004). If the relationship between depressive symptoms at nine months and depressive symptoms at 27 months was significantly smaller when marital hostility was present than when it was not present, but still greater than zero, the model would have been described as partially mediated. This series of analyses was repeated for adoptive mothers' anxiety symptoms and for adoptive fathers' depressive and anxiety symptoms.

Hypothesis 5a. Adoptive mothers' assessment of marital hostility will mediate the relationship between adoptive mothers' depressive symptoms at nine months postpartum and mothers' depressive symptoms at 27 months postpartum.

Hypothesis 5b. Adoptive mothers' assessment of marital hostility will mediate the relationship between adoptive mothers' anxiety symptoms at nine months postpartum and mothers' anxiety symptoms at 27 months postpartum.

Hypothesis 5c. Adoptive fathers' assessment of marital hostility will mediate the relationship between adoptive fathers' depressive symptoms at nine months postpartum and fathers' depressive symptoms at 27 months postpartum.

Hypothesis 5d. Adoptive fathers' assessment of marital hostility will mediate the relationship between adoptive fathers' anxiety symptoms at nine months postpartum and fathers' anxiety symptoms at 27 months postpartum.

CHAPTER 3

Method

Participants

The participants in this study were part of the Early Growth and Development Study, an investigation directed by Dr. Jenae Neiderhiser and Dr. David Reiss at George Washington University. Adopted children (born between January 2003 and January 2006) who were placed with a nonrelative adoptive family less than 3 months postpartum (*M* age at placement = 3 days, *SD* = 13 days) as well as their birth and adoptive parents comprised the sample. The entire sample consisted of 359 triads (359 adoptive children, 50% female, 359 sets of adoptive parents, 359 birth mothers, and 110 birth fathers). In this study, only data from the adoptive parents were used.

Procedure

Three recruitment sites representing the Mid-Atlantic (George Washington University), the West/Southwest (University of California, Davis), and the Pacific Northwest (Oregon Social Learning Center) worked collaboratively and cooperatively on this project. Thirty-six adoption agencies reflecting public, private, religious, secular, and those favoring both open and closed adoption plans, were selected from 17 states around the three sites. Birth mothers and adoptive families came from more than 40 states. To prevent the transfer of information between different members of the adoption triad, separate birth parent and adoptive family recruiters and interviewers were used in the study.

Inclusion criteria. Birth parents needed to have completed a domestic adoption plan with one of the participating adoption agencies. The adoption had to involve a non-

related adoptive family and occur within three months of delivery. All types of adoptive parents, including same-sex, single, and hearing-impaired parents, were eligible to take part in the study. Infants with major medical problems identified in the first three months of life and parents (birth and adoptive) who could not understand English were excluded from the study.

Recruitment process. A representative contact from each adoption agency was appointed by the agency to begin the recruitment process. Members of the EGDS staff trained and financially compensated the agency contacts as a way of establishing contact and rapport with the adoption agencies. The recruitment process consisted of several steps. First, adoptions that meet the inclusion criteria were identified by liaisons. About four weeks following placement, letters were mailed on agency letterhead describing the study to all eligible families. Those who were not interested in participating (18% of the adoptive family letters mailed) were instructed to return a postage paid postcard and were not contacted again.

Two weeks following the mailing, liaisons contacted the birth mothers linked to the adoptive families that were willing to participate to further explain the study and ask for permission to have a recruiter contact them directly at a later date. All participants who agreed to participate were informed that they would be financially compensated for each time they participated in another part of the study. Lastly, the liaison supplied the EGDS recruiters with the phone numbers of the birth mother and adoptive family.

Birth mothers. After consenting to being contacted, birth parent recruiters called birth mothers in an attempt to recruit her into the study. Birth mothers were recruited with an 89% success rate. Additional information and an informed consent were sent to the

birth mother if she agreed to participate. One week later, a recruiter followed up with the birth mother, reviewing the consent form and answering any questions she may have had. Informed consent forms were returned in a postage-paid mail envelope.

Adoptive families. Once the birth mother agreed to participate, a separate adoptive family recruiter tried to recruit the linked adoptive family with a phone call, reminding the family of the previously mailed letter and providing detailed information about participation and the study. If the adoptive parents agreed to take part, they were sent informed consent forms and other study information. Adoptive families were recruited with a 69% success rate.

Data Collection

The Early Growth and Development Study (EGDS) collected data using questionnaires, in-person interviews, telephone interviews, observational interactions with adoptive families, and standardized testing for birth and adoptive parents. Medical records for the birth parents and adopted children also were collected. For this study, only data obtained from the questionnaires, the first telephone interview, and the computer-assisted personal interviews at the in-person interviews are described and analyzed.

In-person assessments were conducted with the adoptive parents at 9, 18, and 27 months and telephone interviews occurred, 6, 12, 22, and 36 months postpartum. In-person interviews took approximately 2.5 hours to complete. A list of measures used in this study appears in Table 1.

In-person assessments. All three of the in-person assessments with the adoptive family were conducted in the families' home. Questionnaires were sent to the adoptive parents and were to be completed prior to the in-home assessment. Computer-assisted

personal interviews questions were completed during the visit and the interactions of the child, of each parent with the child, and of the parents together, were videotaped by the interviewer simultaneously.

Telephone interviews. The adoptive family phone interviews asked questions about the ongoing relationship with the birth parents and the adoption agency, as well as general well-being and the adopted child's daily behavior and parenting.

Measures

The measures administered in the study assessed the variables associated with the indirect model of risk and resilience posed by Masten (2001) divided into risk and assets (psychological health at nine months postpartum, infertility experiences, and tangible resources), a possible mediator of psychological health at 9 and 27 months (hostility in the marital relationship) and the outcome variable (psychological health at 27 months postpartum). Demographic characteristics, experiences with the adoption process, and the use and satisfaction with adoption agency services by the adoptive parents also were examined.

The instruments used in this study consisted of the: a) Harter Adult-Perception Scale, b) Beck Depression Inventory, c) Beck Anxiety Inventory, d) Adoption Process Interview, e) Family Demographics, f) Marital Relationship Questionnaire, and g) Adoption Agency Expectations.

A demographic form was administered to all participants that collected data regarding marital status, family members, spirituality/religious affiliation, age, ethnicity, race, employment situation, and reasons for adopting. Moreover, the percentage of transracial adopted children was also assessed. (See Appendix A).

Psychological health of the adoptive parents

The psychological health of the adoptive parents was assessed at multiple time intervals. The first assessment occurred 9 months postpartum, the second at 18 months postpartum, and the third at 27 months postpartum, allowing the comparison of psychological health over time. We used the data collected at 9 and 27 months postpartum. Psychological health at nine months was assessed using the Harter Self-Perception Profile, the Beck Depression Inventory, and the Beck Anxiety Inventory. At 27 months, psychological health was assessed using the Beck Depression Inventory and the Beck Anxiety Inventory.

Harter Self-Perception Profile (Messer & Harter, 1986). The Harter is a measure of general-self esteem, where respondents were instructed to respond to one of two opposing statements as either 1 (*really true for me*) or 2 (*sort of true for me*) on the left part of the questionnaire or 3 (*sort of true for me*) or 4 (*very true for me*) on the right part of the questionnaire. High scale scores indicated high self-esteem and perceived competence. In this study, the adoptive parents answered 22 questions corresponding to five subscales, but only the "Global Self Worth" subscale was scored (See Appendix B).

The "Global Self Worth" subscale included six items describing a person's global perceptions of worth, independent of any particular domain of competence or adequacy. Items asked about how much a person is pleased with oneself or how much they like the kind of person one is. An example item asked a respondent how true it is that "some adults like or do not like the way they are leading their lives." Items including "some adults like or do not like the way they are leading their lives", "some adults are very happy being the way they are but other adults would like to be different", and "some

adults like the kind of person they are but other adults would like to be someone else" were reverse coded. All items in this subscale were totaled. High scores indicated global self worth.

*Beck Depression Inventory (*BDI; Beck, Ward, & Mendelson, 1961). The BDI is a well-established self report and commonly used measure of depressive symptoms that differentiates between depressed and non-depressed samples. A test-retest reliability coefficient of .93 was obtained with a sample of 26 outpatients over a one week period. A newer version of the BDI (the BDI-II) was developed to increase the content validity of the measure, making it more consistent with the DSM-IV (Beck, Steer, & Brown, 1996).

The original version of the BDI includes 21 items, but the version used in this study did not include the item that asked about suicidal ideation (See Appendix C). Respondents chose between four responses that vary from positive to depressed feelings about their life in the past week. One item asked respondents to choose among the following responses regarding their feelings over the past week: 1 (*get as much satisfaction out of things as I used to*), 2 (*I don't enjoy things the way I used to*), 3 (*I don't get real satisfaction out of anything anymore*), and 4 (*I am dissatisfied or bored with everything*). All items were totaled, with low scores indicating a lack of depression.

Beck Anxiety Inventory (BAI; Beck & Steer, 1993). The BAI is a commonly used self-reported 21-item measure that assesses anxiety (See Appendix D). Internal consistency ranged from .92 to .94 for adults and test-retest reliability at a one week interval was .75 (Beck & Steer, 1993). The alphas for the DSM-IV anxiety disorder groups ranged from .85 to .93 (Beck & Steer, 1993). The overall scale measured the severity of the respondent's anxiety. Respondents indicated how much they were

bothered by specific symptoms of anxiety such as numbness or sweating in the past week. Participants responded to a 4-point scale, ranging from 1 (*not at all*) to 4 (*severely*). This study used the overall score of the Beck Anxiety Inventory, which is the sum of all items. Ratings of minimal anxiety were associated with scores between 0 and 7, mild anxiety scores ranged from 8 to 15, while moderate anxiety was reflected in scores 16 to 25. Finally, scores between 26 and 63 reflected severe anxiety.

Infertility Experiences

Infertility experiences were assessed by examining items focused on infertility issues in the Adoption Process Interview.

Adoption Process Interview. (Scaramella, Leve, Whitesel, & Milfort, 2003). The Adoption Process Interview was a measure designed by members of the EGDS team. The items measuring feelings regarding infertility were part of a larger measure that asked general questions regarding the adoption process. The items related to infertility from this measure asked participants about their experiences with infertility.

The scale included two items about the effects of infertility on the self and on the marital relationship (See Appendix E). The items asked, "how emotionally challenging has coping with the issue of infertility been for you?" and "how challenging has the issue of infertility been on your relationship?" Responses were given on a 5-point scale, ranging from 1 (*not at all challenging*) to 5 (*very challenging*). These items were totaled and high scores represented significant challenges associated with infertility.

Tangible Resources

Tangible resources were assessed using the Family Demographics measure, focusing on the educational level, income, and employment of the adoptive parents.

Demographics of the adoptive parents. Appearing in the questionnaire as *About You,* the demographic measure of the adoptive parents is composed of three different sections of interest. One set of items focused on number of years of education (See Appendix F). Two questions asking about length of attendance at a 4-year college or university and graduate school received responses ranging from 1 (*1 year*) to 5 (*more than 4 years*), with high scores indicating that individual was in school for many years.

The next set of questions asked about the participants' household income (See Appendix G). The question asked how much the individual's total household income from all sources was last year before taxes. Large dollar amounts indicated high incomes.

Another cluster of questions focused on the participants' satisfaction with finances (See Appendix H). One item asked how much difficulty the participant had paying bills, with responses ranging from 1 (*a great deal of difficulty*) to 5 (*no difficulty*). When scored, the previous item was reversed. The next item asked how much money the participant had at the end of the month, ranging from 1 (*more than enough money left over*) to 4 (*not enough to make ends meet*). Scores for all of the above items were totaled, with high scores indicating financial discomfort.

Marital Relationship

The marital relationship was assessed using items from the Marital Relationship Questionnaire.

Marital Relationship Questionnaire (Booth, Johnson, & Edwards, 1983). The marital relationship questionnaire assesses satisfaction, conflict, and warmth. Support for the validity of the scales comes from a high correlation (.80) between ratings of the items

and related constructs by 36 judges. The judges were asked to rate activities and attitudes suggested in the interview items in relation to the probability of a possible dissolution of the relationship; analyses showed that the measure related to many variables from previous research that predicted divorce or separation (Booth, Johnson, & Edwards, 1983). Three subscales were obtained including the "Marital Instability Index", the "Warmth/Support Factor of Partner towards Responder", and the "Hostility Factor." For each of the three areas, each partner reported on their partner's behavior on a 7-point scale that ranges from 1 (*always*) to 7 (*never*).

Scores from the five items included in the "Marital Instability Index" subscale were totaled, with high scores representing marital instability for the couple (See Appendix I). An example item from this subscale asked a member of the couple to respond if "you or your partner seriously suggested the idea of divorce" in the last year, the last six months, or the last three months or not at all in the last year.

The nine items in this subscale were reversed and summed, with high scores indicating warmth between the couple on the "Warmth/Support Factor of Partner towards Responder" subscale (See Appendix J). An example item included the question, "during the past year when you and your partner have spent time talking or doing things together, how often did your partner listen carefully to your point of view"?

The thirteen items in this subscale were reversed and totaled, with high scores on the "Hostility Factor" representing marital hostility (See Appendix K). Sample questions included asking how often "during the past year when you and your partner have spent time talking or doing things together, did your partner get angry at you" or "criticize you or your ideas"?

Experiences with the adoption process and use and level of satisfaction with agency services

Adoption Agency Expectations. (Scaramella, Leve, Whitesel, & Milfort, 2003). The Adoption Agency Expectations questionnaire was designed by members of the EGDS team. The questionnaire sought information from the adoptive parents about their experiences with adoption agencies before, during, and after the placement of their child, as well as questions regarding why they chose the specific agency, how satisfied they were with the agency's services throughout the adoption process, as well as what services they specifically used.

The first group of questions asked about the participants' overall level of satisfaction with services provided by their adoption agency (See Appendix L). Responses fell on a 4-point scale ranging from 1 (*very satisfied*) to 4 (*very dissatisfied*). If a question did not apply to a participant, they could indicate that it was not applicable. The questions asked about the satisfaction of the information the agency provided about the adoption process, their education and support services, their ability to make recommendations for outside services like counseling, the staff's responsiveness to their requests, the skill of the staff, their policy about openness, the home study process, including the length of time it took to complete, the matching process, the placement process, and the post placement services and supervision. Scores were reverse coded and totaled, with high scores indicating high satisfaction with the services provided by adoption agencies used by the participants.

The next group of items asked if the agency offered services such as education classes or workshops, support groups, counseling services, referrals for education or

support services outside of the agency itself, social activities to get to know other families and staff, newsletters, email updates, or updates on a website (See Appendix M). “Yes” responses were coded with a 1, while “no” responses were coded with a 0. Items were summed and high scores indicated many services were offered by the adoption agency used by the participant.

If the participant indicated that their agency did offer any of the above services, they were asked if they used the service. “Yes” answers were coded with a 1, while “no” responses were coded with a 0. Items were summed and high scores suggested use of adoption services.

If the participant indicated that they used any of the above services, they were asked when they used the services. Respondents could respond either “pre-placement”, “post-placement”, or “both”. Both “pre-placement” and “post-placement” responses were coded with a 1 and the “both” response was coded with a 2. High scores indicated frequent use of adoption services.

If the participant indicated that they did use any of the above services, they were asked how satisfied they were with the service they used. Responses ranged from 1 (*very satisfied*) to 4 (*very dissatisfied*). Items were reverse coded and totaled, with high scores indicating satisfaction with the services the participants utilized.

Analyses

Descriptive statistics were calculated for all variables to determine the demographics of a nationally representative sample of adoptive parents, their experiences with the adoption process, their use and satisfaction with services provided by adoptive agencies, and their psychological, marital, and parental functioning. A MANOVA was

used to assess the correspondence of adoptive mothers and fathers between all variables of interest. Pearson r correlations were calculated to determine the associations among the variables of interest in this study. Four hierarchical multiple regression analyses were conducted, with two assessing the contributions of the independent variables in predicting the dependent variables (depressive symptoms and anxiety symptoms) for adoptive mothers and two using data from adoptive fathers. Moreover, four mediation analyses were conducted using multiple regression analyses to see if marital hostility mediated the relationship between depressive symptoms and anxiety symptoms at nine months and 27 months for adoptive mothers and adoptive fathers.

CHAPTER 4

Results

Preliminary Analyses

The original dataset consisted of 384 couples. First, 21 same sex couples, six couples in which only one parent participated, and three couples that did not respond to any questions were eliminated from subsequent data analyses. Then, 23 couples where both parents were missing more than 20% of the data and 33 couples in which either parent was missing more than 20% of the data were also eliminated. Lastly, nine couples whose data at 27 months was not available were eliminating, leaving 289 couples, or 578 participants.

Missing values were then analyzed using missing data analysis techniques in SPSS 16.0. The results suggested that there was no pattern of missing data among scales, thus data imputation was conducted for 289 couples, 578 participants using maximum likelihood estimation (EM) for each individual scale. This technique makes minimal assumptions about the data, and uses an EM algorithm to impute missing data.

Outliers then were identified using the criterion of three standard deviations from the mean. Nine outliers were removed based on outlying scores on the Beck Depression Index at nine months postpartum, seven outliers were removed based on Beck Anxiety Inventory scores nine months postpartum, eleven were removed for scores on the Marital Instability Index, three were removed for scores on the Marital Warmth subscale, four were removed for scores on the Marital Hostility subscale, three were removed for scores on the Beck Depression Inventory at 27 months postpartum, and four were removed for scores on the Beck Anxiety Inventory at 27 months postpartum for a total of 41 outliers.

Thus, 41 couples (82 participants) were removed for subsequent analyses, leaving 248 couples (496 participants) comprising the sample of this study. Prior to conducting the regression analyses, analyses evaluating the assumptions for conducting multiple regression analyses were conducted (Osborne & Waters, 2002). Due to the presence of skew in several variables, z-transformations were applied to the continuous variables, including self-esteem, depressive symptoms (nine and 27 months postpartum), anxiety symptoms (nine and 27 months postpartum), infertility experiences, years of education, household income, financial satisfaction, marital instability, marital warmth, and marital hostility prior to conducting the regression analyses. In reporting descriptive statistics (e.g., means, standard deviations) and correlations, the non-transformed scores were reported.

Descriptive statistics

To address the first purpose of the study, descriptive statistics were calculated for all variables (See Tables 3 and 4). Adoptive mothers (50%) and adoptive fathers (50%) comprised the total sample of 248 couples, 496 participants. The entire sample was married (100%), with 9% having been remarried. The average age when the child was born of adoptive mothers was 36.86 (SD = 5.12), while the average age of adoptive fathers was 37.68 (SD = 5.56). Catholicism (20.7%, 20.6%), other Christian denominations (22%, 17.8%), and no religious affiliation (10.9%, 17%) were the most common religious affiliations among the adoptive mothers and adoptive fathers, respectively. Most participants were non-Hispanic (96.4%, 94.3 %) and 93.1% of adoptive mothers and 91.5% of adoptive fathers identified as White. The racial minority group most represented was African American, with 2.8% and 4.9% of adoptive mothers

and fathers identifying as Black, respectively. Approximately 38% of the children of White adoptive parents were biracial and/or of a different race than their parents. A MANOVA was calculated to investigate differences between adoptive parents of racially different children and adoptive parents of children of the same race. These analyses showed no significant differences between the two sets of adoptive parents on measures of self-esteem, depressive symptoms, anxiety symptoms, marital instability, marital warmth and marital hostility. The most common reasons for pursuing an adoptive plans for both adoptive mothers and fathers, respectively, were a desire to be a parent (94.4%, 91.0%), the inability to conceive a biological child (81.8%, 80.9%), and a desire to provide a home for a child who needs one (49.4%, 54.0%). Most of the adoptive mothers were full time homemakers, 28.2% were employed full time by others, 19.8% were employed part time by others, and 14.5% were self employed, while adoptive fathers were either employed full time by others (82.3%) or were self-employed (15.3%).

At nine months postpartum, adoptive mothers (M = 20.11, SD = 3.12) reported slightly lower levels of self-esteem than adoptive fathers (M = 20.48, SD = 2.85) as indicated by moderately high scores on the Harter-Global Self-Worth. Both adoptive mothers (M = 3.34, SD = 2.76; M = 3.56, SD = 3.16) and adoptive fathers (M= 2.38, SD = 2.50; M = 2.81, SD = 2.61) showed minimal levels of depression and anxiety, respectively. Both adoptive mothers (M = 5.37, SD = 2.82) and adoptive fathers (M = 5.74, SD = 2.19) reported moderate struggles for themselves and their relationships due to infertility issues. On average, both adoptive mothers (M = 4.15 years, SD = 2.71) and adoptive fathers (M = 4.17 years, SD = 2.90) completed at least four years of higher education. The reported annual family income for adoptive mothers was $110,088.99 (SD

= 54,100.93) and for adoptive fathers was $112,368.37 (SD = 59,477.99) and both reported experiencing financial comfort (M =3.60, SD = 1.30; M = 3.55, SD = 1.43).

Both mothers (M = 5.32, SD = .80) and fathers (M = 5.27, SD .77) reported stable marital relationships, with high levels of warmth (M = 52.50, SD = 6.91; M = 51.54, SD = 7.12) and low levels of hostility (M = 22.91, SD = 6.61; M = 25.38, SD = 6.67).

At 27 months post partum, adoptive mothers (M = 3.44, SD = 3.37; M = 2.98, SD = 3.28) and adoptive fathers (M= 2.17, SD = 2.58; M = 1.87, SD = 2.29) showed minimal levels of depression and anxiety, respectively.

With regard to the use and level of satisfaction with services provided by adoptive agencies, the sample of the data analyzed consisted of 362 adoptive parents (See Figure 2). Either the adoptive mother (N = 275) or the adoptive father (N = 87) responded to the set of questions asking about the use and level of satisfaction of agency services. Overall, adoptive parents were using and satisfied with adoption agency services. The vast majority were satisfied with information provided by agencies (95.9%), the skills of the agency staff (91.4%), the agencies' policies on openness (98.6%), and the home-study (94.2%), matching (95.3%), placement (94.6%), and post-placement services (91.9%). Moreover, 88.7% were satisfied with the education and support services, 87.5% reported satisfaction with agency staffs' responsiveness to requests, and 82.3% were satisfied with the agencies' ability to make recommendations for outside services.

Adoption agencies offered a number of adoption services to help those families throughout the stages of completing their adoption plan (See Figure 3). The most widely offered services by the agencies included emails, website updates, and/or newsletters (89.8%), education classes and/or workshops (79.6%), and social activities

for families involved with the agency (79.2%). More than half of the agencies used by adoptive parents in this sample offered support groups (63.4%) and counseling services (60.2%) for adoptive families, and almost half offered referrals for outside services (47.8%) when needed.

Adoptive parents took advantage of many of the services that were being offered by their adoption agencies. The most commonly used services by adoptive parents included emails, newsletters, and/or website updates (96.3%) and educational classes and/or workshops (73.3%). Other examples of services used by adoptive families included social activities (43.7%), support groups (36.4%), referrals for outside services (30.2%), and counseling services (20.6%). A majority of adoptive parents (58.5%) also used adoption services other than those mentioned above.

Of those families who used the services being offered by the adoption agencies, some used the services prior to placement, others following placement, and some others both prior to and following placement (See Figure 4). Educational classes and/or workshops were most frequently used pre-placement (84.6%). A smaller percentage of adoptive families attended classes and/or workshops following placement (2.8%) and both pre-and post-placement (15.1%). Similarly, newsletters, emails and website updates were read before placement for 12.8% and after placement for 6.4% of adoptive parents sampled. Newsletters, emails, and websites were more frequently read both prior to and following placement (80.8%), while referrals were more frequently used prior to placement (55.8%). Of the adoptive parents who took advantage of referrals, 21.2% used the referrals after placement and 23.1 used the referrals both prior to and after placement.

Social events also were attended more frequently both prior and after placement (40.8%), while less than half attended only before (29.6%) or after placement (29.6%).

Similar patterns of when services were used by parents were identified regarding support services. Few parents (16.7%) attended support groups solely following placement, while 36.9% of parents attended such groups prior to and 46.4% of parents attended following placement. In the same way, counseling services were most frequently used both before and after placement (57.8%), while 35.6% used them only before and 6.7% only after placement.

Overall, of those who used the services that were offered, adoptive parents were overwhelmingly satisfied with those services (See Figure 3). Adoptive parents were very satisfied with the newsletters, emails, and website updates that agencies provided (98.7%), as well as with the referrals that were given for outside services (96.2%). Over 90% of adoptive parents were satisfied with the social activities (95.2%), educational classes and/or workshops (92.9%), and counseling services (95.6%), and 89.3% were satisfied with the support groups afforded by the adoption agencies.

MANOVA analysis

The correspondence between mother and father scores on measures of psychological health, infertility and the marital relationship was assessed using a MANOVA. On measures of psychological health at nine months postpartum, differences between adoptive mothers and fathers were identified ((F (3,492) = 5.73, p <.01). Specifically, mothers and fathers differed in their reports of depressive and anxiety symptoms at nine months postpartum, with mothers (M = 3.34, SD = 2.76; M = 3.56, SD = 3.16) reporting higher levels of depressive and anxiety symptoms than fathers (M =

2.38, SD = 2.50; M = 2.81, SD = 2.61), respectively. These effects (η_p^2= .03, η_p^2= .02) were small as discussed by Cohen (1992). Adoptive mothers and fathers did not differ in their reports of infertility experiences and tangible resources. Differences were found between adoptive mothers and fathers on reports of the marital relationship ((F (3,492) = 7.25, p <.01). Specifically, adoptive mothers and adoptive fathers differed on their reports of marital hostility, with adoptive fathers (M = 25.38, SD = 6.67) reporting greater marital hostility than adoptive mothers (M = 22.91, SD = 6.61). This effect (η_p^2= .03) was small. Differences also were found between adoptive mothers and fathers on reports of psychological functioning at 27 months postpartum ((F (2,490) = 12.80, p <.01). Adoptive mothers and fathers differed on both reports of depressive and anxiety symptoms at 27 months postpartum. Adoptive mothers reported higher levels of depressive (M = 3.44, SD = 3.37) and anxiety symptoms (M = 2.98, SD = 3.28) than did adoptive fathers on the same measures, respectively (M = 2.17, SD = 2.58; M = 1.87, SD = 2.29). The effects sizes of the differences between adoptive mothers and fathers for both depressive and anxiety symptoms (η_p^2= .04) were small to modest.

Correlational analyses

To address the second purpose of the study, Pearson correlations were calculated among variables of interest (See Tables 3, 4 and 5). Significant relations were reported at the p <*.01* level. Among the adoptive mothers, moderately negative correlations were found between self-esteem and measures of depressive symptoms (r = -.38) and anxiety symptoms (r = -.29) at nine months postpartum. Moreover, mothers' self esteem was negatively correlated with depressive (r = -.33) and anxiety symptoms (r = -.26) at 27 months postpartum. Her financial discomfort (r = -.20), and marital instability (r = -.22)

also were negatively correlated with self-esteem. A moderate positive correlation was found between mothers' self-esteem and marital warmth (r = .22) and a moderate negative correlation was found her between self-esteem and marital hostility (r = -.25).

A strong positive correlation was found between adoptive mothers' depressive symptoms and anxiety symptoms at nine months (r = .50) and her depressive symptoms at nine and 27 months postpartum (r = .52). Mothers' depressive symptoms at nine months were positively related to anxiety at 27 months (r = .34). Marital instability (r = .20) and marital hostility (r = .23) were moderately correlated with depressive symptoms at nine months postpartum for adoptive mothers.

Infertility challenges (r = .18) demonstrated a small positive relation with anxiety symptoms at nine months postpartum for adoptive mothers. Moreover, a negative correlation (r = -.17) existed between marital warmth and anxiety symptoms nine months postpartum for adoptive mothers. Moderate to strong correlations were found between anxiety symptoms at nine months postpartum and marital hostility (r = .24) and between marital hostility and depressive symptoms (r = .38) and anxiety symptoms at 27 months postpartum (r = .49).

Infertility experiences were correlated with adoptive mothers' depressive symptoms at 27 months postpartum (r = .17). Mother's income also was moderately related to financial satisfaction (r = -.28).

A moderate negative correlation existed between adoptive mothers' marital instability and marital warmth (r = -.36), while a moderate positive correlation existed between marital instability and marital hostility (r = .42). Positive correlations were found

between her marital instability and depressive (r = .24) and anxiety (r = .19) symptoms at 27 months postpartum.

A strong negative relation was found between adoptive mothers' marital warmth and marital hostility (r = -.55), with only small moderate correlations found between marital warmth and depressive symptoms (r = -.21) and anxiety symptoms (r = -.17) at 27 months postpartum. Marital hostility was moderately correlated with depressive symptoms (r = .31) and anxiety symptoms (r = .23) at 27 months postpartum. A strong positive correlation emerged between adoptive mothers' depressive symptoms and anxiety symptoms at 27 months postpartum (r = .57).

For adoptive fathers, high self esteem was correlated negatively with depressive symptoms (r = -.34) and anxiety symptoms (r = -.33) at nine months postpartum as well as with depressive symptoms (r = -.24) and anxiety symptoms (r = -.17) at 27 months postpartum. Additionally, there was a small negative correlation between high self esteem and marital hostility (r = -.21). Fathers' depressive symptoms at nine months postpartum were found to be strongly correlated with anxiety symptoms at nine months postpartum (r = .53), with depressive symptoms at 27 months postpartum (r = .50) and with anxiety symptoms at 27 months postpartum (r = .35). Moderate positive correlations existed between depressive symptoms at nine months postpartum and infertility experiences (r = .17), marital instability (r = .19), and marital hostility (r = .28). Marital warmth and depressive symptoms at nine months postpartum were negatively correlated (r = -.19).

A moderate positive correlation existed between anxiety symptoms at nine months postpartum and infertility experiences (r = .17) and between anxiety and marital

hostility (r = .27). A small negative correlation between anxiety symptoms at nine months and marital warmth (r = -.17) was discovered. Anxiety symptoms at nine months postpartum was moderately correlated with depressive symptoms at 27 months postpartum (r = .33) and strongly correlated with anxiety symptoms at 27 months postpartum (r = .54).

Surprisingly, infertility was not found to be correlated with any other variables of interest in the study for adoptive fathers, but was related to mothers' psychological functioning, as described above. Income was moderately correlated with financial dissatisfaction (r = -.32). Income also was correlated negatively with marital warmth (r = -.19), and correlated positively with marital hostility (r = .18) and depressive symptoms at (r = .21) 27 months postpartum.

A moderate negative correlation was found between fathers' marital instability and his marital warmth (r = -.29), while a moderate positive correlation was found between marital instability and marital hostility (r = .19). A moderate positive correlation existed between marital instability and depressive symptoms (r = .17) at 27 months postpartum. Adoptive fathers' marital warmth was strongly correlated with marital hostility (r = -.53), and moderately correlated with depressive symptoms (r = -.22) at 27 months postpartum. Interestingly, neither marital warmth (r = -.12) nor marital instability (r = .13) were correlated with anxiety symptoms at 27 months postpartum, yet marital hostility was correlated with anxiety symptoms at the same time point (r = .22).

For the fathers, marital hostility was correlated positively with depressive symptoms at 27 months postpartum (r = .26). Moreover, a strong correlation existed between depressive and anxiety symptoms at 27 months postpartum (r = .53).

Some noteworthy findings emerged when examining the relationships between adoptive mother and adoptive father variables. As expected, correlations between adoptive mother infertility experiences, income, financial satisfaction, marital instability, marital warmth, marital hostility, were moderately to strongly correlated with adoptive father infertility experiences (r = .46), income (r = .86), financial satisfaction (r = .75), marital instability (r = .25), marital warmth (r = .46), marital hostility (r = .46), respectively. Adoptive mothers' and fathers' years of education (r = .34) and levels of self esteem (r = .18) also were found to be correlated.

Interestingly, only insignificant correlations were found between adoptive mothers' depressive and anxiety symptoms at both nine months and 27 months postpartum and between adoptive fathers' reports of depressive and anxiety symptoms at both nine months and 27 months postpartum

Adoptive mothers' marital warmth was associated negatively with fathers' depressive symptoms at nine months postpartum (r = -.19). Mothers' anxiety symptoms at 9 months were related negatively to fathers' self-esteem (r = -.17). Moreover, mothers' financial dissatisfaction was moderately correlated with father's report of family income (r = -.30). Similarly, adoptive father's income was moderately correlated with mothers' report of family income (r = -.29).

Adoptive mothers' marital hostility was negatively related to fathers' marital warmth (r = -.34). Adoptive mothers' marital warmth was moderately correlated with adoptive fathers' marital hostility (r = -.36) and fathers' marital instability was moderately correlated with mothers' marital warmth (r = -.21). A moderate correlation was found between adoptive fathers' marital warmth and adoptive mothers' marital

instability (r = -.25), while mothers' marital instability was positively correlated with fathers' marital hostility (r = .18). Lastly, adoptive fathers' marital hostility was negatively correlated with adoptive mothers' self esteem (r = -.19).

Adoptive mothers' report of family income was moderately correlated with fathers' depressive symptoms at 27 months postpartum (r = .22). Lastly, fathers' anxiety symptoms at 27 months postpartum were negatively correlated with mothers' marital warmth (r = -.18) and positively correlated with mothers' marital hostility (r = .17).

Regression analyses

A total of four hierarchical multiple regression analyses were conducted. Two assessed the contributions of the independent variables in predicting the dependent variables (depressive symptoms and anxiety symptoms) for adoptive mothers and two used data from adoptive fathers. Psychological health (self-esteem, depression, and anxiety scores) from mothers and fathers at nine months postpartum was entered in the first block in all regression equations. Mother and father scores on the infertility experiences scale were entered in the second block and then the tangible resources subscales were entered as the third block. The scales assessing marital relationship were entered as the final block in the regression equations.

In line with our hypothesis, psychological functioning of adoptive mothers and adoptive fathers at nine months postpartum contributed to the prediction of depressive symptoms for adoptive mothers, with healthier psychological functioning of both adoptive mothers and fathers at 9 months relating positively to a lack of depressive symptoms at 27 months (See Table 8). Collectively, the variables accounted for 37% of the variance in adoptive mothers' depressive symptoms at 27 months postpartum. Only

the psychological functioning of adoptive mothers and adoptive fathers at nine months accounted for unique variance, contributing 31% to the prediction of mothers' depressive symptoms at 27 months postpartum. Specifically, adoptive mothers' depressive symptoms at nine months postpartum contributed incremental variance. When controlling for the psychological functioning of both parents, the parents' infertility experiences, tangible resources, and marital relationship did not contribute unique variance to the prediction of depressive symptoms of the adoptive mothers at 27 months postpartum.

Also consistent with our hypotheses, psychological functioning of adoptive mothers and adoptive fathers at nine months postpartum contributed to the prediction of anxiety symptoms for adoptive mothers, with healthier psychological functioning of both adoptive mothers and fathers at 9 months relating positively to a lack of anxiety symptoms at 27 months (See Table 9). Although psychological functioning of adoptive mothers and fathers at nine months, their infertility experiences, their tangible resources and their marital relationship collectively accounted for 32% of the variance in adoptive mothers' anxiety symptoms at 27 months postpartum, the psychological functioning of both parents contributed 26% of that variance. As was the case with the prediction of mothers' depressive symptoms, infertility experiences, tangible resources, and the marital relationship did not contribute unique significance to the prediction of mothers' anxiety symptoms at 27 months postpartum. Only adoptive mothers' anxiety symptoms at nine months postpartum contributed incremental variance at 27 months postpartum. Also, adoptive fathers' variables did not contribute unique variance to the prediction of adoptive mothers' anxiety.

When predicting adoptive fathers' depressive symptoms at 27 months postpartum, psychological functioning of mothers and fathers at nine months postpartum, infertility experiences, tangible resources, and the marital relationship collectively explained 36% of the variance (See Table 10). Both the psychological functioning of adoptive mothers' and fathers' at nine months as well as parents' tangible resources contributed unique variance to the prediction of fathers' depressive symptoms at 27 months, with psychological functioning contributing 27% of the variance and tangible resources contributing an additional 8% of the variance. Adoptive fathers' depression at nine months contributed incremental variance in depressive symptoms of adoptive fathers at 27 months postpartum when all variables were entered in the regression equation.

Finally, adoptive mothers' and adoptive fathers' psychological functioning at nine months, infertility experiences, tangible resources, and the marital relationship collectively contributed 36% of the variance in the prediction of adoptive fathers' anxiety symptoms at 27 months postpartum (See Table 11). Adoptive mothers' and adoptive fathers' psychological functioning at nine months contributed 31% of unique variance to the prediction of fathers' anxiety symptoms at 27 months. Fathers' anxiety symptoms at nine months contributed incremental variance in the prediction of his anxiety symptoms at 27 months postpartum.

Mediation analyses

Exploratory analyses were conducted to assess if marital hostility mediated the relationship between adoptive mothers' and adoptive fathers' psychological functioning at nine months and 27 months postpartum.

To test the first meditational hypothesis, whether adoptive mothers' assessment of marital hostility would mediate the relationship between adoptive mothers' depressive symptoms at nine months postpartum and mothers' depressive symptoms at 27 months postpartum, first adoptive mothers' depressive symptoms at 27 months was regressed on adoptive mothers' depressive symptoms at nine months postpartum (See Table 12). This equation demonstrated that there was an effect to mediate, with mothers' depressive symptoms at nine months predicting 27% of the variance in her depressive symptoms at 27 months. The mothers' report of marital hostility was then regressed on adoptive mothers' depressive symptoms at nine months postpartum. This equation also established that there was an effect to mediate, with marital hostility predicting 5% of the variance. The third equation, regressing mothers' depressive symptoms at 27 months on both depressive symptoms at nine months and marital hostility, indicated that mothers' marital hostility partially mediated the relationship between depressive symptoms at nine months and 27 months postpartum. When controlling for adoptive mothers' marital hostility, which contributed 10% of unique variance to the prediction of mothers' depressive symptoms at 27 months, adoptive mothers' depressive symptoms contributed an additional 21% of unique variance. Partial mediation was discovered because the mediator did not completely account for the relationship between the predictor and the outcome (Frazier et al., 2004).

The next step was to identify the significance of the partially mediated effect, using the formula of taking the square root of $b^2sa^2 + a^2sb^2 + sa^2sb^2$ (Kenny, Kashy, & Bolger, 1998). The product of the paths between mothers' depressive symptoms at nine months and 27 months was divided by the standard error term, calculated using the

occasion above. This equation yielded the *z* score of the mediated effect. Since the z score of the mediated effect was greater than 1.96 ($z = 2.42$), the partially mediated effect was considered significant.

The following mediation analysis repeated the above steps (See Table 13), examining the mediating effect of adoptive mothers' marital hostility on the relationship between her anxiety symptoms at nine months and 27 months. In the first regression equation, adoptive mothers' anxiety symptoms at nine months contributed 24% of unique variance in the prediction of her anxiety symptoms at 27 months postpartum. Moreover, mothers' anxiety at nine months contributed 6% of unique variance in the prediction of her report of marital hostility. The third equation demonstrated that when controlling for mothers' report of marital hostility, which contributed 5% of unique variance, mothers' anxiety symptoms at nine months contributed an additional 25% of unique variance. The relationship between adoptive mothers' anxiety symptoms at nine months and 27 months postpartum was partially mediated by her report of marital hostility. For this equation, however, the partial mediation was not significant, as $z < 1.96$ ($z = 1.80$).

The next mediation analysis repeated all of the above steps (See Table 14), but examined the mediating effect of adoptive fathers' marital hostility on the relationship between his depressive symptoms at nine months and 27 months. Adoptive fathers' depressive symptoms at nine months contributed 25% of unique variance to the prediction of his depressive symptoms at 27 months postpartum. Moreover, fathers' depressive symptoms at nine months contributed 8% of unique variance to the prediction of his marital hostility. When controlling for fathers' marital hostility, which contributed a unique 7% of variance, his depressive symptoms at nine months contributed an

additional 20% to the prediction of depressive symptoms at 27 months postpartum. This mediation equation also demonstrated that adoptive fathers' marital hostility partially mediated the relationship between his depressive symptoms at nine months and 27 months postpartum. The partial mediation was not significant, as $z < 1.96$ ($z = 1.92$).

The last equation tested the mediated model of adoptive fathers' marital hostility on the relationship between anxiety symptoms at nine and 27 months postpartum (See Table 15). The first equation demonstrated that adoptive fathers' anxiety symptoms at nine months contributed 30% of unique variance to the prediction of his anxiety symptoms at 27 months postpartum. Moreover, fathers' anxiety symptoms at nine months contributed 7% of unique variance to the prediction of his report of marital hostility. The last equation demonstrated that when controlling for fathers' marital hostility, which contributed 5% of unique variance, his anxiety symptoms at nine months contributed an additional 25% of unique variance in the prediction of fathers' anxiety symptoms at 27 months postpartum. The relationship between adoptive fathers' anxiety symptoms at nine months and 27 months postpartum was also partially mediated by his report of marital hostility. Moreover, this partial mediation was not significant, as $z < 1.96$ ($z = 1.27$).

CHAPTER 5

Discussion

The findings from this study advance knowledge regarding the demographics of a sample rarely studied in psychological research, parents of infants adopted domestically. This sample could be described as married, non-Hispanic, and White. These adoptive parents were well-educated and financially stable. Most parents chose to adopt because of a desire to be a parent and/or infertility struggles. Overall, they had high self-esteem and were psychologically healthy, both nine months following the birth and adoption of their child as well as 27 months later. Their marital relationships could be described as stable, with low levels of marital hostility and high levels of marital warmth.

In addition, information was gathered regarding the use and level of satisfaction with adoption agency services among adoptive parents. Consistent with O'Brien and Zamostny (2003), adoptive parents were using and were satisfied with adoption services offered by the agencies. Specifically, they were overwhelmingly satisfied with newsletters, emails, and website updates that informed them regarding what was happening with the agency. The parents used the services, both prior to placement, following placement, and both before and after the placement process. Compared to previous studies that reported that adoptive families used adoption agencies more frequently following placement (Berry et al., 1996; Brooks et al., 2002), this study found that most adoptive families used adoption services more frequently before placement, rather than just after placement. From the perspective of a counseling psychologist, it is interesting to note that support groups and counseling services were two of the fewest

offered and used agency services, yet those who did use the services were highly satisfied. Knowledge about the benefits and usefulness of such support services would be valuable to both the adoption agencies and the adoptive families as they provide an opportunity to promote psychological well-being. Moreover, as the few families who did use the services were satisfied with what they gained, agencies could use that information to expand on their support services, offering a more widespread number and type of services, such as specific groups and counseling services targeting issues such as coping with adoption-relating stigma, the adjustment to parenthood, or the addition of more than one child into a household.

Although gender differences were found between adoptive mothers' and fathers' psychological functioning, all differences were extremely small and not likely to be practically significant. For example, although mothers reported slightly greater levels of depressive and anxiety symptoms at both nine months and 27 months than did adoptive fathers, the differences were negligible. It is likely that this finding was due to the large sample size and not to substantive differences between mothers and fathers regarding psychological health.

Similarly, although adoptive fathers reported greater levels of marital hostility than did adoptive mothers, the differences were extremely small and not likely to be meaningful. These findings are surprising, as wives have been found to be more sensitive to hostility than their husbands (Rhoades & Stocker, 2006). As would be expected based on previous literature on congruence between husbands and wives (Petersen et al., 2003), no gender differences were identified regarding reports of infertility experiences and tangible resources. With regard to responses to infertility, our finding was consistent with

research that demonstrated that couples who show congruence in their evaluation of infertility challenges have higher levels of marital adjustment, as did this sample, than those who show incongruence (Petersen et al., 2003).

Another purpose of this study was to conduct preliminary analyses to examine the degree to which psychological functioning of the adoptive mother and father at nine months postpartum, infertility experiences, tangible resources and the marital relationship would predict adoptive mothers' and adoptive fathers' psychological health at 27 months postpartum. Moreover, the degree to which marital hostility mediates the relationship between depressive and anxiety symptoms at nine months postpartum and 27 months postpartum was studied based on Masten's (2001) indirect model of risk and resilience. The regression analyses indicated that psychological functioning at nine months was the strongest predictor of psychological functioning at 27 months for both mothers and fathers. Moreover, this sample of adoptive parents was psychologically healthy soon after the time of the adoption and remained psychologically healthy over time. For these adoptive parents, other risks and/or assets were not as salient in the prediction of future psychological functioning, likely due to the fact that this sample was well-educated, financially comfortable, and in stable marriages and were at low-risk for psychological problems.

Additionally, the couples in this sample were not overwhelmingly challenged by their infertility experiences, suggesting that these experiences may not be as salient for this sample of adoptive parents or they may have had time or other types of interventions to help them cope with their infertility struggles. Research also has suggested that adoption may reduce the negative impact of infertility (Bartholet, 1993; Fleckenstein,

1990), which may account for the lack of relationship between infertility experiences and depressive and anxiety symptoms following the adoption. Additionally, some adoptive parents indicated that the decision to adopt after a long, arduous process of undergoing infertility treatments came with a sense of relief because adoption almost always results in becoming a parent, while infertility treatments would not ensure that a child would join the family (Hollingsworth, 2000). However, it must be noted that the measures used to assess infertility experiences were limited which may explain why infertility challenges did not contribute unique variance to the prediction of psychological health at 27 months postpartum.

Interestingly, both mothers' and fathers' psychological functioning and their tangible resources contributed uniquely to the prediction of adoptive fathers' depressive symptoms at 27 months postpartum. While the biggest predictor of his depressive symptoms was the previous psychological functioning of the mothers and fathers, their tangible resources contributed an additional 8% of unique variance. This finding could be explained by the increased pressure on adoptive fathers' to provide financially for the family, as the results of the study indicated that 40% of the adoptive mothers were homemakers and were therefore less likely to be contributing financially to the family's income. Research has indicated that one risk for the development of paternal depression is engagement in high stress situations (Areis, Kumar, Barros, & Figueiredo, 1996), thus fathers who are working hard to provide for their family may be frequently experiencing high stress.

When examining the mediating role of marital hostility, only mothers' reports of experiencing marital hostility was a partial mediator between the relationship of her

depressive symptoms at nine months and those at 27 months postpartum. Consistent with literature that supports gender differences associated with depression (Sorenson, Rutter, & Aneshensel, 1991) and hostility (Barefoot, Peterson, Dahlstrom, Siegler, Anderson, & Williams, 1991), marital hostility seemed to relate differently to psychological health for the mothers and fathers in the current study. In line with Brummett et al. (2000), who found that negative attitudes and affect of her hostile husband either directly or indirectly influenced her negative affect while not finding the same to be true for her husband, adoptive mothers' and not fathers' report of marital hostility related to the presence of depressive symptoms, when controlling for previous depressive symptoms. Because marital hostility has not been found to have as much as an effect on husband's depressive symptoms as they do on their wives (Brummett et al., 2000), marital hostility may not mediate the relationship between adoptive fathers' depressive symptoms at nine months and 27 months, contrary to what had been hypothesized.

Researchers also have discovered that wives are more self-aware of communication behavior (Hughes, Gordan, & Gaertner, 2004; Matthews et al., 1996), such as verbal aggression and hostility, and therefore may be more attentive to hostility than their husbands (Rhoades & Stocker, 2006). Adoptive mothers' sensitivity to hostility may be the underlying reason of why her reports of marital hostility partially mediated the relationship between her depressive symptoms at nine months and 27 months while hostility did not mediate the relationship between fathers' depression at nine months and 27 months. .

While past research has supported a strong relationship between psychological symptoms and marital distress (Baron, Smith, Butner, Nealey-Moore, Hawkins, &

Uchino, 2007; Papp et al., 2007; Smith et al., 1990), there is less known regarding the specific relationship between marital hostility and anxiety symptoms. A possible explanation for relationship between hostility and depressive, and not anxiety symptoms in the mothers could be explained by the tripartite model of depression and anxiety (Clark & Watson, 1991) which theorizes that while both depression and anxiety are characterized by negative affect, only depression is characterized by low positive affect (Lonigan, Hooe, David & Kistner, 1999). A relationship between social conflicts and decreased positive affect has been found (Finch & Zautura, 1992), however, as depressive affect and not anxiety is characterized by low positive affect, it could be that hostility evokes depressive feelings but not anxiety symptoms in both partners.

This study sought to explore the relationships between all the variables of interest in this study and provided some useful information to further our understanding of adoptive parents. Depressive and anxiety symptoms at both time points, nine months and 27 months postpartum, were moderately to strongly correlated for both adoptive mothers and fathers. Specifically, depressive symptoms at nine months were strongly predictive of depressive symptoms at 27 months postpartum and anxiety symptoms at nine months were strongly predictive of anxiety symptoms at 27 months postpartum, suggesting that previous psychological functioning is linked to current and future psychological functioning. Additionally, self-esteem, depressive, and anxiety symptoms of both mothers' and fathers' at nine months were correlated with marital hostility, suggesting that psychological health and marital relationships relate to each other. These findings also were consistent with previous findings that found strong associations between marital distress and depression (Brummett et al., 2000; Heene et al., 2007) and that both

hostility and depression may act together to increase the likelihood of experiencing both simultaneously.

Interestingly, the infertility experiences of both mothers and fathers were correlated with anxiety symptoms at nine months, but otherwise, the pattern of the correlations for mothers' and fathers' experiences with infertility differed. For example, mothers' infertility experiences were correlated with her depressive symptoms at 27 months, but fathers' infertility experiences were correlated with his depressive symptoms at nine months postpartum. While infertility is generally perceived as stressful for both men and women, women have been found to be more affected in terms of negative life consequences and report higher depression scores than men (Greil, 1997; Peterson et al., 2003; Robinson & Steward, 1996).

Also of note, mothers' self-esteem was moderately correlated with her financial satisfaction. As a large number of mothers' were employed as homemakers, it would be interesting to know how much of this satisfaction was related to her not being able to contribute as much income to the family's financial situation. Fathers' income also was moderately related to his experiences of marital warmth and hostility.

Implications for practitioners

Since the largest predictor of depressive and anxiety symptoms for the adoptive parents was his or her previous psychological functioning, the point of intervention seems to be at treating depressive and anxiety symptoms as soon as they manifest themselves. But, as this sample was found to be psychologically healthy, resources promoting psychological health would be an effective way to work with adoptive families. Specifically, programs such as support groups or connecting adoptive parents with other

parents' considering adoption would provide opportunities for adoptive parents' to share their positive experiences with others, while also providing relevant and helpful information to the greater community. Moreover, counseling psychologists could provide psychoeducation courses for adoption agencies, educating them on the importance of providing psychological and supportive services to their families.

While this sample would not be described as psychologically unhealthy, it is important to recognize the significance of even small levels of depression and anxiety, as research has shown that low levels of both symptoms are both highly prevalent in society and clinically relevant as they may develop into more serious psychopathology (Cuijpers, De Graaf, & Van Dorsselaer, 2004). It is widely accepted that a wide variety psychological interventions are effective in treating depressive and anxiety symptoms. Research on the effects of treatment on individuals suffering from subthreshold levels of depression, meaning the presence of depressive symptoms, but not quite a diagnosis of depression, indicated that psychological intervention has both short term and long term effects on the psychological well-being of individuals (Cuijpers, Smit, & Van Straten, 2007). Moreover, the researchers found a trend that early intervention decreased the chance of depressive symptoms developing into Major Depressive Disorder.

Another point of intervention could be at the couples' level. Understanding the marital relationship is important because the quality of the marriage before children relates to later marital interactions (Lindahl et al., 1997). Furthermore, an understanding of the marital relationship helps with the conceptualization of a parent's transition to parenthood (Santona & Zavattini, 2005), especially since the level of marital functioning and satisfaction is predictive of how well a family as a whole may function (Lindahl et

al., 1997). A meta-analysis examining the effects of children on the marital relationship found that average relationship adjustment was lower among parents of young infants in relation to couples at other stages of life (Twenge, Campbell, & Foster, 2003). Thus, accounting for the risk to couples' functioning as a result of parenting a young infant, interventions targeting the couple may serve to protect the martial relationship of the couple during their transition to parenthood.

Accordingly, interventions should focus on keeping the marital relationship strong. For example, as negative communication is known to be a risk factor associated with marital relationships (Petch & Halford, 2008), programs can include communication skill-training that help to enhance a couple's adjustment to the role being parents (Petch, Halford, & Creedy, submitted for publication; Shapiro & Gottman, 2005). Whether it be working with trained professionals or self-administered programs accessible to couples in the home, both have been found to be successful in enhancing the marital relationship (Halford, Moore, Wilson, Dyer, & Farrugia, 2004). Programs that target the promotion of couple communication, effective conflict management, realistic expectations, the sharing of roles and responsibilities, couple intimacy, couple time, and promoting parenting sensitivity would help the maintenance of the adoptive parents' healthy marital relationships, as these goals have all been effective in the previous psychoeducation work with couples' transitioning to parenthood (Petch & Halford, 2008).

Couples' therapy may provide an additional opportunity to keep the marital relationship strong. A meta-analysis assessing the effectiveness of couples' therapy found that this form of treatment was the best in terms of treating couples' marital satisfaction (Shadish, Montgomery, Wilson, Wilson, Bright, & Okwumabua, 1993). Thus, couples

who do find themselves experiencing marital stress following the addition of new children may benefit from having an opportunity to talk to a therapist about their stress.

This study used resilience theory as a way of conceptualizing adoptive parents. Past research has influenced new and innovative frameworks, goals, assessments, strategies, and evaluations in regard to prevention and treatment (Cicchetti, Rappaport, Sandler, & Weissberg, 2000; Cowen, 2000). Masten (2001) outlined the many ways in which resilience theory has improved treatment and prevention of problems. Specifically, goals of treatment and prevention programs now focus attention on the promotion of competence and the prevention or betterment of problems, while new strategies focus on the development of assets and the reduction of risks and/or stressors. Assessments take into consideration assets and risks, competence and symptoms and disorders. As this study demonstrated that adoptive parents are functioning well, clinicians can focus on developing and implementing interventions that highlight these strengths and assets such as organizing support groups for adoptive parents at different stages of the adoption process to enable more seasoned adoptive parents to share their positive experiences with newer adoptive parents. Additionally, clinicians can help develop educational services and workshops that could provide the adoptive parents with useful information about the benefits of having social support systems and healthy marital relationships to help promote healthy psychological functioning. In line with the positive psychology movement (Seligman & Csikszentmihalyi, 2000), counseling psychologists can help inform adoption-related policy, such as helping to pass legislature that ensures that adopted children are placed with psychologically healthy parents, and a variety of

programs, such as parenting classes, support groups, and educational classes that promote competence (Masten, 2001) to help adoptive families.

Implications for adoption agencies

Prior to this study, few studies have examined the use and level of satisfaction of non-special needs adoptions. The large score of the study suggested that overall, adoptive parents are satisfied with the services being offered and used. Consistent with O'Brien and Zamostny (2003), results of the study indicated that adoptive parents are using adoption agency services and are satisfied with the services being offered and used. While the most commonly desired services included parent support groups and informal contact with other adoptive families (Groze & Rosenthall, 1993), adoptive families in this study had the opportunity to take advantage of both types of services, suggesting that in the last fifteen years, agencies have successfully responded to the needs of adoptive families and expanded on the services being offered to their adoptive families.

It is hoped that the information offered by this study will help inform adoption agency staff, as it reiterates the value and usefulness of agency services. Specifically, adoption agencies can encourage adoptive families to attend educational classes and workshops and stay involved through reading emails, website updates, and newsletters both before and after placement as they were found to be helpful to adoptive parents. Additionally, while support groups and counseling services were not offered and/or used as frequently as some other agency services, consistent with the findings of Owens-Kane and Barth (1999), those parents that did use the supportive services were highly satisfied. Therefore, agencies can focus increased attention on and promote the use of support

groups, in line with what adoptive families want from their agencies (Barth & Miller, 2000).

Some services that were not widely offered or used by the adoptive families in the study but that could be helpful to adoptive families would include cultural and/or informational services to couples that adopt children of a different race and/or ethnicity. Also, services that promote the enhancement of the marital relationship, such as childcare for couples to have some time for themselves without children would also be useful and beneficial to adoptive parents, as research has offered longitudinal support for a relationship between the amount of shared leisure time and the quality of the marital relationship between a husband and wife following the transition to parenthood (Claxton & Perry-Jenkins, 2008). In line with the healthy functioning of the adoptive parents in this sample, childcare could provide the adoptive parents with additional opportunities to keep their marriages strong, which could in turn have positive effects on their children.

Strengths of the current study

This study contributed to past research on adoptive parents in several ways. First, this investigation advanced knowledge regarding a sample of people rarely studied in psychological research (i.e., parents of infants adopted domestically) and their use of adoption services. Second, this work also addressed limitations associated with adoption research, specifically the presence of salient methodological problems and a lack of theoretical foundation (O'Brien & Zamostny, 2003). The study focused on the strengths and assets of adoptive families, specifically their healthy psychological functioning as well as their tangible resources and strong marital relationships. The study also used longitudinal, multilevel assessments and employed consistent means of data collection.

Last, the study was grounded in theory, using Masten's (2001) indirect model of risk and resilience.

Limitations

There were several limitations associated with the study. First, the sample used in the study lacked diversity. The majority of participants were White, financially comfortable, well-educated and psychologically healthy, which is reflective of the population as a whole (Child Welfare Information Gateway, 2005).The lack of diversity contributed to the restriction of range in the variables of interest. Moreover, this study did not address the unique challenges experienced by adoptive parents of internationally adopted children or ethnically/racially different adopted children.

As the sample used in this study was part of a larger study examining how family processes mediate or moderate the expression of genetic influences (Leve, Neiderhiser, Ge, Scaramella, Conger, Reid et al., 2006), the measures used in this study were limited to what was collected as part of the larger study. The measures used in the larger study failed to account for the effects of societal and cultural factors influencing adoptive families, specifically stigma associated with the adoption process which is highly prevalent in our society (Daniluk & Hurtig-Mitchell, 2003; Wegar, 2000). The adoptive family has been described as deviant, stigmatized, and even burdened (Kressierer & Bryant, 1996).

Consistent with our findings and previous research (Bausch, 2006), infertility remains a primary reason for choosing to make an adoption plan. Unfortunately, the measures of infertility in this study were limited to two items asking about the challenges that infertility has had on the participant and the participants' relationship. These two

items fail to account for the complexity of coping with infertility. A measure seeking information regarding the presence of infertility issues, the effects and significance of the infertility on aspects of a person's life (self, relationship, social support network, etc.), and the ways in which the individual coped with infertility issues would have provided a richer sense of the parents' experiences with infertility.

While adoptive mothers' and adoptive fathers' data were entered and analyzed as separate individuals, issues regarding the non-independence of the data were not fully addressed. The use of statistical methods, such as the Actor-Partner Interdependence Model (APIM: Kashy & Kenny, 1999; Kenny, 1996) is a model of dyadic relationships that takes into consideration the interdependence of couples using appropriate statistical techniques. It has been suggested that APIM is useful in studying married couples (Campbell & Kashy, 2002; Cook & Kenny, 2005).

Other statistical methods that use multilevel models include Structural Equation Modeling (SEM) and hierarchical linear modeling (HLM; Raudenbush, Bryk, & Congdon, 2000). Both have been found to be useful in the analysis of couples' data. The strength of HLM lies in its ability to simultaneously incorporate in the model both measurement error at the individual level as well as account for the matched-pairs design (Barnett, Marshall, Raudenbush, & Brennan, 1993) while the strength of SEM lies in its flexibility of allowing for more appropriate model specification and more complex error structures (Chou, Bentler, & Pentz, 1998). While they both offer advantages, Wendorf (2002), in his comparison study of the two methods' approaches to couples' data concluded that both methods lead to identical conclusion and are both useful ways to account for the interdependence of couples' data. Therefore, use of any of the mentioned

statistical methods, APIM, SEM, and/or HLM would advance knowledge regarding adoptive parents in future research.

Future research directions

While this study offered important information regarding adoptive families' experiences with the adoption process, there is still much to learn about the experiences of this population. Important factors that were not examined in the current study included the role of adoption stigma and social support and the influences that they have on families' experiences with the adoption process. The failure to study societal and cultural factors influencing adoptive families was an important limitation identified by O'Brien and Zamostny (2003) that still warrants further investigation. Specifically, research should focus on learning more about how adoption related stigma affects adoptive families' experiences with the adoption process, both before placement and throughout their lives extending into adulthood.

Adoptive families are a nontraditional way of creating a family, and given this status, stigma continues to be associated with adoption (Wegar, 2000). It is commonly believed that the nuclear family is comprised of heterosexual couple and biological children (Wegar, 2000). Adoptive parents often find themselves questioning the authenticity of their parent status as a result of derogatory comments concerning adoption (Miall, 1987) and as a result are left feeling abnormal (Kline, Karel, & Chatterjee, 2006). Married couples often were told by strangers, significant others, and even adoption workers that their choice to adopt was a second best option (Daly, 1988; Daniluk & Hurtig-Mitchell, 2003; Miall, 1987). Negative feedback from others regarding the adoption has been found to relate to identity issues as well as feelings of rejection or

inadequacy (Kline et al., 2006), both of which are associated with low psychological functioning (Levy-Shiff et al., 1990). Therefore, identifying the role that adoption stigma plays in shaping the experiences of adoptive families will contribute greatly to the literature and will further the public's knowledge of the true experience of adoptive families.

There is overwhelming support for the importance of an external social support system in predicting healthy couple functioning (Graham, 2000; Greef & Van der Merwe, 2004; Rogers & Rose, 2002; Werner, 1993). Furthermore, a strong social support system has positive effects on psychological health, especially during stressful times (Crnic, Greenberg, Ragozin, Robinson, & Basham, 1983). The effects of social support on individuals depend on the severity and duration of stressful periods, however, past research has supported the beneficial effects of social support on the mental health of different populations (Shams, 1993). Support received outside of the marriage provided the individuals with an outlet to turn to in times of crises. Also, forming social networks in times of little or no stress allowed the couple to have support when needed. Social support also has been shown to buffer the effects of stress on health for members of the adoptive triad (Miall, 1996). Social support was found to be a strong predictor of adjustment particularly for adoptive parents because they often have strong needs for outside social support systems (Levy-Shiff et al., 1991). It would be helpful to learn more about the effects of social support on adoptive families' experiences with the adoption process. Specifically, an in depth examination of the mediating role that social support plays between risks and assets of adoptive families and outcomes, such as child

development and the psychological health of adoptive families would contribute greatly to the literature.

While this study design was longitudinal, assessing psychological functioning at two separate time points 18 months apart from one another, overall, there was not much variability in the psychological health of adoptive parents over time. It would be interesting to assess the outcomes as the children enter the early school age years when issues of loss become increasingly more salient for adoptive children (Blomquist, 2001). Also, future research might examine the role of children's behavior on parental outcomes, such as their psychological and marital functioning, as adoptive children have been known to demonstrate challenging behaviors to test the permanency of their placement with their parents during the early school years (Rosenberg, 1992).

As this study used a largely homogenous sample, it would be interesting to examine the experiences of adoptive parents of internationally adopted children. Specifically, learning more about the unique experiences of parents of adopted children who are of a different race or ethnicity would contribute to the literature. As lesbians and gay men are increasingly able to live a more open lifestyle, same-sex couples are considering adoption more frequently than before (Brooks & Godlberg, 2001). Therefore, examining the experiences of same-sex couples, as well as single parent families in the same manner in which this study used an indirect model of risk and resilience, would contribute to the adoption literature. Counseling psychologists are well equipped to conduct research on adoptive families that will help better our understanding of, and ability to help this population.

In conclusion, this study provided a comprehensive description of the demographics of adoptive families, their experiences with adoption agencies, and their psychological and marital functioning. Moreover, the study showed that previous psychological functioning of the adoptive parents is strongly predictive of their later psychological functioning. Finally, the study used an indirect model of risk and resilience to advance theoretical understanding of the experiences of adoptive families. As adoption becomes an increasingly more popular way of forming a family, a better understanding of adoptive families and their experiences will enable counseling psychologists to best serve the unique needs and challenges of adoptive families and, ultimately, enhance the lives of the adopted children.

Table 1. *List of Study Measures*

Measure	9	27
Psychological Health of the Adoptive Parents		
Harter Adult Self-Perceived Competence, Global Self Worth Subscale (HAR-GSW)	X	
Beck Depression Inventory (BDI)	X	X
Beck Anxiety Inventory (BAI)	X	X
Infertility Experiences		
Effects on Self/Relationship	X	
Tangible Resources		
Years of Education	X	
Household Income	X	
Financial Status	X	
Marital Relationship		
Marital Instability Index	X	
Warmth/Support Factor of Partner towards Responder	X	
Hostility Factor	X	
Experiences with the Adoption Process and Use and Level of Satisfaction with Agency Services	X	

Table 2. *List of Measures/Subscales in Model*

HAR-GSW	Harter Self-Perception Profile, Global Self Worth
BDI	Beck Depression Inventory
BAI	Beck Anxiety Inventory
EFFECTS ON SELF/RELATIONSHIP	Effects of Infertility Experiences on Self and Relationship
YEARS OF ED	Years of Education
HOUSEHOLD INCOME	Total Household Income
FINANCIAL SATISFACTION	Financial Satisfaction
MII	Marital Instability Index
WARM	Warmth/Support Factor of Partner Towards Responder
HOST	Hostility Factor Subscale

Table 3. *Demographic characteristics of sample (N = 496)*

Variable	Adoptive Mothers		Adoptive Fathers	
	%	N	%	N
Marital status				
Married	91.1	226	90.3	224
Remarried	8.9	22	9.7	24
Religious Affiliation				
Christian denomination (other)	22	54	17.8	44
Catholic	20.7	51	20.6	51
No religion	10.9	27	17	42
Methodist	9.3	23	7.3	18
Presbyterian	8.1	20	7.7	19
Lutheran	7.7	19	6.9	17
Baptist	5.7	14	7.7	19
Ethnicity				
Non-Hispanic	96.4	238	94.3	232
Hispanic	2.8	7	2.4	6
Employment status				
Employed by others, full time	28.2	70	82.3	204
Employed by others, part time	19.8	49	3.2	8
Self-employed	14.5	36	15.3	38
Homemaker	39.5	98	1.2	3
Other	11.7	29	3.2	8
Reasons for adopting				
Desire to be a parent	94.4	233	91.0	224
Inability to reproduce biologically	81.8	202	80.9	199
Desire to provide home for needy child	49.4	122	54.0	133
Always planned on adopting	26.3	65	15.4	38
Friends or family have adopted	23.9	59	18.7	46
Race				
White	93.1	230	91.5	225
Black/African-American	2.8	7	4.9	12
Asian	.8	2	.4	1
More than one race	2.4	6	.4	1

Table 4. *Demographic characteristics of sample continued (N = 496)*

Measure	Mean	SD	Minimum	Maximum
1. Age				
Adoptive mothers	36.86	5.12	25	49
Adoptive fathers	37.68	5.56	26	56
2. Harter-Global Self Worth				
Adoptive mothers	20.11	3.12	12	24
Adoptive fathers	20.49	2.85	11	24
3. Beck Depression Inventory (9 months)				
Adoptive mothers	3.34	2.76	0	13
Adoptive fathers	2.38	2.50	0	13
4. Beck Anxiety Inventory (9 months)				
Adoptive mothers	3.56	3.16	0	14
Adoptive fathers	2.81	2.61	0	11
5. Infertility Experiences				
Adoptive mothers	5.37	2.82	0	10
Adoptive fathers	5.74	2.19	2	10
6. Education Level				
Adoptive mothers	4.15	2.71	0	10
Adoptive fathers	4.17	2.90	0	10
7. Household Income				
Adoptive mothers	110,088.99	54,100.93	11,000	500,000
Adoptive fathers	112,368.37	59,477.99	6,300	500,000
8. Financial Satisfaction				
Adoptive mothers	3.60	1.30	2	8
Adoptive fathers	3.55	1.43	2	9
9. Marital Instability Index				
Adoptive mothers	5.32	.80	5	10
Adoptive fathers	5.27	.77	5	9
10. Warmth Factor				
Adoptive mothers	52.50	6.91	30	63
Adoptive fathers	51.54	7.12	30	63
11. Hostility Factor				
Adoptive mothers	22.91	6.61	13	45
Adoptive fathers	25.38	6.68	13	49
12. Beck Depression Inventory (27 months)				
Adoptive mothers	3.44	3.37	0	15
Adoptive fathers	2.17	2.58	0	13
13. Beck Anxiety Inventory (27 months)				
Adoptive mothers	2.98	3.28	0	15
Adoptive fathers	1.87	2.29	0	11

Table 5. *Means, standard deviations, and correlations among key variables among adoptive mothers (N = 248)*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Harter-GSW	1											
2. BDI (9 months)	-.38*	1										
3. BAI (9 months)	-.29*	.50*	1									
4. Infertility	-.16	.15	.18*	1								
5. Years of Education	-.05	.07	.10	.04	1							
6. Household Income	.02	-.05	-.04	-.03	.09	1						
7. Financial Satisfaction	-.20*	.09	.10	.09	-.03	-.28*	1					
8. Marital Instability Index	-.22*	.20*	.13	.11	.16	.00	-.02	1				
9. Marital Warmth Factor	.22*	-.16	-.17*	-.13	-.09	-.08	-.01	-.36*	1			
10. Marital Hostility Factor	-.25*	.23*	.24*	.16	-.01	.00	.02	.42*	-.55*	1		
11.BDI (27 months)	-.33*	.52*	.38*	.17*	.00	.07	.06	.24*	-.21*	.31*	1	
12. BAI (27 months)	-.26*	.34*	.49*	.11	.11	-.06	.08	.19*	-.17*	.23*	.57*	1
M	20.11	3.34	3.56	5.37	4.15	110,089	3.60	5.32	52.50	22.91	3.44	2.98
SD	3.12	2.76	3.16	2.82	2.71	54,101	1.30	.80	6.91	6.61	3.37	3.28
Cronbach's Alpha	.88	.71	.76	.84	.50	N/A	.77	.84	.91	.89	.83	.84

* $p < .01$

Table 6. *Means, standard deviations, and correlations among key variables among adoptive fathers (N = 248)*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Harter-GSW	1											
2. BDI (9 months)	.-34*	1										
3. BAI (9 months)	-.33*	.53*	1									
4. Infertility	-.12	.17*	.17*	1								
5. Years of Education	.03	-.03	.08	.01	1							
6. Household Income	.04	-.02	-.10	-.14	.16	1						
7. Financial Satisfaction	-.16	.10	.14	.04	-.06	-.32*	1					
8. Marital Instability Index	-.07	.19*	.14	.12	.13	.03	.02	1				
9. Warmth Factor	.14	-.19*	-.17*	-.06	-.09	-.19*	-.08	-.29*	1			
10. Hostility Factor	-.21*	.28*	.27*	.16	.05	.18*	.05	.19*	-.53*	1		
11.BDI (27 months)	-.24*	.50*	.33*	.15	.08	.21*	.13	.17*	-.22*	.26*	1	
12. BAI (27 months)	-.17*	.35*	.54*	.12	.06	.03	.05	.13	-.12	.22*	.53*	1
M	20.49	2.38	2.81	5.74	4.17	112,368	3.55	5.27	51.54	25.38	2.17	1.87
SD	2.85	2.50	2.61	2.19	2.90	59,478	1.43	.77	7.12	6.68	2.58	2.29
Cronbach's Alpha	.86	.79	.73	.75	.55	N/A	.79	.68	.92	.89	.84	.79

* $p < .01$

Table 7. *Correlations between adoptive mother and father ratings of key variables (N =496)*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Harter-GSW	.18*	.05	.02	-.12	-.05	-.03	-.13	-.12	.13	-.19*	-.05	-.04
2. BDI (9 months)	-.16	.08	.04	.04	-.01	-.09	.09	.09	.01	.08	.01	.09
3. BAI (9 months)	-.17*	.06	.11	.06	.07	-.06	.10	.13	-.11	.15	.05	.11
4. Infertility	-.03	.00	.03	.46*	-.07	-.06	.09	.09	-.04	.09	.07	.04
5. Years of Education	-.14	.10	.06	.08	.34*	.07	-.00	.00	-.07	.05	.12	.11
6. Household Income	-.03	.03	-.06	-.12	.10	.86*	-.29*	.03	-.14	.13	.22*	.08
7. Financial Satisfaction	-.12	.03	.05	.01	-.05	-.30*	.75*	.03	-.06	.04	.05	-.01
8. Marital Instability Index	-.07	-.04	-.03	.03	.02	.03	-.02	.25*	-.25*	.18*	.03	.01
9. Warmth Factor	.12	-.13	-.02	-.07	.07	-.12	.04	-.21*	.46*	-.36*	-.19*	-.18*
10. Hostility Factor	-.08	.04	.07	.04	-.03	.07	-.04	.09	-.34*	.46*	.11	.17*
11.BDI (27 months)	-.08	.04	.01	.12	.01	.09	.05	.05	-.13	.13	.11	.03
12. BAI (27 months)	-.16	.05	.08	.12	.11	-.02	.06	.14	-.04	.07	.05	.02

**Note.* Adoptive mother variables appear in the rows, adoptive father variables appear in the columns.
* $p < .01$

Table 8. *Summary of hierarchical regression analysis of adoptive mothers' and adoptive fathers' psychological functioning at nine months postpartum, infertility experiences, tangible resources, and the marital relationship as predictors of adoptive mothers' depressive symptoms at 27 months postpartum (N = 496)*

Variable	*B*	*SE B*	β	*T*	*df*	R^2	ΔR^2	ΔF	sr^2
Step 1					6, 241	.31	.31	17.70*	
Adoptive Mom Harter	-.15	.06	-.15	-2.52					.02
Adoptive Mom BDI (9 months)	.39	.07	.39	6.01*					.10
Adoptive Mom BAI (9 months)	.15	.06	.15	2.30					.01
Adoptive Dad Harter	.04	.06	.04	.66					.00
Adoptive Dad BDI (9 months)	.03	.07	.03	.52					.00
Adoptive Dad BAI	-.03	.07	-.03	-.39					.00
Step 2					2, 239	.31	.01	1.32	
Adoptive Mom Harter	-.14	.06	-.14	-2.30					.01
Adoptive Mom BDI (9 months)	.39	.07	.39	6.00*					.10
Adoptive Mom BAI (9 months)	.14	.06	.14	2.20					.01
Adoptive Dad Harter	.04	.06	.04	.68					.00
Adoptive Dad BDI (9 months)	.03	.07	.03	.42					.00
Adoptive Dad BAI	-.03	.07	-.03	-.51					.00
Adoptive Mom Infertility	.04	.06	.04	.66					.00
Adoptive Dad Infertility	.06	.06	.06	1.02					.00
Step 3					6, 233	.34	.03	1.46	
Adoptive Mom Harter	-.11	.06	-.11	-1.86					.01
Adoptive Mom BDI (9 months)	.41	.07	.41	6.29*					.12
Adoptive Mom BAI (9 months)	.15	.06	.15	2.31					.01
Adoptive Dad Harter	.04	.06	.04	.58					.00
Adoptive Dad BDI (9 months)	.02	.07	.02	.26					.00
Adoptive Dad BAI	-.02	.07	-.02	-.28					.00
Adoptive Mom Infertility	.04	.06	.04	.57					.00
Adoptive Dad Infertility	.09	.06	.09	1.46					.01
Adoptive Mom Yrs of Education	-.06	.06	-.06	-.97					.00
Adoptive Mom Household Income	-.04	.11	-.04	-.40					.00
Adoptive Mom Fin. Satisfaction	.02	.08	.02	.22					.00
Adoptive Dad Yrs of Education	-.01	.06	-.01	-.15					.00
Adoptive Dad Household Income	.20	.11	.20	1.85					.01
Adoptive Dad Fin. Satisfaction	.02	.08	.02	.27					.00

* $p < .01$

Table 8. *Summary of hierarchical regression analysis of adoptive mothers' and adoptive fathers' psychological functioning at nine months postpartum, infertility experiences, tangible resources, and the marital relationship as predictors of adoptive mothers' depressive symptoms at 27 months postpartum continued (N = 496)*

Variable	*B*	*SE B*	β	*t*	*df*	R^2	ΔR^2	ΔF	sr^2
Step 4-Overall model					6, 227	.37	.04	2.15	
Adoptive Mom Harter	-.09	.06	-.09	-1.47					.01
Adoptive Mom BDI (9 months)	.39	.07	.39	5.99*					.10
Adoptive Mom BAI (9 months)	.13	.06	.13	2.11					.01
Adoptive Dad Harter	.04	.06	.04	.66					.00
Adoptive Dad BDI (9 months)	.04	.07	.04	.62					.00
Adoptive Dad BAI	-.02	.07	-.02	-.30					.00
Adoptive Mom Infertility	.02	.06	.02	.26					.00
Adoptive Dad Infertility	.11	.06	.11	1.79					.01
Adoptive Mom Yrs of Education	-.08	.06	-.08	-1.29					.00
Adoptive Mom Household Income	-.01	.11	-.01	-.07					.00
Adoptive Mom Fin. Satisfaction	.02	.08	.02	.23					.00
Adoptive Dad Yrs of Education	.01	.06	.01	.18					.00
Adoptive Dad Household Income	.17	.11	.17	1.52					.01
Adoptive Dad Fin. Satisfaction	.03	.08	.03	.40					.00
Adoptive Mom Mar. Instability	.09	.06	.09	1.50					.01
Adoptive Mom Marital Warmth	.02	.07	.02	.26					.00
Adoptive Mom Marital Hostility	.14	.07	.14	1.94					.01
Adoptive Dad Mar. Instability	-.08	.06	-.08	-1.28					.00
Adoptive Dad Marital Warmth	-.08	.07	-.08	-1.15					.00
Adoptive Dad Marital Hostility	-.09	.07	-.09	-1.26					.00

* $p < .01$

Table 9. *Summary of hierarchical regression analysis of adoptive mothers' and adoptive fathers' psychological functioning at nine months postpartum, infertility experiences, tangible resources, and the marital relationship as predictors of adoptive mothers' anxiety symptoms at 27 months postpartum (N = 496)*

Variable	*B*	*SE B*	β	*t*	*df*	R^2	ΔR^2	ΔF	sr^2
Step 1					6, 241	.26	.26	14.40*	
Adoptive Mom Harter	-.10	.06	-.10	-1.61					.01
Adoptive Mom BDI (9 months)	.09	.07	.09	1.35					.00
Adoptive Mom BAI (9 months)	.41	.07	.41	6.23*					.12
Adoptive Dad Harter	-.05	.06	-.05	-.83					.00
Adoptive Dad BDI (9 months)	-.01	.07	-.01	-.19					.00
Adoptive Dad BAI	.02	.07	.02	.36					.00
Step 2					2, 239	.27	.01	1.26	
Adoptive Mom Harter	-.09	.06	-.09	-1.47					.01
Adoptive Mom BDI (9 months)	.10	.07	.10	1.44					.01
Adoptive Mom BAI (9 months)	.41	.07	.41	6.26*					.12
Adoptive Dad Harter	-.05	.06	-.05	-.76					.01
Adoptive Dad BDI (9 months)	-.03	.07	-.03	-.37					.00
Adoptive Dad BAI	.02	.07	.02	.24					.00
Adoptive Mom Infertility	-.05	.06	-.05	-.72					.00
Adoptive Dad Infertility	.10	.06	.10	1.59					.01
Step 3					6, 233	.29	.02	.84	
Adoptive Mom Harter	-.07	.06	-.07	-1.06					.00
Adoptive Mom BDI (9 months)	.11	.07	.11	1.59					.01
Adoptive Mom BAI (9 months)	.40	.07	.40	6.10*					.12
Adoptive Dad Harter	-.06	.06	-.06	-.98					.00
Adoptive Dad BDI (9 months)	-.02	.07	-.02	-.26					.00
Adoptive Dad BAI	.01	.07	.01	.15					.00
Adoptive Mom Infertility	-.03	.07	-.03	-.52					.00
Adoptive Dad Infertility	.10	.07	.10	1.48					.01
Adoptive Mom Yrs of Education	.03	.06	.03	.44					.00
Adoptive Mom Household Income	-.18	.11	-.18	-1.64					.01
Adoptive Mom Fin. Satisfaction	.05	.09	.05	.53					.00
Adoptive Dad Yrs of Education	.06	.06	.06	.98					.00
Adoptive Dad Household Income	.17	.11	.17	1.50					.01
Adoptive Dad Fin. Satisfaction	-.04	.09	-.04	-.48					.00

* $p < .01$

Table 9. *Summary of hierarchical regression analysis of adoptive mothers' and adoptive fathers' psychological functioning at nine months postpartum, infertility experiences, tangible resources, and the marital relationship as predictors of adoptive mothers' anxiety symptoms at 27 months postpartum continued (N = 496)*

Variable	*B*	*SE B*	β	*t*	*df*	R^2	ΔR^2	ΔF	sr^2
Step 4-Overall model					6, 227	.32	.03	1.55	
Adoptive Mom Harter	-.05	.07	-.05	-.78					.00
Adoptive Mom BDI (9 months)	.07	.07	.07	1.06					.00
Adoptive Mom BAI (9 months)	.40	.07	.40	6.00*					.144
Adoptive Dad Harter	-.07	.06	-.07	-1.07					.01
Adoptive Dad BDI (9 months)	-.01	.07	-.01	-.07					.00
Adoptive Dad BAI	.03	.07	.03	.37					.00
Adoptive Mom Infertility	-.06	.07	-.06	-.89					.00
Adoptive Dad Infertility	.11	.07	.11	1.73					.00
Adoptive Mom Yrs of Education	.02	.06	.02	.27					.00
Adoptive Mom Household Income	-.16	.11	-.16	1.47					.
Adoptive Mom Fin. Satisfaction	.04	.09	.04	.51					.00
Adoptive Dad Yrs of Education	.07	.06	.07	1.10					.00
Adoptive Dad Household Income	.18	.11	.18	1.57					.01
Adoptive Dad Fin. Satisfaction	-.01	.09	-.01	-.11					.00
Adoptive Mom Mar. Instability	.07	.07	.07	1.13					.00
Adoptive Mom Marital Warmth	-.04	.07	-.04	-.52					.00
Adoptive Mom Marital Hostility	.11	.08	.11	1.41					.01
Adoptive Dad Mar. Instability	.06	.06	.06	.99					.00
Adoptive Dad Marital Warmth	.09	.07	.09	1.17					.00
Adoptive Dad Marital Hostility	-.10	.07	-.10	-1.34					.00

* $p < .01$

Table 10. *Summary of hierarchical regression analysis of adoptive mothers' and adoptive fathers' psychological functioning at nine months postpartum, infertility experiences, tangible resources, and the marital relationship as predictors of adoptive fathers' depressive symptoms at 27 months postpartum (N = 496)*

Variable	*B*	*SE B*	B	*t*	*df*	R^2	ΔR^2	ΔF	sr^2
Step 1					6,241	.27	.27	14.45*	
Adoptive Mom Harter	-.09	.06	-.09	-1.42					.01
Adoptive Mom BDI (9 months)	-.07	.07	-.07	-1.10					.00
Adoptive Mom BAI (9 months)	.01	.07	.01	.17					.00
Adoptive Dad Harter	-.05	.06	-.05	-.88					.00
Adoptive Dad BDI (9 months)	.44	.07	.44	6.60*					.13
Adoptive Dad BAI	.08	.07	.08	1.25					.00
Step 2					2,239	.27	.00	.67	
Adoptive Mom Harter	-.08	.06	-.08	-1.28					.00
Adoptive Mom BDI (9 months)	-.08	.07	-.08	-1.13					.00
Adoptive Mom BAI (9 months)	.00	.07	.00	.07					.00
Adoptive Dad Harter	-.06	.06	-.06	-.88					.00
Adoptive Dad BDI (9 months)	.44	.07	.44	6.51*					.13
Adoptive Dad BAI	.08	.07	.08	1.18					.00
Adoptive Mom Infertility	.05	.06	.05	.81					.00
Adoptive Dad Infertility	.02	.06	.02	.36					.00
Step 3					6,227	.35	.08	4.58*	
Adoptive Mom Harter	-.05	.06	-.05	-.73					.00
Adoptive Mom BDI (9 months)	-.05	.07	-.05	-.77					.00
Adoptive Mom BAI (9 months)	.00	.05	.00	-.01					.00
Adoptive Dad Harter	-.03	.06	-.03	-.57					.00
Adoptive Dad BDI (9 months)	.41	.07	.41	6.31*					.11
Adoptive Dad BAI	.09	.07	.09	1.36					.00
Adoptive Mom Infertility	.04	.06	.04	.59					.00
Adoptive Dad Infertility	.07	.06	.07	1.07					.00
Adoptive Mom Yrs of Education	.03	.06	.03	.50					.00
Adoptive Mom Household Income	.11	.11	.11	1.08					.00
Adoptive Mom Fin. Satisfaction	-.02	.08	-.02	-.25					.00
Adoptive Dad Yrs of Education	.04	.06	.04	.75					.00
Adoptive Dad Household Income	.17	.11	.17	1.59					.01
Adoptive Dad Fin. Satisfaction	.17	.08	.17	2.10					.01

* $p < .01$

Table 10. *Summary of hierarchical regression analysis of adoptive mothers' and adoptive fathers' psychological functioning at nine months postpartum, infertility experiences, tangible resources, and the marital relationship as predictors of adoptive fathers' depressive symptoms at 27 months postpartum continued (N = 496)*

Variable	*B*	*SE B*	β	*t*	*df*	R^2	ΔR^2	ΔF	sr^2
Step 4-Overall model					6,227	.36	.01	.79	
Adoptive Mom Harter	-.02	.06	-.02	-.36					.00
Adoptive Mom BDI (9 months)	-.06	.07	-.06	-.87					.01
Adoptive Mom BAI (9 months)	-.02	.06	-.02	-.27					.00
Adoptive Dad Harter	-.03	.06	-.03	-.53					.00
Adoptive Dad BDI (9 months)	.39	.07	.39	5.80*					.10
Adoptive Dad BAI	.09	.07	.09	1.34					.00
Adoptive Mom Infertility	.02	.06	.03	.33					.00
Adoptive Dad Infertility	.07	.06	.07	1.09					.00
Adoptive Mom Yrs of Education	.03	.06	.03	.47					.00
Adoptive Mom Household Income	.14	.11	.14	1.27					.00
Adoptive Mom Fin. Satisfaction	-.03	.08	-.03	-.39					.00
Adoptive Dad Yrs of Education	.05	.06	.05	.87					.00
Adoptive Dad Household Income	.14	.11	.14	1.28					.00
Adoptive Dad Fin. Satisfaction	.19	.08	.19	2.32					.01
Adoptive Mom Mar. Instability	-.02	.06	-.02	-.25					.00
Adoptive Mom Marital Warmth	-.09	.07	-.09	-1.27					.00
Adoptive Mom Marital Hostility	.06	.07	.06	.76					.00
Adoptive Dad Mar. Instability	.04	.06	.04	.64					.00
Adoptive Dad Marital Warmth	.01	.07	.01	.15					.00
Adoptive Dad Marital Hostility	-.01	.07	-.01	.12					.00

* $p < .01$

Table 11. *Summary of hierarchical regression analysis of adoptive mothers' and adoptive fathers' psychological functioning at nine months postpartum, infertility experiences, tangible resources, and the marital relationship as predictors of adoptive fathers' anxiety symptoms at 27 months postpartum (N = 496)*

Variable	*B*	*SE B*	β	*t*	*df*	R^2	ΔR^2	ΔF	sr^2
Step 1					6, 241	.31	.31	17.91*	
Adoptive Mom Harter	-.03	.06	-.03	-.54					.00
Adoptive Mom BDI (9 months)	.05	.07	.05	.74					.00
Adoptive Mom BAI (9 months)	.03	.06	.03	.45					.00
Adoptive Dad Harter	.05	.06	.05	.90					.00
Adoptive Dad BDI (9 months)	.10	.07	.10	1.48					.01
Adoptive Dad BAI	.51	.07	.51	7.80*					.18
Step 2					2, 239	.31	.00	.07	
Adoptive Mom Harter	-.03	.06	-.03	-.50					.00
Adoptive Mom BDI (9 months)	.05	.07	.05	.75					.00
Adoptive Mom BAI (9 months)	.03	.06	.03	.45					.00
Adoptive Dad Harter	.06	.06	.06	.91					.00
Adoptive Dad BDI (9 months)	.09	.07	.09	1.42					.01
Adoptive Dad BAI	.50	.07	.50	7.71*					.18
Adoptive Mom Infertility	-.01	.06	-.01	-.13					.00
Adoptive Dad Infertility	.02	.06	.02	.36					.00
Step 3					6, 233	.33	.02	1.01	
Adoptive Mom Harter	-.04	.06	-.04	-.56					.00
Adoptive Mom BDI (9 months)	.05	.07	.05	.79					.00
Adoptive Mom BAI (9 months)	.03	.06	.03	.44					.00
Adoptive Dad Harter	.07	.06	.07	1.16					.00
Adoptive Dad BDI (9 months)	.08	.07	.08	1.18					.00
Adoptive Dad BAI	.52	.07	.52	7.78*					.18
Adoptive Mom Infertility	-.02	.06	-.02	-.23					.00
Adoptive Dad Infertility	.04	.06	.04	.55					.00
Adoptive Mom Yrs of Education	.06	.06	.06	1.00					.00
Adoptive Mom Household Income	.15	.11	.15	1.44					.01
Adoptive Mom Fin. Satisfaction	-.02	.08	-.02	-.23					.00
Adoptive Dad Yrs of Education	-.01	.06	-.01	-.20					.00
Adoptive Dad Household Income	-.05	.11	-.05	-.43					.00
Adoptive Dad Fin. Satisfaction	.01	.08	.01	.14					.00

* $p < .01$

Table 11. *Summary of hierarchical regression analysis of adoptive mothers' and adoptive fathers' psychological functioning at nine months postpartum, infertility experiences, tangible resources, and the marital relationship as predictors of adoptive fathers' anxiety symptoms at 27 months postpartum continued (N = 496)*

Variable	*B*	*SE B*	β	*t*	*df*	R^2	ΔR^2	ΔF	sr^2
Step 4-Overall model					6, 227	.36	.03	1.95	
Adoptive Mom Harter	-.01	.06	-.01	-.14					.00
Adoptive Mom BDI (9 months)	.03	.07	.03	.51					.00
Adoptive Mom BAI (9 months)	.01	.06	.01	.11					.00
Adoptive Dad Harter	.07	.06	.07	1.18					.00
Adoptive Dad BDI (9 months)	.05	.07	.05	.78					.00
Adoptive Dad BAI	.52	.07	.52	7.79*					.17
Adoptive Mom Infertility	-.04	.06	-.04	-.62					.00
Adoptive Dad Infertility	.04	.06	.04	.61					.00
Adoptive Mom Yrs of Education	.06	.06	.06	1.02					.00
Adoptive Mom Household Income	.18	.11	.18	1.74					.01
Adoptive Mom Fin. Satisfaction	-.04	.08	-.04	-.50					.00
Adoptive Dad Yrs of Education	.01	.06	.01	.13					.00
Adoptive Dad Household Income	-.08	.11	-.08	-.73					.00
Adoptive Dad Fin. Satisfaction	.06	.08	.06	.66					.00
Adoptive Mom Mar. Instability	-.06	.06	-.06	-.97					.00
Adoptive Mom Marital Warmth	-.16	.07	-.16	-2.21					.01
Adoptive Mom Marital Hostility	.10	.07	.10	1.37					.00
Adoptive Dad Mar. Instability	.04	.06	.04	.75					.00
Adoptive Dad Marital Warmth	.10	.07	.10	1.46					.01
Adoptive Dad Marital Hostility	.01	.07	.01	.15					.00

* $p < .01$

Table 12. *Testing mediator effects of marital hostility on the prediction of adoptive mothers' depressive symptoms at 27 months from her depressive symptoms at nine months using multiple regression*

Testing steps in mediation model	*B*	*SE B*	*95% CI*	β	*df*	R^2	Δ R^2	Δ*F*
Testing Step 1								
Outcome: mom depressive symptoms (27 months postpartum)					1, 246	.27	.27	89.93*
Predictor: mom depressive symptoms (9 months postpartum)	.52	.06	.41, .63	.52*				
Testing Step 2								
Outcome: mom marital hostility					1, 246	.05	.05	13.45*
Predictor: mom depressive symptoms (9 months postpartum)	.23	.06	.11, .35	.23*				
Testing Step 3					1, 246	.10	.10	25.99*
Outcome: mom depressive symptoms (27 months postpartum)					1, 245	.31	.21	74.43*
Mediator: mom marital hostility	.20	.06	.09, .31	.20*				
Predictor: mom depressive symptoms (9 months postpartum)	.47	.06	.36, .58	.47*				

*p >.01

Table 13. *Testing mediator effects of marital hostility on the prediction of adoptive mothers' anxiety symptoms at 27 months from her anxiety symptoms at nine months using multiple regression*

Testing steps in mediation model	*B*	*SE B*	*95%CI*	β	*df*	R^2	Δ R^2	Δ*F*
Testing Step 1								
Outcome: mom anxiety symptoms (27 months postpartum)					1, 246	.24	.24	77.47*
Predictor: mom anxiety symptoms (9 months postpartum)	.49	.06	.38, .60	.49*				
Testing Step 2								
Outcome: mom marital hostility					1, 246	.06	.06	14.59*
Predictor: mom anxiety symptoms (9 months postpartum)	.24	.06	.12, .36	.24*				
Testing Step 3					1, 246	.05	.05	13.43*
Outcome: mom anxiety symptoms (27 months postpartum)					1, 245	.25	.20	65.89*
Mediator: mom marital hostility	.12	.06	.01, .23	.12				
Predictor: mom anxiety symptoms (9 months postpartum)	.46	.06	.35, .57	.46*				

*p >.01

Table 14. *Testing mediator effects of marital hostility on the prediction of adoptive fathers' depressive symptoms at 27 months from his depressive symptoms at nine months using multiple regression*

Testing steps in mediation model	*B*	*SE B*	*95%CI*	B	*df*	R^2	Δ R^2	Δ*F*
Testing Step 1								
Outcome: dad depressive symptoms (27 months postpartum)					1, 246	.25	.25	80.44*
Predictor: dad depressive symptoms (9 months postpartum)	.50	.06	.39, .61	.50*				
Testing Step 2								
Outcome: dad marital hostility					1, 246	.08	.08	21.26*
Predictor: dad depressive symptoms (9 months postpartum)	.28	.06	.16, .40	.28*				
Testing Step 3					1, 246	.07	.07	17.08*
Outcome: dad depressive symptoms (27 months postpartum)					1, 245	.26	.20	64.89*
Mediator: dad marital hostility	.13	.06	.01, .24	.13				
Predictor: dad depressive symptoms (9 months postpartum)	.46	.06	.35, .57	.46*				

*p >.01

Table 15. *Testing mediator effects of marital hostility on the prediction of adoptive fathers' anxiety symptoms at 27 months from his anxiety symptoms at nine months using multiple regression*

Testing steps in mediation model	*B*	*SE B*	*95%CI*	β	*df*	R^2	Δ R^2	Δ*F*
Testing Step 1								
Outcome: dad anxiety symptoms (27 months postpartum)					1, 246	.30	.30	102.98*
Predictor: dad anxiety symptoms (9 months postpartum)	.54	.05	.44, .65	.54*				
Testing Step 2								
Outcome: dad marital hostility					1, 246	.07	.07	19.21*
Predictor: dad anxiety symptoms (9 months postpartum)	.27	.06	.15, .39	.27*				
Testing Step 3					1, 246	.05	.05	12.40*
Outcome: dad anxiety symptoms (27 months postpartum)					1, 245	.30	.25	88.59*
Mediator: dad marital hostility	.08	.06	-.03, .19	.08				
Predictor: dad anxiety symptoms (9 months postpartum)	.52	.06	.41, .63	.52*				

*p >.01

Figure 1.

Indirect Model of Risk and Resilience for Adoptive Parents

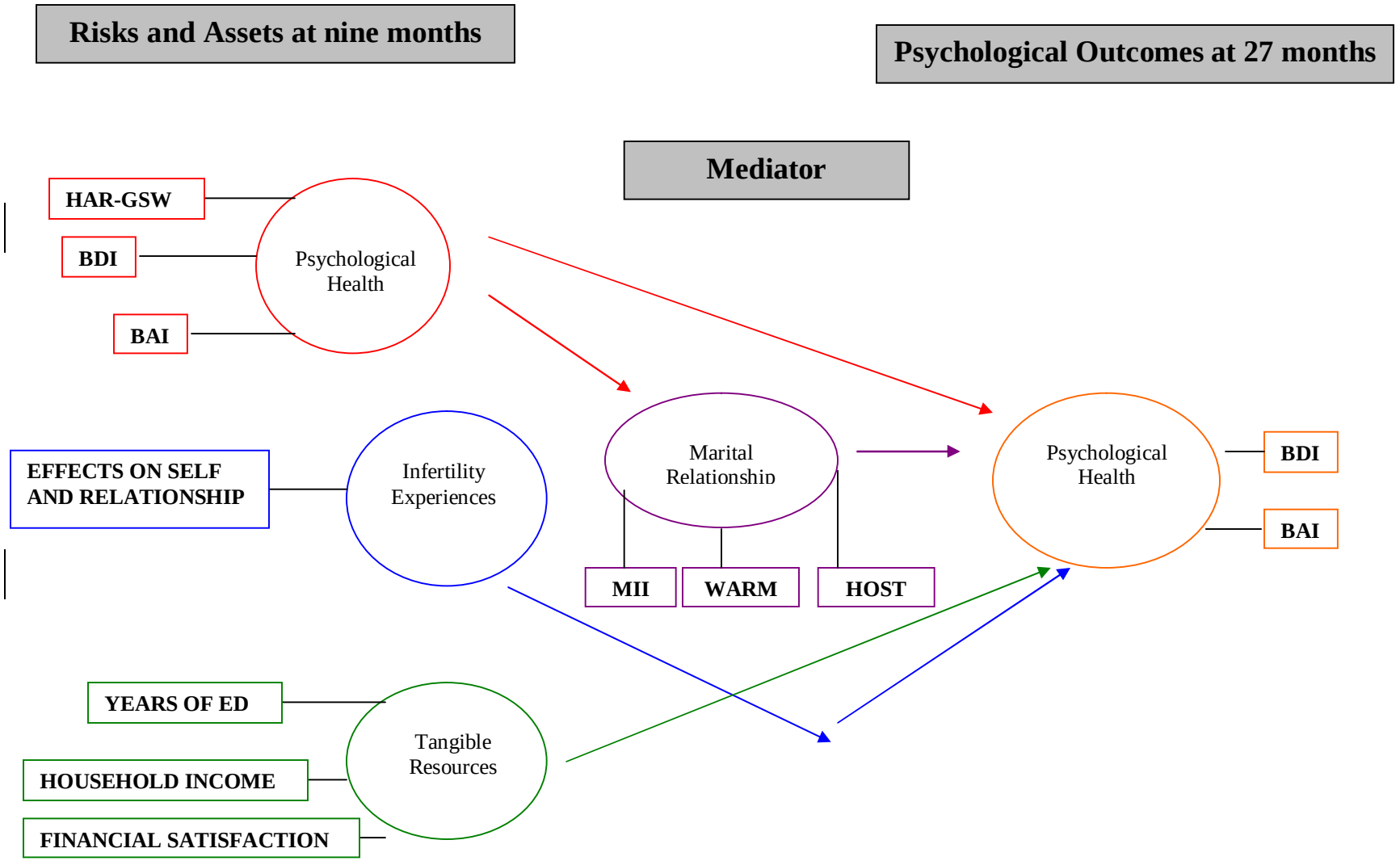


Figure 2. *Satisfaction with adoption agency services (N = 362)*

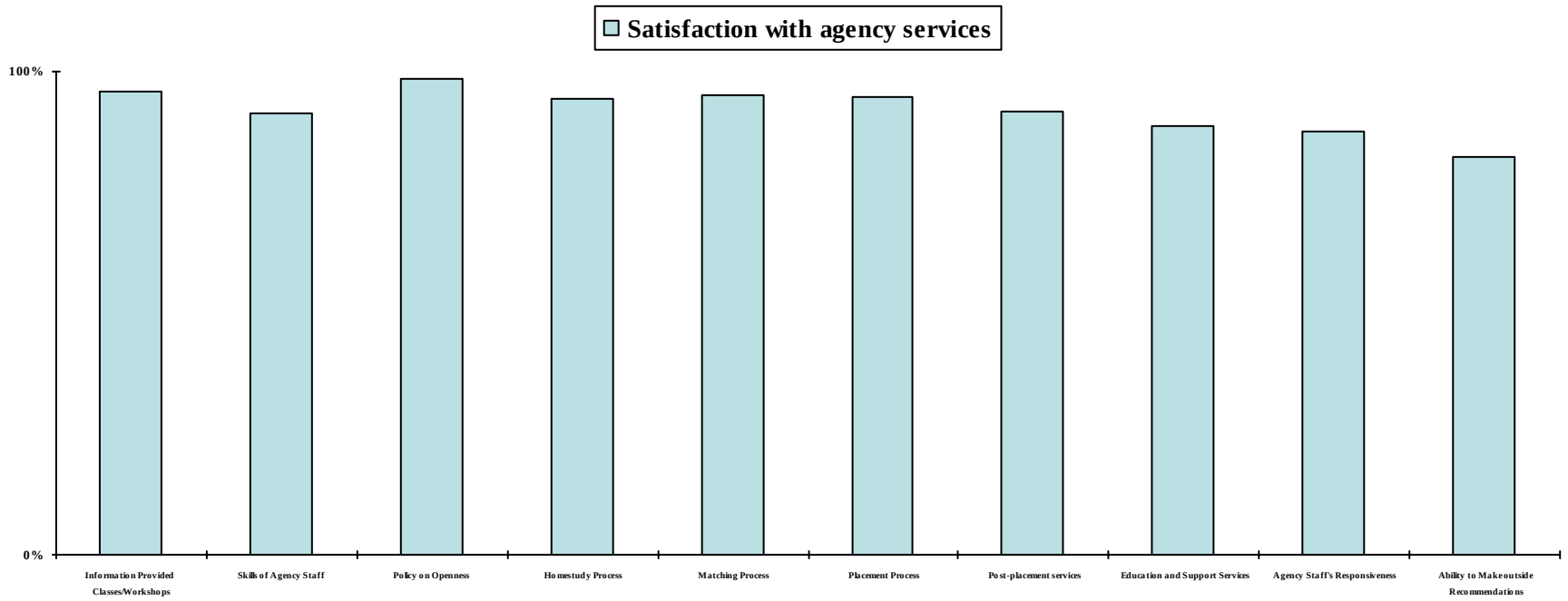
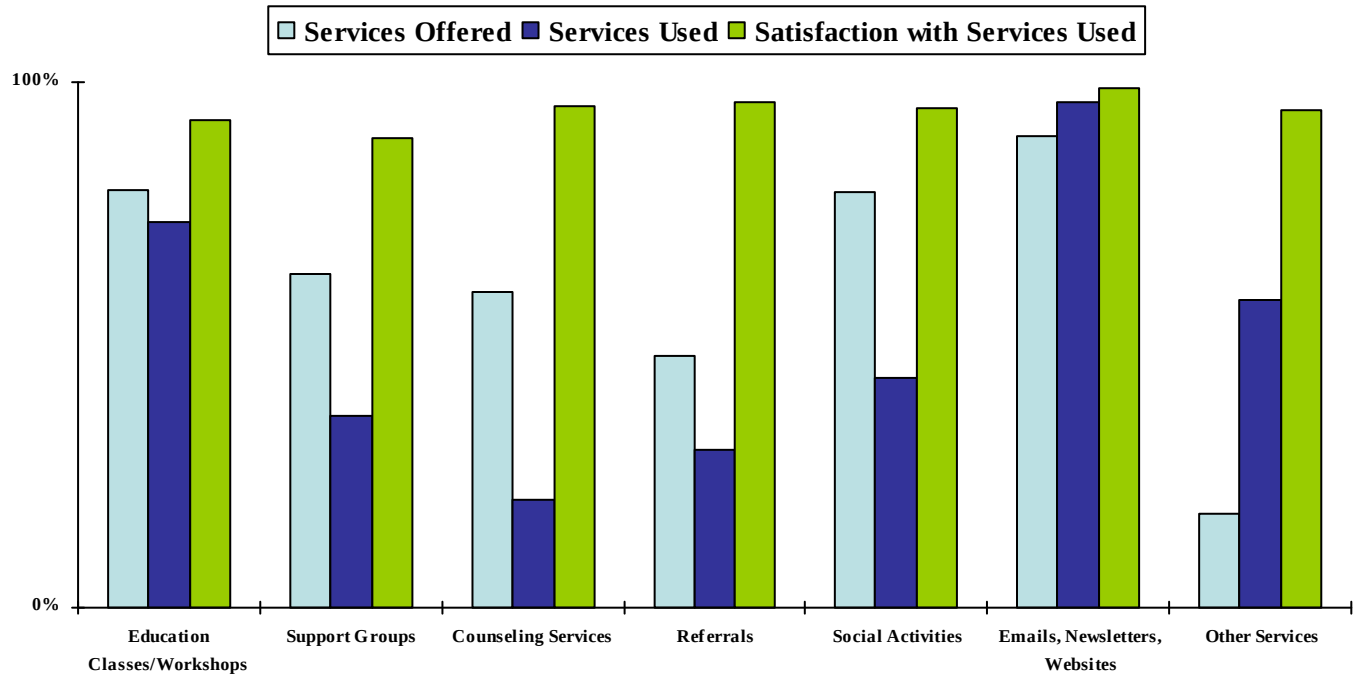
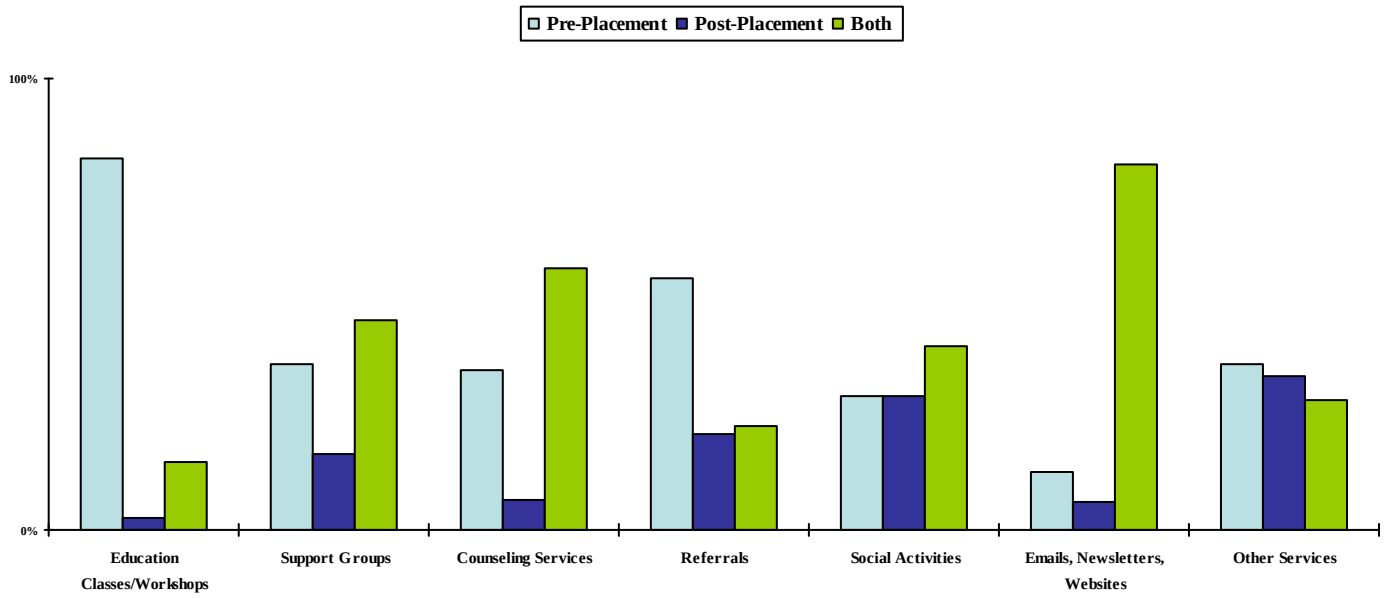


Figure 3. *Adoption agency services offered, used, and satisfaction with services used (N = 362)*



*Note. Responses about services used and satisfaction with services used are based only on those participants who indicated that their adoption agency had offered the service in question.

Figure 4. *Timing of use of adoption agency services (N = 362)*



Appendix A

Demographic Form (Early Growth and Development Study, 2003)

In this section, we would like to get some general background information about you. Please answer the following questions by filling in the blanks or mark the box indicating the most appropriate response.

What is your current marital status?

- ☐ Single, never married
- ☐ Married but separated
- ☐ Single, widowed
- ☐ Divorced, not married
- ☐ Married
- ☐ Remarried
- ☐ Living in a committed, married-like relationship

Your Religion and Spirituality

What is your religious affiliation? (please select only one)

- ☐ Catholic
- ☐ Episcopalian
- ☐ Presbyterian
- ☐ Lutheran
- ☐ Baptist
- ☐ Methodist
- ☐ Mormon
- ☐ Jehovah's Witness
- ☐ Other Christian, please specify _____
- ☐ Jewish: Orthodox
- ☐ Jewish: Conservative
- ☐ Jewish: Reform
- ☐ Muslim/Islamic
- ☐ Hindu
- ☐ Buddhist
- ☐ Other, please specify_____
- ☐ None

Not including yourself, how many people are you currently living with (Include adults, as well as children)?

a. First Name	b. Date of Birth	c. Sex 1 = Male 2 = Female	d. Relation to You 1 = Spouse/Romantic Partner 2 = Friend/roommate 3 = Biological Parent 4 = Step Parent 5 = Adoptive Parent 6 = Grandparent 7 = Full Sibling 8 = Half Sibling 9 = Step Sibling 10 = Biological child 11 = Adopted child 12 = Step child 13 = Other (describe)	e. Ethnicity 1 = Hispanic or Latino 2 = Non Hispanic or Latino 3 = Unknown	f. Race 1 = American Indian/Alaska Native 2 = Asian 3 = Native Hawaiian or Other Pacific Islander 4 = Black or African American 5 = White 6 = More than one race 7 = Unknown	g. Relation to target child (only for those who responded 7-9 to column d.) 1 = Full Sibling 2 = Half Sibling 3 = Not Biologically Related 4 = Other 8 = N/A (Target Child)
1. You	__ __ / __ __ __ __	N/A	N/A			N/A
2.	__ __ / __ __ __ __					
3.	__ __ / __ __ __ __					
4.	__ __ / __ __ __ __					
5.	__ __ / __ __ __ __					
6.	__ __ / __ __ __ __					
7.	__ __ / __ __ __ __					

What is your current work situation? (mark all that apply)

- ☐ Employed by others, full time
- ☐ Employed by others, part time
- ☐ Employed during school breaks and summers
- ☐ Self employed owner of business or service or professional practice
- ☐ Temporary or contractual work
- ☐ Part-time student
- ☐ Full-time student
- ☐ Temporarily laid off
- ☐ Unemployed but looking for work
- ☐ On long-term sick leave
- ☐ On maternity leave
- ☐ Permanently disabled
- ☐ Retired
- ☐ Full time homemaker
- ☐ Other: (please specify)_____

_____
__

The following statements list possible reasons that some people may pursue an adoption plan. Please indicate the extent to which each statement reflected your reason for pursing an adoption plan.

How much does this statement reflect your reason for pursuing an adoption plan:	Not at all	A little bit	Pretty much	A lot
I always planned to adopt a child.	1	2	3	4
I am or my partner was adopted.	1	2	3	4
I have parents, friends or other family members who have adopted.	1	2	3	4
I wanted to be a parent.	1	2	3	4
My partner and I were recruited to become adoptive parents.	1	2	3	4
My partner and I were unable to have a child biologically.	1	2	3	4
I wanted to provide a home for a child who needs it.	1	2	3	4
I (my spouse/romantic partner) did not want to be pregnant.	1	2	3	4
I am concerned about over-population.	1	2	3	4
1=Yes, 2=No: If yes: Other: (please describe)_____	1	2	3	4

Appendix B

Harter Self-Perception Profile (Messer & Harter, 1984)
Global Self-Worth Subscale

These are statements that allow people to describe themselves. There is no right or wrong answer since people are so different. To answer these next questions, you need to do 2 things. First, read each statement and decide which one is most like you. Each statement is an either/or question. Next, decide if the statement that is more like you is "really true for you" or "sort of true for you". Mark an X in the box that best describes you. You can only mark one box for each line.

For example, one statement may say: Some people like pizza. The other statement may say: Other people don't like pizza. First, you decide if you like pizza. Let's say you do like pizza, then decide if this statement is really true or sort of true.

Example
STEP 1: Which statement is most like you?

Some people like pizza BUT Other people don't like pizza

STEP 2: How much does this statement describe you?

Really True	Sort of True				Sort of True	Really True
☒	☐	Some people like pizza	BUT	Other people don't like pizza	☐	☐

Use this procedure to answer all of the following items. Be sure to only check one box per line.

1 Really True for Me	2 Sort of True for Me				3 Sort of True for me	4 Really True for me
☐	☐	Some adults like the way they are leading their lives	BUT	Other adults don't like the way they are leading their lives	☐	☐
☐	☐	Some adults are very happy being the way they are	BUT	Other adults would like to be different	☐	☐
☐	☐	Some adults sometimes question whether they are a worthwhile person	BUT	Other adults feel that they are a worthwhile person	☐	☐

1 Really True for Me	2 Sort of True for Me				3 Sort of True for me	4 Really True for me
☐	☐	Some adults are disappointed with themselves	BUT	Other adults are quite pleased with themselves	☐	☐
☐	☐	Some adults are dissatisfied with themselves	BUT	Other adults are satisfied with themselves	☐	☐
☐	☐	Some adults like the kind of person they are	BUT	Other adults would like to be someone else	☐	☐

Appendix C

Beck Depression Inventory (Beck, Steer and Brown, 1996)

Please read each group of statements carefully, then pick out the one in each group that best describes the way you have been feeling in the PAST WEEK, even TODAY! Mark the appropriate statement box.

- ☐ I do not feel sad.
- ☐ I feel sad.
- ☐ I am sad all the time and I can't snap out of it.
- ☐ I am so sad or unhappy that I can't stand it.

- ☐ I am not particularly discouraged about the future.
- ☐ I feel discouraged about the future.
- ☐ I feel I have nothing to look forward to.
- ☐ I feel that the future is hopeless and that things cannot improve.

- ☐ I do not feel like a failure.
- ☐ I feel I have failed more than the average person.
- ☐ As I look back on my life, all I can see is a lot of failures.
- ☐ I feel I am a complete failure as a person.

- ☐ I get as much satisfaction out of things as I used to.
- ☐ I don't enjoy things the way I used to.
- ☐ I don't get real satisfaction out of anything anymore.
- ☐ I am dissatisfied or bored with everything.

- ☐ I don't feel particularly guilty.
- ☐ I feel guilty a good part of the time.
- ☐ I feel quite guilty most of the time.
- ☐ I feel guilty all of the time.

- ☐ I don't feel I am being punished.
- ☐ I feel I may be punished.
- ☐ I expect to be punished.
- ☐ I feel I am being punished.

- ☐ I don't feel disappointed in myself.
- ☐ I am disappointed in myself.
- ☐ I am disgusted with myself.
- ☐ I hate myself.

- ☐ I don't feel I am worse than anybody else.
- ☐ I am critical of myself for my weaknesses or mistakes.
- ☐ I blame myself all the time for my faults.
- ☐ I blame myself for everything bad that happens.

☐ I don't cry any more than usual.
☐ I cry more now than I used to.
☐ I cry all the time now.
☐ I used to be able to cry, but now I can't cry even though I want to.

☐ I am no more irritated now than I ever was.
☐ I get annoyed or irritated more easily than I used to.
☐ I feel irritated all the time now.
☐ I don't get irritated at all by the things that used to irritate me.

☐ I have not lost interest in other people.
☐ I am less interested in other people than I used to be.
☐ I have lost most of my interest in other people.
☐ I have lost all of my interest in other people.

☐ I make decisions about as well as I ever could.
☐ I put off making decisions more than I used to.
☐ I have greater difficulty in making decisions than before.
☐ I can't make decisions at all anymore.

☐ I don't feel I look any worse than I used to.
☐ I am worried that I am looking old or unattractive.
☐ I feel that there are permanent changes in my appearance that make me look unattractive.
☐ I feel that I am ugly or repulsive looking.

☐ I can work about as well as before.
☐ It takes an extra effort to get started at doing something.
☐ I have to push myself very hard to do anything.
☐ I can't do any work at all.

☐ I can sleep as well as usual.
☐ I don't sleep as well as I used to.
☐ I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
☐ I wake up several hours earlier than I used to and can't get back to sleep.

☐ I don't get more tired than usual.
☐ I get tired more easily than I used to.
☐ I get tired from doing almost anything.
☐ I am too tired to do anything.

☐ My appetite is no worse than usual.
☐ My appetite is not as good as it used to be.
☐ My appetite is much worse now.
☐ I have no appetite at all.

☐ I haven't lost much weight, if any, lately.
☐ I have lost more than 5 pounds.
☐ I have lost more than 10 pounds.
☐ I have lost more than 15 pounds.

☐ I am no more worried about my health than usual.
☐ I am worried about physical problems such as aches and pains or upset stomach or constipation.
☐ I am very worried about physical problems and it's hard to think of much else.
☐ I am so worried about my physical problems that I cannot think of much else.

☐ I have not noticed any recent change in my interest in sex.
☐ I am less interested in sex than I used to be.
☐ I am much less interested in sex now.
☐ I have lost interest in sex completely.

Appendix D

Beck Anxiety Inventory (Beck and Steer, 1993)

Now, please rate how much you have been bothered by each of the feelings listed below OVER THE PAST WEEK. Beside each item, mark the box that reflects how much each statement has bothered you during the past week.

	Not at all	**Slightly**	**Moderately**	**Severely (I could barely stand it)**
Numbness or tingling	☐	☐	☐	☐
Feeling hot	☐	☐	☐	☐
Wobbliness in legs	☐	☐	☐	☐
Unable to relax	☐	☐	☐	☐
Fear of the worst happening	☐	☐	☐	☐
Dizzy or lightheaded	☐	☐	☐	☐
Heart pounding or racing	☐	☐	☐	☐
Unsteady	☐	☐	☐	☐
Terrified	☐	☐	☐	☐
Nervous	☐	☐	☐	☐
Feelings of choking	☐	☐	☐	☐
Hands trembling	☐	☐	☐	☐
Shaky	☐	☐	☐	☐
Fear of losing control	☐	☐	☐	☐
Difficulty breathing	☐	☐	☐	☐
Fear of dying	☐	☐	☐	☐
Scared	☐	☐	☐	☐
Indigestion or abdominal discomfort	☐	☐	☐	☐
Faint	☐	☐	☐	☐
Face flushed	☐	☐	☐	☐
Sweating	☐	☐	☐	☐

Appendix E

Infertility Effects on the Self and on the Relationship (Early Growth and Development Study, 2003)

One issue that distinguishes many adoptive parents from biological parents is infertility. We realize that this is a particularly personal and private issue, but very little is known about the stressors that adoptive parents cope with before deciding to pursue an adoption plan. Remember, you do not have to answer any question that you do not wish to answer and we appreciate your honesty. Please think about only yourself for this first set of questions. We will ask about your partner's experiences with infertility later.

How emotionally challenging has coping with the issue of infertility been for you?

1. Not at all challenging
2. A little challenging
3. Somewhat challenging
4. Pretty challenging
5. Very challenging

How challenging has the issue of infertility been on your relationship?

1. Not at all challenging
2. A little challenging
3. Somewhat challenging
4. Pretty challenging
5. Very challenging

Appendix F

Years of Education (Early Growth and Development Study, 2003)

How many years did you complete at the 4-year college or university?

☐ 1 Year ☐ 4 Years

☐ 2 Years ☐ More than 4 Years

☐ 3 Years

How many years of graduate school did you complete?

☐ 1 Year ☐ 4 Years

☐ 2 Years ☐ More than 4 Years

☐ 3 Years

Appendix G

Household Income (Early Growth and Development Study, 2003)

What was your TOTAL household income from all sources during the last year? By household we mean family members who contribute earned money to household expenses (e.g., spouse/partner, parents). Be sure to include total wages, salaries, self-employment income after expenses, government assistance of any kind, interest and dividends, etc., before taxes. Please estimate this total if you are unsure.

_____total household income in dollars

Appendix H

Financial Status (Early Growth and Development Study, 2003)

During the past 12 months, how much difficulty have you had paying your bills?

- ☐ A great deal of difficulty
- ☐ Quite a bit of difficulty
- ☐ Some difficulty
- ☐ A little difficulty
- ☐ No difficulty

Thinking again over the past 12 months, generally, at the end of each month did you end up with . . .

- ☐ More than enough money left over
- ☐ Some money left over
- ☐ Just enough to make ends meet
- ☐ Not enough to make ends meet

Appendix I

Marital Instability Index (Booth, Johnson, & Edwards, 1983)

Sometimes couples experience serious problems in their marriage or romantic relationship and have thoughts of ending their marriage or relationship. Please mark the box indicating the answer that best describes your most recent experience.

	Not in the last year	Yes, within the last year	Yes, within the last 6 months	Yes, within the last 3 months
Have you or your partner seriously suggested the idea of divorce?	☐	☐	☐	☐
Have you discussed divorce or separation from your partner with a close friend?	☐	☐	☐	☐
Even people who get along quite well with their partner sometimes wonder whether their marriage is working out. Have you thought your marriage might be in trouble?	☐	☐	☐	☐
Have you and your partner talked about consulting an attorney about a possible divorce or separation?	☐	☐	☐	☐
Has the thought of separating or getting a divorce crossed your mind?	☐	☐	☐	☐

Appendix J

Warmth/Support Factor of Partner towards Respondent (Booth, Johnson, & Edwards, 1983)

Now think about when you and your partner have spent time talking or doing things together.

During the past year, how often did your partner…	**Always**	**Almost always**	**Fairly often**	**About half the time**	**Not too often**	**Almost never**	**Never**
Ask you for your opinion about an important matter?	☐	☐	☐	☐	☐	☐	☐
Listen carefully to your point of view?	☐	☐	☐	☐	☐	☐	☐
Let you know he/she really cares about you?	☐	☐	☐	☐	☐	☐	☐
Act loving and affectionate toward you?	☐	☐	☐	☐	☐	☐	☐
Let you know that he/she appreciates you, your ideas or the things you do?	☐	☐	☐	☐	☐	☐	☐
Help you do something that was important to you?	☐	☐	☐	☐	☐	☐	☐
Have a good laugh with you about something that was funny?	☐	☐	☐	☐	☐	☐	☐
Act supportive and understanding toward you?	☐	☐	☐	☐	☐	☐	☐
Tell you he/she loves you?	☐	☐	☐	☐	☐	☐	☐

Appendix K

Hostility Factor (Booth, Johnson, & Edwards, 1983)

Now think about when you and your partner have spent time talking or doing things together.

During the past year, how often did your partner…	**Always**	**Almost always**	**Fairly often**	**About half the time**	**Not too often**	**Almost never**	**Never**
Get angry at you?	☐	☐	☐	☐	☐	☐	☐
Criticize you or your ideas?	☐	☐	☐	☐	☐	☐	☐
Shout or yell at you because he/she was mad at you?	☐	☐	☐	☐	☐	☐	☐
Ignore you when you tried to talk to him/her?	☐	☐	☐	☐	☐	☐	☐
Give you a lecture about how you should behave?	☐	☐	☐	☐	☐	☐	☐
Boss you around a lot?	☐	☐	☐	☐	☐	☐	☐
Hit, push, grab or shove you?	☐	☐	☐	☐	☐	☐	☐
Not listen to you but do all the talking himself/herself?	☐	☐	☐	☐	☐	☐	☐
Argue with you whenever you disagreed about something?	☐	☐	☐	☐	☐	☐	☐
Insult or swear at you?	☐	☐	☐	☐	☐	☐	☐
Tell you he/she is right and you are wrong about things?	☐	☐	☐	☐	☐	☐	☐
Call you bad names?	☐	☐	☐	☐	☐	☐	☐
Threaten to hurt you by hitting you with his/her fist, an object, or something else?	☐	☐	☐	☐	☐	☐	☐

Appendix L

Overall Satisfaction with Agency Services (Early Growth and Development Study, 2003)

For these next questions, think about how satisfied you were with your experiences with the agency you used to adopt [child's name]. For each question, think about whether you were very satisfied, somewhat satisfied, somewhat dissatisfied or very dissatisfied. If a question just doesn't apply to you, please tell me and we will skip that question.

How satisfied were you with:	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	N/A
The information the agency provided about the adoption process?	1	2	3	4	
Their education and support services?	1	2	3	4	
Their ability to make recommendations for outside services like counseling?	1	2	3	4	5
The staff's responsiveness to your requests?	1	2	3	4	
The skill of the staff?	1	2	3	4	
Their policy about openness?	1	2	3	4	
The home study process, including the length of time it took to complete it?	1	2	3	4	5
The matching process?	1	2	3	4	
The placement process?	1	2	3	4	
The post placement services / supervision?	1	2	3	4	5

Appendix M

Agency Services Offered and Used by Adoptive Parents (Early Growth and Development Study, 2003)

Now I'm going to read a list of education and support services that are sometimes offered by agencies. First, tell me if the service was offered by your agency when you adopted [child's name]. If the service was provided, I will ask you if you used it, and finally I will ask you to rate your level of satisfaction with the service.

Does your agency offer education classes or workshops?

1. Yes
2. No
3. Don't Know

Did you use take any of the education classes or workshops?

1. Yes
2. No

When did you take the education classes or workshops?

1. Pre-placement
2. Post-placement
3. Both

How satisfied were you with the education classes or workshops?

1. Very Satisfied
2. Somewhat Satisfied
3. Somewhat Dissatisfied
3. Very Dissatisfied
4. N/A

Does your agency offer support groups?

1. Yes
2. No
3. Don't Know

Did you attend a support group?

1. Yes
2. No

When did you attend a support group?

1. Pre-placement
2. Post-placement
3. Both

How satisfied were you with the support groups?

1. Very Satisfied
2. Somewhat Satisfied
3. Somewhat Dissatisfied
4. Very Dissatisfied
5. N/A

Does your agency offer counseling services?

1. Yes
2. No
3. Don't Know

Did you use the counseling services?

1. Yes
2. No

When did you use the counseling services?

1. Pre-placement
2. Post-placement
3. Both

How satisfied were you with the counseling services?

1. Very Satisfied
2. Somewhat Satisfied
3. Somewhat Dissatisfied
4. Very Dissatisfied
5. N/A

Does your agency offer referrals for education or support services outside of the agency itself?

1. Yes
2. No
3. Don't Know

Did you use the referrals for education or support services outside of the agency itself?

1. Yes
2. No

When did you use the referrals?

1. Pre-placement
2. Post-placement
3. Both

How satisfied were you with the referrals?

1. Very Satisfied
2. Somewhat Satisfied
3. Somewhat Dissatisfied
4. Very Dissatisfied
5. N/A

Does your agency offer social activities to get to know staff or other families?

1. Yes
2. No
3. Don't Know

Did you attend any of the social activities to get to know staff or other families?

1. Yes
2. No

When did you attend these social activities?

1. Pre-placement
2. Post-placement
3. Both

How satisfied were you with the social activities?

1. Very Satisfied
2. Somewhat Satisfied
3. Somewhat Dissatisfied
4. Very Dissatisfied
5. N/A

Did your agency send newsletters, email updates, or post updates on a website?

1. Yes
2. No
3. Don't Know

Did you read the newsletters, email updates, or updates on a website?

1. Yes
2. No

When did you read the newsletters, email updates, or updates on a website?

1. Pre-placement
2. Post-placement
3. Both

How satisfied were you with the newsletters, email updates, updates on a website?

1. Very Satisfied
2. Somewhat Satisfied
3. Somewhat Dissatisfied
4. Very Dissatisfied
5. N/A

Did your agency offer other services that I have not mentioned?

1. Yes, please specify:
   _____
   _____
   ____
2. No
3. Don't Know

Did you use these services?

1. Yes
2. No

When did you use these services?

1. Pre-placement
2. Post-placement
3. Both

How satisfied were you with these services?

1. Very Satisfied
2. Somewhat Satisfied
3. Somewhat Dissatisfied
4. Very Dissatisfied
5. N/A

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