RELATIONSHIP BETWEEN SOURCES OF SUPPORT AND MOTHER-INFANT BONDING

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CERTIFICATE OF APPROVAL

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ABSTRACT

Adult women who had become new mothers within the last year completed a brief demographic questionnaire, the Multidimensional Scale of Perceived Social Support, and the Post Partum Bonding Questionnaire. Mothers' perceived levels of (a) significant other, (b) family, and (c) friend support were examined in relation to their perceptions of (d) general impaired bonding, (e) rejection and anger, and (f) anxiety about care of their infants. The hypothesis that all three sources of perceived social support would negatively relate to problems in the bonding relationship was supported. However, the hypothesis that significant other support would be the most significant predictor for the bonding relationship was not supported. Only familial support uniquely related to the bonding relationship.

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Chapter 1

INTRODUCTION

Pregnant women begin to form self-representations throughout pregnancy that remain relatively stable over time (Slade & Cohen, 1996). Greater social support networks seem to positively influence how these pregnant women see themselves as mothers (Crnic, Greenberg, & Slough, 1986; Huth-Bocks, Levendosky, Bogat, & von Eye, 2004; Priel & Besser, 2002). Mothers are typically expected to relate to and care for their infants (Douglas & Michaels, 2004; hooks, 2000). "Failure to live up to these cultural expectations may result in tremendous feelings of guilt, shame, inadequacy, distress, and unhappiness [for the mother]" (Romito, Saurel-Cubizolles, & Lelong, 1999, p. 1651). Transitioning to motherhood can be a stressful life event. The mother's representation of herself as a woman, partner, daughter, and career person are reorganized as she makes room for her new mothering role (Stern, 1995). Researchers suggest that social support or lack thereof can affect the mother's self-image and future goals (Huth-Bocks et al.) and thus significantly influence how the mother adjusts to her new role as a mother. The perception of social support has also been shown to affect how a mother attaches to her infant (Crnic et al.).

Individuals' perceptions of available support have been shown to have an important role in predicting well-being, coping effectiveness, and general psychological and physical health (Eker, Arkar, & Yaldiz, 2000; Sarason, Sarason, & Pierce, 1990). Higher levels of social support lead to increased social skills, self-concepts, and adaptive skills for adolescents (Kilpatrick & Kerres, 2002). Additionally, researchers suggest that social support helps to buffer levels of distress and depression in males and females (Landman-Peeters et al., 2005), across several age ranges (Angel, Angel, & Henderson, 1997; Guarnaccia & Hargett, 2004; Weinstein, Mermelstein, Hedeker, Hankin, & Flay, 2006), cross-culturally (Coreil & Mayard, 2006; Okabayashi, Mizuno, & Kobori, 2004; Pines & Zaidmain, 2003), and for those suffering from chronic illnesses (Bisschop, Kriegsman, Beekman, Dorly, & Deeg, 2004).

Practical and emotional sources of social support can have buffering effects on levels of stress involved in the transition to parenthood as well (Priel & Besser, 2002). Social support networks affect parenting attitudes and behaviors such that different sources of support, such as friends or family, can differentially influence a parent's attitude and behavior towards his or her children (Bronfenbrenner & Crouter, 1983). Research findings also indicate that a parent's perceived availability of support is associated with his or her self-regulation of distress and parenting abilities (Priel & Besser). Social support networks are especially important for lowering levels of depression for impoverished parents (Hashima & Amato, 1994).

Social support has been shown to be especially important for the transition to motherhood (Hun et al., 2002; Priel & Besser, 2002). Mothers tend to undertake more of the responsibility for domestic and child-care work (Crittenden, 2001; Douglas &

Michaels, 2004), and their lives often change more dramatically than those of fathers (Romito et al., 1999). Sources of social support help new mothers cope with the challenging transition to motherhood (Kivijarvi, Raiha, Virtanen, Lertola, & Piha, 2004; Priel & Besser, 2000; Stern, 1995) by positively influencing maternal competency behaviors (Crnic, Greenberg, Ragozin, Robinson, & Basham, 1983), feelings of love toward the infant, and gratification in the maternal role (Mercer, Hackley, & Bostrum, 1984).

A considerable number of previous researchers on maternal social support have focused on social support in general rather than specifying the specific sources of such support (Anisfeld & Lipper, 1983; Collins, Dunkel-Schetter, Lobel, & Scrimshaw, 1993; Crockenberg, 1981; Crockenberg, 1987; Cutrona, 1984; Hashima & Amato, 1994; Mercer et al., 1984). Much of this research shows that social support can have a significant role in lowering levels of maternal depression (Collins et al.; Cutrona) as well as increasing maternal satisfaction in the mothering role (Mercer et al.). Research also indicates that social support may contribute to infant attachment security by buffering the infant-mother relationship from outside stresses (Crockenberg, 1981).

Social support researchers who have focused on the role of different sources of support in infant-mother attachment suggest that support from other women (Huth-Bocks et al., 2004) and support from an intimate partner, friend, or community member (Crnic et al., 1983) can have significant influences on the security of infant attachment. Maternal social support from friends and community (Huth-Bocks et al.; Kirk, 2002; Romito et al., 1999; Stern, 1995), an intimate partner (Bell, Johnson, McGillicuddy-Delisi, & Siegel, 1980; Belsky, 1981; Rini, Dunkel-Schetter, Hobel, Glynn, & Sandman, 2006; Teti &

Gelfand, 1991; Thompson, 1986), and family members (Kirk; Parish, Hao, & Hogan, 1991) has been shown to positively influence maternal attitudes and behaviors.

However, various researchers have also suggested that support for new mothers can have both positive and negative effects on their psychological well-being (Gloger-Tippelt & Huerkamp, 1998; Romito et al., 1999; Thompson, 1986). Moreover, not all sources of support affect mothers the same way (Crnic et al., 1986), and not all findings regarding maternal social support are generalizable cross-culturally (Hun et al., 2002).

Purpose of this Research

No known researchers have explored the relationship of perceived family, friend, and intimate partner support in conjunction with one another to assess their relationship with the mother-infant bond. It is unknown, then, which of these sources of perceived social support is the most significant for the mother in her bond with her infant. This study will address the following research questions:

1. Does social support relate to mothers' perceptions of their bonds with their infants?
2. Which source of social support relates most significantly to the mother-infant bond?

Chapter 2

LITERATURE REVIEW

Various researchers have focused on social support, producing a variety of definitions and explanations for the construct. Some suggest that social support has several dimensions (Cohen & Wills, 1985; Crnic et al., 1983). Emotional support helps a person feel accepted. Informational support helps in defining, understanding, and coping with problematic events. Social companionship involves spending time with others in leisure and recreational activities. Finally, instrumental support is the provision of financial assistance, material resources, and needed services. Similarly, Dunst, Trivette, and Deal (1988) state that social support involves guidance, social reinforcement, practical assistance with the tasks of daily living, and social stimulation in addition to emotional support.

Researchers have found the perception of available support to have an important role in predicting well-being, coping effectiveness, and psychological and physical health (Eker et al., 2000; Sarason et al., 1990), and so, several researchers (Cobb, 1976; Kilpatrick & Kerres, 2002; Sarason, Sarason, & Gurung, 2001) describe social support in terms of how it is perceived rather than in any absolute sense. Kilpatrick & Kerres describe social support as an "individual's perceptions of general support or specific

supportive behaviors (available or enacted on) from people in their social network, which enhances their functioning or may buffer them from adverse outcomes" (p. 215). Cobb found the support framework to provide information that leads an individual to believe that he or she is loved, valued, and is a member of a support network with mutual obligations. Sarason et al. (2001) describe the perception of social support as a subjective judgment that one's social network will provide effective help during times of need.

Effects of Social Support

Along with these somewhat varying descriptions of social support, there are two primary theoretical explanations for the effects of social support. The stress-buffering model proposes that the positive benefits of social support primarily aid those who are at risk of becoming stressed or who are under stress (Cohen & Wills, 1985). According to the stress-buffering model, once a person is under stress, support may alleviate the impact of stress by providing a solution to the problem, by reducing the perceived importance of the problem, or by facilitating healthful behaviors (Cohen & Wills). The main-effect model assumes that social support has a beneficial effect regardless of whether persons are under stress (Cohen & Wills). According to the main-effect model, support helps to promote well-being by providing positive affect, a sense of predictability and stability in one's life situation, and recognition of self-worth (Cohen & Wills).

Stress-Buffering Model

Many researchers support the notion that social support can act as a protective factor during highly stressful times, often buffering levels of distress and depression (Iso-Ahola & Park, 1996; Mueller, 1980; Olstad, Sexton, & Sogaard, 2001; Printz, Shermis, & Webb, 1999). Social support has been shown to have such a buffering effect on stress in

both males and females (Landman-Peeters et al., 2005), across age ranges (Angel et al., 1997; Guarnaccia & Hargett, 2004; Kilpatrick & Kerres, 2002; Weinstein et al., 2006), and cross-culturally (Coreil & Mayard, 2006; Okabayashi et al., 2004; Pines & Zaidmain, 2003; Sinha, Willson, & Watson, 2000; Stichick-Betancourt, 2005; Suhail & Chaudhry, 2004; Wong, Yoo, & Stewart, 2006). Research also suggests that higher levels of social support can reduce the symptoms of chronic illnesses (Bisschop et al., 2004; Corrigan & Phelan, 2004).

Main-Effect Model

Social support has also been found to increase the well-being of individuals regardless of stress levels. In a study of social support for adolescents, Kilpatrick and Kerres (2002) found that the more social support adolescents receive, the better their social skills, self-concept, and adaptive skills. Similarly, others have found the more supportive people find their relationships, the better their overall mental health (Lakey, Lutz, & Scoboria, 2004).

Social Support and Parenthood

A specific stressor for which the stress-buffering and main effects of social support have been found to play a role is the transition to parenthood. The birth of a child and the amount of change involved in transitioning to parenthood is inevitably stressful in the lives of family members (Miller & Sollie, 1980). Although the birth of a child is generally seen as positive, there are often stressful and somewhat negative life changes that accompany it, including greater financial expense, less time to self, changes in sleeping patterns, and possible job and income loss (Crnic et al., 1983).

Social support has been found to affect both parenting attitudes and behaviors during this stressful transition to parenthood. Research indicates that a parent's cognitive representation of supportive relationships, or the way in which the parent views and mentally frames these relationships (Pederson, Gleason, Moran, & Bento, 1998) as well as parents' self-representations, or the ways in which they view themselves, including their social roles, kinds of relationships, types of activities, and goals (Linville, 1987), are important in determining the quality of their interactions with their infant. Social support networks have been shown to affect parenting attitudes and behaviors such that different sources of support, such as friends or family, can influence a parent's attitude about his or her role as a parent and behavior towards his or her children (Bronfenbrenner & Crouter, 1983). Researchers also suggest that a parent's perceived availability of support is associated with his or her self-regulation of distress and parenting abilities (Priel & Besser, 2002). Although both paternal and maternal social support are important for the family relationship (Lamb, 2005), social support has been shown to be especially important for the transition to motherhood (Hun et al., 2002; Priel & Besser), as mothers tend to undertake more of the responsibility for domestic and child-care work (Crittenden, 2001; Douglas & Michaels, 2004) and their lives often change more dramatically than those of fathers (Romito et al., 1999). Belle (1991) reports that women, often the primary care-providers, with young children can be faced with many demands, and if they do not receive enough support so that they can reach those demands, mothers may become depressed and demoralized.

Mother-Infant Bonding

It should be clarified that mother-infant bonding or attachment is different from infant-mother attachment (Brockington, 1996). Mother-infant bonding examines the ideas and emotions aroused in the mother by the sight, sound, feel, and memory of her infant. Infant-mother attachment examines the interactions of the infant toward his or her caregiver and has been studied in detail using the Ainsworth Strange Situation test (Brockington). Bonding begins as the mother adjusts to pregnancy and develops a relationship with the fetus. This bond continues to develop after the birth of the child (Brockington).

Society generally expects mothers to bond with their infants (Brockington, 1996). Brockington describes the mother-infant bond:

> Its [the bond's] immense power is revealed in self-sacrifice, and in the pains of separation. . . .We can only infer the inward and invisible grace from the outward signs— touching and fondling, kissing and cuddling, prolonged gazing and smiling, baby talk and cooing, comforting, recognizing the cry and the smell, understanding the signals, tolerating torturing demands, and resisting separation. (p. 340)

Social Support and the Transition to Motherhood

Stress has a negative impact on maternal attitudes toward parenting as well as on mothers' abilities to recognize and respond to their infants' more "subtle behavior cues" (Crnic et al., 1983, p. 214). In their study of the effects of stress and various types of emotional social support on maternal attitudes and mother-infant behavior, Crnic et al. found that "infants whose mothers were under greater stress were less responsive and less

clear in the cues they provided, suggesting that a circular feedback loop may exist in such relationships" (p. 214). In these cases, stressed mothers had more negative feelings toward their infants, responded to them less, and in return, the infants gave more ambiguous cues, making it more difficult for mothers to accurately interpret the infants' needs. "Such mother-infant relational difficulties may add to the degree of stress experienced by the mother, further perpetuating the stress loop and perhaps generating greater relational difficulties given the cumulative effects of stress over a prolonged period" (Crnic et al., p. 215).

Social support helps new mothers cope with this challenging transition to motherhood (Kivijarvi et al., 2004; Priel & Besser, 2000; Stern, 1995). This transition is a period of time often characterized by increased challenges to the mother's affect regulation (Priel & Besser, 2002), as well as the challenge of forming a secure attachment with the newborn infant (Priel & Besser, 2000). Egeland and Farber (1984) point out that "a critical developmental issue in the first year of life is the formation of an affective bond, an attachment, between an infant and its mother" (p. 753).

Positive social support has been correlated with maternal competency behaviors, feelings of love towards the infant, and gratification in the maternal role (Crnic et al., 1983; Mercer et al., 1984). According to Priel & Besser (2002), "mothers' perceptions of caring relationships, and their perceptions of social support as available, are antecedents to maternal well-being and positive perceptions of the infant" (p. 354). Mothers who have more secure representations of themselves as mothers, demonstrated by their willingness and ability to provide safety and protection, a positive evaluation of abilities, and little confusion over care taking, tend to have more confidence in their parenting abilities and

develop more securely attached children (Egeland & Farber, 1984; George & Solomon, 1996).

The Multidimensionality of Social Support

Social support is not a unidimensional construct, and not all sources of support affect mothers the same way (Crnic et al., 1986). Also, when comparing sources of support and how they influence individuals, it is necessary to consider cultural differences that might affect the individuals receiving support. For example, when researching primary sources of support for new mothers in Korea, Hong Kong, and the United States, Hun et al. (2002) found that husbands provided the most support in Hong Kong and the United States, but mothers-in-law provided the most support in Korea, reflecting the different cultural emphases on marital and extended family relationships in these countries. Therefore, the findings from the research discussing the multidimensional effects of social support are not necessarily generalizable cross-culturally.

Researchers have examined how different sources of support affect mother-infant attachment. Crnic et al. (1986) found that mothers who reported lower levels of social support from an intimate partner, friends, and their community during the first month of their infant's life had infants with less secure attachments whereas mothers who reported satisfactory social support from these three sources had children who demonstrated more secure attachments. Although all three sources of support, intimate partner, friends, and community, were found to be influential on the mother-infant attachment relationship, intimate partner support was found to be the "most powerful predictor with the greatest breadth of effect across both mother and infant functioning" (Crnic et al., p. 29).

Community support was most related to mother and infant interactive behavior, and friendship support was related to infant development and competence (language and cognition). Such multidimensional effects of social support on mother-infant interactions and attachment have been pursued by several researchers.

Support from Friends and Community

Perceived social support specifically from other women during pregnancy tends to be associated with positive maternal attachment experiences, especially if the other women are also mothers (Huth-Bocks et al., 2004; Stern, 1995). Emotional support from a close and dependable source, often a close friend, has been found to be related to family well-being, child adjustment, and lower levels of maternal depression and other mental health problems (Kirk, 2002), whereas not having the support of a close friend has been strongly associated with higher levels of postnatal psychological distress in mothers (Romito et al., 1999). Kivijarvi et al. (2004) found that mothers who were more sensitive to their babies' needs and had fewer difficulties with their infants tended to be more supported by their best friends. In addition to seemingly influencing the mother's behaviors and maternal adjustment, friends and coworkers have been found to be important in "reestablishing the mother's self-esteem and identity independent of mothering" (Thompson, 1986, p. 1008).

Support from Intimate Partner

Investigating the role that social support from an intimate partner has on the mother's relationship with her infant risks the implication that such "support" is just that, additional assistance for a mother who is primarily responsible for the infant. hooks (2000) states, "women and society as a whole often consider the father [partner] who

does equal parenting unique and special rather than as representative of what should be the norm" (p. 138). Parenting is significant and valuable work and should be recognized as such for all adult caregivers. However, because mothers in heterosexual partnerships are typically the primary caregivers (Douglas & Michaels, 2004; hooks) and because the research literature to date frames (typically male) partner presence and parenting efforts as "support," findings are discussed here within this context.

Research has indicated that intimate partner support has positive effects on parenting, especially during the transition to parenthood (Bell et al., 1980; Thompson, 1986). The intimate partner relationship has been shown to be a major source of support for competent parenting (Belsky, 1981; Teti & Gelfand, 1991). Belsky suggests that this might be due to the proximity and immediate availability to the mother who, with a young infant, is less likely to spend much time in social activities and groups. In addition to increasing parental competency, intimate partner support has been shown to be helpful with the reduction of maternal anxiety. Rini et al. (2006) found that women who perceived more effective partner support reported less anxiety in mid-pregnancy and showed a reduction in anxiety from mid- to late pregnancy.

Intimate partner support has also been found to be influential on mothers' reported levels of life satisfaction, with higher levels of reported intimate partner support correlated with higher levels of reported life satisfaction (Crnic et al., 1983). However, the presence or absence of an intimate relationship, per se, was not significant. It was the *satisfaction* with the intimate relationship that made a difference in life satisfaction (Crnic et al., 1983; Jacobson & Frye, 1991). Romito et al.'s (1999) research finding that single mothers are less likely to suffer from postnatal depression than are mothers involved in a

difficult relationship lends support to the finding that mothers' satisfaction with intimate partner support is associated with their overall life satisfaction and psychological well-being.

Support from Family

Children and parents do best when help with parenting, often provided by family members, is readily accessible (Kirk, 2002). In her research, Kirk measured levels of informal support from family and friends as well as formal support from child care centers among young mothers with little access to financial resources and child care. She found that support from family and friends was more prevalent and wide ranging than professional support. Moreover, she found that after a year of increased social support network interventions, especially interventions by close family members, the participants' parenting stress was reduced and their well-being was improved. Family networks often provide important "safety nets" for young mothers (Parish et al., 1991, p. 203).

Mixed Effects of Social Support

Although social support has generally been shown to aid in the transition to motherhood, some research shows that supportive relationships can have adverse effects. Thompson (1986) found that support from friends, female siblings, and relatives was associated with higher levels of distress for new mothers. Thompson explained that the friends and relatives in his sample were young and inexperienced with childrearing, so they might have produced more work and stress for the young mother, whereas older, more experienced sources of support could potentially offer more help. Research on widowed and divorced women shows that family members can be very helpful with

parenting, but they are also found to be judgmental and expressive of feelings of disappointment (Gottlieb & Sylvestre, 1981).

Another potential source of support that can cause distress is an intimate relationship. Romito et al. (1999) found that relationship difficulties, which are often exacerbated by the mother having to give up highly valued employment or career prospects in order to take on the responsibility of domestic and child-care work, were the most significant factors contributing to mother's postnatal distress and depression. Gloger-Tippelt and Huerkamp (1998) explain that different-sex couples often experience difficulties when a new baby arrives because "gender roles become more traditional; the problems of sharing household chores and child care cannot be solved as satisfactorily as expected; and violations of expectations and feelings of disappointment may prevail" (p. 649).

Research Question and Hypotheses

Social support has been shown to affect the mother-infant bonding relationship (Anisfeld & Lipper, 1983; Crnic et al., 1986; Priel & Besser, 2002), how mothers perceive the role of motherhood (Bronfenbrenner & Crouter, 1983; Crnic et al., 1983; Egeland & Farber, 1984; Mercer et al., 1984), and mothers' feelings about their abilities to fulfill their mothering roles successfully (Miller & Underwood, 2006; Romito et al., 1999). There are several researchers who have examined the general effects of social support on different populations (Iso-Ahola & Park, 1996; Landman-Peeters et al., 2005; Mueller, 1980; Olstad et al., 2001; Printz et al., 1999; Weinstein et al., 2006). Researchers have also studied how social support in general affects infant attachment (Crockenberg, 1981), how social support specifically changes the mother's sensitivity

and behavior towards the infant (Kivijarvi et al., 2004; Pederson et al., 1998), and how social support affects parenting, including maternal attitudes (Crnic et al., 1983; Priel & Besser, 2002). Others have explored the separate influences of intimate partner support (Egeland & Farber; Gloger-Tippelt & Huerkamp, 1998; Rini et al., 2006; Shrout, 2006), family support (Florsheim, Tolan, & Gorman-Smith, 1998; Kirk, 2002; Lakey & Dickinson, 1994; Parish et al., 1991), and friend support (Huth-Bocks et al., 2004; Stern, 1995) on infant attachment, finding that all sources are important for the infant's attachment security. However, no research has explored these three sources of perceived social support in conjunction with one another to assess their relationship with the mother-infant bond. It is unknown, then, which of these sources of perceived social support is the most significant for the mother in her bond with her infant.

Researchers who have examined the relationship between maternal social support and infant attachment (Crnic et al., 1986; Crockenberg, 1981; Jacobson & Frye, 1991) have mostly assessed infant temperament using Ainsworth's Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978). In such cases, infant attachment is based on observed patterns of infant behavior towards the caregiver, most often the mother. Infants are classified into one of the following attachment categories: secure, insecure-avoidant, insecure-ambivalent, disorganized-disoriented, or unclassifiable. Measuring infant attachment in this way does not provide information regarding the mother's perceptions of the mother-infant bond. The infant's behaviors, cognitive functioning, and temperament are observed and measured (Crnic et al.; Jacobson & Frye), but the mother's self-reports and feelings about the relationship with her infant are often not included.

What is missing from this discussion regarding the influences of social support on the mother-infant bond is a consideration of the relationship among mothers' perceived friend, family, and intimate partner support and those mothers' perceptions of the mother-infant bonding relationship. Thompson (1986) examined the relationships among these three sources of social support (friend, family, and intimate partner) and the mother's general psychological well-being, finding that male intimate partner support was the only source of support associated with lower levels of distress in these young mothers. Past research indicates that intimate partner support has the greatest influence on maternal well-being and parenting attitudes (Crnic et al., 1983; Thompson). Also, satisfaction with intimate partner support is associated with infant attachment security, as measured by the Ainsworth Strange Situation (Crnic et al., 1986; Jacobson & Frye, 1991). However, mothers' perceptions of social support from friends, family, and intimate partner have not been measured in relation to mothers' perceptions of the bond shared with their infants.

The current study examined the differential influences of three different sources of perceived social support on the mother's perception of the mother-infant bond. The research questions were:

1. Does social support relate to mothers' perceptions of their bonds with their infants?
2. Which source of social support relates most significantly to the mother-infant bond?

In the current study, it was hypothesized that the three sources of support, significant other, family, and friend, together would negatively relate to maternal general impaired bonding, anger and rejection, and anxiety. Partner support has been found to be

the most significant predictor of maternal well-being (Crnic et al., 1983). Also, partner support, when considered independently of other sources of support, is significant in predicting infant-attachment security (Crnic et al., 1986; Jacobson & Frye, 1991; Thompson, 1986). Given these findings, it was hypothesized that, of the three sources of perceived social support being assessed, significant other support would be the most significant predictor of the three dimensions (impaired bonding, rejection and anger, anxiety about care of the baby) of the perceived mother-infant bond (Hun et al., 2002).

Chapter 3

METHOD

To answer the research questions, a quantitative methodology was utilized whereby participants completed a questionnaire with two instruments, and separate multiple regressions were conducted to determine the amount of variance accounted for by three sources of social support (friend, significant other, family) on three dimensions (impaired bonding or general, rejection and anger, and anxiety) of mother-infant bonding.

Participants

Participants included a minimum of 60 adult women who resided in the United States and had become new mothers, either by giving birth or through adoption, within the past year. Adoptive mothers must have adopted infants who were less than one year old. Participants determined their eligibility for this study after reading the informed consent, where eligibility requirements were clearly stated. Because the questionnaires were administered via the Internet, postings on women's chat rooms, mother chat rooms, and discussion forums were utilized to access potential participants.

Data collection was reviewed on a monthly basis after the questionnaire became accessible to potential participants on the Internet. At the time of review, if a minimum of

60 participants had not completed the questionnaire, new postings were made on women's chat rooms and discussion boards.

Instruments

Demographic Questionnaire

Participants completed a brief demographic questionnaire in which they were asked their age and relationship status (single, partnered, separated/divorced/widowed) at the birth of their baby, their current age and relationship status (single, partnered, separated/divorced/widowed), the length of their current relationship, their current living arrangements (with a family member, on own, with partner, with friend, other), their ethnicity (Asian/Pacific Islander, African American/Black, Latina/Hispanic, Native American/Alaskan Native, European American/White, Bi/multiracial, Other), their sexual orientation (rated on a 7-point scale, with 1 being exclusively heterosexual, 4 being bisexual, and 7 being lesbian), their highest educational level (9, 10, 11, 12, some college, associate's degree, bachelor's degree, some graduate school, graduate degree), and their employment status (do not work outside home, student, part-time, full-time) (see Appendix A for demographic questionnaire).

Multidimensional Scale of Perceived Social Support (1988)

A slightly modified version (with the language changed from present tense to past tense) of the Multidimensional Scale of Perceived Social Support (MSPSS) was used (Zimet, Dahlem, Zimet, & Farley, 1988). Permission to use and modify the scale was obtained from the authors. The MSPSS is a 12-question, 7-point Likert measure of perceived social support that yielded a total perceived social support score as well as three subscales that assessed perceived social support from family, friends, and

significant other (see Appendix B for the MSPSS). This measure assessed participants' perceived levels of social support, as researchers suggest that perceived social support is a better predictor than objective measures of social support (Barrera, 1986; Sarason, Sarason, Potter, & Antoni, 1985).

Several researchers (Canty-Mitchell & Zimet, 2000; Cecil, Stanley, Carrion, & Swann, 1995; Clara, Cox, Enns, Murray, & Torgrude, 2003) have tested the psychometric properties of the MSPSS using various populations and have found confirmatory evidence supporting its reliability and validity. "Good internal reliability has been demonstrated with pregnant women, adolescents living abroad, and pediatric residents, as well as the original sample of university undergraduates," (Zimet, Powell, Farley, Werkman, & Berkoff, 1990, p. 615). Zimet et al. (1988) found the internal reliability of the total scale to be .88 using Cronbach's coefficient alpha measure of internal reliability. The specific values for the Significant Other, Family, and Friends subscales were .91, .87, and .85, respectively (Zimet et al., 1988). The test-retest reliability for the total scale was .85, and the values for the Significant Other, Family, and Friends subscales were .72, .85, and .75, respectively (Zimet et al., 1988). These reliability coefficients indicate that the MSPSS and its subscales provide reliable scores. Construct validity was demonstrated by significant correlations in the expected direction between the subscales and measures of depression and anxiety. Perceived support from family was significantly inversely related to both depression, $r = -.24$, and anxiety, $r = -.18$. Perceived support from friends was related to depression symptoms, $r = -.24$, but not to anxiety. The significant other subscale was significantly negatively related to depression, $r = -.13$, as was the scale as a whole, $r = -.25$ (Zimet et al., 1988).

Post Partum Bonding Questionnaire (2001)

The Post Partum Bonding Questionnaire (PBQ) is a 25-question, Likert-type measure consisting of four scales: impaired bonding (12 items), rejection and anger (7 items), anxiety (4 items), and incipient abuse (2 items) (Brockington et al., 2001) (see Appendix C for PBQ). In the current study, only impaired bonding (general), rejection and anger, and anxiety scales were used. Lower scores on these scales indicated a more positive bonding experience while higher scores indicated possible problems in the mother-infant bonding relationship.

Such a measurement of the mother-infant bond is different from previous measures of infant attachment, as the measure is based on self-report data from mothers instead of observed infant behavior (Crnic et al., 1986; Jacobson & Frye, 1991). Also, the scores obtained from the scales allow for the possibility of determining specific problem areas for the mother's bond with her infant, as perceived by the mother (Brockington et al., 2001). The PBQ was developed using "normal" mothers, depressed mothers with a normal mother-infant relationship, and mothers with bonding disorders (Brockington et al.).

In developing the instrument (Brockington et al., 2001), a principal components analysis of 84 items resulted in 25 items that loaded on five factors (each explaining at least 3.4% or more of the variance), four of which were deemed to be related to disorders of the mother-infant bond. The general impaired bonding factor explained 34% of the variance. The rejection and anger factor explained 8% of the variance. The third factor, which indicated mother's perceptions of positive regard from her infant, explained 6% of the variance, and was not included in the final instrument, as it seemed to not be related

to bonding per se. The anxiety about care of the baby factor explained 3.7% of the variance. The risk for abuse factor explained 3.4% of the variance. Additionally, construct validity was corroborated by correlations in the expected direction with diagnostic categories of the mothers. Specifically, two of the authors utilized the Birmingham Interview for Maternal Mental Health (Brockington, 1996) to determine the health of the mother-infant relationship, resulting in discrete diagnostic categories. Results indicated that depressed mothers with no evidence of impaired bonding and non-depressed mothers scored below the cut-off point on all four scales, mothers with mild bonding disorders scored above the cut-off point on the general impaired bonding scale and below the cut-off on the rejection and anger scale, and those with severe bonding disorders scored above the cut-off on all except the risk for abuse scale. When testing short-term (one hour) test-retest reliability of the PBQ, Pearson's product moment correlation coefficients for the four scales were .95, .95, .93, and .77 respectively (Brockington et al., 2001).

Procedure

Data were collected by distributing an advertisement for the study entitled Social Support and Mother-Infant Bonding. Participants provided informed consent after reading and agreeing to participate in the study by clicking the "I agree" button on the first web page of the study website (see Appendix D for informed consent). All questionnaires were completed and submitted via the Internet. The entire process was expected to take no more than 20 minutes.

To access more geographically diverse participants, allowing for greater generalizability, data were collected via the Internet using Web Forms software provided

by a medium sized Midwestern university. Researchers using Internet surveys have found that both reliable and valid data has been produced using Internet research (Goslings, Vazire, Srivastava, & John, 2004; Kraut et al., 2004). All Web Form data are stored in SQL Server 2000 or MSDE 2000 with no way to directly access the data from the Web (Indiana State University, n.d.). All data are encrypted on the user's browser before being sent to the server, and then they are decrypted on the server before being used (Indiana State University), thereby maintaining complete confidentiality of participants.

Analyses

Three separate multiple regression analyses, each using an alpha level of .01, were conducted. The three subscales of the MSPSS (family, friends, significant other) served as the predictor variables in each regression. Each regression analysis used one of the PBQ scales (general impaired bonding, rejection and anger, and anxiety) as its dependent, or criterion, variable. The objective was to determine the amount of variance accounted for by these three sources of social support in mothers' bonding with their infants. All three sources of support were expected to relate significantly to maternal perceptions of the mother-infant bond. It was hypothesized that significant other support would be the most significant predictor of the mother-infant bond, with greater support from significant other relating to a more positive bond.

Chapter 4

RESULTS

Participants

A total of 81 new mothers completed the demographic questionnaire, the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988), and the Parental Bonding Questionnaire (Brockington et al., 2001). Participants averaged 24.9 years in age (range = 18-46, *SD* = 5.54). The participants' self-reported races/ethnicities were as follows: 76.5% European/White, 4.9% Asian, 6.2% African American/Black, 3.7% Hispanic/Latina, 2.5% Native American, and 6.2% Bi/Multiracial. Nearly 83% of the participants had completed high school, with 63.9% having at least some college education. Approximately 30% possessed a bachelor's degree or higher. The employment status for this sample indicated that 28.2% of the mothers did not work outside the home, 6.4% were students, 15.4% worked part-time, and 50% worked full-time. Responses regarding current relationship status indicated that 22.2% were single, 72.8% were partnered, and 4.9% were separated/divorced/widowed. Additionally, responses regarding sexual orientation indicated that 85.2% of the sample reported their sexual orientation as exclusively heterosexual, 2.5% reported an exclusively lesbian sexual

orientation, and 12.3% indicated their sexual orientation as falling along the continuum somewhere between being exclusively heterosexual and exclusively lesbian.

Subscale Reliabilities

Internal reliabilities for each of the measures used in this study were high. Cronbach's alpha coefficients for the MSPSS significant other, family, and friends subscales were .98, .96, and .97 respectively. Cronbach's alpha coefficients for the PBQ general impaired bonding, rejection and anger, and anxiety subscales were .93, .92, and .82 respectively. The significant other and friend subscales of the MSPSS were found to be moderately correlated, $r = .53$. The family subscale was correlated with the significant other and friend subscales with correlations of .57 and .64 respectively. The subscales of the PBQ were intercorrelated as well. The general bonding subscale was found to be correlated with the anger subscale, $r = .95$, and with the anxiety subscale, $r = .91$. The anger and anxiety subscales were also found to be highly correlated with each other, $r = .80$.

Regression Analyses

Three multiple regressions were used to determine the most significant social support predictors of mothers' bonding with their infants. The independent variables included social support from significant other, social support from family, and social support from friends. The means, standard deviations, and correlations among all the variables are given in Table 1.

Table 1

Correlations, Means, and Standard Deviations for Social Support and Impaired Bonding ($N = 77$)

Variable	I	II	III	IV	V	VI
I. Social support- sign. other	-					
II. Social support family	.57*	-				
III. Social support friend	.53*	.64*	-			
IV. Bonding general	-.38*	-.42*	-.28	-		
V. Bonding anger	-.36*	-.43*	-.26	.95*	-	
VI. Bonding anxiety	-.38*	-.43*	-.34*	.91*	.88*	-
Means	5.49	5.42	5.19	.82	.83	1.01
Standard Deviations	1.82	1.65	1.58	.91	.99	.95

* $p < .01$

In the first multiple regression, the dependent variable was general impaired bonding. The three independent variables were entered into the equation simultaneously using an alpha level of .01 to avoid Type I error. The overall model was significant, $F(3, 73) = 6.390$, $p = .001$, with a medium effect size (Cohen's $f^2 = .26$). The regression results indicated that the set of independent variables explained 20.8% of the variance in general impaired bonding. However, within the model, none of the individual independent variables were significantly related to the dependent variable (see Table 2).

Table 2

Model Summary: Simultaneous Regression of Social Support Subscales and General Impaired Bonding

Independent Variables	*b*	*β*	*t*	*p*
Social Support Significant other	-.10	-.20	-1.48	.14
Social Support Family	-.19	-.35	-2.33	.02
Social Support Friend	.03	.06	.39	.70

$p < .01$

The second multiple regression compared the independent variables of significant other social support, family social support, and friend social support to the dependent variable of rejection and anger. The three independent variables were again entered into the equation simultaneously using an alpha level of .01, and the overall model was significant, $F(3, 66) = 6.297$, $p = .001$, with a medium effect size using Cohen's f squared (Cohen's $f^2 = .29$). Together, the independent variables explained 22.3% of the variance in anger and rejection. Within the model, family support was the only predictor variable that significantly related ($p = .008$) to rejection and anger toward the infant (see Table 3).

Table 3

Model Summary: Simultaneous Regression of Social Support Subscales and Bonding Rejection and Anger

Independent Variables	*b*	*β*	*t*	*p*
Social Support Significant other	-.09	-.17	-1.20	.23
Social Support Family	-.25	-.43	-2.72	.01*
Social Support Friend	.07	.09	.74	.46

* $p < .01$

The final multiple regression compared the independent variables of significant other social support, family social support, and friend social support to the dependent variable of anxiety. The three independent variables were entered into the regression simultaneously using an alpha level of .01. The overall model was significant, $F(3, 70) = 6.501, p = .001$, with a medium effect size (Cohen's $f^2 = .28$). The independent variables together explained 21.8% of the variance in anxiety. Within the model, none of the independent variables were significantly related to the dependent variable (see Table 4).

Table 4

Model Summary: Simultaneous Regression of Social Support Subscales and Bonding Anxiety

Independent Variables	*b*	*β*	*t*	*p*
Social Support Significant other	-.07	-.14	-1.01	.31
Social Support Family	-.20	-.35	-2.29	.03
Social Support Friend	-.02	-.04	-.27	.79

$p < .01$

Chapter 5

DISCUSSION

Social support helps new mothers cope with the challenging transition to motherhood (Kivijarvi et al., 2004; Priel & Besser, 2000; Stern, 1995). Positive social support has been correlated with maternal competency behaviors, feelings of love toward the infant, and gratification in the maternal role (Crnic et al., 1983; Mercer et al., 1984). Mothers who have more secure representations of themselves as mothers tend to have more confidence in their parenting abilities and develop more securely attached children (Egeland & Farber, 1984; George & Solomon, 1996). Also, social support has been related to higher levels of maternal sensitivity and care for the infant, allowing for a more secure and healthy attachment between the infant and mother (Crnic et al., 1983).

To further explore the relationship of social support and mother-infant well-being, the current study explored three sources of perceived social support in conjunction with one another to assess the unique contributions each made in the variance of the mother-infant bond. This study is the first to examine how significant other, family, and friend support relate to maternal perceptions of general impaired bonding, anger and rejection, and anxiety toward the infant. Researchers who have examined the relationship between maternal social support and infant attachment (Crnic et al., 1986; Crockenberg, 1981;

Jacobson & Frye, 1991) have mostly assessed infant attachment using Ainsworth's Strange Situation (Ainsworth et al., 1978). Infant attachment is based on observed patterns of infant behavior towards the caregiver, most often the mother. The infant's behaviors, cognitive functioning, and temperament are observed and measured (Crnic et al, 1986; Jacobson & Frye, 1991). Measuring infant attachment in this way does not provide information regarding the mother's perceptions of the mother-infant bond. Measuring the mother's perceptions is important because the mother's perceptions of her bond with her infant seem to play a major role in her abilities to cope with the transition to motherhood and care for her infant. The mother's perceived bond with her infant "enables her to make the sacrifices necessary to care for the infant day and night. Loving the baby is the dynamo which empowers her to maintain the never-ending vigilance, and sustain the exhausting toil of protection and nurture of the new-born," (Brockington, 1996, p. 328). If a mother perceives that she is unable to care for her baby, is incompetent as a parent, or that she cannot successfully fulfill the role of a mother, she may become anxious, depressed, or demoralized (Belle, 1991; Brockington). This study explored the bonding relationship from the mother's perspective by examining her thoughts and perceptions regarding her bonding experiences with her infant.

In response to the first research question, does social support relate to mothers' perceptions of their bonds with their infants, the findings indicate that social support does relate to mothers' perceptions of the mother-infant bond. As hypothesized, social support was found to relate to mothers' perceptions of bonding experiences. The three sources of social support together negatively related to problems in the mother-infant bond. The results of this study complement those of similar past research (Crnic et al., 1986;

Thompson, 1986; Priel & Besser, 2001) that have suggested that mothers' perceptions of social support are significantly related to the infant-mother attachment. The results of this study show that mothers' perceptions of social support also significantly relate to mothers' perceived bonding experiences with their infants. The mothers with higher levels of perceived social support perceived less problematic relationships with their infants.

The second research question asked which source of social support relates most significantly to the mother-infant bond. Familial social support was the only source of social support in this model that uniquely contributed to the variance in mothers' perceptions of anger and rejection toward their infants. As expected, those who reported higher levels of familial social support reported lower levels of anger and rejection toward their new infants. The hypothesis that significant other support would be the most significant social support predictor of the three dimensions (impaired bonding, rejection and anger, anxiety about care of the baby) of the perceived mother-infant bond was not supported.

The finding that familial social support related negatively to maternal anger and rejection is not surprising. Kirk (2002) found that interventions by close family members reduced maternal stress and increased mothers' overall well-being and functioning. More stressed mothers have been shown to have more negative feelings toward their infants and respond to them less (Crnic et al., 1983). Therefore, if family networks provide important "safety nets" for mothers (Parish et al., 1991, p. 203) and improve mothers' overall well-being by reducing stress and anxiety, it makes sense that family support for mothers related negatively to feelings of anger and rejection toward their infants.

Additionally, mothers' own representations of early childhood attachment with family members have been found to influence mothers' attachment experiences with their own infants (George & Solomon, 1996). Evidently, the family environment is important for future developing relationships, including those between mothers and their new infants.

Previous researchers have suggested that the support a mother receives from her significant other is the most important factor for infant-mother attachment security, which is operationalized as the infant's emotional response to his or her mother (Belsky, 1981; Crnic et al., 1986; Hun et al., 2002). Additionally, satisfaction with significant other support has been shown to relate positively to parental competency behaviors (Belsky), the reduction of maternal anxiety (Rini et al., 2006), and increased levels of maternal life satisfaction (Crnic et al., 1983). However, in the current study, significant other support did not uniquely relate to mothers' perceptions regarding their bonding experiences. It seems possible that partnered mothers considered their significant other as part of their family, and upon reporting their perceived support from these sources, grouped the two categories together. Though this is possible, the MSPSS has been found to produce both reliable and valid results (Canty-Mitchell & Zimet, 2000; Cecil et al., 1995; Clara et al., 2003) for each of its subscales. In addition, 81.5% of mothers in this sample reported being partnered at the time of their infants' births. However, 40.8% reported living with their parents, family members, or on their own, and almost half the sample reported not living with their partner at the time of their infants' births. For these mothers, perhaps family members were more proximal and able to provide more social support than a significant other; as such, the support received from those in the mother's immediate environment might be more important in her bonding experience with her infant. This

finding complements that of Belsky who suggested that mothers receive support from more proximal and immediate sources, and for this sample of mothers, support from a significant other might not have been as salient as other sources of support, particularly familial support. Because participants were asked to indicate whether they were partnered rather than married, it is unknown whether the status of marriage would affect perceptions of significant other support. It also cannot be determined whether the marital status would have related to the living arrangements of the participants.

The findings from this study clearly indicate that more support from a mother's family relates to lower levels of anger and rejection toward the mother's infant. However, it is unclear whether this significant negative relationship between family social support and maternal anger and rejection is a direct relationship or if family support moderates levels of distress, leading to a reduction in anger and rejection toward the infant. This relationship should be clarified in future research.

The sample in the current study consisted mostly of Caucasian, heterosexual, partnered, educated mothers. Approximately 23% of the sample self-identified as ethnic minorities, which is less representative of ethnic minorities than in the overall population of women in the United States, which is reported to be comprised of approximately 36% ethnic minority women and 64% Caucasian women (Women's Health USA, 2006). Also, 2.5% of the mothers in this sample identified as lesbian. Because much of the literature involving mother-infant relationships has included mostly married or heterosexual women (Anisfeld & Lipper, 1983; Crnic et al., 1983; Crnic et al., 1986; Thompson, 2001), the results of this study might be more representative of the overall population of mothers. Additionally, instead of using objective measures of social support, mothers'

perceptions of social support were gathered in this study. Researchers have demonstrated that perceptions of social support are better predictors than objective measures of social support (Barrera, 1986; Sarason et al., 1985).

There are several limitations in this study. As is true of all self-report measures, the measures in this study are subject to reporter biases and social desirability effects. This might be especially true of mothers' self-reports regarding their bonding experiences because mothers are expected to have pleasurable and positive bonding experiences with their infants (Douglas & Michaels, 2004; hooks, 2000). Future studies might use a measure to control for social desirability effects. Additionally, the majority of participants in this study were Caucasian. Future research should look at a more diverse sample of mothers, to allow for the consideration of age, ethnicity, socio-economic status, and sexual orientation in mothers' perceptions of social support and mother-infant bonding, as each of these factors could affect the relationship between mothers' perceived social support and the ways a new mother views her bond with her infant. Because mothers are generally expected to be the caretakers of children (Douglas & Michaels, 2004), this study explored only mothers' perceptions of social support and bonding. However, fathers' perceptions and experiences during the transition to parenthood are not well documented. It is important for future research to consider the perceptions of fathers as well as mothers during this time of change in the family system.

In sum, the results of this study are supportive of previous research (Crnic et al., 1983, Crnic et al., 1986, Thompson, 2001) in as much as social support significantly related to mother-infant relationship outcomes. This study is unique in that it measured maternal perceptions of both their social support from friends, family, and a significant

other as well as their bond with their infants. Mother-infant bonding experiences are different from infant-mother attachment. Mother-infant bonding involves the ideas and emotions a mother has regarding her infant whereas infant-mother attachment entails the interactions of the infant with his or her caregiver (Brockington, 1996). This study adds to the literature by demonstrating that mothers' perceptions of their social support from friends, family, and a significant other do relate to mothers' perceptions and representations of their bonding experiences with their infants. Additionally, familial support was uniquely related to maternal anger and rejection of the infant.

If social support from a mother's environment relates to her perceived relationship with her infant, it seems important to increase the positive social support from those closest to the mother during the transition to motherhood. The results of this study indicate that family support might be especially important for helping new mothers develop more positive relationships with their infants by specifically lowering levels of anger and rejection in the mother-infant relationship. Determining whether more family support and lower levels of anger and rejection are both influenced by other factors, whether family support directly leads to lower levels of anger and rejection, or whether family support moderates levels of distress, leading to lower levels of anger and rejection were beyond the scope of this study. However, it seems that the support from others can influence the ever-developing bond between a mother and her infant. Not only do early interactions with her family seem to influence a mother's perceptions of her infant (George & Solomon, 1996), it seems that interactions with sources of support throughout her pregnancy and early in her new role as a mother relate significantly to a mother's perceptions of her bond with her infant. With this in mind, it becomes evident that the

mother-infant bond neither begins nor ends with the interaction between the mother and child. Rather, all those involved in a mother's life serve as influences on and therefore share responsibility for this important bonding relationship.

Considering this web of influence, advocating for increased family and community involvement during the transition to parenthood becomes especially important for counselors, educators, health care providers, childcare specialists, and all others involved in providing services to family systems. It seems important to extinguish the idea that the responsibility for a new infant's well-being as well as the mother-infant bond are solely the mothers' (Lamb, 2005). Community service professionals can help reduce maternal stress and improve maternal well-being, thereby improving their abilities to care for their infants, by helping to extend and develop social support networks for mothers (Kirk, 2002). Because increased social support relates positively to maternal and infant well-being, future research on how to increase family and community involvement during the transition to parenthood, including via child care centers, government programs, counseling services, and advocacy programs for new parents in the United States is much needed. Lastly, because perceived maternal social support relates to the perceived mother-infant bond, helping new mothers recognize and utilize these support networks becomes important for increasing the welfare of mothers and their infants.

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APPENDIXES

APPENDIX A

Demographic Questionnaire

1. What was your age at the time of your first child's birth? _____

2. What is your race/ethnicity? (Check one)

Asian/Pacific Islander	European American/White
African American/Black	Bi/Multiracial
Latina/Hispanic	Other (please specify)
Native American/Alaskan Native	

3. What is the highest level of education you have completed?

9th grade	associate's degree
10th grade	bachelor's degree
11th grade	some graduate school
12th grade	graduate degree
some college	

4. What is your current employment status? (Check as many as applicable)

Do not work outside the home
Student
Part-time
Full-time

5. On a scale of 1-7, with 1 being exclusively heterosexual, 4 being bisexual, and 7 being exclusively lesbian, where would you place your sexual identity?

1 2 3 4 5 6 7

6. What is your current relationship status?

single
partnered
separated/divorced/widowed

7. What was your relationship status at the time of your first child's birth?

single
partnered
separated/divorced/widowed

8. How long have you been in your current relationship?

9. Where did you live at the time of your first child's birth?
   - in parent's home
   - on your own
   - with partner
   - with friends or other family members
   - with roommate
   - other

10. With whom do you currently live?
   - in parent's home
   - on your own
   - with partner
   - with friends or other family members
   - with roommate
   - other

APPENDIX B

Multidimensional Scale of Perceived Social Support

Instructions: We are interested in how you felt **during the time you became a mother**. Read each statement carefully. Indicate how you felt about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

1. There was a special person who was around when I was in need.

   1 2 3 4 5 6 7

2. There was a special person with whom I could share joys and sorrows.

   1 2 3 4 5 6 7

3. My family really tried to help me.

   1 2 3 4 5 6 7

4. I got the emotional help & support I needed from my family.

   1 2 3 4 5 6 7

5. I had a special person who was a real source of comfort to me.

   1 2 3 4 5 6 7

6. My friends really tried to help me.

   1 2 3 4 5 6 7

7. I could count on my friends when things went wrong.

   1 2 3 4 5 6 7

8. I could talk about my problems with my family.

   1 2 3 4 5 6 7

9. I had friends with whom I could share my joys and sorrows.

1 2 3 4 5 6 7

10. There was a special person in my life who cared about my feelings.

1 2 3 4 5 6 7

11. My family was willing to help me make decisions.

1 2 3 4 5 6 7

12. I could talk about my problems with my friends.

1 2 3 4 5 6 7

APPENDIX C

Post Partum Bonding Questionnaire

Please indicate how often the following are true for you.
There are no 'right' or 'wrong' answers. Choose the answer which seems right in your recent experience.

	Always	Very often	Quite often	Some-times	Rarely	Never
I feel close to my baby						
I wish the old days when I had no baby would come back						
I feel distant from my baby						
I love to cuddle my baby						
I regret having this baby						
The baby does not seem to be mine						
My baby winds me up						
I love my baby to bits						
I feel happy when my baby smiles or laughs						
My baby irritates me I enjoy playing with my baby						
My baby cries too much						
I feel trapped as a mother						
I feel angry with my baby						
I resent my baby						
My baby is the most beautiful baby in the world						
I wish my baby would some how go away						
I have done harmful things to my baby						
My baby makes me feel anxious						
I am afraid of my baby						
My baby annoys me						
I feel confident when caring for my baby						
I feel the only solution is for someone else to look after my baby						
I feel like hurting my baby						
My baby is easily comforted						

APPENDIX D

Consent Form

My name is Stephanie Schwing, and I am a master's student in the Mental Health Counseling program at Indiana State University. My work is supervised by Dr. Julie Shulman. I am inviting you to participate in a web-based study on social support and mother-infant bonding. This research is part of my master's thesis and may help us to better understand the different influences of specific sources of social support on the mother-infant relationship. This study is open to all women in the United States over the age of 18 who have become a new mother, either by giving birth or through adoption, within the last year. If you agree to participate, you will be asked to complete an on-line survey, consisting of several questions about social support and your bond with your infant. The time commitment for completion of this study is approximately 20 minutes.

If any emotional concerns arise for you personally, please feel free to contact the investigator who can make referrals to appropriate sources of support if needed; however, there is likely to be minimal risk to participation. Possible benefits for you as a participant include the opportunity to state who has supported you during this transition to motherhood, how such support has influenced your relationship with your infant, and how the support or lack of support you received influenced your feelings about becoming a mother. You will not be asked to answer any questions that make you uncomfortable. You may skip any questions that you choose not to answer. Your participation in this study is entirely voluntary and you can withdraw from the study at any time without penalty. If you withdraw, results from your participation will not be included in the research.

Procedures will be followed to protect the confidentiality of your responses. However, it should be noted that anonymity cannot be promised for Internet-based research. You will not be asked to submit anything to the researcher that includes your name. The information you provide to us will be used only for research. All information collected for this study will be kept confidential and will not be released to anyone for other purposes. After completing this study, there will be no future email contacts.

By clicking the "I Agree" button below to proceed with the survey, you are stating that you have read the above, you are over 18 years of age and a U.S. resident, and you wish to participate in study. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Institutional Review Board at Indiana State University at (812) 237-8217 or irb@indstate.edu. If you have any questions or concerns for myself or my supervisor, please do not hesitate to contact us.

Thank you for your time and consideration,

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