THE MODERATING ROLE OF EMOTIONAL CUSHIONING BETWEEN THE GRIEF INTENSITY OF PERINATAL LOSS AND RELATIONSHIP SATISFACTION AMONG WOMEN

by

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A Thesis

Submitted to the Faculty of Purdue University

In Partial Fulfillment of the Requirements for the degree of

Master of Science

Department of Behavioral Sciences

Hammond, Indiana

May 2019

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My intention is to de-stigmatize and de-silence the impact of experiencing pregnancy loss for women, couples, and families. Women's heartbreaking and beautiful stories deserve to be heard. This is dedicated to all women who have experienced loss; you are all in my heart.

Auntie, this is especially for you, our Angel Baby, and our beautiful Rainbow Baby, Raelyn Cayce.

ACKNOWLEDGEMENTS

I would first like to acknowledge and thank my committee members Anne Edwards, Megan Murphy, Denise Côté-Arsenault, and Amy Claridge. Anne and Megan, thank you for your patience and encouragement while guiding me through this entire process. Denise, without your passion and research this would not have been possible. Thank you for giving such an important aspect of women's capabilities a voice and for supporting me in my research about a passion we share. Amy, thank you for your constant inspiration ever since undergrad. Your example solidified my dream of wanting to become a marriage and family therapist. I also would never have dreamt of applying to this program without your encouragement and support.

To Seda Gulvas and Angie Cerniglia – two mentors and women who have tremendously contributed to not only my professional growth, but also my growth as an individual. Seda, you helped guide me through developing love and patience for myself that I never knew could exist. Angie, you encouraged me to challenge and accept myself, to evolve by exploring and connecting with my strengths, and ultimately to selflessly put myself first. Thank you for being strong, confident, empowering women to look up to and admire.

I would like to express my appreciation and love for my cohort members; thank you for becoming my family. Your authentic love, support, humor, and friendship has given me a home away from home and I could not be more blessed to have each one of you in my life. Mackenzie, thank you for being willing to live, eat, breathe, laugh, cry, nap, and drink wine with a complete stranger. I honestly do not think I could have survived this program without you – everything you have done means the world to me.

I would especially like to acknowledge and express all my love and thanks to my family and closest loves: Mom, Liv, Jake, Grammy, Papa, Gbud, Papa Tom, Natalie, Allison, and Matt. Most importantly, thank you for your unwavering support, love, and belief in me, Mama; all my strength comes from you. I admire you and find so much inspiration within all the things our family has been through, and how you are able to continue supporting and loving us the way you do. Finally, this is for you Daddy. You left this world far too soon and I miss you everyday. Thank you always for being my number one supporter, the one who believed I could be anything, and for teaching me to love fiercely and wholeheartedly.

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ABSTRACT

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Degree Received: May 2019
Title: The Moderating Role of Emotional Cushioning Between the Grief Intensity of Perinatal Loss and Relationship Satisfaction Among Women
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The current research study aimed to determine how emotional cushioning buffered the relationship between grief intensity related to experiencing perinatal loss and relationship satisfaction among women who have experienced pregnancy after loss. There is currently little research that examines the relationship between emotional cushioning, grief intensity relating to perinatal loss, and women's interpersonal relationships. It was hypothesized that higher levels of grief intensity related to perinatal loss would be negatively associated with relationship satisfaction among women who have experienced a subsequent pregnancy after loss. Additionally, it was hypothesized that higher levels of emotional cushioning would lessen the negative relationship between grief intensity of perinatal loss and relationship satisfaction among women who have experienced a subsequent pregnancy after loss. Through the use of a hierarchical linear regression, it was determined that grief intensity was not significantly associated with relationship satisfaction and that emotional cushioning did not serve as a buffer in the relationship between grief intensity and relationship satisfaction. However, a significant correlation was found between emotional cushioning and relationship satisfaction. The results of this study can help contribute to the literature in systemic approaches to experiences with emotional cushioning, perinatal loss, subsequent pregnancies, and relationship satisfaction.

CHAPTER 1: INTRODUCTION

Statement of the Problem

An estimated one million perinatal losses (death of an infant due to miscarriage, stillbirth, or neonatal death) occur each year in the United States (Kersting & Wagner, 2012; Mac Dorman & Gregory, 2015). Of these losses, fetal mortality, or death prior to birth contributes to between 40% and 60% of all perinatal losses (Barfield, 2016). Perinatal loss can be an incredibly difficult and traumatic experience for parents. The grief intensity of perinatal loss may have a variety of adverse psychological and physical consequences for parents and can result in increases in relational distress and conflict (Hutti, Armstrong, Myers, & Hall, 2014).

Research indicates that parents who have experienced perinatal loss often experience mourning, symptoms of grief (Bennett, Litz, Maguen, & Ehrenreich, 2008), and somatic symptoms that can include variances in appetite, difficulty sleeping, onset of headaches, and feeling dizzy (Murphy, Shevlin, & Elklit, 2014). These parents can also experience symptoms of post-traumatic stress, depression, heightened anxiety, and an increase in somatization and obsessive-compulsive behaviors (Murphy et al., 2014) as well as irritability and longing for the lost baby (Krosch & Shakespeare-Finch, 2017). Researchers have found that individuals who experience post-traumatic stress after perinatal loss may be at risk for suicidal ideation, heart attack, illness, and possible death (Prigerson et al., 1999).

The couple relationship is also at risk for potential negative effects associated with experiences of perinatal loss (Gold, Sen, & Hayward, 2010). Couples who experience perinatal loss can experience higher levels of relational conflict and greater relational distress in intimate relationships (Hutti et al., 2014). Gold et al. (2010) also found that couples are at an increased risk of ending their relationship after experiencing a perinatal loss compared to couples who experience a live birth.

The majority of women who experience a pregnancy loss attempt to conceive a subsequent pregnancy (Cordle & Prettyman, 1994; Côté-Arsenault & Morrison-Beedy, 2001; Swanson, 1999). About 50% to 80% of women will become pregnant again (Blackmore et al., 2011; O'Leary, 2009). Women who become pregnant after a perinatal loss are more likely to experience heightened anxiety (Côté-Arsenault, 2003) and are at a greater risk of developing

depression in subsequent pregnancies (Nynas, Narang, Kolikonda, & Lippmann, 2015). Côté-Arsenault and Donato (2011) have examined how a self-protective mechanism called 'emotional cushioning' helps women protect themselves emotionally from pregnancy-related anxiety, specifically from the potential of enduring another perinatal loss.

While constructs such as perinatal loss and pregnancy-related symptoms have been studied in relation to subsequent pregnancies (Bayrampour, Ali, McNeil, Benzies, MacQueen, & Tough, 2016; Blackmore et al., 2011; Côté-Arsenault, 1998; Côté-Arsenault, 2007; Côté-Arsenault, Bidlack, & Humm, 2001; Guardino & Dunkel-Schetter, 2014; Hutti et al., 2015; O'Leary, 2004; Rallis, Skouteris, McCabe, & Milgrom, 2014), there is little research that has examined the impact of perinatal loss and pregnancy-related symptoms, specifically emotional cushioning, on relationship satisfaction among couples who have experienced perinatal loss. Therefore, gaps in the research need to be filled in terms of how perinatal loss and pregnancy-related symptoms affect intimate and interpersonal relationships. It is important to acknowledge these gaps in the existing research and literature in order to support clinicians in providing competent, holistic care for clients who may be presenting with issues relating to pregnancy loss and pregnancy-anxiety. Through the exploration of how pregnancy-related symptoms are associated with intimate and interpersonal relationship, clinicians may be able to support clients and their partners in enhancing and strengthening their couple relationship and effectively coping with experiences surrounding pregnancy loss.

This study explored gaps in the literature regarding the unique experiences of perinatal loss. After reviewing the current literature, no research has been identified relating to how levels of grief intensity regarding perinatal loss and emotional cushioning are associated with a woman's relationship satisfaction with her partner following perinatal loss. Furthermore, the intensity of emotional cushioning and its association with relationship satisfaction is relatively unknown. The primary goal of the current study was to explore grief intensity following perinatal loss and relationship satisfaction among women. In addition, the study aimed to examine how the level of emotional cushioning acts as a moderator between the influence of grief intensity and women's relationship satisfaction with their partner. This study contributes to the literature regarding perinatal loss and also provides insight for clinicians who work with women and couples presenting with issues relating to perinatal loss and, specifically, emotional cushioning from a systemic perspective.

CHAPTER 2: SIGNIFICANCE OF THE PROBLEM

Perinatal Loss

For the purpose of this study, perinatal loss is defined as the experience of losing one's fetus or infant either before, during, or shortly following birth (DeBackere, Hill, & Kavanaugh, 2008). The most common forms of perinatal loss include the death of a fetus or infant from conception to 28 days postpartum, as a result of miscarriage, stillbirth, or neonatal death (Barfield, 2016; Kersting & Wagner, 2012). Generally, fetal mortality rates are highest for unmarried women, non-Hispanic black women, adolescents, women over the age of 35, and women who have a multiple pregnancy (Mac Dorman & Gregory, 2015).

Grief Intensity

Following the experience of pregnancy loss, it is common and expected to experience symptoms of perinatal grief. Grief is defined as the normal response or reaction to the experience of losing a loved one (Townsend, 2013). Perinatal grief consists of three components: active grief, difficulty coping with the loss, and feelings of despair (Toedter, Lasker, & Janssen, 2001). Active grief is a conscious form of grieving that consists of the sadness, longing, and suffering over experiencing the loss of a baby. Coping difficulty is associated with symptoms of depression, socially isolating oneself, and experiencing difficulty with engaging in daily life activities and with others. Experiencing feelings of guilt, hopelessness, worthlessness, and loss of meaning in life reflects despair. The intensity of the grief reaction is associated with several factors. Swanson (1999) suggested women experience higher grief intensity the longer the gestation time of the pregnancy. Côté-Arsenault and Dombeck (2001) support that the farther along a woman is in her pregnancy, the more emotionally invested she becomes and the more likely she is to see her pregnancy as a person, which increases the intensity of her grief response and symptoms. Several other factors that determine how a woman will react to experiencing a pregnancy loss are the extent of the attachment she has with her baby and the degree of investment she experiences in her pregnancy (Moulder, 1994; O'Leary, 2004).

According to Badenhorst and Hughes (2007), the two most common forms of grief that women experience following a pregnancy loss, include: prolonged grief and delayed or absent

grief. Prolonged grief is often described as chronic grief where symptoms of grief that are common during the early stages of grief continue to be intense and persistent for more than 12 months after initially experiencing the loss. The most intense responses to grief tend to decrease within the first 12 months and significantly decrease after the first two years; however, parents who have experienced a loss of a child can experience grief for a prolonged amount of time. Prolonged grief may be reflected by having difficulty accepting the loss, experiencing intense longing for the baby, and having long-lasting feelings of guilt, sorrow or anger, and feeling as though they do not have a sense of meaning in their lives. Delayed or absent grief is often reflected by the lack of a grieving response or reaction to the loss. These symptoms may be associated with experiencing emotional numbness, not acknowledging the loss, and suppressing feelings of grief until a later time (Al-Maharma, Abujaradeh, Mahmoud, & Jarrad, 2016; Badenhorst & Hughes, 2007).

Mental Health

More than half of women who experience a pregnancy loss will experience a pregnancy following the loss (Blackmore et al., 2011; O'Leary, 2009) and for those women who become pregnant after loss, studies show that a common way to cope with grief is to become pregnant again (O'Leary, 2004; O'Leary & Thorwick, 2006). However, although a pregnancy following loss may alleviate grief symptoms, women who become pregnant after a pregnancy loss are more likely to experience high pregnancy-related anxiety throughout their subsequent pregnancy (Côté-Arsenault & Marshall, 2000). Heightened anxiety can increase a woman's sense of vulnerability and hypersensitivity to her subsequent pregnancy (Côté-Arsenault, Donato, & Earl, 2006) and can increase the doubt she may have about her ability to successfully birth and parent a baby (Côté-Arsenault, Schwartz, Krowchuk, & McCoy, 2014). This may be related to living in fear of another loss, utilizing self-protective mechanisms or coping skills, delaying or postponing the announcement of, and preparation for, the new baby, and avoiding establishment of a prenatal attachment with the baby (Côté-Arsenault & Marshall, 2000; Hense, 1994; Phipps, 1985). Prenatal attachment is defined as the emotional bond or connection between a mother and her unborn baby (Condon, 1993). Other studies support the finding that women who become pregnant after loss may also experience difficulty of or avoidance in emotionally attaching to or investing in their pregnancy (O'Leary, 2004; O'Leary & Thorwick, 2006). It is important to

acknowledge that pregnancy-related anxiety in subsequent pregnancies may differ between women as the intensity of anxiety and grief is associated with the variation of type of perinatal loss, gestational age at loss (Tsartsara & Johnson, 2006), prior history of losses (Gaudet, Séjourné, Camborieux, Rogers & Chabrol, 2010), and the degree to which a woman assigns personhood to her unborn baby (Côté-Arsenault & Dombeck, 2001).

Women who experience a pregnancy loss can suffer from a variety of mental health issues, including depression, anxiety, unresolved grief, psychological and emotional trauma, fear, anger, controlling behavioral tendencies, suicide ideation, and attachment disorder (O'Leary, 2004; Townsend, 2013). In contrast, fathers tend to react differently to perinatal loss compared to mothers and report fewer psychosomatic symptoms; however, the loss and grief experienced can be just as distressing and difficult (Bennett, Litz, Lee, & Maguen, 2005). This study also reported that fathers may experience less intense reactions due to the societal expectation that fathers are expected to support their partners through the grief process. The experiences of a perinatal loss may increase distress within a couple's intimate relationship as they grieve their loss and cope with the subsequent effects differently. Moreover, it has not been specifically studied how a history of perinatal loss impacts the intimate partner relationship in terms of overall relationship satisfaction.

Relationship Satisfaction Following Perinatal Loss

During pregnancy, the partner relationship is of very high importance (Lydon, Dunkel-Schetter, Cohan, & Pierce, 1996) and is considered the strongest source of support for the couple. Experiencing a perinatal loss is associated with relational distress as couples grieve differently and at different times, which can result in one or both of the partners feeling alone and unsupported (de Montigny, Beaudet, & Dumas, 1999; Samuelsson, Radestad, & Segesten, 2001). Differences in coping and grieving styles between partners may significantly increase the risk of marital conflict and withdrawal from the partner relationship (Alderman, Chrisholm, Denmark, & Salbod, 1998; Badenhorst, Riches, Turton, & Hughes, 2006; Beutel, Willner, Deckardt, Von Rad, & Weiner, 1996; Bongaarts, 1984; Feeley & Gottlieb, 1988-1989; Gold et al., 2010; Moriarty, Carroll, & Cotroneo, 1996; Vance, Boyle, Najman & Thearle, 1995). Communication between partners may also decrease as each individual finds difficulty in expressing their feelings of loss and grief. Partners may try to protect each other, and therefore

purposely not share their experiences or feelings with their partner (Bennett et al., 2005). In a study on parental grief, partners reported differences in grieving and coping that is correlated with increased relational tension and decreased amount of partner support (Lang, Fleiszer, Duhamel, Sword, Gilbert, & Corsini-Munt, 2011). This study also found that emotional distance between partners is associated with misunderstandings and differences surrounding the meaning of the loss and the proper way to grieve. Gold et al. (2010) concluded that partners are at a significantly higher risk of dissolving their relationship after experiencing perinatal loss as the stability of their relationship decreases due to the subsequent negative effects of the loss.

Rini, Dunkel-Schetter, Hobel, Glynn, and Sandman (2006) conducted a study on effective partner support for women during pregnancy. Relationship factors were assessed for during three different points throughout the pregnancy. The researchers concluded that the higher the quality of the relationship a woman has with her partner, the higher the emotional closeness, intimacy, and perceived social support the woman experiences. Partner support for women during pregnancy is considered unique because it can influence both the best and worst outcomes in the relationship. It was also found that women who perceived themselves to receive more support from their partners experienced less pregnancy-related anxiety, higher quality of the relationship, and overall higher the relationship satisfaction. Bowlby (1973, 1980) identified how perceptions of support in romantic relationships is correlated to how individuals feel in regards to how satisfied they are with their partner and their relationship. Rholes, Simpson, Campbell, and Grich (2001) examined how anxious women during pregnancy perceived less support from their partners and experienced a decrease in relationship satisfaction. They also reported that when women believe support is being offered, they do not experience a decrease in relationship satisfaction. In comparison, another study found that less anxious individuals experience more positive interactions with their partner and report more positive views of their relationship and higher relationship satisfaction (Campbell, Simpson, Boldry, & Kashy, 2005). There is a lack of research discussing perceived support among partners in perinatal loss literature, but the aforementioned studies may be helpful in hypothesizing how increased perceived support decreases anxious symptoms for women during pregnancy, how difficulties with a partner increases pregnancy-related symptoms, and how positive perceptions of the relationship correlates with positive expectations and overall greater relationship satisfaction (Rini et al., 2006).

Attachment Theory

A woman's attachment with her pregnancy and her partner was not specifically examined for the purpose of this study; however, it is important to conceptualize how the attachment bond between a woman and her pregnancy and a woman and her partner is associated with pregnancy-related anxiety and her relationship satisfaction with her partner from a theoretical framework.

Parent-Child Attachment

Bowlby's attachment theory (1973, 1980, 1982) suggests that the attachment bond between a child and their primary caregiver begins at birth and directly influences the child's self-concept and the ways they form schemas about their interactions and relationships with others. Bowlby (1973) discusses how a child develops an internal working model where they are able to identify whether their attachment figure is consistent and responsive and whether or not they believe they deserve their caregiver's care and attention. In addition to Bowlby's attachment theory, Ainsworth et al. (1978) examined individual attachment styles in parent-child relationships and identified three styles of attachment children can have with their primary caregiver: secure, anxious/avoidant, and anxious/ambivalent. A child develops a secure attachment when the caregiver can accurately interpret the child's signals and can consistently and promptly respond to the child's needs in a sensitive manner (Brandon et al., 2009). If the child cannot trust the caregiver to be responsive and available, the child will either develop an anxious/avoidant or anxious/ambivalent attachment. The attachment style between caregiver and child and the child's internal working model serves as guides for attachment formation and styles in future relationships with one's own children and romantic partners.

Prenatal Attachment

Coinciding with Bowlby and Ainsworth's theories and studies of attachment, theorists Deutch (1945), Benedek (1959), and Bibring (1959), advanced the theory of attachment to include prenatal attachment because, unlike Bowlby, they believed the attachment bond to be more than a biological process. They identified prenatal attachment as the process in which a woman becomes emotionally attached to her unborn fetus and that this attachment process between the unborn child and it's caregiver, primarily the mother, begins before the birth of the

child (Benedek & Liebman, 1958; Bibring, Dwyer, Huntington, & Valenstein, 1961). The evolution of prenatal attachment theory began primarily with nurses who observed how the postpartum attachment between a mother and her child was related to prenatal processes.

Reva Rubin (1976) was a doctoral nursing student who specialized in maternity care and furthered the foundational framework and conceptualization of the theoretical construct of prenatal attachment. She identified four primary tasks that support mothers in developing a maternal identity, which aids in the development of prenatal attachment between mother and baby. The four primary tasks include: 1) seeking safe passage for self and baby through pregnancy, labor, and delivery; 2) ensuring the baby is accepted by significant others and family members; 3) binding-in and developing a sense of "we-ness" in relation to the baby; and 4) learning to and giving herself to the baby (Brandon et al., 2009; Rubin, 1976).

Several other researchers also began studying and conceptualizing prenatal attachment (Condon, 1993; Condon & Corkindale, 1997; Cranley, 1979, 1981; Leifer, 1977; Lumley, 1982; Muller, 1992, 1993; Muller & Ferketich, 1993). Each researcher constructed and identified their own operational definitions encompassing cognitive, behavioral, and emotional approaches that contribute to the overall processes of prenatal attachment. According to Brandon et al. (2009), the most recent definition is described in the following operational definition: "Prenatal attachment is an abstract concept, representing the affiliative relationship between and a parent and fetus, which is potentially present before pregnancy, is related to cognitive and emotional abilities to conceptualize another human being, and develops within an ecological system" (Doan & Zimerman, 2003, p. 110). This definition accurately encompasses the cognitive, behavioral, and emotional approaches that women experience when forming the attachment bond with her unborn baby. It is suggested that experiences of pregnancy loss may be associated with mother-infant prenatal attachment issues in pregnancies after loss (Diamond & Diamond, 2016; Markin, 2018). Findings suggest there is a possibility of prenatal attachment issues associated with pregnancy loss, but future research is needed to expand on why some mothers develop healthy, secure attachments with their subsequent pregnancies and why others have more difficulty (Markin, 2018), and how the couple attachment style is associated with the attachment style a woman may have with her pregnancy.

Adult Romantic Attachment

Hazan and Shaver (1987) examined child attachment theory (Bowlby, 1973, 1980, 1982) as a framework to understand adult romantic relationships from an attachment perspective. Hazan and Shaver (1987) originally organized adult attachment in three categories: secure, anxious, and avoidant. An extension of this model was created and adult attachment is now categorized into four attachment styles: secure, preoccupied, dismissing, and fearful (Bartholomew, 1990; Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994). Holmes and Johnson (2009) examined each of the four attachment styles and highlight specific characteristics of each style. A *secure* attachment style is characterized by low anxiety and low avoidance behaviors. Secure individuals have a positive self-concept, trust their partner to be responsive and dependable, and feel comfortable with intimacy and closeness in relationships. A *preoccupied* attachment style is characterized by high anxiety and low avoidance. Such individuals have a negative self-concept, seek reassurance from their partner, do not always trust their partner to be available, and do not always feel like the support they are given meets their needs. A *dismissing* attachment style is characterized by low anxiety and high avoidance behaviors. These individuals often have a positive self-concept, but are uncomfortable with closeness in their relationships. They believe others to be too independent, which threatens their desire for autonomy (Fraley, Davis, & Shaver, 1998). A *fearful* attachment style is characterized by high anxiety and high avoidant behaviors. Such individuals tend to have a negative concept of themselves and others. These individuals often desire closeness and intimacy in their relationships, but fear rejection and abandonment from their partners (Bartholomew, 1990).

In a study on romantic aggression and partner support, Tougas, Péloquin, and Mondor (2016) observed links between partner attachment insecurities and perceived support from partners. They found that individuals who engage in avoidance behaviors perceive less support from their partners. Individuals who are anxious and avoidant are not likely to seek support from their partners when in distress (Rholes, Simpson, & Stevens, 1998). Furthermore, insecure individuals tend to hide, suppress, and purposely not share their distress, emotions, and experiences with their partner to avoid intimacy or dependency on their partner for fear that their partner may not support them in the way they need (Shaver & Mikulincer, 2007). Tougas et al. (2016) describe how partner attachment develops over a period of time and is influenced by

relationship history and interactions, concept of self (internal working models), and the perceived partner support and availability during times of need or distress. It is essential that women and their partners are able to reciprocate support to one another throughout the duration of pregnancy, the time after loss, and during pregnancy after loss to help cope with distress and meet one another's needs in the relationship. Partners tend to engage in anxious and avoidant behaviors after experiencing a pregnancy loss and find it difficult to communicate, support each other, and tend to one another's needs while they are grieving and adjusting to life after the loss. From an attachment perspective, the ability to give and receive support from one's partner and relationship may be hindered due to an insecure romantic attachment or an attachment injury.

A strong majority of couples will experience situations or events that will lead to or cause emotional distress. The attachment bond between the couple may be negatively impacted if the couple experiences an attachment injury during a distressing situation (Johnson, 1998; Makinen & Johnson, 2006), such as pregnancy loss. Attachment injuries within the couple relationship occur usually when one or both partners experiences feelings of abandonment and betrayal from their significant other during a time when they trust their partner to be there for them (Johnson, Makinen, & Millikin, 2001). An attachment injury can also occur when a partner is not able to respond to or support their partner in a way their partner needs or when the injured partner is unable to accept the support offered by the partner. Failure to repair the injured attachment will further decrease intimacy and trust within the relationship and continue the perpetuation of relational distress (Johnson, Makinen, & Millikin, 2001). From these studies, it can be hypothesized that the distress of experiencing a pregnancy loss may result in attachment injury in the couple's relationship if they are unable to meet one another's needs and support one another in the grieving process.

From a theoretical attachment framework, it is important to conceptualize how pregnancy-related symptoms, such as pregnancy-anxiety or distress is associated with a woman's attachment with her pregnancy and with her partner and how those styles correlate with overall relationship satisfaction. For the purpose of this study, conceptualizing attachment theory may also provide insight regarding how the self-protective mechanism, emotional cushioning, is utilized to decrease pregnancy-related anxiety and allow the woman to function normally in her roles and relationships.

Emotional Cushioning

Emotional cushioning (EC) is defined as a conscious or subconscious self-protective mechanism that allows women to protect themselves from pregnancy anxiety, emotional distress, and the possibility of experiencing another perinatal loss (Côté-Arsenault & Donato, 2011; Côté-Arsenault & Marshall, 2000; Côté-Arsenault & Morrison-Beedy, 2001). EC has been described as being like an 'emotional cocoon' that women surround themselves in to make sure they can endure the distress of the pregnancy. After experiencing a perinatal loss, women who become pregnant again may fear becoming emotionally attached to their current pregnancy, may avoid bonding with their pregnancy, and may not embrace emotional aspects of their pregnancy until there is a greater known possibility that the pregnancy will not result in another loss (Côté-Arsenault & Donato, 2011). Côté-Arsenault and O'Leary (2016) discuss how women are able to utilize EC as a self-protective mechanism due to the prenatal attachment between a woman and her unborn baby. Côté-Arsenault and Morrison-Beedy (2001) report that women who experience pregnancy after loss may demonstrate a lack of attachment towards their pregnancy and have a flat affect about their pregnancy, which is strong indicator that women are utilizing EC as a protective mechanism. In these circumstances, EC is utilized to withhold the formation of prenatal attachment to protect the mother from potential pain and loss.

Côté-Arsenault and Morrison-Beedy (2001) conducted a study on women who experienced previous perinatal losses, comparing those who were not currently pregnant and those who were pregnant. The purpose of the study was to examine the women's experiences of pregnancy after loss and the long-term effects of perinatal loss. It was found that the women who were currently pregnant shared their experiences, but were emotionally detached to their pregnancy, and the women who were not pregnant were very emotional. Côté-Arsenault and Morrison-Beedy (2001) highlighted several themes, which include; how the women who were currently pregnant seemed to withhold their emotions during their pregnancy, decreased their expectations about the pregnancy, and avoided forming an attachment with their unborn baby. This group of women reported that they actively engaged in protecting themselves and were aware that they were avoiding attachment with their pregnancy to prevent potential pain from fear of another loss.

Côté-Arsenault and Donato (2011) used a sample from a larger longitudinal study on pregnancy after loss (Côté-Arsenault, 2007) to examine how women pregnant after loss (n = 63) experienced EC within their subsequent pregnancies and to what degree they engaged in coping mechanisms associated with EC. The participants completed four self-report questionnaires throughout their pregnancy regarding their pregnancy-related anxiety and three additional items regarding EC during the final questionnaire. Two themes emerged from the additional items about EC, which included women feeling "Anxious versus Confident" and "Withholding Self versus Sharing Self." Participants reported that they utilized EC as a protective mechanism to control excessive worrying and to increase their confidence in themselves and their pregnancy. They connected their levels of anxiety and worry with the need to protect themselves. Participants also reported they purposely did not share their emotions with others to not only protect themselves, but to protect others as well. They believed that expressing their true emotions and anxiety would jeopardize their pregnancy and their ability to cope with their emotions, and increase anxiety in others. The utilization and level of EC that women engage in varies over time and is unique to each individual, but the majority of participants (58%) reported that they experienced anxiety and worry, and withheld those emotions. Côté-Arsenault and Donato (2011) suggest how EC allows women to engage in physical behaviors while limiting emotional involvement, which allows women to maintain balance between being hopeful and the possible preparation of another loss. EC also enables women to maintain a sense of normalcy during their pregnancy, which allows them to function within their current roles and relationships, as they are not focusing solely on their anxiety or the possibility of experiencing another loss.

Women who utilize EC as a self-protective mechanism acknowledge the existence of their pregnancy, but women may not always be aware of the level of anxiety they are experiencing (Côté-Arsenault & Donato, 2011). They may also avoid sharing their anxiety and fears with others as a way to further avoid investment in the pregnancy. Negative aspects of EC include not reaching out for support or sharing their feelings or concerns with their support system and not engaging in the process of forming an attachment with their baby. Other EC behaviors that women engage in include not calling their pregnancy 'baby,' and postponing pregnancy announcements and preparations for the baby's arrival (Côté-Arsenault & Donato, 2011; Côté-Arsenault, Donato & Earl, 2006; Côté-Arsenault & Marshall, 2000). Women

generally do not disclose utilization of EC because sharing with others exposes their coping strategy and brings awareness to their anxiety and fears. Côté-Arsenault and Donato (2011) suggest that if women share their experiences with others, then the utilization of EC is less effective as a protective mechanism. Côté-Arsenault and Donato (2011) also highlighted several protective mechanisms that are comparable to the concept of EC. They include defense mechanisms, expecting the worst, anticipatory grief, tentative pregnancy, and guarding and connecting. EC includes a combination of each of these similar protective mechanisms, but EC is considered an evolving process and unique because it manifests and is utilized during pregnancy after loss.

According to Côté-Arsenault and Donato (2011), the manifestation of EC suggests an increase in adaptive functioning within a woman's daily life and relationships because it serves as a protective mechanism, which allows women to continue living their lives and functioning relatively normally. However, as Bennett et al. (2005) discussed, women tend to have the intention to protect their partners and therefore avoid sharing their negative feelings or experiences with them. However, this avoidance furthers the emotional distance between partners. Rini et al., (2006) discussed how partners who experience higher degrees of emotional closeness tend to experience higher amounts of support from their partner, which is correlated with their overall relationship satisfaction. Since EC potentially serves as a buffer to emotional closeness and support, it could potentially decrease relationship satisfaction among partners even though it allows women to function within their current roles and relationships.

As previously stated, perinatal loss has been studied extensively (Bayrampour et al., 2016; Blackmore et al., 2011; Côté-Arsenault, 2007; Côté-Arsenault, 2000; Côté-Arsenault & Donato, 2007; Guardino & Dunkel-Schetter, 2014; Hutti, et al., 2014; O'Leary, 2004; Rallis et al., 2014), but there are only several articles and studies that have examined and discussed the concept of EC (Côté-Arsenault & Donato, 2007; Côté-Arsenault and Donato, 2011; Côté-Arsenault & Morrison-Beedy, 2001). There is a need to expand upon the existing literature and research regarding EC from a systemic perspective to understand how EC manifests in women and how it affects women's intimate relationships with their partner.

Research Questions and Hypotheses

Research Question One

Is there an association between grief intensity in perinatal loss and relationship satisfaction among women who have had a subsequent pregnancy?

Hypothesis One

The grief intensity of perinatal loss is negatively associated with relationship satisfaction among women who have had a subsequent pregnancy (Figure 1).

Research Question Two

Does emotional cushioning buffer the relationship between grief intensity of perinatal loss and relationship satisfaction among women who have had a subsequent pregnancy?

Hypothesis Two

Higher emotional cushioning will lessen the negative relationship between grief intensity of perinatal loss and relationship satisfaction among women who have had a subsequent pregnancy (Figure 2).

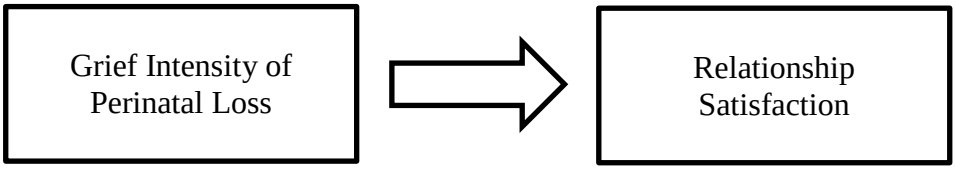

Figure 1: Hypothesized Model for Research Question 1

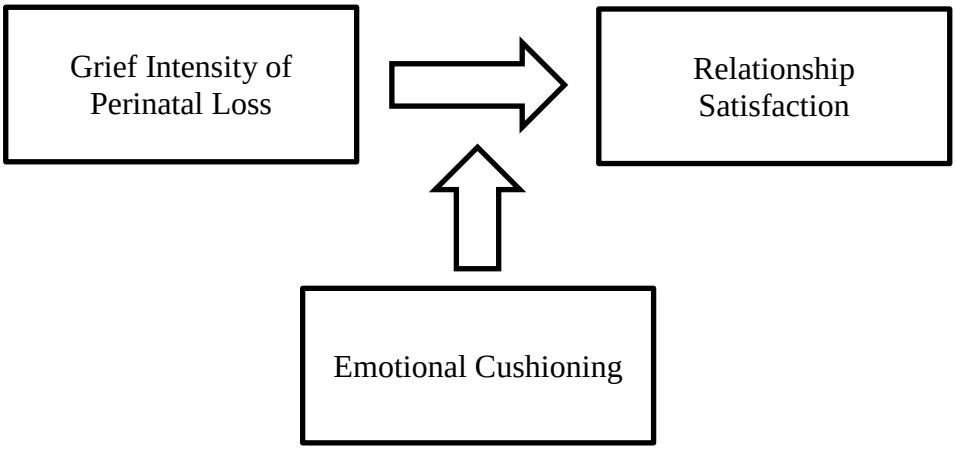

Figure 2: Hypothesized Model for Research Question 2

CHAPTER 3: METHODOLOGY

Subjects

Participants were eligible if they: (1) were 18 year or older, (2) were a resident of the United States, (3) biologically identified as female, (4) experienced at least one perinatal loss, (5) experienced at least one pregnancy after loss that resulted in a live birth, and (6) were in a partnered relationship during the pregnancy after loss. The sample was not limited to women in relationships with the same person with whom they experienced the perinatal loss. A total of 97 participants were planned to be recruited for a medium effect size, an alpha of .05, two independent variables, and six control variables (Cohen, 1992).

Procedures

Following approval from Purdue University's Institutional Review Board (IRB), recruitment of participants occurred through Amazon's Mechanical Turk (MTurk). MTurk is a website that provides a platform where individuals can access and complete surveys for a small financial incentive (Arditte, Çek, Shaw, & Timpano, 2016). MTurk has several advantages for recruiting participants, including easy access to a wide and diverse range of individuals in terms of race, ethnicity, socioeconomic status, and location, as well as quick response from participants.

The online survey was created on Qualtrics and distributed to participants via MTurk. Participation was anonymous and confidential. In the survey, potential benefits and risks were presented along with the explanation regarding financial compensation. Upon completion of the survey, participants received 40 cents for financial compensation. The survey took participants approximately 15 to 20 minutes to complete. Researcher contact information and therapeutic resources were provided for participants incase questions or comments needed to be addressed or if participants experienced emotional distress and required assistance from mental health professionals.

Instrumentation

Perinatal Grief Scale

The Perinatal Grief Scale (PGS; Toedter, Lasker, & Alhadeff, 1988) is a 33-item instrument used to measure grief intensity following perinatal loss. It contains three subscales: 1) active grief (sadness, missing the baby), 2) difficulty coping (social withdrawal, attempts to cope), and 3) despair (guilt, feelings of hopelessness and worthlessness). For the purpose of this study, participants were asked to reflect on their current experiences of grief regarding their most recent pregnancy loss. Participants indicate responses using a 5-point Likert scale for each of the items ranging from 1 *(Strongly Agree)* to 5 *(Strongly Disagree)*. The PGS-33 demonstrated moderate to strong inter-item correlations for all items with *r* ranging from .59 to .66. Cronbach's alphas were strong for the entire scale ($\alpha = .95$) and for the three subscales (Active Grief $\alpha = .95$; Difficulty Coping $\alpha = .93$; Despair $\alpha = .87$). Thus, the PGS-33 appears to be a reliable indicator in assessing grief intensity associated with perinatal loss. To score this assessment, all items within each of the subscales, except for 11 and 33, are reverse coded and summed based on the number selected. Scores range between 33-165, with a total score above 91 signifying higher degrees of grief intensity.

Couple Satisfaction Index

The Couple Satisfaction Index (CSI; Funk & Rogge, 2007) is a 32-, 16-, or 4-item instrument used to measure relationship satisfaction among partners. For the purpose of this study, participants were asked to measure their relationship satisfaction by reflecting on their relationship with the partner whom they were with during their most recent pregnancy after loss. Three versions of the CSI were developed to accommodate different research needs. For this study, the scale was administered using the 32-item scale to provide the highest precision and power for detecting effects. The first item uses a 7-point Likert scale and the remaining items are measured using a 6-point Likert scale ranging from *1 (not at all)* to 6 *(completely)*. This scale inquires about overall degree of happiness, extent of disagreements and agreements over various topics, feelings about the relationship, and overall relationship satisfaction. In previous studies, the CSI demonstrates excellent internal consistency (Cronbach's alpha = .98) and strong

convergent and construct validity. To score this assessment, item responses are summed based on the number selected. Scores range from 32 to 192, with higher scores indicating higher levels of relationship satisfaction and scores below 136.5, suggesting relationship dissatisfaction.

Pregnancy Anxiety Scale

The Pregnancy Anxiety Scale (PAS; Côté-Arsenault, 2003, 2007; Côté-Arsenault & Donato, 2011) is used to measure a woman's concern about her pregnancy and its outcome. This scale was designed to assess for pregnancy-related anxiety in pregnancies after loss. For the purpose of this study, participants were instructed to answer the PAS by looking retrospectively at their most recent pregnancy. The PAS is a 9-item, visual analogue scale (VAS) format (0-100mm) instrument that has moderately good internal consistency (α = .74-.83). This scale inquires about anxious feelings and thoughts related to the pregnancy and its outcome, emotional attachment to the pregnancy, and withholding of emotions during pregnancy.

To assess for emotional cushioning, one quantitative question and two open-ended, qualitative questions are asked during the postpartum period. These items include: 1) Right now, today, how worried were you, really, during your pregnancy? (VAS: Not at all worried = 0; The most worried I've ever been = 100; 2) Is this different from the way you felt (or allowed yourself to feel) during pregnancy? (open text); 3) Looking again at item 7 ('I feel that I am holding back my emotions about this pregnancy.'), do you feel that you were holding back your emotions during your pregnancy? (open text). For the purpose of this study, an additional open text item was also asked to further inquire about emotional cushioning and assess how participants tried to protect themselves during their pregnancy. This item included: 'Can you explain more about how you tried to protect yourself?'

Additional Items

Additional items were included to examine perceived partner support and grieving behaviors. Participants were asked seven quantitative questions, which included: how supportive participants' partners were during the pregnancy and after loss, how well participants believed their partners supported them, if participants believed their partner grieved the loss, if grieving behaviors were similar, and if the participants' and their partners' grieving behaviors were

distressing to the participant. The qualitative questions included: examples of grieving behaviors and how the grieving behaviors were or were not distressing to the participants.

Statistical Analyses

Descriptive and Exploratory Analyses

Frequencies and descriptives were conducted for all demographic information, including age, race, ethnicity, sexual orientation, state of residence, level of education completed, annual household income, religious/spiritual affiliation, relationship status, total pregnancies, and total pregnancy losses. Percentages were gathered for all demographics.

Univariate analyses were conducted to find the mean and standard deviation for all measures. The mean and standard deviation were calculated for the Perinatal Grief Scale, the Couple Satisfaction Index, and the Pregnancy Anxiety Scale.

Data were examined to assess for outliers within the demographics. If outliers were found within the demographics information, they were either recoded or excluded from the analyses. Data were also examined to assess for missing data. Random missing data were included due to most likely being respondent error. If data were not missing at random, data were excluded from the study.

Correlations were conducted among the following variables: emotional cushioning and relationship satisfaction; participants' current feelings regarding their most recent pregnancy and if they felt like they were holding back their emotions during their most recent pregnancy; and the level of worry they experienced during their most recent pregnancy and if they felt like they were holding back their emotions during their most recent pregnancy. Correlations were also conducted among: if participants believed their partner grieved the loss and if their grieving behaviors were similar, and if the participants' own grieving behaviors and their partners' grieving behaviors were distressing to the participant.

An exploratory factor analysis was conducted to assess how the items of the Pregnancy Anxiety Scale loaded together and to identify which items in the scale are related to pregnancy anxiety and which are related to emotional cushioning.

Multivariate Statistics

Research Questions 1 and 2

To answer research questions 1 and 2, a hierarchical linear regression was conducted. Women's relationship satisfaction is the identified dependent variable. Grief intensity of perinatal loss and emotional cushioning are the identified independent variables. The following variables were controlled for: total number of pregnancy losses, time since last pregnancy loss, current relationship status, sexual orientation, annual household income, and education level.

In step one of the hierarchical regression, the control variables: total number of pregnancy losses, time since last pregnancy loss, current relationship status, sexual orientation, annual household income, and education level, were entered into the model with relationship satisfaction as the dependent variable. In step two of the regression, grief intensity of perinatal loss and emotional cushioning were added into the model. In step three of the hierarchical regression, the interaction between the two independent variables, grief intensity of perinatal loss and emotional cushioning, were entered into the model with relationship satisfaction as the dependent variable. These two variables were standardized before being multiplied together.

CHAPTER 4: RESULTS

Introduction

Participants were gathered through the online survey platform, MTurk, and provided with the Qualtrics survey. A total of 572 participants accessed the online survey. Of those who initially accessed the survey, 211 participants met criteria, but 21 participants did not complete the survey. Participants were excluded from the analyses for various reasons, including not meeting inclusion criteria, ending participation before completion, and not adequately filling out the survey. 190 participants were originally included in the analysis; however, four participants were removed from the analysis due to answering a question about the year of their last pregnancy loss in a way that could not be interpreted by the researcher and one participant was removed due to not answering with their age. Of the 572 participants who initially accessed the survey, the final analyses included 185 participants who met the inclusion criteria and consented to completing the survey, which made up 32.3% of those who accessed the survey.

Demographics

Multiple demographic variables were analyzed in this research. Participants ranged in age from 18 to 76, with ~10% falling below the age of 24, 56.2% in the 25 to 34 age group, 21.6% in the 35 to 44 age group, 7% in the 45 to 54 age group, 3.8% in the 55 to 64 age group, and 1.6% age 65 and older (Table 1). All participants biologically identified as female. As indicated in Table 2, well over half of participants identified as White (75.1%), with the remaining participants identifying as Black or African American (7.6%), Asian (5.9%), Hispanic or Latino (3.2%), American Indian or Alaskan Native (2.2%), Native Hawaiian or Pacific Islander (.5%), and Multiracial (5.4%). A strong majority of participants identified as heterosexual (89.2%) (Table 3).

Table 1: Age of Participants

Age (N=185)	Frequency	Percentage
18-24	18	9.7
25-34	104	56.2
35-44	40	21.6
45-54	13	7.0
55-64	7	3.8
64 and older	3	1.6
I prefer not to answer.	0	0.0

Table 2: Race and Ethnicity of Participants

Race/Ethnicity (N=185)	Frequency	Percentage
American Indian or Alaskan Native	4	2.2
Asian	11	5.9
Black or African American	14	7.6
Hispanic or Latino	6	3.2
Hawaiian or Other Pacific Islander	1	.5
Multiracial	10	5.4
White	139	75.1
I prefer not to answer.	0	0.0

Table 3: Sexual Orientation of Participants

Sexual Orientation (N=185)	Frequency	Percentage
Heterosexual	165	89.2
Not heterosexual	20	10.8
I prefer not to answer.	0	0.0

The following demographic variables inquire about participants' level of education, annual household income, and religious or spiritual affiliations. A strong majority of participants received post-high school education or training (94.1%) (Table 4) and the average participant reported an annual income ranging between $50,000 to $59,000 (Table 5). The majority of

participants reported either religious or spiritual affiliation (81.1%), with 73% identifying as Christian (Table 6). 18.9% of participants identified as agnostic, atheist, or non-religious and 1.6% of participants identified as spiritual.

Table 4: Educational Status of Participants

Educational Level (N=185)	Frequency	Percentage
High School Degree or Equivalent	11	5.9
Some College	31	16.8
Associate's Degree	23	12.4
Bachelor's Degree	81	43.8
Professional Degree	35	18.9
Doctorate's Degree	4	2.2
I prefer not to answer.	0	0

Table 5: Annual Household Income of Participants

Income (N=185)	Frequency	Percentage
Less than $10,000	2	1.1
$10,000-$19,999	10	5.4
$20,000-$29,999	24	13.0
$30,000-$39,000	17	9.2
$40,000-$49,000	29	15.7
$50,000-$59,000	27	14.6
$60,000-$69,000	18	9.7
$70,000-$79,000	17	9.2
$80,000-$89,000	6	3.2
$90,000-$99,000	17	9.2
$100,000 or more	17	9.2
I prefer not to answer.	1	.5

Table 6: Religious and Spiritual Affiliation of Participants

Religion/Spiritual Affiliation (N=185)	Frequency	Percentage
Agnostic	10	5.4
Atheist	7	3.8
Buddhist	4	2.2
Christian	135	73
Hindu	2	1.1
Jewish	3	1.6
Muslim	3	1.6
Non-religious	18	9.7
Spiritual	3	1.6
I prefer not to answer.	0	0.0

The remaining demographic variables considered the participants' current relationship status and number of pregnancies and pregnancy losses they have experienced. All participants were required to be in a partnered relationship during their pregnancy after loss. In assessing participants' current relationship status, a strong majority of participants reported being married (74%) to their partner (Table 7). In addition, 7% of participants reported being engaged and 9.2% reported dating their partner. The remaining participants were single (5.9%), separated (1.6%), or divorced (2.2%) from their partner. As Table 8 indicates, the majority of participants experienced at least two total pregnancies (41.1%). All participants experienced between two and eight pregnancies. About half of participants experienced at least one pregnancy loss (52.4%), with the remaining half experiencing between two and seven pregnancy losses (Table 9).

Table 7: Current Relationship Status of Participants

Current Relationship Status (N=185)	Frequency	Percentage
Single	11	5.9
Dating	17	9.2
Engaged	13	7.0
Married	137	74.0
Separated	3	1.6
Divorced	4	2.2
Other	0	0.0
I prefer not to answer.	0	0.0

Table 8: Total Number of Pregnancies Experienced by Participants

Number of Pregnancies (N=185)	Frequency	Percentage
2	76	41.1
3	61	33.0
4	26	14.0
5	12	6.5
6	6	3.2
7	2	1.1
8	2	1.1

Table 9: Total Number of Pregnancy Losses Experienced by Participants

Number of Pregnancy Losses (N=185)	Frequency	Percentage
1	97	52.4
2	63	34.1
3	15	8.1
4	6	3.2
5	3	1.6
6	0	0.0
7	1	.5

Instrumentation

Provided in Table 10 is a list of instruments used in this study. The mean, standard deviation, minimum, and maximum values of each instrument can be used for reference with the collected data.

Table 10: Descriptives of the Scales Utilized

Scale	N	α	Possible Minimum	Possible Maximum	Observed Minimum	Observed Maximum	Mean	SD
Perinatal Grief Scale (PGS)	185	.968	33	165	35	153	95.53	29.26
Couple Satisfaction Index (CSI)	185	.864	32	192	62	175	123.63	22.52
Pregnancy Anxiety Scale (PAS)	185	.828	0	900	13	900	470.69	170.77

Analysis of Research Questions

A hierarchical linear regression was conducted to address the two hypotheses for this research. The regression was found to be significant for all three models with Model 1: F (9, 175) = 8.055, $p < .001$, $R^2 = .293$, adjusted $R^2 = .257$; Model 2: F (10, 174) = 7.340, $p < .001$, $R^2 = .297$, adjusted $R^2 = .256$; and Model 3: F (12, 172) = 6.880, $p < .001$, $R^2 = .324$, adjusted $R^2 = .277$ (Table 11).

Significant coefficients were found between the predictor variables and the dependent variable. The variables associated with the two hypotheses are provided to identify the variables that are significantly associated with relationship satisfaction. Statistical significance was found for the variable emotional cushioning ($t = 2.415$, $p < .05$). This suggests that higher levels of emotional cushioning were significantly associated with higher reports of relationship satisfaction. The control variable that indicated significance is participants' current relationship status, which include: single ($t = -4.322$, $p < .001$), dating ($t = 2.680$, $p < .05$), engaged ($t = 3.547$, $p < .001$), and divorced or separated ($t = -3.176$, $p < .05$). Married was the reference category for these variables. The remaining control variables were not significant (Table 11).

Table 11: Multivariate Statistics

Model 1	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
Control	-136.599	409.686		-.333	.739
Education Level	2.064	1.279	.110	1.614	.108
Annual Income	.769	.581	.092	1.323	.187
Sexual Orientation	5.166	4.748	.071	1.088	.278
Single	122.537	5.215	-.581	-4.322	.000**
Dating	12.309	4.592	.351	2.680	.008*
Engaged	17.567	4.952	.470	3.547	.001*
Divorced/ Separated	-21.516	6.774	-.510	-3.176	.002*
Time Since Last Pregnancy Loss	.115	.205	.040	.561	.576
Total Pregnancy Losses	-.845	1.500	-.037	-.563	.574
Model 2	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
Control	-191.590	413.720		-.463	.644
Education Level	2.432	1.335	.130	1.822	.070
Annual Income	.655	.593	.079	1.106	.270
Sexual Orientation	4.943	4.755	.068	1.040	.300
Single	-22.079	5.238	-.569	-4.215	.000**
Dating	11.872	4.616	.339	2.572	.011*
Engaged	17.526	4.954	.469	3.538	.001*
Divorced/Separated	-21.358	6.777	-.507	-3.151	.002*
Time Since Last Pregnancy Loss	.144	.207	.050	.697	.487
Total Pregnancy Losses	-.826	1.501	-.036	-.550	.583
Total Grief Intensity	-.051	.053	-.067	-.964	.337
Model 3	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
Control	-63.662	410.954		-.155	.877
Education Level	1.985	1.327	.106	1.496	.137
Annual Income	.568	.599	.068	.948	.345
Sexual Orientation	5.745	4.723	.079	1.216	.225
Single	-21.002	5.182	-.541	-4.053	.000**
Dating	11.542	4.560	.327	2.511	.013*
Engaged	16.898	4.889	.452	3.456	.001*
Divorced/Separated	-20.629	6.687	-.489	-3.085	.002*
Time Since Last Pregnancy Loss	.078	.206	.027	.382	.703
Total Pregnancy Losses	-1.101	1.484	-.048	-.742	.459
Total Grief Intensity	-.111	.057	-1.45	-1.953	.052
Total Emotional Cushioning	.027	.011	.200	2.415	.017*
Interaction Grief Intensity and Emotional Cushioning	.233	1.495	.012	.156	.876

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

Hypothesis One

Hypotheses one stated that higher levels of grief intensity after experiencing perinatal loss are negatively associated with relationship satisfaction among women who have had a subsequent pregnancy. To examine this hypothesis, the independent variable of grief intensity was included in the regression analysis with relationship satisfaction as the dependent variable. Control variables included total number of pregnancy losses, time since last pregnancy loss, current relationship status, sexual orientation, annual household income, and education level.

Statistical significance was not found for the variable regarding grief intensity (t = -9.64, p > .05). This suggests that higher levels of grief intensity after experiencing a perinatal loss were not significantly associated with lower reports of relationship satisfaction.

Hypothesis Two

Hypothesis two stated that higher levels of emotional cushioning will lessen the negative relationship between grief intensity after experiencing perinatal loss and relationship satisfaction among women who have had a subsequent pregnancy. To examine this hypothesis, the interaction between the two independent variables, grief intensity and emotional cushioning, were included in the regression analysis with relationship satisfaction as the dependent variable. Control variables included total number of pregnancy losses, time since last pregnancy loss, current relationship status, sexual orientation, annual household income, and education level.

Statistical significance was not found for the interaction between grief intensity and emotional cushioning (t = .156, p > .05). This suggests that higher levels of grief intensity after experiencing a perinatal loss and higher levels of emotional cushioning were not significantly associated with higher reports of relationship satisfaction.

Quantitative and Qualitative Questions on Emotional Cushioning

The following discussion examines the three quantitative and three qualitative questions participants were asked to assess for the presence of emotional cushioning. A preliminary analysis evaluated the themes of these responses in a non-systematic manner. The qualitative responses were not coded or analyzed in the current study; however, the responses provided by participants are important to acknowledge for future research and clinical implications.

Quantitative Questions

Participants were asked three quantitative questions to assess for the presence of emotional cushioning. The quantitative questions included: how the participants currently feel regarding their most recent pregnancy, if these current feelings are different from how they allowed themselves to feel during their most recent pregnancy, and if they felt like they were holding back their emotions during their most recent pregnancy.

When asked to describe how participants currently feel in the present regarding their most current pregnancy on a scale of 1 to 100, with 1 being *not at all worried* and 100 being *the most worried they have ever been*, participants reported a mean score of 64.41. This suggests that participants currently experience more feelings of worry regarding their most recent pregnancy by looking retrospectively at their pregnancy than they allowed themselves to feel during their pregnancy. This indicates that participants may have been experiencing the protective buffering of emotional cushioning. More than half of participants (65.9%) reported a difference in how they currently feel in regards to their most recent pregnancy. In regards to this difference, participants reported how they currently feel is not how they allowed themselves to feel in their most recent pregnancy. In addition, 63.2% of participants reported that they were holding back their emotions during their most recent pregnancy, which also indicates the presence of emotional cushioning.

Statistical significance was found for the correlation between the two variables regarding participants' current feelings regarding their most recent pregnancy and if they felt like they were holding back their emotions during their most recent pregnancy (r = -.233, p < .05). Statistical significance was also found for the correlation between the two variables regarding the difference between the level of worry they experienced during their most recent pregnancy and if they felt like they were holding back their emotions during their most recent pregnancy (r = .542, p < .001).

Qualitative Questions

Participants were asked three qualitative questions to further assess for emotional cushioning, which included: how participants allowed themselves to feel during their most recent pregnancy, to what extent they were holding back their emotions during their most recent

pregnancy, and how they tried to protect themselves during their most recent pregnancy. The researcher noted three emerging themes: withholding emotions, avoiding self-disclosure, and self-protective mechanisms.

Withholding Emotions

Participants reported a main theme of not allowing themselves to worry or have anxiety about their most recent pregnancy. Participants reported being intentional about not allowing themselves to feel their emotions, not getting excited about the pregnancy, not wanting to get their hopes up, and not putting much emotion or thought into their pregnancy. These responses suggest that participants actively engaged in withholding their emotions as an aspect of emotional cushioning to avoid anxiety and fear over a potential loss. A 35 year-old woman who experienced two pregnancy losses described her experience as follows: *"I didn't let myself worry about the pregnancy. I did what I had to do to get through it and to survive. I had hopes, but I also didn't want to let myself be too hopeful or happy. Now that the pregnancy is over and I look back, I actually was terrified, but I did not let those emotions get to me at the time of pregnancy."*

Avoiding Self-Disclosure

Other responses suggested a theme regarding participants avoiding self-disclosure. These responses suggested participants showed characteristics of emotional cushioning by not allowing themselves to become happy or excited, not wanting to get attached in fear of experiencing a loss, staying reserved about their pregnancy and not discussing their pregnancy with others, not disclosing the fact they were pregnant with family or friends, not discussing the pregnancy with family or friends, not wanting others to know their anxieties and fears, and wanting to be strong and appear "normal" for their family and friends. Another 35 year-old woman who experienced two pregnancy losses within two years discusses holding back her emotions to alleviate distressing symptoms: *"I feel like it was the best choice [to hold back my emotions]. There was less anxiety and stress this way."*

Self-Protective Mechanisms

Self-protective mechanisms were the final theme for this qualitative question. Participants reported a variety of ways they tried to protect themselves during their most recent pregnancy. Interestingly, only one participant reported that they utilized anti-anxiety medication and attended therapy as a protective factor. Common responses included: higher frequency of doctors visits, exercising, eating healthy, meditating, focusing on the present, asking for support, and using their faith as a support. A 49 year-old woman who experienced two pregnancy losses each within the last two weeks of the third trimester shared: *"I tried to get more rest and eat healthier. I tried to keep in shape as much as I could and shared any problems or issues of questions with my doctor more than I had before, even if they sounded silly."*

Other responses regarding self-protective mechanisms followed the theme of experiencing emotional cushioning during their pregnancy. These responses indicated that participants protected themselves by avoiding their emotions, intentionally avoiding becoming emotionally attached to their pregnancy, and keeping information about their pregnancy private. For example, a 32 year-old woman who experienced three losses over the span of 4 years shared: *"I tried to protect myself by not discussing it too much, not sharing too much excitement or joy and just letting natural events take its course."*

Quantitative and Qualitative Questions on Perceived Partner Support and Grieving

The following discussion examines seven quantitative and two qualitative questions participants were asked to assess for perceived partner support and grieving behaviors for the participant and their partner. A preliminary analysis evaluated the themes of these responses in a non-systematic manner. These qualitative responses were also not coded or analyzed in the current study; however, these responses also provide insight and are important to acknowledge for future research and clinical implications.

Quantitative Questions About Grief and Support

Participants were asked seven quantitative questions, which included: how supportive participants' partners were during the pregnancy and after loss, how well participants believed their partners supported them, if participants believed their partner grieved the loss, if grieving

behaviors were similar, and if the participants' and their partners' grieving behaviors were distressing to the participant.

Partner Support

Participants were asked to evaluate the amount of support they felt they received from their partner during their pregnancy and after they experienced their most recent pregnancy loss. 52.4% of participants reported that they received a lot to a great deal of support from their partner during their most recent pregnancy with the remaining 13% of participants reporting moderate levels of support and 34.6% reporting a little to no support (Table 12). In comparison to the amount of support participants received after experienced their most recent pregnancy loss, 48.1% of participants reported lot to a great deal of support, 22.7% reported moderate levels of support, and 29.2% reported little to no support (Table 13). This indicates that the higher levels of support slightly declined after experiencing the pregnancy loss.

However, more participants reported more moderate levels of support and reported less low to non-existent levels of support. The change from higher to more moderate levels of support may be due to the participants' partner also grieving the pregnancy loss and having difficulty coping with the loss. Moreover, although the majority of participants reported moderate to high levels of support, only 44.9% of participants agreed that this was the level of support they needed from their partner (Table 14). This left more than half of participants who believed they needed higher levels of support from their partner.

Last, upon examining participants' relationship status in relation to the amount of support they felt they received from their partner after they experienced their most recent pregnancy loss, it was found that of the women who had a change in their relationship status (n = 62), 48.4% of them reported low to non-existent levels of support from their former partner after their most recent pregnancy loss. This indicates that women who experienced the least amount of support from their partners are currently not in a relationship with whom they experienced the loss with.

Table 12: Amount of Partner Support Received During Pregnancy

N=185	Frequency	Percentage
A great deal	62	33.5
A lot	35	18.9
A moderate amount	24	13
A little	52	28.1
None at all	12	6.5

Table 13: Amount of Partner Support Received After Pregnancy Loss

N=185	Frequency	Percentage
A great deal	61	33
A lot	28	15.1
A moderate amount	42	22.7
A little	31	16.8
None at all	23	12.4

Table 14: Level of Partner Support Needed After Pregnancy Loss

N=185	Frequency	Percentage
A great deal	58	31.4
A lot	25	13.5
A moderate amount	35	18.9
A little	46	24.9
None at all	20	10.8

Grieving Behaviors

Participants were asked to determine if they believed their partner grieved their pregnancy loss, if their and their partners' grieving behaviors were similar, and if the participants' and their partners' grieving behaviors were distressing to the participant. Less than half of participants (40%) believed their partner grieved the pregnancy loss; however, 44.3% of participants reported similarities between their and their partner's grieving behaviors.

Statistical significance was found for the correlation between the two variables regarding if participants believed their partner grieved the loss and if their grieving behaviors were similar ($r = .445$, $p < .001$). Statistical significance was also found for the correlation between the two

variables regarding if the participants' own grieving behaviors and their partners' grieving behaviors were distressing to the participant ($r = .638$, $p < .001$).

Qualitative Questions

The qualitative questions included: examples of grieving behaviors and how the grieving behaviors were or were not distressing to the participants. The researcher noted three emerging themes: anger, mixed feelings, and avoidance behaviors.

Anger

Anger towards experiencing the pregnancy loss and anger towards one's partner was a common response in regards to what participants experienced during the grieving process. Participants reported experiencing anger, hostility, lashing out at each other, irritation, and fighting. Some responses indicated experiencing anger over not understanding why they lost their baby. For example, a 25 year-old woman who experienced two pregnancy losses reported: *"The behavior we expressed the most was the anger and pain for not understanding what was happening to us."*

Mixed Feelings

Another strong theme regarding grief behaviors included experiencing an array of mixed feelings. Participants reported experiencing a combination of sadness, crying, depression, and silence while needing space and distance, but also needing support from others. A 27 year-old woman who experienced three losses within three years summarized the combination and conflicting feelings participants reported as follows: "*Comforting, crying, needing closeness, needing reassurance, needing space."* This theme suggests that women can experience complicated, mixed feeling over experiencing a loss can elicit many different reactions and needs.

Avoidance Behaviors

The theme of avoidance behaviors was prominent among the reports of grief behaviors following the loss and reports regarding why the grief behaviors were distressing to the

participants. A 35 year-old woman who lost her most recent pregnancy in the last month of the third trimester reported the following regarding avoidance behaviors in both herself and her partner: *"We didn't really talk much about it. We were both sad, but never really discussed how we were feeling to each other about the whole situation and I think this is what led us to growing apart. We just didn't talk about it. Sort of buried the feelings and tried to move on with life as best we could."*

Other participants reported avoidance behaviors in their partners and discussed the distress they experienced from their partners not engaging with them about the loss. These responses suggest that engaging in avoidance behaviors may be perpetuating unresolved feelings of grief regarding the loss and be negatively associated with relationship satisfaction.

Results Conclusion

In conclusion, the models included in the hierarchical linear regression were and several control variables were found to be significant. However, the results of the study indicated that hypothesis one and two were not statistically supported. As indicated in hypothesis one, higher levels of grief intensity after experiencing a perinatal loss were not significantly associated with lower reports of relationship satisfaction. As expressed in hypothesis two, higher levels of grief intensity after experiencing a perinatal loss and higher levels of emotional cushioning were not significantly associated with higher reports of relationship satisfaction. In addition, although hypothesis two regarding the moderating effect of emotional cushioning between grief intensity and relationship satisfaction was not statistically significant, a significant relationship between levels of emotional cushioning and relationship satisfaction was found. This outcome suggests that a higher or lower level of emotional cushioning is correlated with higher or lower levels of relationship satisfaction, retrospectively. The control variables regarding participants' current relationship status were also found to be significantly associated with relationship satisfaction. This outcome suggests that higher or lower levels of relationship satisfaction are significantly associated with relationship status. Several themes emerged regarding the presence of emotional cushioning, including withholding emotions, avoiding self-disclosure, and self-protective mechanisms. Perceived support from partners during pregnancy and after the loss was examined to assess how supported women felt by their partners, which showed that women experienced a decline in support from their partners following pregnancy loss. Last, themes, including anger,

mixed feelings, and avoidance behaviors emerged from reports about distress associated with grieving behaviors among women and their partners.

CHAPTER 5: DISCUSSION

Introduction

The purpose of this study was to examine the level of grief intensity following perinatal loss and how it is associated with women's relationship satisfaction with their current partner. In addition, the study examined whether or not the level of emotional cushioning serves as a buffer between the influence of grief intensity and women's relationship satisfaction with their partner. A hierarchical linear regression was conducted to identify the level of grief intensity and emotional cushioning experienced, as well as the interaction between grief intensity and emotional cushioning on relationship satisfaction. The regression model was found to be significant; however, the results of the study indicated that hypothesis one and two were not statistically supported. The following discussion explores potential explanations for the results of this study. Strengths, limitations, clinical implications, and future directions for research relating to this study are also discussed.

Hypotheses

It is important to note that the presence of emotional cushioning was found to be significantly associated with relationship satisfaction. Results suggest that higher levels of emotional cushioning were found to be significantly associated with higher reports of relationship satisfaction. There is currently no present research or literature that examines how emotional cushioning is related to relationship satisfaction; however, this finding supports previous research that has examined the presence and effects of emotional cushioning on women (Côté-Arsenault & Donato, 2011; Côté-Arsenault & Marshall, 2000; Côté-Arsenault & Morrison-Beedy, 2002). Retrospectively, emotional cushioning was found to be significantly associated with relationship satisfaction, possibly because of the buffering role it serves to protect women from anxiety, fear, and other negative feelings and experiences during their pregnancy.

Contrary to previous studies (Gold et al., 2010; Hutti et al., 2014; Rini et al., 2006), the current study examined relationship satisfaction among some women who reported currently being in a relationship with the partner whom they experienced the pregnancy loss with and

others who reported being in a relationship with a partner whom they did not experience the loss. In a study conducted by Gold et al. (2010), it was found that the couple relationship is at an increased risk of dissolving if the couple experienced negative effects associated with experiencing pregnancy loss. As indicated in the present study, a significant number of women (n = 62) had dissolved their relationship with the partner whom they experienced the loss with by the time of the study. Gold et al. (2010) also found that couples are more likely to end their relationship after experiencing a pregnancy loss compared to those who experience a live birth. Every woman included in the study experienced a live birth. Although, some women dissolved their relationship with whom they experienced the loss with, less women (n = 23) currently remained in a relationship with the partner they experienced the loss with. Hutti et al. (2014) found that couples who experience pregnancy loss are more likely to experience higher levels of conflict and relational distress in their relationship with their partner. These findings suggest that experiencing negative effects of perinatal loss, such as heightened or increased levels of grief intensity, would decrease relationship satisfaction. However, from results of the current study, it can be hypothesized that there were protective factors or presence of a buffer, possibly emotional cushioning, which protected couples from dissolving their relationship.

An interaction was not found between levels of grief intensity and emotional cushioning, suggesting that emotional cushioning did not serve as a buffer between grief intensity and relationship satisfaction in this study. There is no current research that provides literature or data on how emotional cushioning serves as a buffer between grief intensity and relationship satisfaction. However, previous research suggests that emotional cushioning does serve as a buffer and a self-protective mechanism against anxiety, worry, and fear (Côté-Arsenault & Donato, 2011; Côté-Arsenault & Marshall, 2000; Côté-Arsenault & Morrison-Beedy, 2002). Therefore, it was hypothesized that emotional cushioning would buffer the relationship between grief intensity and relationship satisfaction significantly more than it was found.

Several correlations were conducted to assess for the presence of emotional cushioning utilized by women in their pregnancy following loss. Statistical significance was found for the correlation between the two variables regarding participants' current feelings regarding their most recent pregnancy and if they felt like they were holding back their emotions during their most recent pregnancy (r = -.233, p < .05). This suggests that the higher the level of worry participants currently feel about their pregnancy by looking retrospectively at their most recent

pregnancy is significantly associated with participants reporting a higher level of holding back their emotions during that pregnancy. This correlation signifies that there is strong statistical evidence that participants were experiencing characteristics of emotional cushioning

Statistical significance was also found for the correlation between the two variables regarding the difference between the levels of worry they experienced during their most recent pregnancy and if they felt like they were holding back their emotions during their most recent pregnancy ($r = .542$, $p < .001$). This correlation suggests that participants who reported a higher difference between the levels of worry they experienced during their most recent pregnancy and the way they actually allowed themselves to feel is significantly associated with a higher level of holding back their emotions during pregnancy. This correlation demonstrates that there is strong statistical evidence that participants were experiencing emotional cushioning during their pregnancy after loss. The findings from the aforementioned correlations are supported by present studies regarding the characteristics of emotional cushioning (Côté-Arsenault & Donato, 2011; Côté-Arsenault & Marshall, 2000; Côté-Arsenault & Morrison-Beedy, 2002).

It is also important to acknowledge differences and similarities among grieving behaviors in the couple relationship. Positive and effective communication among partners often decreases following pregnancy loss as couples each experience difficulty coping with the loss and expressing their feelings of grief (Bennett et al., 2005). Statistical significance was found for the correlation between the two variables regarding if participants believed their partner grieved the loss and if their grieving behaviors were similar ($r = .445$, $p < .001$). This indicates that higher reports of believing their partner grieved the loss are significantly associated with higher reports of similarities between the partners' grieving behaviors. This significance suggests that if partners grieve similarly, the woman perceives that her partner grieved the loss. Statistical significance was also found for the correlation between the two variables regarding if the participants' own grieving behaviors and their partners' grieving behaviors were distressing to the participant ($r = .638$, $p < .001$). This shows that there is a significant association between the participants' grieving behaviors being distressing and their partner's grieving behaviors also being distressing. This significance suggests that if a woman's grieving behaviors are already distressing to her, her partner's grieving behaviors could add to the distress that she experiences. These correlations are supported by previous studies that examined how differences in grieving and coping are associated with increased relational tension and decreased partner support (de

Montigny et al., 1999; Lang et al., 2011; Radestad, & Segesten, 2001). It may be beneficial for clinicians to explore the differences and similarities in grieving behaviors and styles to address misunderstandings and differences surrounding the loss and ways to grieve that are supportive and less distressing to the couple.

Strengths and Limitations

There were several limitations to this study. One limitation of the current study is that participants were not required to report the length of time they have been in their current relationship. The length of a couples' relationship could be associated relationship satisfaction. This may be a potential focus in future research when examining relationship satisfaction. Another limitation is that the partnered relationship participants were asked to reflect on in order to assess for relationship satisfaction was not accurately specified in the survey. Due to this discrepancy, 11 participants reported that they were single at the time they accessed the survey. Participants either reflected upon their current partner, the partner they were with when they experienced their pregnancy loss, or the partner they were with after their most recent pregnancy loss; all of which could be different partners.

This research is also limited due to the sample focusing solely on women and their experiences. As suggested in previous studies, fathers' perspectives and experiences could provide further information and insight about emotional cushioning and how it is utilized to cope with pregnancy-anxiety (Côté-Arsenault & Donato, 2011; O'Leary & Thorwick, 2006). It may also be insightful to examine relationship satisfaction from the father's perspective after experiencing pregnancy loss to gain more knowledge about how pregnancy loss impacts fathers and the couple relationship.

In addition, the Pregnancy Anxiety Scale (PAS; Côté-Arsenault, 2003, 2007; Côté-Arsenault & Donato, 2011) was not utilized in the present study as the creators of the scale originally intended. The original authors administered the PAS at three points across pregnancy and once during postpartum. For the purpose of this study, the PAS was administered to participants one time and they were asked to answer the questions retrospectively about their most recent pregnancy. It is acknowledged that measuring pregnancy-anxiety and emotional cushioning retrospectively in the postpartum period is not the same as measuring pregnancy-anxiety and emotional cushioning during the pregnancy or immediately postpartum. Although

the scale was utilized differently than intended, it is important to understand how women feel about their pregnancy postpartum and in later years following the pregnancy.

Although there are several limitations for the study, it is important to acknowledge the strengths of the study. A significant strength of this study is the number of participants recruited (n = 185). Based on the proposed data analysis, only 97 participants were needed to have sufficient power and the number of participants included in this study generously surpassed the needed amount. In a similar study to the present study regarding emotional cushioning, there were 65 participants recruited (Côté-Arsenault & Donato, 2011). Another strength to acknowledge is that while there is current research on grief intensity and emotional cushioning, there is no current research available that addresses these variables in regards to relationship satisfaction among women following their pregnancy loss. Furthermore, the interaction between grief intensity, emotional cushioning, and relationship satisfaction has never been studied. The results of this study, although not significant, are systemically focused due to grief intensity and emotional cushioning being related to relationship satisfaction as well as acknowledging that emotional cushioning serves as a buffer and protective mechanism.

Clinical Implications

An increase in research and literature regarding perinatal grief and constructs, such as emotional cushioning, may provide direction for marriage and family therapists to provide more competent clinical practice. From a systemic framework, it is important to examine the impact perinatal loss has on women and their relationship with their partner. It is a hope that increasing this understanding will help therapists provide a higher quality of care for couples and families who are experiencing the grief surrounding perinatal loss.

The focus of the literature and present study focused primarily on women who have experienced perinatal loss; however, this research may help provide insight on how grief intensity associated with perinatal loss and levels of emotional cushioning impact not only the women experiencing perinatal loss, but their relationship with their partner as well. An understanding around pregnancy-related anxieties associated with relationship satisfaction may help therapists provide enhanced support for couples and families. A focus on the couple and how grief intensity and emotional cushioning impact the couple system may help in the development of interventions that will aid in increasing partner support and relationship

satisfaction, and the ability to cope with experiencing perinatal loss as a couple. It is imperative that women and couples who have experienced pregnancy loss are able to rely on their partner for support during the pregnancy and following loss as the couple relationship is considered the strongest source of support (Lydon et al., 1996). This study suggests that it is important that clinicians operate from a systemic perspective in order to improve relationship satisfaction and strengthen the couple relationship.

This study also supports the importance of being aware of, understanding, and acknowledging the existence of emotional cushioning. Côté-Arsenault and Donato (2011) suggest acknowledging the existence of emotional cushioning with clients by initiating discussions about how clients may be more worried about their pregnancy than they are comfortable disclosing. It is also suggested how it is imperative that healthcare and mental health providers are knowledgeable about the existence of emotional cushioning because women with higher levels of pregnancy-anxiety and emotional cushioning may be less likely to voice their concerns and ask for support. It is important that therapists are taking the initiative to bring awareness to the presence of pregnancy-anxiety and emotional cushioning to ensure that women are receiving the support needed from their partners and others, such as medical and mental health professionals. Women protect themselves and manage their pregnancy-anxiety by utilizing emotional cushioning; however, the protective factors of emotional cushioning may also create barriers between the women and her partner. These barriers can include not being aware of fears or concerns, not disclosing fears or concerns, and not asking for or receiving needed support (Côté-Arsenault & Donato, 2011; Côté-Arsenault & Marshall, 2000; Côté-Arsenault & Morrison-Beedy, 2002). Therapists can intervene by normalizing and validating the presence of pregnancy-anxiety and emotional cushioning for clients. This may aid clients in feeling more comfortable and safe in exploring, expressing, and processing their concerns about their pregnancy and possibly their relationship with their partner. It is important to note the advantageous aspects of emotional cushioning as it allows women to manage their anxiety, maintain their current roles and relationships, and function in their daily life activities (Côté-Arsenault & Donato, 2011). Due to these positive aspects of emotional cushioning, therapists should help clients not necessarily change or stop the utilization of emotional cushioning, but recognize and normalize the use. Therapists should focus on addressing the existence of pregnancy-anxiety and emotional cushioning, and help clients have discussions surrounding

aspects of support. These conversations may increase the chances that women will be able to address their fears and concerns, vocalize their need for support, and subsequently receive the needed support from their partner and others involved.

Future Directions

The present study has contributed to the expansion of research on grief intensity related to experiencing pregnancy loss, the unique role emotional cushioning assumes in decreasing pregnancy-related anxiety in pregnancies after loss, and how these experiences are associated with women's relationships with their partners. Future research could benefit from continued exploration of the role emotional cushioning assumes for women who have experienced perinatal loss and pregnancy-anxiety in subsequent pregnancies, and how the effects of emotional cushioning is associated with the couple relationship. Future researchers should also consider focusing on how emotional cushioning may present in men. Additionally, research could continue to focus on how the level of grief intensity women and couples experiences following a pregnancy loss is associated with subsequent pregnancies and the couple relationship. Last, it would be highly beneficial for future researchers to examine both partners in the couple system and explore how emotional cushioning affects both individuals and their experiences.

Furthermore, there may be potential clinical opportunities for therapists to offer their clients based on the perspectives of this study. The qualitative themes in this study convey that women, men, and couples require support after experiencing a pregnancy loss. It may be beneficial to develop support groups and programs for women and couples, specific to those who have or whom are experiencing symptoms or characteristics related to pregnancy-anxiety and emotional cushioning. Support groups for couples could increase the change of repairing attachment injuries and relating to other couples who are experiencing relational distress associated with pregnancy loss. Clinicians should recommend supports groups in general to clients who have experienced pregnancy loss to aid in normalizing and validating their unique experiences. Support groups could also help in providing psychoeducation and knowledge regarding pregnancy-related anxieties and emotional cushioning. Based on the qualitative themes this study revealed in regards to grieving behaviors and associated distress, it may also be beneficial to develop support groups and programs for couples and men. Future studies may also consider examining the qualitative themes from a systemic perspective as emotional cushioning,

lack of support, and grieving behaviors can impact the entire family system. In addition, potential development of trainings or mental health workshops may be helpful in providing psychoeducation for therapists regarding the traits and effects of pregnancy-anxiety and emotional cushioning from a systemic and holistic perspective.

Conclusion

This study explored the relationship between grief intensity, emotional cushioning, and relationship satisfaction among women who have experienced pregnancy loss. Results supported that there is a significant correlation between levels of emotional cushioning and relationship satisfaction among women. However, statistically significant relationships between grief intensity and relationship satisfaction and the interaction between grief intensity and emotional cushioning were not found. Regardless, correlations and qualitative responses regarding the presence of emotional cushioning, perceived partner support, and grieving behaviors indicated clinical significance. Future studies should consider expanding on the presence and impact of emotional cushioning from a systemic perspective. It is important for marriage and family therapists to be aware of and acknowledge the presence of pregnancy-anxiety and use of emotional cushioning and the role it plays in lives to provide effective, systemic treatment.

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APPENDIX A: RESEARCH PARTICIPANT CONSENT FORM

The Moderating Role of Emotional Cushioning between the Grief Intensity of Perinatal Loss and Relationship Satisfaction Among Women

Dr. Anne B. Edwards and Mollie C. DiTullio
Department of Behavior Sciences
Purdue University

What is the purpose of this study?

You are being asked to participate in a study designed by Dr. Anne B. Edwards and Mollie C. DiTullio of Purdue University. We want to understand some of the experience(s) you have had with pregnancy loss and relationship satisfaction with your partner.

What will I do if I choose to be in this study?

If you choose to participate, you acknowledge that you are female, above the age of 18, and live in the United States. You will be asked to complete a survey asking about your pregnancy loss experiences and relationship satisfaction. These questions reflect your pregnancy loss experience(s) and relationship satisfaction and other related questions concerning what happened after the pregnancy loss experience(s). You are free not to answer any particular questions if they make you feel uncomfortable, or withdraw your participation at any time without penalty.

How long will I be in the study?

The survey should take approximately 30 minutes to complete.

What are the possible risks or discomforts?

Breach of confidentiality is a risk. To minimize this risk, only the researchers listed above will access the data from this study, and no personally identifying information will be collected during the study. The questions may also make you feel uncomfortable and may result in emotional distress. You can go to aamft.org or therapists.psychologytoday.com to find someone to speak to about any distress that may come of participating in this survey.

Are there potential benefits?

You will not directly benefit from this study. You will have a chance to take part in research, and your participation may, thus, contribute to the scientific understanding about pregnancy loss and women's relationship satisfaction.

Will I receive payment or other incentive?

You will receive payment of 40 cents for participating in this research project, so long as you meet the study inclusion criteria, you complete all relevant questions in the survey, and you complete the appropriate verification question to ensure your active participation.

Will information about me and my participation be kept confidential?

There is no personally identifying information on this survey; all responses will remain anonymous and will be used only in combination with the responses of other participants in this and related studies. Additionally, you may choose not to answer particular questions or to withdraw your participation at any time, without penalty. All data gathered in this study will be accessed by the researchers. The data file will be used for preparation of research reports related to this study and kept for a period of three years after publication of any articles related to this study. The project's research records may be reviewed by departments at Purdue University responsible for regulatory and research oversight. In addition, IP addresses will not be linked to identifying information.

What are my rights if I take part in this study?

Your participation in this study is voluntary. You may choose not to participate, and if you agree to participate, you can withdraw your participation before the data is gathered at any time without penalty or loss of benefits to which you are otherwise entitled.

Who can I contact if I have questions about the study?

If you have questions, comments, or concerns about this research project, you can talk to one of the researchers. Please contact Dr. Anne Edwards at abedward@pnw.edu or Mollie DiTullio at mditulli@pnw.edu. If you have questions about your rights while taking part in the study or have

concerns about the treatment of research participants, please call the Human Research Protection Program at (765) 494-5942, email (irb@purdue.edu), or write to:
Human Research Protection Program - Purdue University
Ernest C. Young Hall, Room 1032
155 S. Grant St.,
West Lafayette, IN 47907-2114

Documentation of Informed Consent

I have had the opportunity to read this consent form and have the research study explained. I have had the opportunity to ask questions about the research study, and my questions have been answered. I am prepared to participate in the research study described above.

I certify that I am female, above the age of 18, and a resident of the United States, and agree to participate in this study.

I do not certify that I am female, above the age of 18, or a resident of the United States, and do not agree to participate in this study.

APPENDIX B: SURVEY

Q1 What is your age?

_____

Skip To: End of Survey If What is your age? < 18

Q2 Do you live in the United States?

- O Yes
- O No

Skip To: End of Survey If Do you live in the United States? = No

Q3 What sex were you assigned at birth, such as on an original birth certificate?

- O Male
- O Female

Skip To: End of Survey If What sex were you assigned at birth, such as on an original birth certificate? = Male

Q4 Have you ever been pregnant?

- O Yes
- O No

Skip To: End of Survey If Have you ever been pregnant? = No

Q5 Have you ever experienced a pregnancy loss?

- O Yes
- O No

Skip To: End of Survey If Have you ever experienced a pregnancy loss? = No

Q6 Have you experienced a live birth since your most recent pregnancy loss?

- O Yes
- O No

Skip To: End of Survey If Have you experienced a live birth since your most recent pregnancy loss? = No

Q7 How many times have you been pregnant?

▼ 0 ... More than 10

Skip To: End of Survey If How many times have you been pregnant? = 0

Skip To: End of Survey If How many times have you been pregnant? = 1

Skip To: End of Survey If How many times have you been pregnant? = More than 10

Q8 What is your state of residence?

_____

Q9 Do you consider yourself to be:

- O Heterosexual or straight
- O Gay
- O Lesbian
- O Bisexual
- O Other (please specify) _____
- O Prefer not to answer

Q10 What is your ethnicity? Select all that apply.

- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Native Hawaiian or Pacific Islander
- ☐ Hispanic
- ☐ Multiracial
- ☐ Other (please specify) _____
- ☐ Prefer not to answer

Q11 What is your highest earned degree?

- O Less than high school
- O High school/GED equivalent
- O Some college
- O 2 year degree
- O 4 year degree
- O Professional degree
- O Doctorate
- O Prefer not to answer

Q12 What is your annual household income level?

- O $0-9,999
- O $10,000-19,999
- O $20,000-29,999
- O $30,000-39,999
- O $40,000-49,999
- O $50,000-59,999
- O $60,000-69,999
- O $70,000-79,999
- O $80,000-89,999
- O $90,000-99,999
- O $100,000 or above
- O Prefer not to answer

Q13 What religion do you identify with?

- O Christian
- O Jewish
- O Muslim
- O Buddhist
- O Atheist
- O Agnostic
- O Non-religious
- O Other (please specify) _____
- O Prefer not to answer

Q14 Who were you living with at the time of your most recent pregnancy loss? Select all that apply.

- ☐ Partner
- ☐ Family
- ☐ Roommates
- ☐ Alone

Q15 Has there been a change in your relationship status since your most recent pregnancy loss?

- O No
- O Yes

Q16 What was your relationship status at the time of your most recent pregnancy loss?

- O Single
- O Dating
- O Engaged
- O Married
- O Divorced
- O Separated
- O Widowed
- O Other (please specify) _____

Q17 What is your current relationship status?

- O Single
- O Dating
- O Engaged
- O Married
- O Divorced
- O Separated
- O Widowed
- O Other (please specify) _____

Q18 Is this the same relationship you were in during your most recent pregnancy loss?

- O Yes
- O No

Display This Question:

If Is this the same relationship you were in during your most recent pregnancy loss? = No

Q19 Please explain more about why your relationship ended with the partner you experienced your most recent pregnancy loss with.

_____
_____
_____
_____
_____

Q20 The following questions are about your first pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q21 In what year did your first pregnancy end?

_____

Q22 For how many weeks were you pregnant?

▼ 1 ... 42

Q23 How did your first pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q25 If How did your first pregnancy end? = Miscarriage
Skip To: Q25 If How did your first pregnancy end? = Ectopic pregnancy

Q24 Did your child die within 28 days after birth?

- O Yes
- O No

Q25 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q26 The following questions are about your second pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q27 In what year did your second pregnancy end?

_____

Q28 For how many weeks were you pregnant?

▼ 1 ... 42

Q29 How did your second pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q31 If How did your second pregnancy end? = Miscarriage
Skip To: Q31 If How did your second pregnancy end? = Ectopic pregnancy

Q30 Did your child die within 28 days after birth?

- O Yes
- O No

Q31 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q44 The following questions are about your third pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q45 In what year did your third pregnancy end?

_____

Q46 For how many weeks were you pregnant?

▼ 1 ... 42

Q47 How did your third pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q49 If How did your third pregnancy end? = Miscarriage
Skip To: Q49 If How did your third pregnancy end? = Ectopic pregnancy

Q48 Did your child die within 28 days after birth?

- O Yes
- O No

Q49 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q50 The following questions are about your fourth pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q51 In what year did your fourth pregnancy end?

_____

Q52 For how many weeks were you pregnant?

▼ 1 ... 42

Q53 How did your fourth pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q55 If How did your fourth pregnancy end? = Miscarriage
Skip To: Q55 If How did your fourth pregnancy end? = Ectopic pregnancy

Q54 Did your child die within 28 days after birth?

- O Yes
- O No

Q55 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q56 The following questions are about your fifth pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q57 In what year did your fifth pregnancy end?

_____

Q58 For how many weeks were you pregnant?

▼ 1 ... 42

Q59 How did your fifth pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q61 If How did your fifth pregnancy end? = Miscarriage
Skip To: Q61 If How did your fifth pregnancy end? = Ectopic pregnancy

Q60 Did your child die within 28 days after birth?

- O Yes
- O No

Q61 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q62 The following questions are about your sixth pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q63 In what year did your sixth pregnancy end?

_____

Q64 For how many weeks were you pregnant?

▼ 1 ... 42

Q65 How did your sixth pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q67 If How did your sixth pregnancy end? = Miscarriage
Skip To: Q67 If How did your sixth pregnancy end? = Ectopic pregnancy

Q66 Did your child die within 28 days after birth?

- O Yes
- O No

Q67 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q68 The following questions are about your seventh pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q69 In what year did your seventh pregnancy end?

_____

Q70 For how many weeks were you pregnant?

▼ 1 ... 42

Q71 How did your seventh pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q73 If How did your seventh pregnancy end? = Miscarriage
Skip To: Q73 If How did your seventh pregnancy end? = Ectopic pregnancy

Q72 Did your child die within 28 days after birth?

- O Yes
- O No

Q73 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q74 The following questions are about your eighth pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q75 In what year did your eighth pregnancy end?

_____

Q76 For how many weeks were you pregnant?

▼ 1 ... 42

Q77 How did your eighth pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q79 If How did your eighth pregnancy end? = Miscarriage
Skip To: Q79 If How did your eighth pregnancy end? = Ectopic pregnancy

Q78 Did your child die within 28 days after birth?

- O Yes
- O No

Q79 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q80 The following questions are about your ninth pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q81 In what year did your ninth pregnancy end?

_____

Q82 For how many weeks were you pregnant?

▼ 1 ... 42

Q83 How did your ninth pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q85 If How did your ninth pregnancy end? = Miscarriage
Skip To: Q85 If How did your ninth pregnancy end? = Ectopic pregnancy

Q84 Did your child die within 28 days after birth?

- O Yes
- O No

Q85 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q86 The following questions are about your tenth pregnancy. Please answer as specifically as you can. If you do not remember exactly, please provide your closest recollection.

Q87 In what year did your tenth pregnancy end?

_____

Q88 For how many weeks were you pregnant?

▼ 1 ... 42

Q89 How did your tenth pregnancy end?

- O Live birth
- O Miscarriage
- O Ectopic pregnancy

Skip To: Q91 If How did your tenth pregnancy end? = Miscarriage
Skip To: Q91 If How did your tenth pregnancy end? = Ectopic pregnancy

Q90 Did your child die within 28 days after birth?

- O Yes
- O No

Q91 Was this miscarriage or neonatal death caused by genetic factors?

- O Yes
- O No
- O I don't know

Q32 Using the slider, please indicate how you feel about each of the following items by looking back retrospectively at your most recent pregnancy.

Definitely No Definitely Yes

0 10 20 30 40 50 60 70 80 90 100

When I think about this pregnancy I feel anxious.	
I feel overwhelmed because of the anxieties related to this pregnancy.	
I am confident that this baby will be fine.	
I worry whether I will be able to bring this pregnancy to term.	
I feel anxious when people talk about the future with this baby.	
I am concerned that my efforts and sacrifices for this pregnancy won't be enough.	
I feel that I am holding back my emotions about this pregnancy.	
I worry about getting myself through this pregnancy.	
Becoming emotionally attached to my baby is easy.	

Q33 Using the slider, please indicate how you currently feel in the present regarding your most recent pregnancy.

	Not at all worried									The most worried I've ever been
	0	10	20	30	40	50	60	70	80	90	100
Right now, today, how worried were you, really, during your pregnancy?											

Q34 Is this different from the way you felt (or allowed yourself to feel) during your most recent pregnancy?

- O Strongly agree
- O Agree
- O Somewhat agree
- O Neither agree nor disagree
- O Somewhat disagree
- O Disagree
- O Strongly disagree

Q35 Please explain further how this may or may not be different from the way you felt (or allowed yourself to feel) during your most recent pregnancy.

_____
_____
_____
_____
_____

Q36 Looking back at a previous item: 'I feel that I am holding back my emotions about this pregnancy', do you feel that you were holding back your emotions during your most recent pregnancy?

- O Strongly agree
- O Agree
- O Somewhat agree
- O Neither agree nor disagree
- O Somewhat disagree
- O Disagree
- O Strongly disagree

Q37 Please explain further about the extent to which you feel you were holding back your emotions during your most recent pregnancy.

_____
_____
_____
_____
_____

Q38 Can you explain more about how you tried to protect yourself during your most recent pregnancy?

_____
_____
_____
_____
_____

Q39 Please answer the following items based off your most recent pregnancy loss.

	A great deal	A lot	A moderate amount	A little	None at all
How supportive was your partner during your pregnancy?	O	O	O	O	O
How supportive was your partner after your pregnancy loss?	O	O	O	O	O
To what extent do you believe your partner support you the way you needed?	O	O	O	O	O
To what extent do you believe your partner grieved your pregnancy loss?	O	O	O	O	O

Q40 To what extent do you believe you and your partner grieved similarly for your most recent pregnancy loss?

- O Strongly agree
- O Agree
- O Somewhat agree
- O Neither agree nor disagree
- O Somewhat disagree
- O Disagree
- O Strongly disagree

Q41 What behaviors did you and your partner exhibit when grieving for your most recent pregnancy loss? Please explain.

_____
_____
_____
_____
_____

Q42 Were the ways you grieved ever a point of stress or distress to you?

- O Strongly agree
- O Agree
- O Somewhat agree
- O Neither agree nor disagree
- O Somewhat disagree
- O Disagree
- O Strongly disagree

Q105 Were the ways your partner grieved ever a point of stress or distress to you?

- O Strongly agree
- O Agree
- O Somewhat agree
- O Neither agree nor disagree
- O Somewhat disagree
- O Disagree
- O Strongly disagree

Q43 Please explain about how the ways you and your partner grieved may or may not have been a point of stress or distress to you.

_____
_____
_____
_____
_____

Q92 Please indicate the degree of happiness, all things considered, of your relationship with your partner.

- O Extremely Unhappy
- O Fairly unhappy
- O A little unhappy
- O Happy
- O Very happy
- O Extremely happy
- O Perfect

Q93 Most people have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
Amount of time spent together	O	O	O	O	O	O
Making major decisions	O	O	O	O	O	O
Demonstrations of affection	O	O	O	O	O	O

Q94 For each of the following items, select the answer that best describes how you feel about your relationship.

	All the time	Most of the time	More often than not	Occasionally	Rarely	Never
In general, how often do you think that things between you and your partner are going well?	O	O	O	O	O	O
How often do you wish you hadn't gotten into this relationship?	O	O	O	O	O	O

Q95 Please indicate below the approximate extent to how true or untrue you believe the following items to be regarding your relationship.

	Not at all true	A little true	Somewhat true	Mostly true	Almost completely true	Completely true
I still feel a strong connection with my partner.	O	O	O	O	O	O
If I had my life to live over, I would marry (or live with/date) the same person.	O	O	O	O	O	O
Our relationship is strong.	O	O	O	O	O	O
I sometimes wonder if there is someone else out there for me.	O	O	O	O	O	O
My relationship with my partner makes me happy.	O	O	O	O	O	O
I have a warm and comfortable relationship with my partner.	O	O	O	O	O	O

I can't imagine ending my relationship with my partner.	O	O	O	O	O	O
I feel that I can confide in my partner about virtually anything.	O	O	O	O	O	O
I have had second thoughts about this relationship recently.	O	O	O	O	O	O
For me, my partner is the most perfect romantic partner.	O	O	O	O	O	O
I really feel like part of a team with my partner.	O	O	O	O	O	O
I cannot imagine another person making me as happy as my partner does.	O	O	O	O	O	O

Q96 For each of the following items, select the answer that best describes how you feel about your relationship.

	Not at all	A little	Somewhat	Mostly	Almost completely	Completely
How rewarding is your relationship with your partner?	O	O	O	O	O	O
How well does your partner meet your needs?	O	O	O	O	O	O
To what extent has your relationship met your original expectations?	O	O	O	O	O	O
In general, how satisfied are you with your relationship?	O	O	O	O	O	O

Q97 How good is your relationship compared to most?

	1	2	3	4	5	6	7	
Worse than all others (Extremely bad)	O	O	O	O	O	O	O	Better than all others (Extremely good)

Q98 For each of the following items, select the answer that best describes how you feel about your relationship.

	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often
Do you enjoy your partner's company?	O	O	O	O	O	O
How often do you and your partner have fun together?	O	O	O	O	O	O

Q99 For each of the following items, select the answer that best describes how you feel about your relationship. Base your responses on your first impressions and immediate feelings about the item.

	1	2	3	4	5	6	
Interesting	O	O	O	O	O	O	Boring
Bad	O	O	O	O	O	O	Good
Full	O	O	O	O	O	O	Empty
Lonely	O	O	O	O	O	O	Friendly
Sturdy	O	O	O	O	O	O	Fragile
Discouraging	O	O	O	O	O	O	Hopeful
Enjoyable	O	O	O	O	O	O	Miserable

Q100 Each of the following items is a statement of thoughts and feelings that some people have concerning a pregnancy loss (loss of an infant from conception, during pregnancy, or up to 28 days of the newborn's life) such as yours. There are no right or wrong responses to these statements. For each item, check the box that best indicates the extent to which you agree or disagree with it at the present time.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I feel depressed.	O	O	O	O	O
I find it hard to get along with people.	O	O	O	O	O
I feel empty inside.	O	O	O	O	O
I can't keep up with my normal activities.	O	O	O	O	O
I feel a need to talk about the baby.	O	O	O	O	O
I am grieving for the baby.	O	O	O	O	O
I am frightened.	O	O	O	O	O
I have considered suicide since the loss.	O	O	O	O	O
I take medicine for my nerves.	O	O	O	O	O
I very much miss the baby.	O	O	O	O	O
I feel I have adjusted well to the loss.	O	O	O	O	O

It is painful to recall memories of the loss.	O	O	O	O	O
I get upset when I think about the baby.	O	O	O	O	O
I cry when I think about him/her.	O	O	O	O	O
I feel guilty when I think about the baby.	O	O	O	O	O
I feel physically ill when I think about the baby.	O	O	O	O	O
I feel unprotected in a dangerous world since he/she died.	O	O	O	O	O
I try to laugh, but nothing seems funny anymore.	O	O	O	O	O
Time passes so slowly since the baby died.	O	O	O	O	O
The best part of me died with the baby.	O	O	O	O	O
I have let people down	O	O	O	O	O

since the baby died.					
I feel worthless since he/she died.	O	O	O	O	O
I blame myself for the baby's death.	O	O	O	O	O
I get cross at my friends and relatives more than I should.	O	O	O	O	O
Sometimes I feel like I need a professional counselor to help me get my life back together again.	O	O	O	O	O
I feel as though I'm just existing and not really living since he/she died.	O	O	O	O	O
I feel so lonely since he/she died.	O	O	O	O	O
I feel somewhat apart and remote, even among friends.	O	O	O	O	O
It is safer to not love.	O	O	O	O	O

I find it difficult to make decisions since the baby died.	O	O	O	O	O
I worry about what my future will be like.	O	O	O	O	O
Being a bereaved parent means being a "Second-Class Citizen."	O	O	O	O	O
It feels great to be alive.	O	O	O	O	O

Q101 Is there anything else you would like to add or say about your experiences before the survey is completed?

_____
_____
_____
_____
_____

Q104 In order to receive your payment for completing this survey, please enter the following survey code in mechanical turk:

ABE1MCD