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The Moderating Effect of Anticipatory Grief on the Relationship Between Attachment and Perceived Closeness with Satisfaction of Life and Marriage for Spousal Caregivers of Individuals with Dementia

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THE MODERATING EFFECT OF ANTICIPATORY GRIEF ON THE RELATIONSHIP BETWEEN ATTACHMENT AND PERCEIVED CLOSENESS WITH SATISFACTION OF LIFE AND MARRIAGE FOR SPOUSAL CAREGIVERS OF INDIVIDUALS WITH DEMENTIA

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ABSTRACT

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With the population of individuals with dementia growing every year, spouses are frequently finding themselves in caregiving roles. The progressive nature of dementia often leads to grief over actual and expected declines in the physical and psychological functioning of those with the disease. Spouses may grieve over losses that have not yet occurred. This anticipatory grief may affect how spousal caregivers perceive their relationship. This may further affect the spouses' satisfaction with life and marriage and impact the quality of care they provide to their loved one with dementia. Using electronic data collection through three national organizations that support caregivers, this study explored two areas of spousal caregivers' functioning. First, how attachment style and perceived closeness affect the life and marital satisfaction of spousal caregivers. Second, whether anticipatory grief moderates the effects of relationship quality on satisfaction with life and marriage. Attachment and perceived closeness accounted for statistically significant variance of both life satisfaction and marital satisfaction. Anticipatory grief was not found to moderate either of these outcomes. While addressing grief may still be an area of focus for those providing support to caregivers, results from this study suggest that helping caregivers' to improve their relationship quality and life satisfaction may be the most important target of intervention

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CHAPTER I

INTRODUCTION

For years, the rate of family caregiving has been increasing as rising costs for medical services and private care often force spouses or other family members to take on the duties necessary to maintain a loved one's quality of life (Thies & Bleiler, 2013; Family Caregiver Alliance, 2011; Grossman, Bergmann, & Parker, 2006). Particular growth has been observed in the number of spouses and family members taking on the role of caregiver for a loved one with a progressive dementia (Thies & Bleiler, 2013; Family Caregiver Alliance, 2011). There are unique challenges that come with providing care to individuals with dementia that family members may not always be prepared for (Gonzalez, Polansky, Lippa, Walker, & Feng, 2011). In addition to an ever increasing need for aid in performing daily acts of living, individuals with dementia deteriorate cognitively in ways that leave them unable to remember faces of loved ones, how to navigate previously familiar environments, and they may lose aspects of their personality that defined their relationships (Raschick & Ingersoll-Dayton, 2004). Such factors can be a significant source of distress to those in a caregiving role, and understanding how caregivers are affected may be an important starting point in providing intervention and support for these individuals (Thies & Bleiler, 2013).

As the number of individuals with dementia increases, more and more spouses of these individuals will find themselves in the role as a caregiver. Understanding the

experiences of these spousal caregivers will be paramount in empowering them to take care of themselves and also their loved ones. Within this study, the variables of interest relative to spousal caregiving are attachment style, perceived closeness, anticipatory grief, life satisfaction, and marital satisfaction.

Rationale

In the United States, there are up to 5.2 million individuals who have diagnoses of Alzheimer's or other forms of dementia (Thies & Bleiler, 2013). Care is provided for these individuals by formally trained, paid, and regulated individuals, called formal caregivers, and amateur, unpaid individuals, called informal caregivers. The latter are most likely to be relatives or close friends of the individual with dementia (Thies & Bleiler, 2013; Family Caregiver Alliance, 2012). It is estimated that there are 350,000 new diagnoses made each year (Thies & Bleiler, 2013). Care is provided to these individuals by approximately 15.4 million informal caregivers, with up to 70% of those individuals being the spouse of the person with dementia (Thies & Bleiler, 2013). The monetary value of these informal services is estimated to be the equivalent of $216,000,000,000 worth of private care (Thies & Bleiler, 2013). The annual growth rate of informal caregivers (caregivers with no formal training) is expected to be five times that of the annual growth rate of formal caregiving services (Raschick & Ingersoll-Dayton, 2004). Counseling psychologists can play a profound role in helping familial caregivers cope with their stress, connect with or strengthen relationships with natural supports, or work in multidisciplinary settings such as adult day cares or outpatient agencies that provide support to informal caregivers (Jones, 2006). It is of utmost importance for mental health professionals working with familial caregivers to have as

in-depth of an understanding of the psychological intricacies of this population in order to be maximally beneficial to those in need.

Being a caregiver is not an easy task, and can take a heavy toll on those providing such services. The unique demands placed upon informal caregivers are varied and often times lead to distress, such as losing personal free time or financial difficulties due to increased healthcare costs for their loved ones (Brodaty & Donkin, 2009; Schoenmakers, Buntinx, & De Lepeliere, 2009). Beyond finances and personal time, informal caregivers also tend to suffer from decreased physical health (Long et al., 2004). The progressive nature of dementia means that as the abilities of the loved one decline, the caregiver must compensate for these deficits. What may initially be a matter of tying a loved one's shoes or doing the majority of the household chores may eventually become tasks of lifting, dressing, and bathing a loved one, thus putting increased strain on the physical health of the caregiver (Long et al., 2004). These same individuals often have higher mortality rates than non-caregiving peers and also report higher levels of depression (Schulz & Beach, 1999).

Within the overarching group of individuals who can be described as informal caregivers is a specific group of people who are called spousal caregivers. As can be inferred from the description, these individuals are the long-term romantic partners of the individual diagnosed with a dementia disease who is now receiving some type of care from the spouse. Perhaps unsurprisingly, the level of marital satisfaction reported by spousal caregivers is often lower than that of non-caregiving peers (Williams, 2011; Braun et al., 2009). The ramifications of this decreased level of marital satisfaction may include elevated levels of depression, anxiety, stress related to caregiving duties, or

feelings of isolation (Braun et al., 2009; Williams, 2011; Boylstein & Hayes, 2011). The extent to which a spouse perceives his or her marriage to be happy and successful can either buffer against or damage the perceived levels of life satisfaction and level of stress experienced as a caregiver (O'Rourke, Claxton, Kupferschmidt, Smith, & Beattie, 2011). As might be expected, decreased levels of marital satisfaction and other stressors related to caregiving are strongly related to decreased life satisfaction (Hawkins & Booth, 2005; Wells, Dywan, & Dumas, 2005).

Informal caregivers who are experiencing psychological distress may be less likely to adhere to medical recommendations regarding their loved ones and such caregivers may also utilize less medical resources for their care recipients (Thorpe, VanHoutven, & Sleath 2009). Some research demonstrates that lower life satisfaction predicts psychological distress as well as the likelihood that caregivers bring their loved ones to both medical and mental health providers (Thorpe et al., 2009). These findings also substantiate pervious findings that caregivers experiencing some degree of mental illness are more likely to be negligent of their loved one's needs as a care recipient (Beach et al., 2005). As alarming as it may be that caregiver life satisfaction can impact the health care services received by the care recipient, caregivers with lower life satisfaction are themselves at risk. Informal caregivers, including spousal caregivers, with low levels of life satisfaction are more likely to have poor physical health, decreased social support, lower employment, lower levels of energy, and lower levels of fulfillment related to their role as a caregiver (Borg & Hallberg, 2006; Fritz, Farver, Kass, & Hart, 1997). Furthermore, caregivers with low degrees of life satisfaction are more likely to struggle to positively reappraise stressful situations related to caregiving, which can

further increase their risk of experiencing psychological distress and damage the quality of care they provide (Haley, LaMonde, Han, Burton, & Schonwetter, 2003).

While there are clear, unique aspects to the relationship between a spousal caregiver and his or her loved one, this relationship is still subject to many of the same constructs that influence other interpersonal relationships. In order to understand the interactions of marital satisfaction and life satisfaction, it seems paramount to also understand the nuances of a spousal caregiver's interpersonal psychological processes. One such process is the widely studied construct of attachment theory, first conceptualized by John Bowlby in 1969. According to Bowlby and other researchers, interactions with primary caregivers result in long-standing, implicit attachment styles that highly affect one's interpersonal and intrapersonal functioning (Behringer, Reiner, & Spangler, 2011; Bowlby, 1969). While Bowlby initially spoke of insecure versus secure attachment, decades of research have resulted in the conceptualization of attachment style to consist of continuums on attachment avoidance and attachment anxiety (Brennan, Clark, & Shaver, 1998; Fraley & Spieker, 2003). By measuring where individuals fall on these two spectrums, it is believed that a more accurate understanding of a person's interpersonal functioning is generated (Fraley, Waller, & Brennan, 2000).

A large amount of research has been published demonstrating how one's attachment style can impact a variety of domains of human functioning including self-esteem, self-efficacy, quality of relationships, and life satisfaction (Behringer et al., 2011; Hwang, Johnson, & Smith, 2009; Macfie & Swan, 2009; Powers, Pietromonaco, Gunlicks, & Sayer, 2006; Wright & Perrone, 2012). In terms of spouses, individuals who are securely attached are more likely to report high levels of marital satisfaction in

addition to being perceived as more satisfied by their partners than their insecure peers (Givertz, Woszidio, Segrin, & Knutson, 2013). Additionally, individuals classified as securely attached report higher life satisfaction. Recent research suggests that life satisfaction predicts marital satisfaction as adjustments to the relationship become necessary (Stanley, Ragan, Rhoades, & Markman, 2012) and that life satisfaction between partners becomes shared in that either partner's level of life satisfaction migrates towards a common level (Powdthavee, 2009). Given that attachment style can predict so many different facets of human functioning, and that both life satisfaction and marital satisfaction are affected by attachment style, it is clear that attachment should be evaluated within the topic of spousal caregiving.

If there is one criticism about using attachment theory to assess the relational dynamics of a person, it is that the construct is primarily emotional in content and context (Mikulincer, Shaver, & Pereg, 2003; Schore & Schore, 2008). While the emotional connection between two individuals is likely crucial to how they interact with one another, researchers on attachment have generated decades of research on this construct. In order to more thoroughly understand the nature of relationships, it may be relevant to include other, non-emotionally laden measures when conducting psychological research. A less utilized construct of relationships is that of perceived closeness, which is one's cognitive appraisal of various components of his or her relationship towards an identified other (Starzyk, Holden, Fabrigar, & MacDonald, 2006). This construct differs from attachment in that perceived closeness is measured by factual knowledge of one's relationship (e.g., information about friends, time spent together) than an assessment of one's emotional experience (Starzyk et al., 2006). Some research has demonstrated that

individuals with higher degrees of perceived closeness are more able to differentiate their needs from the needs of their spouse, which may very likely be an important ability for spousal caregivers (Petrican, Burris, Bielak, Schimmack, & Moscovitch, 2011). Further importance in studying perceived closeness stems from findings that individuals with higher levels of this construct are more likely to be trusting, satisfied, and engaged in collaborative problem-solving towards the target of their evaluations (Selfhout, Branje, & Meeus, 2008; Spake & Bishop, 2009).

While understanding the interpersonal and intrapersonal experiences of informal caregivers is important in maximizing their well-being, and therefore improving the quality of care they provide, it is also important to understand the specific sources of stress they face when interacting with their loved one. Measures of caregiving stress often focus on assessing very specific tasks, behaviors, or effects related to being a caregiving such as how much leisure time a caregiver has or the amount of social support they receive. Numerous measures exist that allow researchers to collect information regarding caregiver stress in a variety of ways. However, measures of caregiving stress often focus on breadth as opposed to depth when investigating a source of stress. One particular noteworthy area in which measures of caregiving stress fail to thoroughly explore is the impact that grief processes may have on the functioning of caregivers.

Anticipatory grief is a process that many informal caregivers go through and involves a series of losses that stem from their loved one's progression of cognitive and physical decline (Kuhn, 2001). Unique to informal caregivers is the likelihood that their relationship with their loved one undergoes drastic changes, to the point that the individual with dementia no longer recognizes the caregiver as the relative or spouse that

he or she truly is. In these situations, a caregiver may go through a mourning process regarding the loss of this relationship even though the loved one is still physically alive and functioning (Kehl, 2005). Research on anticipatory grief has found conflicting results. In some studies, this construct can have protective factors against psychological distress (Futterman, Hoffman, & Sabshin, 1972; Parker & Weiss, 1983; Rando, 1983), while in others it is related to increased levels of psychological distress (Madison & Viola, 1968; Parks, 1970). Despite inconsistencies, numerous researchers have concluded that caregivers likely go through some type of grief process prior to the actual passing of the terminally ill individual they provide care to (Barnes, Raskind, Scott, & Murphy, 1981; Fulton & Fulton, 1971; Gruetzner, 1988; Norman, 1990; Powell & Courtice, 1986; Simank & Strickland, 1986; Teusink & Mahler, 1984).

More current research has found anticipatory grief to be an independent, and predictive, construct to measures of caregiver stress (Holley & Mast, 2009, 2012). Furthermore, deterioration in the functioning of loved ones may result in behavioral outbursts or increased need for caregiver supervision serve as constant reminders of the loss being experienced by the caregiver. This can result in elevated levels of anticipatory grief that may lead to higher levels of psychological distress, thus hampering the quality of care provided by the caregiver (Holley & Mast, 2012; Ponder & Pomeroy, 1996). This construct appears to be understudied in the realm of spousal caregiving and it is unknown how anticipatory grief may affect caregivers' life and marital satisfaction, as well as their relationship with their loved one.

Independent of one anther, each of the constructs discussed may very well affect the interpersonal, and intrapersonal, functioning of spousal caregivers. In order to better

empower these individuals to maintain a high level of satisfaction regarding life and marriage, it is necessary to understand how perceptions of their relationship towards their loved one affect these two domains. Furthermore, knowing how this relationship is moderated by anticipatory grief would fill a gap in the current research by revealing to some degree how this type of grief impacts various areas of caregiver functioning. Given the protective factors associated with high levels of life and marital satisfaction, knowing how to minimize the potential negative effects of anticipatory grief may enable counseling psychologists to intervene and support spousal caregivers during periods of distress. By empowering the spouses to maximize their well-being, the service and care they provide to their loved one will be of higher quality and thus promote better well-being for the individual with dementia as well (Thorpe et al., 2006).

Attachment Theory

This research study was guided by the tenets of attachment theory. Attachment theory posits that individuals who are close and securely attached to a partner will also report higher levels of marital satisfaction and life satisfaction (Itzhar-Nabarro & Smoski, 2013). Bowlby (1980) believed that close and securely attached dyads in which a death eventually occurred would be buffered against negative effects of grief. Furthermore, he suggested that in the face of a pending death, the bond within the dyad would remain strong and thus each partner would turn to one another to maximize the time left with one another. These original ideas from the progenitor of attachment theory would suggest that in this study, spousal caregivers who have more secure and close relationships with their loved one would demonstrate lower levels of anticipatory grief and thereby have higher levels of marital and life satisfaction.

However, were the alternative to happen in that securely attached individuals actually had higher levels of anticipatory grief with lower levels of marital and life satisfaction, then this could represent a shift in moving from a more secure attachment orientation to one that is avoidant or anxious. Bowlby himself suggested that as individuals age and undergo changes in their own needs and social supports, they also undergo a transformation in how they demonstrate their style of attachment (1980). For older married adults who are on the cusp of losing their loved one, they may engage in more avoidant attachment behaviors as a way of buffering themselves from the pain having a loved one pass away (Mancini, Robinaugh, Shear, & Bonanno, 2009). This may create emotional distance from their spouse that decreases the level of grief and psychological distress that they experience.

Caregivers in a variety of settings often go through a process of anticipatory grief, where they grieve over the passing of an individual prior to his or her physical death (Kehn, 2001). In some ways, individuals with dementia can lose part of their psyche even 20 years before they physically die, and this can represent the aforementioned loss of personality that disrupts the psychological and emotional connections between loved one and care recipient (Alzheimer's Association, 2013; Marwit & Meuser, 2005). This experience will continue to become increasingly common as the population of adults over the age of 65 continues to be one of the fastest growing demographics in the country (Thies & Bleiler, 2013). With 6% of adults 60 or older suffering from some form of dementia, the current number of individuals with a dementia disease is estimated at 5.2 million in the USA (Thies & Bleiler, 2013). This population currently comprises 20% of

the general population, and this proportion is expected to increase to 30% by 2050 (Arai et al., 2012).

In the United States, approximately 65.7 million individuals provide care to individuals with dementia. Of these individuals, 15.4 million are family members or close friends who assist in meeting the healthcare needs of a loved one, such as by aiding in some daily act of living like bathing or dressing (Thies & Bleiler, 2013). Being a family member or close friend likely means that an informal caregiver has known the individual with dementia for many years, and as such, are uniquely perceptive to even slight changes in their loved one's personality that serve as a reminder that this person is in an active process of dying (Marwit & Meuser, 2005). This experience of grief likely has a negative impact on the psychological and physical well-being of informal caregivers that could further result in reduced quality of care for the individual with dementia (Holley & Mast, 2009; Marwit & Meuser, 2005). It is emotionally taxing to see a loved one degrade due to a terminal illness, and for many this results in mourning the perceived losses within the context of their relationship (Bradley & Cafferty, 2001).

The process of anticipatory grief may affect how one perceives or evaluates his or her relationship towards the care recipient and changes that occur, this may further impact one's satisfaction of this novel context. Relationships may differ in terms of how people emotionally and psychologically connect and two constructs that assume to assess these relational dimensions are attachment style and perceived closeness, relatively different constructs in terms of descriptions by those who measure them (Fraley & Spieker, 2003; Starzyk et al., 2006). Currently, there is no known research examining the similarities or differences between attachment theory and perceived closeness. In terms of

their constructs, attachment style is considered to be a core part of human interpersonal and intrapersonal functioning relative to emotions and behaviors associated with emotional experiences (Fairchild & Finney, 2006), while perceived closeness focuses more on recalled knowledge and observable behavior (Starzyk et al., 2006).

Given how these constructs may shape perceptions of the relationship towards a loved one with dementia, caregivers with more negative perceptions of their relationship may have reduced levels of marital satisfaction in addition to life satisfaction. Furthermore, the quality of the relationship between caregivers' and their spouses with dementia may affect the degree to which they grieve the unique losses that occur throughout the progression of dementia (Mittelman, Zeiss, Davies, & Guy, 2003). In totality, these constructs may all implicate the quality of care provided by the spousal caregiver (Hirschberger, Srivastava, Marsh, Cowan, & Cowan, 2009; Perren, Schmid, Hermann, & Wettstein, 2007). It may be that as an individual with dementia suffers degraded cognitive and physical abilities, that individuals who are securely attached are buffered against anticipatory grief while avoidant or anxious individuals suffer from elevated levels of anticipatory grief and therefore have lower levels of life and marital satisfaction than their securely attached peers (Kim, Carver, Deci, & Kasser, 2008; Mikulincer & Shaver, 2009; Perren et al., 2007). Given how life and marital satisfaction can affect the psychological and physical well-being of an individual, it is relevant to understands what impacts these two constructs within caregiving populations in order to maximize the quality of life of such individuals and hopefully improve the quality of care they provide to their loved ones with dementia (Deiner & Chan, 2011; Fleeson, 2004; Nelis et al., 2012).

Life satisfaction is a construct that provides insight into how an individual subjectively views his or her life in terms of quality and well-being (Deiner, Emmons, Larsen, & Griffin, 1985). Unsurprisingly, spousal caregivers often report decreased life satisfaction as well as increased levels of depression that could very possibly hinder the quality of care they provide to their spouse (Haley, LaMonde, Han, Narramore, & Schonwetter, 2001). On the other hand, individuals with secure attachment styles tend to report higher levels of life satisfaction (Wright & Perrone, 2010), and spousal caregivers with secure attachment styles tend to experience less depression or anxiety than insecurely attached caregivers (Perren et al., 2007). This suggests that secure attachment may buffer against the stress of caregiving. Marital satisfaction contributes to life satisfaction (Heller, Watson, & Ilies, 2004), with the latter having potentially powerful ramifications for quality of life (Deiner & Chan, 2011).

Individuals with close and secure relationships may have different grief responses than other individuals (Bradley & Cafferty, 2001), and this different experience of grief may very well affect their subjective levels of marital satisfaction and life satisfaction (Borg & Hallberg, 2006; Itzhar-Nabarro & Smoski, 2012). Understanding the interactions of relational variables within the context of the understudied anticipatory grief process could provide meaningful insight into how to improve the emotional and psychological health of spousal caregivers (Nelis, Clare, & Whitaker, 2012). These improvements may very well then further heighten their own ability and efficacy as caregivers, thus improving the quality of care received by individuals with dementia (Chen et al., 2013).

Purpose

To date, no previous study has explored how anticipatory grief affects how relationship quality and is related to the life satisfaction and the marital satisfaction of spousal caregivers of individuals with dementia. Given the ever-increasing number of individuals with dementia, the need for informal caregivers, particularly spouses, to provide care for these individuals will continue to grow (Thies & Bleiler, 2013). In order to develop services and interventions that maximize the well-being of caregivers, understanding what possible negative effects anticipatory grief may have on relationship quality and subjective satisfaction with life and with marriage may lead to improved quality of care provided by spouses of persons with dementia (Chen et al., 2013; Nelis et al., 2012). With this purpose in mind, this study was conducted to answer the following research questions.

Research Questions

Q1 How much variance in marital satisfaction is accounted for by anxious attachment, avoidant attachment, and perceived closeness?

H1 It was hypothesized that anxious attachment, avoidant attachment, and perceived closeness would collectively account for a statistically significant amount of the variance in marital satisfaction.

H2 It was hypothesized that less anxious attachment, less avoidant attachment and greater perceived closeness would be associated with greater marital satisfaction.

Q2 How much variance in life satisfaction is accounted for by anxious attachment, avoidant attachment and perceived closeness?

H3 It was hypothesized that anxious attachment, avoidant attachment, and perceived closeness would collectively account for a statistically significant amount of the variance in life satisfaction.

H4 It was hypothesized that less anxious attachment, less avoidant attachment and greater perceived closeness would be associated with greater life satisfaction.

Q3 How does anticipatory grief moderate the relationship between anxious attachment, avoidant attachment and perceived closeness with marital satisfaction and life satisfaction?

H5 It was hypothesized that anticipatory grief would have a negative moderating effect between anxious attachment, avoidant attachment, and perceived closeness with marital satisfaction.

H6: It was hypothesized that anticipatory grief would have a negative moderating effect between anxious attachment, avoidant attachment, and perceived closeness with life satisfaction.

Definitions

For the purpose of this study, the following operational definitions were used and are described below:

Dementia

Dementia refers to the varied biological etiologies that contribute to the development and progression of dementia processes. Diagnoses included in the ICD-9, ICD-10, and DSM-V that fall under the umbrella term of dementia include: dementia with lewy bodies, frontotemporal lobar degeneration, mixed dementia, Parkinson's disease, Creutzfield-Jakob disease, normal pressure hydrocephalus, Alzheimer's disease, neurocognitive disorder, unspecified dementia, Multi-infarct dementia, and vascular dementia (Thies & Bleiler, 2013). Various stages (e.g., seven subtypes of Alzheimer's ranging from "*no impairment*" to "*very severe decline*") may exist within these disorders, and spousal caregivers of individuals with any diagnostic form of dementia were eligible for participation regardless of which disease, subtype, or stage. Participants were asked to clarify specific diagnostic information of their loved one on a demographic questionnaire.

While individuals with mild cognitive impairment (MCI), including amnestic MCI) often go on to develop dementia (Thies & Bleiler, 2013), these symptoms do not satisfy the diagnostic criteria for a dementia disease and therefore such cases were not eligible for this study.

Caregiver

The term informal caregiver was used in reference to family members of individuals with a currently diagnosed dementia-type disease who are also providing care to these individuals.

Formal caregiver. This is an individual who has received formal training or education on the tasks of caregiving and is also employed by a company to provide caregiver services (Jacobs, van Groenou, de Boer, & Deeg, 2013).

Informal caregiver. This is an individual who is either a family member or close friend of an individual with dementia who also provides regular assistance or caregiving services in meeting the needs as related to daily acts of living (Jacobs et al, 2013). High-extant informal caregivers are those who provide care four to seven days a week; while low-extant caregivers are those who provide care one to three days a week (Borg & Hallberg, 2006). While the average number of hours per week spent providing care by informal caregivers is 21.9 hours, using this criterion would likely eliminate many from participation (Thies & Bleiler, 2013). In order to be more inclusive of those who provide less care, but may still be susceptible to the same processes of those who provide more care, individuals who provide at least two hours of care a week were eligible for this study.

Spousal caregiver. The term spousal caregiver and its derivatives were in direct reference to a husband or wife of someone with dementia who is also providing caregiving services.

Volunteer caregiver. Individuals who are not family members or friends of a person with dementia may still have a desire to willingly and freely give their time to providing various types of support (Thies & Bleiler, 2013). For the purpose of this study, volunteer caregivers were people who are not family or friends of a person with dementia. Furthermore, they are not paid for their time or services and they may or may not have formal training.

Attachment Style

Attachment style can be defined as a dimensional trait where an individual's emotional connection towards a loved one dictates how they demonstrate his or her affective experience behaviorally (Main, Kaplan, & Cassidy, 1985; Fraley & Spieker, 2003). For the purpose of this study, attachment style was measured on the continuum of anxiousness and avoidance within the context of a romantic relationship (Fairchild & Finney, 2006).

Anxious attachment. Anxious attachment is defined as an individual who is preoccupied by "worries of being abandoned by others" (Fraley et al., 2000, p. 364).

Avoidant attachment. Avoidant attachment is defined as an individual who is "uncomfortable in opening up or depending on others" (Fraley et al., 2000, p. 364).

Secure attachment. Secure attachment is defined as an individual who is relatively low on both the spectrum of avoidant attachment and anxious attachment. Such

individuals trust that others will be available and responsive while also feeling safe to receive support from others (Fraley et al., 2000).

Perceived Closeness

Perceived closeness is defined as “the degree to which one is familiar with or has factual knowledge about another person” (Starzyk et al., 2006, p. 833). This process is one of cognitive appraisal, based on factual knowledge, that a person has of his or her relationship with another identified individual (Starzyk et al., 2006).

Anticipatory Grief

Anticipatory grief is defined as the "experience of one or more symptoms of grief, such as sadness or regret, prior to the loss of a loved one occurring” (Rando, 2000, p. 17). Individuals with progressive dementia often demonstrate “mini-deaths” that represent unique challenges to caregivers and serve as reminders that the physical death of their loved one is inevitable (Meuser & Marwit, 2005).

Life Satisfaction

Life satisfaction is a “cognitive judgmental process” that is “dependent upon a comparison of one’s circumstances with what is thought to be an appropriate standard” (Deiner, Emmons, Larsen, & Griffin, 1985 p. 71). Furthermore, this comparison is internally generated and likely varies from person to person as each individual generates his or her own standards of similarity or discrepancy (Deiner et al., 1985). Finally, life satisfaction consists of a person evaluating their life as a whole, rather than focusing on specific parts of their experience (Tatarkiewicz, 1976).

Marital Satisfaction

Marital satisfaction is "a process of a movement along a continuum which can be evaluated in terms of proximity to good and poor adjustment" within the relationship (Spanier, 1976, p. 17). This continuum is comprised of the totality of four interrelated concepts that describe the quality of a romantic relationship between two individuals. These four concepts are dyadic satisfaction, dyadic consensus, dyadic cohesion, and affective expression (Spanier, 1976). These sub-components yield a single measure of marital satisfaction that has been used in over 1,000 published studies across four decades of psychological research (South, Kruger, & Iacono, 2009).

Basic Limitations

The research design of this study was quantitative, non-experimental and cross-sectional by design. The limitations of this study are common to data collected via survey methods. The manner in which participants responded to items in the survey packets may not be a true representation of their actual experience, and may instead be influenced by a variety of factors such as social pressure or lack of personal awareness. Participants who completed the study may have been motivated differently than participants who chose not to participate, thus limiting the generalizability of the final results. Because the measures used in this study were comprised of forced-answer questions, excessive missing data may have hurt the validity and reliability of the results if participants did not select one of the given responses. Yet another limitation was due to the sampling methods used. Individuals who were recruited through electronic methods and completed the study online may be uniquely different than those who do not have internet access or who are

not involved with associations such as the Family Caregiver Alliance or Alzheimer's Association (Dillman, Smyth, & Christian, 2009).

Summary

This chapter provided an overview of the growing number of individuals with dementia in the United States, and the impact this is having on potentially millions of spousal caregivers. Spouses often grieve for the losses they expect to experience as a loved one's cognitive and physical health declines due to dementia. While research suggests that secure attachments to loved ones yield higher levels of marital satisfaction and life satisfaction, it is unknown how perceived closeness may affect these domains. Furthermore, no known research as explored how anticipatory grief may impact the effects that relationship quality has one satisfaction with life and marriage. By exploring these aspects of caregiver functioning, points of intervention and areas of future research may be unveiled. By improving spousal caregivers' marital satisfaction and life satisfaction, it is likely that their ability to provide higher quality care to their partner with dementia will increase.

CHAPTER II

REVIEW OF LITERATURE

The current study sought to understand the potential for anticipatory grief to moderate the relationship between the effects of attachment style and perceived closeness on the life satisfaction and marital satisfaction of spousal caregivers of individuals with dementia. The purpose of this chapter is to review relevant literature of these constructs in order to guide hypotheses, methodology, and interpretation of results.

Method of Literature Review

In order to examine research relevant to this project, a comprehensive search and review of material was conducted in the online electronic databases of PsychARTICLES, PsychEXTRA, and PsychINFO. Keywords and synonyms for each of the constructs being measured in this research were identified, then appropriate Boolean criteria were applied to search for material covering each individual construct and as well as combinations of each construct. Please refer to Table 1 for a breakdown of the search terms and parameters used for the literature review.

The references of selected articles were then scoured for other articles and books that would be relevant to the topics covered in this research. Literature was first reviewed on singular constructs followed by separate sections for literature covering different combinations of each construct. Given the aforementioned importance of attachment

theory as the primary theoretical lens that will guide this study's research process, it was the first construct to be reviewed.

Table 1

Constructs and Related Search Terms

Construct	Search Terms
Attachment Theory	attachment* "attachment style"
Perceived Closeness	"perceived closeness" "per* closeness" relational closeness emotional closeness "rel* quality" psychological closeness "psych* closeness"
Anticipatory Grief	anticipatory grief anticipated grief "ant* grief" anticipat* loss anticipat* death
Marital Satisfaction	marital satisfaction marriage satisfaction marital quality marriage quality marital adjustment dyadic adjustment
Life Satisfaction	life satisfaction "satisfaction with life" life quality quality of life
Spousal Caregivers	spousal caregiver* informal caregiver* family caregiver* familial caregiver* caregiving spouse marriage and caregiving

Note. Search terms were entered in exactly as written in this table. The three databases used for this literature review were PsychARTICLES, PsychEXTRA, and PsychINFO.

Attachment Theory

Attachment theory is a developmental concept that suggests that an individual's identity is often based upon how he or she is treated as an infant and child. Through interactions with primary caregivers, a person may learn that others can be trusted, that environments are safe to explore, or that one is capable of accomplishing tasks or overcoming hardships in life (Bowlby, 1969, 1973). Bowlby's initial research was focused on developing an understanding of the behavioral difficulties presented by newly homeless and orphaned children following World War II (Cassidy, 1999). Children fitting into this category were often affectionless and at times were either excessively preoccupied with caretaking figures, or seemingly completely uninterested in interacting with adults attempting to establish a bond with them. Furthermore, these children also demonstrated psychological illness indicative of depression or anxiety while also, at times, suffering from unexplained physical symptoms (Cassidy, 1999). Bowlby's early observations led to conclusions that the loss of a loving parent resulted in a shattered sense of self and others that led to changes in behavior and mental status (Bretherton, 1992). Arguably this was the beginning of attachment research that has exploded over the decades since. An electronic search through all the databases within EBSCOhost, up to the year of 2014, yields a total of over 8,200 peer-reviewed books and articles that have discussed attachment style in some manner.

Bowlby spent the majority of his time observing and researching children and their interactions with mothers. His observations led to his conclusion that children whose mother struck a balance between being warm and responsive to the needs expressed by the child tended to demonstrate more active engagement with the

environment, such as by exploring or interacting with various objects. This, to Bowlby, indicated that the children felt safe and secure, and that when this safety or security was threatened, such as by the introduction of a stranger, the child who had a warm motherly figure would turn towards that figure for safety and security (1969). Children with mothers who were unresponsive or highly anxious to their emotional expressions, or children whose motherly figure was suddenly removed from their lives, would frequently go on to develop behavioral disturbances and emotional difficulties. Bowlby proposed that there was a strong connection between a child's psychological health and his or her relationship towards an attachment figure, and that an attachment figure must be an adult who consistently demonstrates a sense of protection and wisdom towards the child (1988).

While Bowlby's early work focused on child development and the role that mothers had on their children, he eventually began to connect to how this early developmental experiences in childhood would go on to affect one across the lifespan. Bowlby proposed that individuals develop a cognitive framework, or lens, that filters one's environment and sense of self and others. Through this lens, which Bowlby named the internal working model, a person's emotional and cognitive responses to any number of stimuli, both intrapersonal and interpersonal, are shaped (1969). A fundamental contribution to the development of the internal working model is one's early attachment style (Bowlby, 1969, 1988; Ainsworth, Blehar, Waters, & Wall, 1978) which is used to describe the behaviors that one exhibits in regards of how to attain and maintain emotional safety within the context of a primary caregiver. Following Bowlby's early research, Ainsworth and her colleagues found unique and consistent behavioral patterns

that were fundamentally different across clusters of children who shared similar emotional experiences. From this data, three styles of attachment were operationally defined: secure, avoidant, and anxious.

Secure attachment is demonstrated when distress is exhibited at the absence of a caregiver followed by happiness at the return. Furthermore, when in the presence of this attachment figure, secure individuals will demonstrate curiosity and a desire to explore novel situations, often returning to the caregiver when fear or discomfort are experienced. Ambivalent attachment, later referred to as anxious or preoccupied attachment (Bartholomew & Horowitz, 1991; van Ijzendoorn, Schuengel, & Bakermans-Kranenburg 1999), manifests as an individual being highly distressed at the absence of a caregiver and this distress will remain at a high level for a prolonged amount of time even upon the return of the attachment figure. In the presence of a caregiver, anxiously attached individuals tend to maintain close proximity, often engaging in behaviors intended to maintain closeness, as opposed to engaging in independent exploration or investigation (Ainsworth et al., 1978). Avoidant attachment, sometimes referred to as dismissing attachment (Bartholomew & Horowitz, 1991), is characterized by behaviors where an individual avoids or ignores a caregiver when in proximity to him or her despite a tendency to desire close relationships (Ainsworth et al., 1978; Fairchild & Finney, 2006). From an etiological standpoint, anxiously attached individuals tend to have had histories with a caregiver who provided inconsistent support while avoidantly attached individuals often have histories where they were in some ways punished for seeking the support of a caregiver (Ainsworth et al., 1978; Bodner & Cohen-Fridel, 2010; Gosnell & Gable, 2013). Following Ainsworth's research, Main and Solomon (1986) expanded the

categories of attachment to include one described as disorganized, or fearful/avoidant (Bartholomew & Horowitz, 1991), in which an individual freezes or demonstrates bizarre behaviors that are inconsistent with avoidant and anxious attachments. Such individuals often have histories of traumatic experiences and may have had or currently have caregivers who are both their only source of support and the very source of fear. Main et al. (1985) proposed that these early styles of attachment perseverate across the life-span and that the internal working model becomes so deeply engrained as to operate outside of one's present awareness, while still motivating one's behavior as related to proximal others (Bodner & Cohen-Fridel, 2010). While the early research emphasized a categorical conceptualization of attachment style, Brennan, Clark, and Shaver proposed that attachment exists on a continuum across anxiousness and avoidance (1998).

Attachment is not likely to be a dichotomous trait of one's functioning where an individual clearly falls into a category of secure, anxious, or avoidance in terms of attachment style (Brennan, Clark, & Shaver, 1998; Fraley & Spieker, 2003). Rather, security is more commonly believed to exist within the continuum of avoidance and anxiety, where an individual who has low levels of both types of insecure attachment are considered to be higher in terms of secure attachment (Fraley & Spieker, 2003). Limiting attachment to a categorical variable likely fails to allow for individual differences across the spectrum of avoidance and anxiety, thus forcing people into categories that they do not cleanly fall into (Chopkin, Edelstein, & Fraley, 2013). In order to more fully capture the nuances of individual variability in attachment style, measuring attachment style in a continuous manner improves the representativeness of a measure (Chopkin et al., 2013).

For a visual representation of this continuum, please see Figure 2. This conceptualization of attachment along a continuum has shifted how many researchers measure and describe the attachment styles of individuals (Brennan, Clark, & Shaver, 1998; Fraley, Hefferman, Vicary, & Brumbaguh., 2011).

Table 2

Dimensions of the Four Attachment Styles

Anxiety / **Avoidance**	**High**	**Low**
High	Disorganized Attachment	Avoidant Attachment
Low	Anxious Attachment	Secure Attachment

Note. Based on Bartholomew and Horowitz's model of attachment (1991). The top quadrant describes anxious attachment while the left quadrant describes avoidant attachment.

Research over the decades since the movement fueled by Bowlby, Ainsworth, and Main has resulted in the publication of over 2,500 peer-reviewed research articles, based on a quick search of the specific online database of PsychINFO. It would be beyond the scope of this dissertation to summarize the plethora of research on this construct. However, in order to fully appreciate the degree to which one's attachment style can affect the functioning of the individual, relevant research will be reviewed in the ensuing pages.

Bowlby (1969, 1973), Ainsworth et al. (1978), and Main et al. (1985) firmly believed that individuals with secure attachments styles would benefit from closer and more meaningful relationships with others, and that this would buffer against negative psychological symptoms such as anxiety and depression. Furthermore, they all posited that individuals with secure attachments would engage in more help-seeking behaviors

that increased resilience against stressors that one might encounter throughout his or her lifespan. Main and her colleagues also found that individuals with a secure attachment were more likely to approach others and to offer support (1985), thus supporting the conclusion that securely attached individuals are themselves more likely to become effective caregivers.

Contrary to securely attached individuals, early findings suggested that individuals high in avoidance or anxiousness were more easily distressed and even when faced with the arrival of support, such individuals took longer to return to a baseline level of emotional functioning (Ainsworth et al., 1978). Furthermore, anxious or avoidant individuals exhibited fewer pro-social behaviors, whether in approaching others to provide support, or simply interacting with others around them (Main et al., 1985). These early findings paralleled observations of securely attached individuals and arguably sparked interest across the social sciences in the nuances of how attachment style affects one's interpersonal and intrapersonal experiences.

Regarding the intrapersonal development in relation to one's demonstrated attachment style, Kobak and Sceery conducted a study involving late adolescents as participants (1988). Their results found that these adolescents who were securely attached demonstrated higher levels of emotion regulation and exhibited lower levels of hostility and anger. Anecdotal observations also suggested that insecurely attached participants were less likely to disclose their emotional distress, which corresponds with earlier suggests that insecure individuals engage in less help-seeking behavior (Kobak & Sceery, 1988). Benson, Harris, and Rogers (1992) built on these findings by proposing that secure attachments allow individuals to adapt to various situations that build on the early

exploratory behaviors individuals exhibit as children that are in large part a factor of the quality of the attachment towards a primary caregiver. The researchers also found that securely attached individuals were more likely to have strong and clear identities, thus corroborating with the theoretical existence of an internal working model (Benson et al., 1992).

Internal working models likely drive the motivation of many behaviors throughout one's day-to-day life in terms of interpersonal relationships. Mikulincer and Shaver found that adults who were anxiously attached were hypervigilant and overly concerned with the status of their relationships, often to the point where attachment figures would attempt to distance themselves from anxious partners (2009). Contrarily, individuals who were avoidantly attached exhibited an over-reliance upon one's self even in situations where seeking support would be helpful (Mikulincer & Shaver, 2009). These internal working models have been shown to be a strong factor in adults' ability to recognize their needs and then go through a decision-making process in how to best satisfy those needs by assessing the expectations and abilities of self and others (Collins & Feeney, 2004; Mikulincer & Shaver, 2009). Though the behaviors and internal working models of anxious attachment and avoidant attachment differ, arguably the results are similar: the individual experiences reduced satisfaction with his or her social circle and has diminished capacity for close and meaningful relationships (Mikulincer & Shaver, 2009; Shaver & Mikulincer, 2002).

Various research has demonstrated consistent findings that secure attachment promotes help-seeking behaviors and is related to having a higher degree of social support (Collins & Feeney, 2004; Feeney & Thrush, 2010; Shaver & Mikulincer, 2002).

Not only are the attachment behaviors of individuals influenced by their internal working models, the perceptions that others have on them are in large part related to the specific attachment style that individuals endorse. While insecure individuals are less likely to seek out support, it is also less likely that others initiate contact or offer support (Collins & Feeney, 2004). Furthermore, even if social support does exist and is offered, insecure individuals may not perceive the support to be available, responsive, or effective (Collins & Feeney, 2004; Feeney & Thrush, 2010). In many ways, this is a self-reinforcing feedback loop that often has roots within one's early interactions with primary caregivers. Arguably, secure individuals have an advantage in that their perceptions of others are often more accurate and positive in nature, which in turn promotes interactions with others that lead to positive results that promote a higher degree of psychological and social functioning (Mikulincer & Shaver, 2009).

Both immediate perceptions of others as well as the recollection of interactions from one's past have been found to be related to one's current levels of attachment, and once again securely attached individuals are more likely to have more positive perceptions and recollections (Gentzler, Kerns, & Keener, 2010). Beyond perception, having a secure attachment style has been found to increase one's performance in challenging and novel situations while also being associated with higher levels of self-esteem and confidence (Feeney & Thrush, 2010). Furthermore, these same individuals are more likely to behave in a warm and supportive manner when in a caregiving or leading role, thus indicating that a secure attachment style projects outwardly during interpersonal relationships (Feeney & Thrush, 2010). These findings further validate the conclusions that Ainsworth and her colleagues (1978) generated when they found that

securely attached children were more likely to exhibit confidence and persistence than their insecure peers.

The role of attachment in the intrapersonal experience of one's interpersonal interactions likely runs deeper than early researchers might have initially considered. One example of this is the degree to which an individual maximizes and capitalizes on positive life events, including accepting support and help from others. The ability to capitalize on positive events is related to increased well-being, higher levels of life satisfaction, closer interpersonal relationships, and higher levels of positive affect (Gable & Reis, 2010; Reis et al., 2010). Gosnell and Gable (2013) found that anxiously attached individuals were more likely to be receptive to interactions with others who were encouraging the individual to enjoy and reflect positive moments than their avoidant peers. Furthermore, avoidant individuals actually felt more uncomfortable when approached by another individual, even when this interaction was characterized by good intentions. Anxious individuals reported higher degrees of life satisfaction and positive affect than their avoidant peers, suggesting that different needs are being met or hindered when approached (Gosnell & Gable, 2013). An explanation given by the basic tenets of attachment theory would indicate that the anxious individuals feel comforted when given extra attention and support, whereas avoidant individuals feel a sense of discomfort when around others, and this increases their level of anxiety and desire to pull away from others (Bowlby 1969, 1973; Ainsworth et al., 1978). It may very well be that individuals who demonstrate anxious attachment may be more inclined to interact with others to capitalize on positive experiences than avoidant individuals, in part out of a higher interest of interacting with people (Gosnell & Gable, 2013).

The benefits of secure attachment further extend into one's degree of self-esteem, which is further related to overall life satisfaction and social self-efficacy. Compared to individuals along the spectrum of anxiety and avoidance of insecure attachment, securely attached individuals believe in their abilities regarding interacting with others and are more likely to take risks to maintain close relationships (Behringer et al., 2011; Wright & Perrone, 2010). As a result, securely attached individuals have stronger interpersonal relationships featuring more flexibility in response and behavior patterns than insecurely attached individuals (Macfie & Swan, 2009). Likely, this leads to elevated quality of life due to a stronger social support network along with a stronger sense of identity and self-efficacy regarding many domains of human functioning (i.e. emotion regulation, social skills, life satisfaction). Unsurprisingly, securely attached individuals often demonstrate less psychological distress, such as depression and anxiety, then insecurely attached (Powers et al., 2006).

It is also possible that securely attached individuals are more attuned to their own intrapersonal and interpersonal needs (Cassidy, 1999; Main et al., 1985). A clear awareness of one's needs likely helps inform the individual of behaviors one can engage in to satisfy the needs and reestablish a sense of safety and security. Often, this is attained through interacting with others, or using past experiences with others as reminders of how needs were previously met (Karreman & Vingerhoets, 2012; Magai, Cohen, Culver, Gumber, & Malatesta, 1997). This process, guided by attachment, may very well affect the biology of individuals, as evidenced by the finding that securely attached individuals demonstrate lower physiological arousal and higher stress tolerances than insecurely

attached individuals (Ben-Naim, Hirschberger, Ein-Dor, & Mikulincer, 2013; Diamond, Hicks, & Otter-Henderson, 2006; Powers et al., 2006).

While some researchers posit that the style of attachment generated during childhood often persists across the lifespan (Main et al., 1985), Bowlby suggested that older adults must reorganize their attachment system in concordance with a shift in needs that returns to a level that is greater in dependency upon the support and aid from others in order to maintain an optimum quality of life (1980). Besser and Priel (2008) further postulated that older adults may have spent adulthood masking their attachment needs by using independent behaviors to maintain their quality of life, but that as old age sets in, one's loss of independence due to decline in physical or cognitive abilities may result in more explicit behaviors evidencing their latent attachment styles. Particularly regarding caregiving, attachment theory sets a strong conceptual foundation that may explain the motivations for one's caregiving behavior. Individuals often learn how to responsively engage with others who are in a state of need through attachment-based interactions with caregivers (Bowlby, 1980; Kim et al., 2008).

Further pertaining to older adults, Zhang and Labouvie-Vief (2004) found that meaningful life events, defined as moments involving strong emotional experiences, could be a large factor in the transformation of older adults' attachment styles. This was found to be the case in shifting secure attachment styles to more insecure styles, and vice-versa. This finding was utilized to recommend community living and social interactions for older adults, due to research indicating that adults with more secure relationships are also more likely to have higher quality of life (Bodner & Cohen-Fridel, 2010). In the same study by Bodner and Cohen-Fridel, securely attached older adults were also less

prone to negative effects of ageism and social isolation (2010). Additional buffer effects of secure attachment were found in a study by Paradiso, Naridze, and Holm-Brown (2012) who used older adults who were cognitively intact as participants. The authors found that their participants who reported secure attachment styles were less affected by ageism, had significantly lower levels of depression, and were more likely to be socially engaged with same-aged peers when compared to insecure participants (2012).

Older adults are often found to show a higher proportion of avoidant attachment then children, young adults, and adults of middle age. This may be the result of various types of interpersonal loss that older adults often experience as their social networks decrease in size due to children leaving the home or death occurring within the social network (Consedine & Magai, 2003; Fiori, Consedine, & Merz, 2011). The size and quality of relationships within older adults' social networks have been found to vary as a function of attachment style. Consistently, anxiously attached and avoidantly attached older adults have smaller social networks than securely attached older adults (Fiori et al., 2011). Furthermore, avoidant older adults had disproportionately smaller networks of both friends and family, which is consistent with findings that anxious adults exhibit high levels of help-seeking while avoidant individuals show the lowest amount of help-seeking behavior (Vogel & Wei, 2005).

Individuals with secure attachment may feel more fulfilled by supporting others, and this may fuel a stronger internal motivation to engage in helping behaviors that come from a warm and empathetic intrapersonal locus. Anxiously attached individuals may be more likely to become preoccupied with accomplishing tasks and thus develop rigid ways of interacting that may not be entirely warm and adaptable to the unique needs of a care

recipient; providing care may instead be a way for an anxious individual to satisfy his or her own unmet attachment needs. For those who are avoidantly attached, the compulsion to establish safety by minimizing contact with others may stand as a barrier for recognizing the needs of others and then approaching them to satisfy those needs (Kim at al., 2008; Shaver & Mikulincer, 2002). Some evidence of this was found in a study on caregiving behaviors by Kim et al. (2008) that found that a hyperactivation of the participants' attachment systems lead towards more controlling caregiving behaviors, thus potentially hindering the quality of care provided.

Now that an overview of attachment theory and its implications in caregiving has been reviewed, the next session of this literature review will focus more specifically on research on the experiences that spousal caregivers go through. This section will further explore nuanced differences between attachment styles in spousal caregivers and discuss some of the negative and positive outcomes associated with providing care for a loved one with dementia.

Spousal Caregiving

Relevant to the exploration of attachment and caregiving, Miesen (1992) observed in a series of qualitative studies that the behavior and needs of elderly care recipients mirrored the needs of infant children. Of particular note was that the care recipients would often become fixated on one attachment figure and in essence desired contact with this particular individual over others. They would often demonstrate more positive reorientation when this fixated other responded in a manner that satisfied their needs (Miesen, 1992, 1993, 1998). This is quite similar to how children will seek out a source of safety when they feel threatened or vulnerable in research conducted by Ainsworth et

al. (1978). In fact, research in caregiving has looked at the attachment behavior of care recipients in numerous studies, and has consistently found that premorbid secure attachment styles are associated with more positive behaviors in care recipients, which also tend to illicit more positive responses and appraisals by the caregivers, whether formal or informal in nature (Magai et al., 1997; Magai & Cohen, 1998). Additionally, in Magai and Cohen's study (1998), the results included the finding that caregivers who rated their care recipients to be more insecurely attached were themselves more likely to report higher levels of stress related to their caregiving duties.

Important to the role of spousal caregivers is Bowlby's assumption that the attachment style of the care recipient will often result in behaviors that illicit attachment based responses from the individual providing care (Bowlby, 1969, 1980). It is reasonable to assume that caregiving behavior is likely to be affected and perhaps even driven by attachment-based interactions between caregiver and care recipient (George & Solomon, 1999; Kunce & Shaver, 1994), such as the context of a husband or wife taking care of his or her spouse. This is particularly important to consider as a common assumption about spousal caregiving is that it is done not out of some emotional need or personality trait, but rather is due to a sense of obligation that one must provide care for loved ones. Cicirelli (1983, 1993, 1995) has repeatedly found that secure attachments are often predictive of caregiving behavior beyond that of felt obligation to provide such support. Bowlby's postulation that caregiving and care reception are mutually occurring behaviors suggests that individuals are hard-wired to provide safety and security to others whom he or she has an emotional attachment with (1988). The context of a marital relationship where one spouse is responsible for daily acts of living and potential medical

interventions for a person with dementia is a modern example that supports Bowlby's conception of attachment across the lifespan (Collins & Feeney, 2013).

An overview of spousal caregiving would be incomplete without a more thorough discussion about the implications of dementia within this relationship. Therefore, the following section will go into more detail on dementia, including how attachment processes can affect individuals with dementia and how these individuals may change within the context of a marital relationship.

Dementia

The term dementia describes a wide array of disorders that impair the neurological and cognitive functioning of individuals stricken with diseases within this category (Thies & Bleiler, 2013). While Alzheimer's Disease is arguably the most widely known dementia disorder, other diseases such as dementia with lewy bodies, vascular dementia, neurocognitive disorder, and Creutzfield-Jakob disease are all classified into the category of dementia (Thies & Bleiler, 2013). While some professionals such as psychologists, psychiatrists, and family medical physicians can diagnose individuals with dementia diseases and neurocognitive disorders, neurologists are often involved in diagnosis and treatment (Thies & Bleiler, 2013). Though the etiologies, progression, and behavioral changes of each dementia disorder may vary, this study will not focus on any single type of dementia process. Rather, participants will be asked to identify, on a demographic form, the specific diagnosis given to their loved one by a professional. Because attachment is the theory that will provide a lens of interpretation for the results of this study, the next session will focus on attachment processes within dementia populations.

The dynamics of attachment style have been found to affect the behaviors of both spousal caregivers and individuals with dementia. Furthermore, the interplay of attachment behaviors by both individuals within the dyad can affect how either party reacts to extenuating circumstances related to the care received by the individual with dementia (Perren et al., 2007). Spouses who were securely attached were less affected by negative behaviors of their loved one with dementia than insecure spouses, particularly anxiously attached men who reported the lowest levels of well-being when spouses were exhibiting aggression or agitation (Perren et al., 2007). Of note, individuals with dementia were more likely to exhibit anxious attachment styles and to be preoccupied with their proximity towards their spouses. This was exacerbated when spouses had avoidant attachment and would distance themselves from the individual with dementia, further activating the individual with dementia's anxious attachment system, thus leading to elevated levels of agitation and reduced quality of care (Perren et al., 2007). This study is one of the clearest examples of how attachment styles and attachment behaviors can affect the relationship and interactions between a spouse and an individual with dementia.

Further relevant is the finding that increased levels of agitation and aggression, frequent occurrences in dementia populations, are predictive of spousal caregivers' decisions to institutionalize their loved one (Black & Almeida, 2004) and can lead to lower quality of care (Chen et al., 2013). Other researchers have also found that spouses often have different motivations for caregiving that may be ascribed to differences in attachment perception and the perceived likelihood of experiencing elevated levels of stress related to caregiving duties (Feeney & Hohaus, 2001; Orbell, Hopkins & Gillies, 1993). It may be that anxious spouses are more concerned about how their partner

perceives them and thus attempts to engage in behaviors that the spouse believes will result in closeness as opposed to engaging in effective caregiving duties (Feeney & Hohaus, 2001). Furthermore, avoidant spouses may not experience as much distress as anxious spouses, but these avoidant individuals may actually demonstrate the lowest quality of care as they continuously attempt to distance themselves from the spouse, thus resulting in inadequate or non-existent care (Feeney & Hohaus, 2001).

Research on attachment behaviors in individuals with dementia has found that when such individuals become distressed, as it likely to occur as their illness progresses, that their latent attachment styles will often manifest in behaviors similar to that of young children who are seeking safety or proximity with a care provider (Meisen, 2010). This may mean that an avoidant individual avoids contact with others and becomes more agitated when around strangers when distressed or that an anxious individual exhibits clinging behavior or high degrees of shadowing behavior of caregivers he or she feels safe with (Vance, Moore, Farr, & Struzick, 2008; Meisen, 2010). These attachment behaviors are more likely to be evident in dementia patients with insecure pre-morbid attachment styles, perhaps due in part to the fact that insecure attachment styles generally result in behavioral disturbances that are more explicit to caregivers (Perren et al., 2007). It is possible that the attachment behaviors of the individuals with dementia can affect the intrapersonal level of satisfaction that caregivers have towards their role as a primary care provider, and it has been found that caregivers are less likely to provide quality care if they are unsatisfied with their role (Uchino, Cacioppo, & Keiecolt-Glaser, 1996). Furthermore, there may be a propensity towards dissatisfaction with this role based on

research suggesting that insecurely attached individuals regularly have lower caregiver satisfaction than securely attached caregivers (Magai & Cohen, 1998).

Some research has found that a positive sense of self within both the caregiver and the care recipient is related to better quality of life for the individual with dementia (Nelis, Clare, & Whitaker, 2012). This is related to attachment theory in that securely attached individuals generally have a more positive sense of self and further are likely to provide better care to another person (Chen et al., 2013; Mikulincer & Shaver, 2009). Somewhat consistent with other research, attachment style of caregivers was unrelated to their levels of stress, while elevated levels of behavioral symptoms again predicted increased levels of stress (Nelis et al., 2012). There may be a disconnect between how attachment style influences motivations and behaviors regarding caregiving, and how the actual stress level related to providing care is experienced.

The motivation for caregiving behaviors may lie within the implicit script determined by the caregiver's own internal working model. An individual who developed an internal working model based on interactions within the context of secure attachments may be better able to empathize with an individual with dementia and then use this information to engage in effective interventions (Chen et al., 2013). Having this secure base script can buffer against the negative and often ambiguous situations that arise when providing care (Davila & Levy, 2006). Furthermore, securely attached individuals are more likely to engage in altruistic support and intervention while insecurely attached individuals tend to engage in supportive caregiving as a function of avoiding negative consequences (Feeney, Collins, Van Vleet, & Tomlinson, 2013). Clearly, attachment style and caregiving behavior are related.

Given that 95% of dementia diagnoses are given to individuals 65-years-old and older (Thies & Bleiler, 2013), it is quite likely that the majority of spousal caregivers will themselves be older adults as well (Fiori et al., 2011). Research has consistently found that older adults, including both individuals that are cognitively intact and individuals diagnosed with dementia, show higher percentages of avoidant attachment than younger individuals (Magai, 2008; van Ijzendoorn & Bakermans-Kranenburg, 2010; Webster, 1997). Older adults with a secure attachment style are generally more likely to report higher levels of well-being than insecure older adults. However, within the insecure population of older adults, those who are classified as avoidant tend to report levels of well-being that are statistically similar to secure individuals while anxious individuals report the lowest level of well-being within this age bracket (Cicirelli, 2010; Webster, 1997). Some explanations regarding higher frequency of avoidant attachment styles coupled with statistically similar levels of functioning with securely attached individuals could be that for older adults whose social networks are becoming limited due to death or decreased physical health, developing avoidant patterns of relating becomes a protective factor against the negative impact of losing loved ones (Oswald, Jopp, Rott, & Wahl, 2010).

Before concluding this section, it is relevant to discuss a common way that caregiver distress is conceptualized in the research literature. A common way of considering the challenges facing caregivers is to evaluate the primary and secondary stressors that arise out of the duties one may have as a caregiver. A group of researchers conducted a review of research on this stress-process model of caregiving and developed a new model that synthesized various findings (Noyes et al., 2010). This new model,

particularly designed for use with familial and spousal caregivers, retains the common primary and secondary stressor language where primary stressors are the direct results of interactions with the care recipient and secondary stressors are strains that result indirectly from one's role as a caregiver (e.g., loss of leisure time). What is new is the inclusion of an appraisal process that caregivers are believed to go through prior to placing a negative of positive valence on an experience (Noyes et al., 2010).

The appraisal phase is believed to be the point where caregivers determine whether or not the stressors have a negative impact upon their well-being. This may be accomplished by a caregiver evaluating the level of support as well as his or her actual abilities to adequately cope with stressors. The outcome phase consists of a negative and positive outcome, with negative outcomes developing due to lack of support or coping and that then lead to higher levels of depression. Inversely, a positive outcome occurs when there are accurate resources to cope with stressors, resulting in higher levels of self-esteem or personal meaning (Noyes et al., 2010). This appraisal function is a cognitive task involving evaluation and synthesis of multiple types of information (Noyes et al., 2010). Another cognitive process that caregivers may regular engage in is on the appraisal of their closeness to their spouse, particularly regarding observable and factual information (Spake & Bishop, 2009).

Perceived Closeness

At its core, attachment theory is very much focused on the emotional domain of a person's interpersonal functioning. Attachment centers on the emotional motivation for one's behavior and the very nature of attachment styles are to regulate one's emotional experiences through interactions with others (Bowlby 1969, 1988; Schore, 1994). While

attachment can be a powerful tool for measurement and conceptualization in a variety of settings, it still fails to account for all the variance comprising relationships. As such, the future of attachment research may benefit by additional measures of relational constructs (Mikulincer & Shaver, 2009). If attachment accounts for the emotional domain of relationships, it may then be relevant to measure the cognitive domain of relationships in order to more fully understand the experience of social science research participants.

Various studies have explored closeness in relationships, though as will be covered, this research is not in agreement on what perceived closeness truly is. Emotional closeness is one such example. Discussed separately from attachment style, emotional closeness is, in essence, the shared empathy and sense of enjoyment that individuals in a relationship derive from one another (Lee, Mancini, & Maxwell, 1990). This type of closeness has been implicated in one's ability to help a family member in that a higher level of reported emotional closeness increased the likelihood of an individual being willing to help a loved one, even in situations where it may be stressful or inconvenient (Korchmoras & Kenny, 2006). To consider this type of closeness as a construct worth measuring in a study already focusing on attachment may very well be redundant, particularly when research has found nearly identical results as various studies on attachment.

When using the term "perceived closeness", one term that consistently appeared during search results was "psychological closeness." This derivative also has a variety of definitions. For example, Campbell (1978) considered psychological closeness to be a construct where individuals have a interpersonal template that strangers would then be matched to for the purpose of comparisons in order to evaluate the potential quality of

interactions with the stranger. This template matching may very well serve purpose in social psychology research, but in a study focused on marital relationships such as this dissertation, template matching is less relevant to the overall project.

Perceived closeness has also been defined in numerous studies in physiological ways, such as in terms of how physically close individuals perceive another person to his or herself (Harbor, Yeung, & Iacovelli, 2011; Petrican et al., 2011). Research within this definition has found that individuals who feel threatened tend to see sources of threat to be closer in proximity than non-harmful and safe objects and individuals (Harbor et al., 2011). Another physiological measure of perceived closeness that has been studied is gaze control and time spent looking at others. This measure of closeness found that higher levels of gaze control were related to higher levels of social functioning and social self-efficacy (Petrican et al., 2011). While interesting, these concepts of perceived closeness are less informative about the quality of a specific relationship between two parties.

Relationship closeness and intimacy are additional measures of perceived closeness that have been used, both in terms of romantic relationships and non-romantic relationships (Selfhout et al., 2009; Tower & Krasner, 2006). These studies have found that individuals with closer relationships to such individuals show greater resilience to negative psychological states such as depression while also being rated more favorably by others (Selfhout et al., 2009). Individuals from less close relationships were also found to be at higher risk of substance abuse (Heinz, Wu, Witkiewitz, Epstein, & Preston, 2009). While these studies again produce interesting results that are relevant in many ways to interpersonal functioning, the measures of closeness used in such studies appear

to be questionable, such as using a single item with a yes/no response to assess closeness (Berg, 2004; Heinz et al., 2009). The validity of single-item scales may not be as high as additional measures currently available such as developed by Starzyk and her colleagues (2006).

The criticisms offered at the end of the prior two paragraphs are not intended to devalue the construct of perceived closeness, but rather to acknowledge some of the limitations of this understudied construct. While research on this construct varies in how it is measured, the fact that the findings are remarkably consistent adds to the validity of this construct being a true domain of interpersonal functioning. Furthermore, perceived closeness has also been found to be related to higher levels of trust, satisfaction, and comfort towards another individual, largely determined by one's cognitive appraisal of various areas of the relationship (Spake & Bishop, 2009). Unlike attachment, this appraisal process is not considered emotionally charged; questions on perceived closeness inquire about factual information such as frequency of interaction and duration of the relationship (Staryzk et al., 2006).

Studies of relationship closeness that use more than single-item assessments (Tse & Chang, 2005) have found that the closer one appraises his or her relationship with another person to be, the more likely it is that this person expresses forgiveness when some type of damage occurs within that relationship. However, this effect was severely dampened when moderate to high levels of depression were present, suggesting that depressed individuals are not appraising their relationships to be close (Tse & Cheng, 2005). This finding may be particularly relevant to older adults in caregiving roles given the increased potential for them to suffer from depression due to the various stressors

associated with caregiving. Further relevant to aging populations such as the one likely to be a part of this research were findings that increased levels of closeness are associated lower levels of loneliness (Long & Martin, 2000) and with increased willingness to engage in caregiving behavior (Korchmarso & Kenny, 2006) for both familial and non-familial relationships. Given the implications this may have on spousal caregivers, this adds to the relevance of measuring this variable.

Measuring perceived closeness is not as straight-forward as attachment. While attachment measures such as the ECR-R demonstrate strong convergent validity with one another, the lack of a cohesive definition of what constitutes the construct of perceived closeness among the research literature can be a source of difficulty in selecting an appropriate measure. Some research has used physical proximity as a tool to assess perceived closeness (Harber, Yeung, & Iacovelli, 2011), while others have relied upon the amount of time one has known another identified individual (Campbell, 1978) or asking a single close-ended question about whether a person considers a specific relationship to be close or not (Ferguson, 2012; Heinz et al., 2009). These are rudimentary forms of measurement by the standards of modern psychological research regarding the exploration of understanding the intrapersonal and interpersonal functioning (Tabachnik & Fidell, 2007).

Regarding the lack of a unified definition of the construct of perceived closeness, given the numerous ways this construct has been measured, it is quite possible that this is not a unitary construct. While a single item may have high face validity (Heinz et al., 2009), it fails to account other aspects of a cognitive appraisal of one's relationship. The Personal Acquaintance Measure (Starzyk et al., 2006) was created in order measure

multiple areas of one's cognitive appraisal of a relationship, from the length of the relationship itself to knowledge of another person's friends as well as goals in life. Furthermore, these questions appear to tap into areas of interpersonal functioning that are separate from emotionally laden experiences (Starzyk et al., 2006). Published and available research on this measure is very limited, although it has been used recently as a screening tool to assess whether participants knew enough about a peer to accurately respond to questions intended to result in the creation of a scale disclosure when under distress (Kahn, Hucke, Bradley, Glinski, & Malak, 2012). This study yielded similar psychometric properties to the initial publication and further validated the construct validity in that individuals who had known someone for a longer period of time were more likely to report a higher degree of closeness. After reviewing the construct of perceived closeness within the context of literature relevant to this study, the next construct that will be discussed is anticipatory grief.

Anticipatory Grief

Anticipatory grief is considered the process whereby individuals mourn the approaching death of a loved one, particularly through the physical and cognitive decline that plagues individuals who are at a terminal stage in life (Fulton, 2003). Family members going through the process of anticipatory grief often experience other emotional and physical symptoms such as depression, anxiety, loss of sleep, decreased appetite, lower social activity, lethargy, etc. (Anngela-Cole & Busch, 2011). Some research has found that individuals experiencing anticipatory grief actually experience more heightened levels of negative symptoms associated with this process, particularly in situations where there is no clear timeline for death to occur (Kehl, 2005). However,

earlier research in anticipatory grief has suggested that anticipatory grief is a positive and adaptive experience that should be encouraged so as to help individuals prepare for the inevitable loss (Siegel & Weinstein, 1983).

Contrary to the theory that anticipatory grief is a positive and buffering occurrence, research has found that anticipatory grief can contribute to elevated levels of caregiver burden, which is stress associated with the unique role that caregivers have in the lives of their care recipients (Holley & Mast, 2009; Marwit & Meuser, 2005). Anticipatory grief has also been found to contribute to higher levels of depression and anxiety in caregiving populations (Marwit & Meuser, 2005). Decreased levels of well-being were predicted by higher levels of anticipatory grief within a spousal caregiving population (Ott, Sanders, & Kieber, 2007). Holley and Mast (2012) found that spousal caregivers were likely to experience higher levels of anticipatory grief when their loved ones engaged in disruptive behavior such as destroying property, or embarrassing behavior in public setting. Additionally, as the frequency of these behaviors increased in occurrence, so too did the level of anticipatory grief (Holley & Mast, 2012). Interestingly enough, primary stressors associated with caregiving such as hours spent providing care, stage of disease, or physical impairments were not found to be related to anticipatory grief (Holley & Mast, 2012). Though some of these findings seem to contradict many common assumptions of caregiving, the majority of findings indicate that within a caregiving population, anticipatory grief represents a negative experience and a risk factor for reduced well-being.

Anticipatory grief is a process that many informal caregivers go through that involves a series of losses that stem from their loved one's progression of cognitive and

physical decline (Kuhn, 2001). The effects of anticipatory grief can manifest both physically and emotionally and differ across gender. For instance, women tend to experience higher levels of anxiety, anger, or depression while men may often deny thoughts of imminent loss (Kehl, 2005). Some research has also supported that women generally experience more anticipated grief than males by function of women, on average, living longer (Ziemba & Lynch-Sauer, 2005). In general, women seem to experience more grief in advanced age, possibly due to reductions in their social circles or changes in their daily activities (Stroebe, Schut, & Stroebe, 2007). What is unique about anticipatory grief is that is it time-limited as a care recipient will inevitably pass away due to the decline in health, and this time-limited grieving can become more intense as the end nears (Kehl, 2005). Some research has suggested that anticipatory grieving lessens the impact of post-death grieving (Rando, 1983).

The history of research on anticipatory grief has been marked by differing findings regarding the potential predictors or implications of this construct. Early studies failed to investigate anticipatory grief in caregivers and often focused on parents of children with terminal illness or family members with a loved one with a terminal illness unrelated to dementia. Some early research found that anticipatory loss acted as a buffer against prolonged negative affect after the loss of a loved while (Futterman et al., 1972; Parker & Weiss, 1983), while other early research found that there was no such buffering effect (Madison & Viola, 1968; Parks, 1970). One study in 1970 even supported the notion that individuals going through anticipatory grief for extended periods of time actually experienced higher levels of grief once a loved one passed (Peretz).

Regardless of what this early research suggested, many authors came to the conclusion that caregivers most likely go through some degree of mourning prior to the death of their loved one (Barnes, et al., 1981; Fulton & Fulton, 1971; Gruetzner, 1988; Norman, 1990; Powell & Courtice, 1986; Simank & Strickland, 1986; Teusink & Mahler, 1984). Research on interventions intended to affect the anticipatory grief process theorized that groups would offer a haven for caregivers to find support that would minimize the negative impact that this form of grieving was that to have (Kapust & Weintraub, 1984; Simank & Strickland, 1986; Wasow, 1986) but none of these interventions were supported by empirical evidence.

Ponder and Pomeroy (1996) proposed that anticipatory grief does not occur at a single time, but has stages in which grief ebbs and flows. Rather, this form of grief was found to start at the initial diagnosis of terminal illnesses, including dementia, and then reoccur at the various points in which new symptoms manifest and the loved one's functioning deteriorates. The authors' findings supported this assumption and also found that the length of time as well as intensity of caregiving services being provided are important factors in the experience of anticipatory grief. From this one can infer that new developments, such as new duties arising out of the progression of dementia, may interact with more long-term factors, such as initial grief regarding the diagnosis, that result in a complex experience of grief.

Caregiver burden is a concept that encompasses a variety of stressors that are common amongst many caregivers. Issues such as a loss of free time, increased financial concerns, decreased social interactions, and the physical hardships associated with providing care to a loved one are all examples of things that fall into the realm of

caregiver burden. After accounting for other known contributors to caregiver burden, anticipatory grief still accounted for a significant portion of the overall caregiver burden scores (Holley & Mast, 2009). This suggests that anticipatory grief is indeed a key challenge facing informal caregivers and should be taken into account when working with these individuals.

Holley and Mast also conducted a study examining how the severity of dementia in Alzheimer's patients can affect the anticipatory grief levels of the individuals providing care (2012). The only statistically significant contributor to anticipatory grief was the frequency of behavioral problems on the part of the dementia patients. Changes in behavior and personality are often interrelated and both may represent a loss of a previously established interpersonal dynamic. Holley and Mast (2009) also found differences in how adult child and spousal caregivers experience anticipatory grief. Adult children were more affected by depressive behaviors, such as tearfulness, by dementia patients. On the other hand, spousal caregivers were more affected by disruptive behaviors such as damaging belongs or being an embarrassment in public. This research further adds merit to the notion that there are many idiosyncratic ways that anticipatory grief can arise.

Attachment likely also contributes to differences in grief responses in older adults. As has been discussed, spousal dyads in which one individual has dementia are likely to undergo very unique grief processes as the individual with dementia continues to degrade in cognitive functioning. Yet, as the cognitive abilities decline, the person's physical health may continue to function, even to the point where the individual is unable to cognitively function and recognize his or her spouse. In these moments, the previous

relationship has been drastically altered as love and affection are no longer clearly reciprocated (Bradley & Cafferty, 2001). The spouse with dementia may not recognize his or her spouse as an attachment figure, and the caregiving spouse may no longer have the same partner that he or she knew throughout their partnership. In both situations, this represents a significant loss of an attachment figure, and in such grief scenarios, it has been found that higher levels of insecurity in older adults often contributes to more prolonged and pathological levels of grief (Mikulincer & Florian, 1996). In a review of attachment and grief, Bradley and Cafferty (2001) comment that the reorganization of one's attachment style and related behavior is a complex process involving both the individual who is approaching death and the individual witnessing this decline, and that this complexity may have yet to have been appropriately captured in research up to their time of publication.

Spouses who transition to the role of caregiver within the context of their marriage often come to experience various types of losses such as emotional support, intimacy, sharing household related burdens, having a responsive and reliable helpmate, and companionship regarding mental stimulation and recreation (Mittelman et al., 2003). Some models of stress processing exist, with a common theme focusing on primary stressors, which are the direct result of disruptive behavior by the loved one with dementia, and secondary stressors such as restricted social environment or the degradation of the emotional relationship with a spouse (Pinquart & Sorensen, 2005). Some researchers consider anticipatory grief to be both a primary and secondary stressor depending on whether the grief is centralized around the loss of shared activities due to

disruptive behavior, or loss related to diminished emotional connection and intimacy (Anngela-Cole & Busch, 2011; Holley & Mast, 2009).

Caregivers, whether formal, informal, spousal, or familial, likely face roles that are saturated with mourning as the loved one, or patient, degrades in skills and physical abilities. In some ways, the very role of a caregiver requires one to come face to face with his or her own mourning process (Gallagher, 1985). Some researchers have posited that being a caregiver may instead impede the grieving process in that those providing care are preoccupied or overloaded by the duties required of them in providing care to an ailing individual (Marples, 1986; Parks & Pilisuk, 1991). However, this latter proposal would appear to be contradictory to what the majority of research has found. Ponder and Pomeroy (1996) conducted a study on informal caregivers with the intent to explore their experience of grief. Their findings indicated that the majority of caregivers first experienced a degree of grief when their loved one received a diagnosis (Ponder & Pomeroy, 1996). Furthermore, grief was highest at the beginning point and end point of one's role as a caregiver, suggesting that the initial orientation to providing care is a time of mourning, as well as the later points when a loved one has deteriorated heavily due to progression of dementia (Ponder & Pomeroy, 1991).

Some early evidence found that anticipatory grief was associated with greater frequency of moderate depression levels in informal caregivers, but that there may be a high degree of overlap between anticipatory grief and depression that can be difficult to parse apart (Walker & Pomeroy, 1996). Indeed, grief, dementia, and depression can manifest in very similar ways, and it is common for caregivers of all sorts to experience some depression and grief concurrently (Holley & Mast, 2009). Using the stress-process

model to conceptualize grief, some individuals view grieving processes as a permanent stressor that in some ways threatens a person's sense of safety or security (Bonanno & Kaltman, 1999). It is unsurprising that a chronic stressor such as anticipatory grief is related to higher levels of depression in some individuals who provide care for a loved one. However, anticipatory grief may actually be an opportunity for caregivers to create new and personal meaning through their experience and this may be facilitated by access to available resources and positive ways of coping with the burden often associated with caregiving (Meuser, Marwit, & Sanders, 2004).

Grief, whether death-related or not, represents an experienced or perceived loss of something an individual has an attachment towards. From an attachment perspective, if one detects that there is strain upon the attachment, or if the attachment becomes severed due to the relationship ending for some reason, then distress will manifest (Bowlby, 1969; Sanders & Adams, 2005). This distress can manifest as a deep sadness that may very well fit the criteria for depression, but that also shares 50% of its variability with grief, indicating that while these two constructs are related, they are just as much unrelated (Sanders & Adams, 2005). A majority of caregiving research has focused either on depression in spousal caregiving or on the hypothetical multicollinearity of depression and grief (Ott et al., 2007) despite evidence of the contrary.

Spousal caregivers may very well experience grief as a function of different experiences than other caregivers. For example, whereas adult children of individuals with dementia may experience reduced grief reactions and an alleviation of general distress when a loved one is placed in an institute for care, spousal caregivers actually experienced heightened levels of grief when the loved one was institutionalized, perhaps

due to a stronger and more emotional connection to the individual with dementia (Ott et al., 2007). However, in general, informal caregivers of all types who also resided in the same living arrangements as the individual with dementia demonstrate higher levels of grief than individuals who do not live with the individual (Fowler, Hansen, Barnato, & Garand, (2013); Ott et al., 2007). Within a mixed sample of informal caregivers, including adult children and spouses, higher levels of anticipatory grief were found to be significantly related to reduced levels of effective decision-making and positively valenced problem-solving (Fowler et al., 2013). This is a striking finding that, particularly given the implications that the decisions of caregivers can have on the medical care of their loved ones, and that those who are experiencing higher levels of anticipatory grief may not make the most informed decisions that fully take into account the individualized needs of loved ones with dementia (Fowler et al., 2013). Interventions that target anticipatory grief and focus on improving caregiving self-efficacy and self-confidence may counteract this negative effect, thus improving the quality of care being provided and the quality of life of caregivers (Demiris et al., 2010; Elliot & Berry, 2009).

Historically, anticipatory grief had been included in a cluster of other experiences that were collectively referred to as caregiver burden. The construct of caregiver burden consists of strain associated with time spent providing care, the cost of providing care either through direct cost by purchasing materials or indirect cost associated with less time spent working, loss of leisure time, physical strain from caregiving duties, and the potential for elevated levels of negative emotions (Garand et al., 2012). However, research has found that anticipatory grief is a separate, although related, construct that uniquely captures the experience of loss through one's role as a caregiver (Holley &

Mast, 2009; Garand et al., 2012; Marwit & Meuser, 2005). Providing care to a person with dementia generally results in a longer duration as a caregiver than for many other terminal illnesses; 43% of dementia caregivers provide care between 1 to 5 years while 33% provide care for over 5 years (Thies & Bleiler, 2013). The aforementioned research often focused on the experiences of anticipatory grief by caregivers who were at the lengthier end of the time spectrum (Ponder & Pomeroy, 1996). A recent study found that even new caregivers with little time spent being exposed to the stresses of caregiving still demonstrated moderate levels of anticipatory grief and that female caregivers had higher levels than male caregivers (Garand et al., 2012).

It appears that the research on anticipatory grief has gone through a transformation where it was first viewed as a positive experience, then generically clustered with depression and caregiver burden, and has now manifested as a unique construct in which the specifics of what factors contribute to elevated levels of this form of grief are under scrutiny (Garand et al., 2012; Holley & Mast, 2009; Siegel & Weinstein, 1983; Walker & Pomeroy, 1996). Recent research suggests that what contributes to elevated levels of anticipatory grief could vary based on gender (Garand et al., 2012), the type of relationship with the individual with dementia (e.g. spouse versus child) (Ott et al., 2007), and the length of time spent as a caregiver (Holley & Mast, 2009). Qualitative research has suggested that primary contributors to the feeling of anticipatory grief center around changes to the relationship between an informal caregiver and his or her loved one (Sanders & Corley, 2003). This seems particularly true for spousal caregivers where changes in a loved one's behavior that are clear reminders that the relationship, previously a source of intimacy and support, shifts to one in which

disruptive behavior requires more and more intervention on the spouses part (Holley & Mast, 2010). Despite the questions still surrounding this construct, what has become clear is that higher levels of anticipatory grief are much more strongly associated with negative experiences such as depression and decreased quality of life than with positive outcomes as hypothesized during this construct's infancy. As will be discussed, subjective levels of depression and increased psychological distress may have detrimental effects on the subjective well-being and life satisfaction of individuals, including spousal caregivers. Given that anticipatory grief can lead to elevated levels of psychological distress, understanding how this further affects life satisfaction may be of importance.

Life Satisfaction

The construct of life satisfaction is essentially a measure of well-being in which an individual cognitively evaluates his or her current life in comparison with some standard and then reaches a judgment based upon a subjective standard he or she has set regarding quality of life (Deiner et al., 1985). Furthermore, assuming that life consists of multiple parts, people are very likely to place different value on different areas of life (e.g., money versus spirituality) that warrants consideration from a measurement standpoint (Deiner et al., 1985). Life satisfaction has been found to be linked to general psychological well-being and is also considered a buffer against mental illness across the lifespan (Headey, Kelley, & Wearing, 1993; Koivuuma-Honkanen et al., 1996). Some research refers to life satisfaction as another term for subjective well-being. Barnas, Pollina, and Cummings (1998) found that older woman whose relationships with their children featured lower levels of security were more likely to have lower levels of well-being. Furthermore, these relationships also included more conflict, which may be

explained by a mismatch of attachment needs and attachment behaviors (Bradley & Cafferty, 2001).

Life satisfaction has been found to predict levels of happiness and general quality of life (Deiner et al., 2003). In addition to life satisfaction predicting these psychological constructs, it is also related to physical health and mortality. More specifically, research suggests that individuals with higher life satisfaction also report better physical health (Deiner & Chan, 2011) and live longer lives (Sadler, Miller, Christensen, & McGue, 2011). Interestingly enough, these results appear to be relatively consistent across the lifespan, as noted by a group study indicating that there were no statistically significant differences between young adults and old adults in terms of how protective the factor of life satisfaction is on one's longevity (Xu & Roberts, 2010). While some factors, such as personality traits, change in terms of how they predict life satisfaction, the importance of life satisfaction to one's general well-being does not appear to change across the lifespan (Gana, Bailly, Saada, Joulain, & Alaphilippe, 2013; Magee, Mille, & Heaven, 2013).

Also consistent across the lifespan is the negative effect that increased levels of health problems can have on one's life satisfaction. Regardless of age, those with more health problems reported having lower levels of satisfaction (Gana et al., 2013). One might then expect that older adults, who are more susceptible to a variety of physical ailments, would then have decreased life satisfaction. However, given that this is not the case, one explanation may be that older adults are more able to reappraise their circumstances in order to maintain a more positive outlook on their current situation (Gana et al., 2013; Mroczek & Spiro, 2005). Some research has supported this hypothesis, finding that adults with higher life satisfaction were less affected by stressful

situations and quicker to rebound from the results of stress than individuals with lower life satisfaction (Bonanno, Brewin, & Kaniasty, 2010; Wiest, Schuz, & Wurm, 2012).

Interestingly enough, a rather significant amount of research has focused on the fascinating trend where life satisfaction demonstrates some variability throughout a person's lifespan, and generally increases in old age despite the logical inference that decreased health, personal losses in life, or approaching death may cause worry or stress that reduces the overall satisfaction with life. Known as the paradox of old age (Baltes & Baltes, 1990), this finding has spurred research into this effect within demographics of old adults who are 70 years of age or older (Schilling, 2006). However, research using advanced statistical methods (e.g., hierarchical linear modeling) has found that life satisfaction may increase during the 60s and 70s, and begin to decrease as aging becomes more advanced (e.g., 80s) (Berg, Hoffman, Hassing, McClearn, & Johansson, 2009; Mroczek & Spiro, 2005). However, more recent research using structural equation modeling in a longitudinal study yielded stark results that did not support previous findings that entering into one's 80s contributes to lower life satisfaction; rather, life satisfaction remains relatively stable through these years (Gana et al., 2013).

Life Satisfaction and Attachment

Regarding older adults, attachment, and life satisfaction, Wensaur and Grossman (1995) found that older adults classified as being securely attached had higher levels of life satisfaction and well-being than their more insecurely attached peers, and these findings were later supported by a separate study by Webster (1997). More recent research on the effects of attachment style on the life satisfaction of individuals between the ages of 69 and 73 found that secure attachment is both related to high levels of life

satisfaction, and acts as a buffer against the negative effects of physical ailments on life satisfaction (Kirchmann et al., 2013). That is to say, assuming that physical ailments are equal, an older adult who reports a secure attachment style presents with a higher level of life satisfaction than an insecurely attached peer. This supports other research indicating that individuals with secure attachment styles are more capable of positively reframing negative experiences (Schmidt, Nachtigall, Wuethrich-Martone, & Strauss, 2002).

Attachment style may also be informative for the general motives that an individual may have towards caregiving. Theoretically, individuals who are securely attached should feel a sense of comfort or fulfillment by providing care and being close to a loved one. Inversely, individuals with avoidant or anxious attachment styles may feel a sense of distress at having diminished autonomy or being preoccupied with the needs of a loved one at the detriment of their own self-care (Kim, et al., 2008). Additionally, anxiously attached caregivers may be more prone to lower life satisfaction than avoidant or secure individuals. The authors posit that anxiously attached caregivers are more likely to be motivated towards caregiving for non-autonomous reasons whereas the other attachment styles maintain autonomous motives (Kim et al., 2008). As a result, anxiously attached caregivers may feel external pressure to provide care that results in elevated levels of distress and lead towards decreased life satisfaction.

Life Satisfaction and Caregiving

The construct of life satisfaction has been used in a variety of studies in the field of caregiving. Differentiating between the life satisfaction of informal caregivers and non-caregivers was the goal of Borg and Hallberg (2006) who also categorized caregivers into high-extent and low-extent groups based on how much care they provided on a

regular basis. The authors found that a higher frequency of caregiving had a statistically significant and negative impact on life satisfaction (Borg & Hallberg, 2006). Furthermore, factors such as unemployment, poor social support, and poor physical health contributed to lower levels of life satisfaction. These results are commonly found in psychological and gerontological research and suggest that individuals providing care suffer decreased life satisfaction when their own needs go unmet (Fritz, Farver, Kass, & Hart, 1997). Furthermore, as time spent caregiving increases, the demand placed on spousal caregivers often lead to them failing to satisfy their own needs as well as hampering their availability to others that would allow social supports to meet the needs that they individually cannot meet. As a result of these complications due to their role as a caregiver, high-frequency spousal caregivers often report lower life satisfaction than similar individuals who spend less time providing care (Borg & Hallberg, 2006). As will be discussed below, some degree of caution needs to be used when synthesizing research stating that more time spent caregiving is predictive of lower life satisfaction. It may be that studies that use objective measures of variables are actually capturing the behavioral correlates of subjective psychological experiences (Haley et al, 2003). Furthermore, when researchers control for the objective variables, subjective measures such as self-reports continue to demonstrate statistically significant effects on life satisfaction (Haley et al., 2003; Kirchmann et al., 2013).

One underlying factor that may be particularly detrimental may be the a loss of perceived empathy from their loved one. In fact, lower reported levels of experienced empathy from a spouse has been found to be more harmful to the life satisfaction of spousal caregivers than other variables such as time spent caregiving (Wells et al. 2005;

Livingston et al., 2010). Given the power that shared emotional experiences and support can have in terms of buffering against the harm of stressful experiences, it is understandable that a rupture of this type of relationship can lead to one negatively evaluating their current circumstances (Bowlby, 1988; Wells et al. 2005). It is important to again note that this initial effect of decreased received empathy and decreased life satisfaction may be due in large part to the initial adjustments and shock that are associated with donning the caregiver role, and as such, these negative effects may be time limited (Garand et al., 2012).

Other factors that affect caregiver life satisfaction may be attributed to changes that develop within the loved one being cared for. Changes in personality or behavior, depression, substance use, and decreased empathy all represent potentially distressing developments that transform the interpersonal relationship that existed prior to an individual taking on the role as a caregiver (Livingston, et al., 2010; Wells et al. 2005). Yet, the relational changes may not have a negative impact if the caregiving spouse idealizes their loved one's premorbid personality and perceives the marriage or relationship to have been mostly free of flaws (O'Rourke, et al., 2011). Poor life satisfaction for caregivers can be indicative of generally poor mental health, which may further have serious implications for the care recipient (Harper & Lund, 1990). Thorpe et al. (2009) found that caregivers with poor mental health were less likely to use professional outpatient services for themselves as well as their loved ones. In addition to engaging in fewer services, the care recipients were more likely to require specialty services or acute treatment. This suggests that not only are the caregivers suffering, but

that their ability to provide quality care is also hindered and may be putting their loved ones at risk.

Being an informal caregiver means that an individual will often have an increased likelihood of experience negative events, and a decreased likelihood of experiencing positive events (Owen et al., 2002). For instance, informal caregivers may not be as able to participate in enjoyable activities while at the same time having to manage a loved one's behavioral outbursts (Owen et al., 2002). Owen and his fellow authors also highlight some protective factors that come from caregiving, such as being less exposed to potential crime or the stress of seeing friends or family who are themselves experiencing some declines in physical health (2002). Yet another relevant finding from this article was that caregivers were more likely to exaggerate negative events and minimize positive events when compared to non-caregivers. One way of interpreting this is that caregivers differ in their cognitive appraisals from non-caregivers. Helping caregivers to develop positive reappraisal skills and avoid isolative behavior may improve well-being and thus increase life satisfaction (Stephens, Norris, Kinney, Ritchie, & Grotz, 1988; Wells et al. 2005).

Positive appraisal of one's marriage appears to buffer against stress associated with caregiving and also leads to higher degrees of life satisfaction (Haley et al., 2003; O'Rourke et al., 2011). It is possible that having a stable and quality relationship with a spouse results in a secure attachment to the spouse, and this then provides a safe and secure environment that promotes more positive appraisals of one's life situation (Bowlby, 1988; Kirchmann et al., 2013). Furthermore, given the sensitivity that spousal caregivers' life satisfaction has towards empathy in conjunction with findings that

increased social support is also associated with increased life satisfaction, it may be that experiencing empathy and the sense that others understand and care for them is important to higher quality of life and positive appraisals of the current life circumstances of spousal caregivers (Ergh et al., 2003). It is important to understand what contributes to higher and lower levels of life satisfaction as spousal caregivers with high levels of life satisfaction are more likely to provide increased quality of care as well as to ensure their loved ones receive necessary medical care (Thorpe et al., 2009).

Marital Satisfaction

Studies involving romantic couples that are also investigating life satisfaction would likely benefit by including measures of marital satisfaction. A meta-analysis investigating the interplay of marital satisfaction with life satisfaction found a final effect size of $r = 0.42$, which is considered a medium to large effect size (Cohen, 1988; Heller, et al., 2004). Furthermore, marital satisfaction has been found to be a stronger predictor of life satisfaction than income, health, work, children, and leisure time (Fleeson, 2004). Therefore, it is likely that marital satisfaction likely has significant implications for the quality of life and mental health of individuals, including spousal caregivers of individuals with dementia. Levels of marital satisfaction early in a relationship are found to be significantly related to levels of marital satisfaction later on in life; high marital satisfaction at baseline has been found to be related to high levels of marital satisfaction upon a two-year follow-up (Be, Whisman, & Uebelacker, 2013). Furthermore, one's self-rated levels of marital satisfaction are positively related to partners' reported level of life satisfaction, suggesting that when one is happy in a marriage, this supports a higher quality of life for the partner (Be et al., 2013). These findings also support hypotheses

that individuals can, in essence, transmit their own life satisfaction to another, particularly if the relationship is important and high in quality (Whisman & Uebelacker, 2009).

Marital satisfaction, often measured by scales of dyadic adjustment, is often heightened when couples are able to seek out each other's support and mutually collaborate in problem solving when stressful situations arise (Bodenmann, 2005). When couples are unable to consider each other's needs in working to resolve problems, marital satisfaction often suffers, which then results in even higher levels of individual stress (Bodenmann, Pihet, & Kayser 2006). As one might expect, attachment style also influences marital satisfaction (Feunfhausen & Cashwell, 2013). More specifically, individuals who report insecure attachment styles, whether anxious or avoidant, report lower levels of marital satisfaction than securely attached couples (Feunfhausen & Cashwell, 2013). Given the likelihood for insecurely attached adults to be more inclined to meeting their own emotional needs prior to considering the needs of others (Bowlby, 1988; Givertz et al., 2013), it is understandable that anxious and avoidant individuals may be less likely to engage in collaborative problem solving within a marriage (Fuenfhausen & Cashwell, 2013). However, this effect of insecure attachment can be mitigated by encouraging couples to engage in adaptive and collaborative problem solving that identifies and meets the needs of both individuals (Shaver & Mikulincer, 2006).

Research has found that marital satisfaction often peaks within close proximity to the marriage being finalized such as through a wedding ceremony, but that this level of satisfaction decreases steadily across the years (Gottman & Notarius, 2002). Furthermore, this steady decline occurs in married couples who have children as well as those without

children, suggesting that marital dissatisfaction cannot be entirely attributed to stressors related to child-rearing as some researchers have proposed (Belsky & Pensky, 1988; Twenge, Campbell, & Foster, 2003). However, a meta-analysis on marital satisfaction did find that while both parents and non-parents report lower levels of marital satisfaction over time, married couples with children experience sharper decline than childless couples (Twenge et al., 2003). From this, it can be inferred that some changes or stressors that occur during midlife may contribute to lower marital satisfaction, and that having children exasperates this. However, once children leave the home, marital satisfaction often goes up, suggesting that couples may become closer once the distraction of children is no longer prevalent (Gorchoff, John, & Helson, 2008). From an attachment perspective, middle aged may be a time where married individuals turn to one another for safety and security less frequently, perhaps due to multiple responsibilities that limit time together (Hirschberger et al., 2009). During these years, decreased emotional connection and decreased mutual collaboration possibly hurts the attachment relationship, only for it to slightly repair once life has, in some ways, slowed down and thus allows couples to come into closer contact with one another (Hirschberger et al., 2009).

Given that spousal caregivers of individuals with dementia are often in age ranges where it is unlikely that children live in the home (Fiori et al., 2011), it is possible that couples where one partner is providing care to a loved one with dementia have experienced the post-child bump of marital satisfaction. Perhaps this acts as a buffer against the stress of caregiving that is unaccounted for, or perhaps couples enter into the age ranges where dementia is likely to occur with a higher degree of marital satisfaction than was experienced years prior. Unfortunately, no research has examined this, and this

type of research is beyond the scope of this current study. While it may be likely that spousal caregivers no longer have children living at home that require attention and supervision, a separate stressor may now be present in the form of anticipated loss due to the development of dementia within a loved one (Fiori et al., 2011), not only due to dementia's categorization as a terminal illness, but also due to the perceived losses in terms of emotional and psychological connections (Anngela-Cole & Busch, 2011).

The relationship between marital satisfaction and potential grief experiences appears to be complicated. Various studies over the years that feature differing methodologies have yielded extremely mixed results. Some studies have found that high marital satisfaction predicts lower levels of depression and grief-related distress (Bethel-Thornton, 1997; Sable, 1989) while other studies have found that high marital satisfaction is related to more severe distress related to the death of a spouse (Page-Howard, 1999). To further complicate the matter, some studies have found no relationship at all between marital satisfaction and grief reactions, though such findings are in the minority (Bonanno, Moskowitz, Papa, & Folkman, 2005; Ott et al., 2007). Furthermore, while Bowlby postulated that securely attached individuals would have decreased levels of grief when an attachment figure passed away, due to the expectation that securely attached individuals would carry fond memories of the loved one that act as a buffer against distress (1988), attachment research has generated more nuanced results.

Individuals with anxious attachment have been found to experience more distressing and stronger grief reactions than avoidantly attached adults (Fraley & Bonanno, 2004). One explanation for this is that anxiously attached individuals, whether in a satisfying relationship or in one featuring heavy discord, are more likely to ruminate

over the loss or perhaps even hold a grudge against the deceased partner. Meanwhile, the avoidant individual, because of emotional distancing from the partner, is less impacted by a partner's death due to decreased emotional investment. Thus, despite being classified as a style of insecure attachment, avoidant attachment may actually serve as a buffer or form of resilience against grief (Mancini, Robinaugh, Shear, & Bonanno, 2009).

Based on a thorough review of research on marital satisfaction, attachment, and grief, Itzhar-Nabarro and Smoski (2012) generated some well-informed conclusions regarding how these three constructs interact. First, securely attached individuals likely report higher marital satisfaction and have warm, loving memories of their spouse, thus mitigating the negative impact of a death despite the sorrow that is associated with the departure of a secure attachment figure (Itzhar-Nabarro & Smoski, 2012). Second, an unsatisfying marriage may result in more difficult grief experiences as emotional wounds that are left unhealed continue to bother the survivor (Itzhar-Nabarro & Smoski, 2012). Third, securely attached survivors may be more apt at positively appraising their situation post-loss while avoidant individuals suffer decreased distress due to a weaker emotional connection that secure or anxious individuals (Itzhar-Nabarro & Smoski, 2012). Finally, regardless of the various levels of attachment and marital satisfaction, complicated grief or prolonged experiences of depression following the death of a spouse are relatively uncommon (Itzhar-Nabarro & Smoski, 2012). The finding that avoidant attachment may be a buffer against grief must be qualified due to the possibility that care recipients who have avoidant caregivers may demonstrate more problematic behaviors that are further related to decreased mental health and well-being for the caregivers (Perren et al., 2007). These caregivers may experience less severe grief reactions, but their absence in

maintaining close connection with their loved way one may be hindering the quality of care they provide and indirectly sparking problematic behavior within the loved one with dementia (Braun et al., 2009).

It is possible that despite levels of attachment or perceived closeness, maintaining a high degree of marital satisfaction for a spousal caregiver of any individual with dementia is an exceedingly difficult challenge. As one might expect, some early research has found that caregiving spouses generally have lower levels of marital satisfaction than non-caregiving individuals (Wright, 1991). In many ways, donning the role as a caregiver may invoke an identity shift for caregivers, and it has been suggested that this shift differs between men and women (Calasanti & King, 2007; Paun, 2003; Stoller & Miklowski, 2007). Male caregivers may demonstrate gender-typical behaviors including focusing on exerting physical energy, suppressing emotion, and using distractions to maintain homeostasis in the home (Calasanti & King, 2007) while women may isolate from social supports in order to provide more frequent care or ignore their own needs in order to satisfy the needs of their spouse (Stoller & Miklowski, 2007). Furthermore, men are more likely to describe their role to center around protecting or providing for their spouse while women are more likely to describe their role as being a supportive survivor (Paun, 2003). Despite these differences in identity formation as a caregiver, spouses who were able to maintain an emotional connection that featured intimacy of some sort may be more likely to maintain high levels of marital satisfaction, and this may be related to having more positive interactions with their spouse during caregiving activities (Boylstein & Hayes, 2011; Davies, 2011).

While previous research has suggested that marital satisfaction decreases over time with only a slight trend upwards when children leave the home (Gorchoff, John, & Helson, 2008), there is reason to suspect that in old age marital satisfaction increases. This has been supported within spousal caregivers of individuals with dementia, in that older caregivers reported higher levels of marital satisfaction that was unaffected by the actual length of the marriage (Fitzpatrick & Vacha-Haase, 2010). While this finding was negatively impacted as caregiver burden increased, neither gender nor actual level of impairment in the care recipient affected the levels of experienced burden. Despite what some researchers propose (Wright, 2001), this study provides some evidence that male and female spousal caregivers share much more in common than might initially be expected (Fitzpatrick & Vacha-Haase, 2010).

The need to understand factors that may influence marital satisfaction is compounded by multiple findings. Spousal caregivers with high marital satisfaction report lower levels of depression and more optimistic appraisals of their role as caregivers (Braun et al., 2009). Furthermore, high marital satisfaction is also associated with higher levels of subjective well-being and increased competence in providing quality care (Lewis, Hepburn, Narayan, & Kirk, 2005). While research has begun to unravel some consistency in terms of what affects marital satisfaction and how various levels of this construct impact the functioning of spousal caregivers, this research has often failed to include a variety of constructs, such as anticipatory grief, in the methodology. Therefore, some domains of caregivers' experiences may not be accounted for and warrant additional research (Braun et al., 2009). This section on marital satisfaction concludes the review of literature of research relevant to this study. The

following section will address and synthesize key points expanded in detail in the preceding review.

Summary

This chapter has reviewed research relevant to attachment, perceived closeness, anticipatory grief, life satisfaction, and marital satisfaction. Additionally, a review was also conducted on spousal caregivers in order to provide information on challenges and experiences that such individuals face. Attachment style likely impacts the way individuals view and interact with others and their motivations for providing care (Bowlby, 1969, 1973; Gosnell & Gable, 2013), making it a very relevant construct to the demographic of spousal caregivers. However, attachment style often captures the romantic and emotional component of spousal relationships and may not be fully representative of how individuals perceive a marriage (Mikulincer & Shaver, 2009) and measures that tap into other domains, such as cognitive appraisal (Starzyk et al., 2006), may result in a more complete understanding of a dyadic relationship.

Research has demonstrated that individuals with emotionally and psychologically close relationships report higher levels of life satisfaction and marital satisfaction (Behringer et al., 2011; Macfie & Swan, 2009) and that, collectively, elevated levels of each of these constructs result in better physical and mental health, in addition to better quality caregiving (Kim et al., 2008; Lewis et al., 2005). Given the dependence that individuals with dementia often have on their spouse in terms of receiving quality care, regarding both daily acts of living and medical attention, maximizing the likelihood that a spousal caregiver will provide good care is highly important. If strong connections to a loved one with dementia, as measured by attachment and perceived closeness, can lead to

higher levels of marital satisfaction and life satisfaction, understanding how the negative experience of anticipatory grief can affect this relationship may provide additional clarity on how to improve the well-being of caregivers. Should the well-being of a caregiver increase, the quality of care they are able to provide may increase, thus improving the quality of life for the individual with dementia. If anticipatory grief is found to be a moderating variable between relationship measures and measures and satisfaction with life and marriage, this may help inform interventions to empower spousal caregivers.

CHAPTER III

METHODOLOGY

Purpose

The purpose of this study was to understand how perceived closeness and attachment styles of spousal caregivers of individuals with dementia may affect their levels of marital and life satisfaction. Furthermore, the role that anticipatory grief may play in moderating the possible relationship between perceived closeness and attachment style with life and marital satisfaction was tested. The information gleaned from this study may allow counseling psychologists to develop interventions to decrease the levels of anticipatory grief in spousal caregivers, thus improving the quality of their relationships with loved ones and leading to improved marital and life satisfaction. In theory, this may then improve the quality of care provided by spousal caregivers.

Participants

A total of 107 self-identified spousal caregivers of individuals with dementia began the electronic survey. Of those 107 participants, 90 completed the survey in its entirety. This final sample of 90 consisted of 66 females and 24 males. Regarding ethnicity, 62.2% were Caucasian, 20% were African American, 14.4% were of Asian ethnicity, 1.1% was Hispanic or Latino, and 2% identified their ethnicity as "other." 37.8% had completed high school or received a GED, 14.4% had some college, 2.2% had a two-year degree, 31.1% had a four-year degree, and 14.4% had received a graduate

degree. In terms of annual income, 2.2% earned between $15,000 to $30,000, 22.2% earned between $30,001 to $45,000, 17.8% earn between $45,001 to $60,000, 12.2% earned between $60,001 to $75,000, 7.8% earned between $75,001 to $90,000, 44% earned between $90,001 to $105,000, 11.1% earned more than $105,000, and 22% preferred not to say.

Based on the responses by participants, 60% had partners with an Alzheimer's diagnosis, 14.4% had partners with vascular dementia, 6.7% had partners with dementia due to Parkinson's, 5.6% had partners with dementia due to Lewy-bodies, 5.6% had partners with frontotemporal dementia, 1.1% had partners with Creutzfeldt-Jacob, 6.7% had partners with dementia categorized as "other." The vast majority (65.6%) of participants provided care to their loved ones seven days a week. Regarding number of children, 67.8% of participants had two children, 26.7% had one child, and 5.6% had no children. In terms of support, 77.8% of participants reported that they received additional support in providing care to their spouse and 61.1% of the participants were retired. Regarding extra responsibilities, 18.9% of participants reported that they spend time volunteering on a weekly basis while 14.4% stated they had parental duties. Relevant to their own health, 45.6% of participants indicated that they had some degree of medical illness, injury, or disability that affected their ability to provide care to their loved one.

Surveys were not tracked for location or source of referral (e.g., Alzheimer's Association versus Family Caregiver Alliance). Participants for this study were individuals whose spouse has a current diagnosis of a dementia-type illness from a qualified health professional such as a general medical practitioner or psychiatrist. Participants must have met the following inclusion criteria: do not have a current or

historical diagnosis related to a dementia disorder, provide regular and direct informal caregiving services for a minimum of two cumulative hours per week, and self-identify as being a current spouse to the person they provide care for. The types of care provided must have involved aiding their loved one with some form of daily act of living, such as eating, bathing, dressing, attending medical appointments, taking medications, etc.

Exclusion criteria consisted of the following: An individual's spouse had passed away. Such individuals were no longer considered to be experiencing anticipatory grief and are no longer currently providing care to their recently deceased spouse. Individuals were not eligible if they are suffering from their own cognitive impairment due to a dementia disease process. Participants were not excluded due to age, gender, ethnicity, income, education, duration of marriage, number of marriages, spouse's stage of dementia, parental status, or experience with caregiving.

As written in the initial IRB that was approved by the University of Northern Colorado, this researcher's goal was to recruit participants in two fashions. The first was by contacting supervisors and managers of various agencies to request approval to arrange meetings with caregivers in order to pass out physical copies of counter-balanced, unidentified data packets. The intent was to contact agencies in Eastern Colorado and Northwest Washington. Upon contacting the supervisors or managers of these agencies, this researcher would have provided a brief overview (Appendix C) of the study and inquire if this researcher could arrange to present to groups of individuals that frequent the establishment. Once given clearance, this researcher would have prepared counter-balanced data collection packets with the demographic form at the end of each packet, arrive at the agency at a pre-arranged time, discuss the purpose and benefit of the

research to those in attendance, and pass out anonymous data collection packets that were to be completed and collected by this researcher.

However, the second recruitment process showed higher fruition than expected, and became the only method by which data were ultimately collected. This second recruitment procedure involved this researcher reaching out to gatekeepers of online listservs, newsletters, or email lists through organizations. The three organizations contacted were the American Alzheimer's Association, Family Caregiver Alliance, and caregivers.org. After attaining permission to use these resources by the gatekeepers, a brief description (Appendix C) of the study was submitted along with a link to an electronic version of the study that was set up via Qualtrics. Participants that saw the study in online newsletters and listserv announcements and who chose to click on the link were taken to the cover page featuring this study's informed consent. At the bottom of this website, screening questions of whether the individual is married to the patient with dementia and provides regular informal care were presented. If both questions were answered yes, the full battery of counterbalanced surveys became available for participants.

In analyses using multiple regression with three independent variables, the necessary sample size to detect a large effect size was 83, while a medium effect size required a sample of 167 participants, and a small effect size required a total sample of 474 (Cohen, Cohen, West, & Aiken, 2003). Compared to these guidelines by Cohen, online software (Soper, 2014) to calculate the minimum sample size necessary to reach .8 power with three predictor variables, as will be described later, was 76 participants.

Though relatively small when compared to more robust research, the final sample size of 90 participants met the minimal requirement of 83 as suggested by Cohen.

Instruments

Participants were first presented with a basic demographic questionnaire (Appendix D) inquiring about gender, age, ethnicity, income, religion, education level, and employment status. Participants were asked to report how long they have known their loved one, how long they have been in a caregiving role, how many days and hours a week they perform caregiving duties, the types of duties they perform, whether they receive additional support from either formal or informal services, and if other family members or friends provide care as well. These are common points of demographic information gathered during research on spousal caregivers (Savundranayagam & Montgomery, 2010; Van Den Winjgaart, Vernooij-Dassen, & Felling, 2007).

Table 3 shows the reliability, as defined by Cronbach's alpha, for variables examined in this study. Discussed later in this chapter, reliability coefficients varied from acceptable to excellent for the measures used in this study (Tabachnik & Fidell, 2007). Table 4 shown in Chapter IV shows the intercorrelation coefficients of these variables, and no correlation exceeded .70, satisfying a basic assumption of multicollinearity. Furthermore, there was additional evidence that there was no concern of multicollinearity as the VIF and Tolerance for each variable was within an acceptable range. Also see Table 3 for multicollinearity coefficients.

Table 3

Reliability and Multicollinearity Coefficients

Measurement	α	Tolerance	VIF
ECR-ANX	.771	.757	1.321
ECR-AV	.918	.420	2.379
PAM	.822	.517	1.935
MMCGI-SF	.754	.788	1.270
DAS	.804	.511	1.959
SWLS	.773	.592	1.690

Note. ECR-ANX = Attachment anxiety, ECR-AV = Attachment Avoidance, PAM = Personal Acquaintance Measure, MWCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form, DAS = Dyadic Adjustment Scale, SWLS = Satisfaction with Life Scale

Attachment

The Experiences in Close Relationships Revised (ECR-R; (Fraley, Waller, & Brennan, 2000) is a 36-item self-report that produces scores on two subscales that are on the orthogonal dimensions of anxious attachment and avoidant attachment. Participants use a seven-point Likert scale (1 = *"strongly disagree"*; 7 = *"strongly agree"*) to respond to questions regarding how they generally feel in romantic and intimate relationships. This scale consists of two subscales, one that measures anxious attachment and another that measures avoidant attachment. Each scale yields a separate score where higher scores indicate elevated levels of the relative type of insecure attachment. Items 1 through 18 consist of questions assessing a respondent's level of anxious attachment while items 19 through 36 assess a respondent's level of avoidant attachment. Higher scores on the anxious attachment subscale suggest that an individual is preoccupied with worry over being abandoned by a partner, while higher scores on the avoidance subscale suggest that an individual is uncomfortable being close or receiving support from a partner.

Scores on the two subscales of the ECR-R have demonstrated high reliability with Cronbach's alpha coefficients of .927 for the Avoidance subscale scores and .917 for the Anxiety subscale scores (Fraley, Waller, & Brennan, 2000). These reliability coefficients were initially established with a sample of college students. Regarding older populations of adults between the ages of 64 and 85, this measure has also demonstrated good reliability with coefficients of .80 for scores on the anxious attachment subscale and .88 for scores on the avoidance subscale (Bodner & Cohen-Fridel, 2010). The ECR-R also demonstrated convergent validity with related constructs, such as the Anxiety (r = .528) and Avoidance (r = .368) subscales positively coordinating with the UCLA Loneliness scale (Fairchild & Finney, 2006). In this study, scores on the Anxiety subscale (α = 0.771) demonstrated acceptable internal consistency while scores on the Avoidance subscale (α = 0.918) featured excellent internal consistency.

The ECR-R has demonstrated good concurrent validity with other measures of attachment, such as the Inventory on Parent and Peer Attachment, while still accounting for unique levels of variance that suggests it taps into areas of a person's attachment behavior separate from other measures (Pepping, Davis, & O'Donovan, 2013; Sierau & Herberg, 2012). Additional convergent validity (r = .70) was established with the Relationship Questionnaire, which is another common measure of attachment (Sibley, Fischer, & Liu, 2005). Relevant to use in populations of individuals over the age of 63, the ECR-R has been used in studies seeking to evaluate the levels of romantic attachment in older adults (Bodner & Cohen-Fridel, 2010; Paradiso et al., 2012). Given the romantic nature of marriages and that one focus of this research being on marital satisfaction, it was practical to use a romantic measure of attachment.

To remain consistent with Bartholomew's proposed framework of attachment, which also guides much of the research focused on attachment (1991), the two scores of the avoidance and anxiety subscales of the ECR-R were used throughout data analysis (Brennan, Clark, & Shaver, 1998; Fraley & Spieker, 2006). Those interested in dichotomous measurement of attachment between security and insecurity may benefit by interpreting the scores of the ECR-R as follows: higher total scores across both subscales can be viewed as generally higher levels of insecurity, while low scores across both subscales can be viewed as representing secure attachment (Fraley, Waller, & Brennan, 2000).

Perceived Closeness

As a measure of perceived closeness, the Personal Acquaintance Measure (PAM; Starzyk, Holden, Fabrigar, & MacDonald, 2006) is an 18-item self-report that asks respondents to answer items using a five point Likert scale (1 = *"strongly disagree; 5 = "strongly agree"*). The PAM yields scores on six factors: Duration, Frequency of interaction, knowledge of Goals, Physical Intimacy, Self-Disclosure, and Social network Familiarity. Higher scores suggest a more closely perceived relationship with an individual (Starzyk et al., 2006).

Originally developed on a sample of undergraduate psychology students, the internal consistency scores with this sample on the Total Scale was .90, with the reliability being .96 for scores on the subscale of Duration, .89 for scores on the subscale of Frequency of Interaction, .90 for scores on the subscale of Knowledge of Goals, .94 for scores on the subscale of Physical Intimacy, .80 for scores on the subscale of Self-Disclosure, and .87 for scores on the subscale of Social Network Familiarity. Test-retest

reliability for the entire scale and subscales ranged from acceptable to excellent (.79 for Self-Disclosure to .97 for the entire Scale).

Per the developers of this measure, the PAM assesses one's cognitive appraisal of multiple domains of a personal relationship, which is consistent with the construct of Perceived Closeness (Starzyk et al., 2006). The PAM has demonstrated sound psychometric properties. In a study by Kahn et al. (2012) using a sample consisting of undergraduate college students, the researchers reported internal consistency alpha coefficients for the six subscales scores of the PAM as follows: .94 for Friendship Duration, .85 for Frequency of Interaction, .82 for Knowledge of Friend's Goals, .86 for Physical Intimacy, .90 for Self-Disclosure, and .78 for Familiarity with Social Network.

The PAM (Starzyk et al., 2006) also demonstrates good convergent validity with related measures, such as the Inclusion of Other in the Self Scale ($r = 0.76$) (Starzyk et al., 2006) and the Loving Scale ($r = 0.84$) (Starzyk et al., 2006) and good discriminant validity based on a low correlation with the Balanced Inventory of Desirable Responding ($r = 0.15$) (Starzyk et al., 2006). In order to maximize the statistical power of this study, only the Total Scale of the PAM was used and the scores generated by participants of this study yielded good internal consistency ($\alpha = 0.822$).

Fox, Sidani, and Streiner (2007) addressed a common concern in research using surveys and older adults. They recognize that many measures are not normed on older populations or feature language that is untested with older adults. Furthermore, it is not always a feasible option for researchers to conduct pilot studies in order to establish psychometric properties with new populations (Fox et al., 2007). In these situations, researchers must be intentional to consider the language of items, the number of items,

the potential confusion over negatively worded items, and the ability to clearly understand response options (Fox et al., 2007). The PAM meets these criterions and passes the assumptions described by Fox et al. (2007) as the language and format of questions comprising the PAM are simple and the rubric for responding to items is easily located at the beginning of the measure for reference by respondents. When pilot studies cannot be conducted, consulting a professional with knowledge and experience of a target population regarding research measures is recommended (Dillman et al., 2009).

Anticipatory Grief

The Marwit-Meuser Caregiver Grief Inventory (MMCGI; Marwit & Meuser, 2005) short form is an 18-item self-report featuring items that inquire about various components of grief that are specific to caregivers of individuals with dementia. This measure is derived from the original Marwit-Meuser Caregiver Grief Inventory (Marwit & Meuser, 2005) that featured a total of 50 items with a five point Likert scale (1 = *"strongly disagree*; 5 = *"strongly agree"*) where higher scores indicate a higher level of anticipatory grief. The short form used in this study retains 18 items from the original measure and yields a score for Total Grief as well as the three 6-item subscales of Personal Sacrifice and Burden, Heartfelt Sadness and Longing, and Worry and Felt Isolation (Marwit & Meuser, 2005).

Developed on a sample consisting of spousal caregivers and children of individuals with dementia, the short form demonstrated acceptable reliability coefficients of 0.83, 0.80, and 0.80 respectively. Concurrent validity of the short form was established by the short form's subscales significantly correlating with respective subscales (Personal Sacrifice and Burden = .915, Heartfelt Sadness = 0.925, and Worry and Felt Isolation =

0.928) of the original 50-item measure (Marwit & Meuser, 2005). Ott et al. (2007) used the MMCGI short form in a study conducted with elderly participants and reported similar reliability coefficients for scores on the Total Scale ($\alpha = 0.915$), Personal Sacrifice Burden subscale ($\alpha = 0.834$), Heartfelt Sadness and Worry subscale ($\alpha = 0.843$), and Worry and Felt Isolation subscale ($\alpha = 0.779$). For this study, only the Total Scale was used and scores demonstrated acceptable reliability ($\alpha = 0.754$).

Regarding validity of the MMCGI short form, this scale established construct validity through high correlations with other measures of anticipatory grief such as the Anticipatory Grief Scale ($r = 0.76$) (Marwit & Meuser, 2005). Convergent validity for the MMCGI short form was established with the Beck Depression Inventory ($r = 0.711$) and Caregiver Strain Index ($r = 0.64$) (Marwit & Meuser, 2005). Furthermore, discriminant validity was established by having a negative and low correlation (r = -0.353) with the Perceived Social Support Questionnaire that inquires about the levels of support one receives from others (Marwit & Meuser, 2005).

Life Satisfaction

The Satisfaction with Life Scale (SWLS; Deiner, Emmons, Larsen, & Griffin, 1985) is a five item, single factor measure with responses given on a seven-point Likert scale (1 = "*strongly disagree*; 7 = "*strongly agree*"). Higher scores on this scale suggest greater overall life satisfaction (Deiner et al., 1985). In the original development of the scale, the researchers demonstrated good ecological validity by norming the scale on two groups of college students as well as elderly individuals from a variety of settings. These diverse sample groups extends the generalizability of the measure to additional research samples (Pedhazur, 1997). The researchers also found acceptable levels of internal

consistency for individual items (α = .87) with good test-retest reliability as well (α = .82) (Deiner et al., 1985).

The original publication (Deiner et al., 1985) has been cited in over 3,500 peer reviewed journal articles and has been used in studies involving elderly participants that further demonstrated high reliability (α = .91) of scores with the various samples used (e.g., Bei et al., 2013) within this demographic. For this study, scores on the SWLS showed acceptable internal consistency (α = 0.773). Deiner (1985) initially demonstrated construct validity with other measures of subjective well-being at the time such as Campbell, Converse, and Rodgers' Semantic-Differential Scale (r = 0.75 with sample one consisting of undergraduate volunteers and r = 0.59 with sample two comprised of an elderly population). Discriminant validity was established by a very low correlation (r = 0.09) with the Affect Intensity Measure (Deiner, 1985). Additional research further generated construct validity as measured by a high correlation between the SWLS and the Life Satisfaction Inventory – A (r = 0.84) (Neugarten, Havigburst, & Tobin, 1961) as well as convergent validity with the Affect Balance scale (r = 0.76) (Pavot, Deiner, Colvin, & Sandvik 1997).

Marital Satisfaction

The Dyadic Adjustment Scale (DAS; Spanier, 1976) was initially developed to assess marital satisfaction. The initial measure was created using a sample of 218 married and divorced individuals who all resided within a 30-mile radius of the university where the research was conducted. Factor analyses yielded a total of 32 items featuring various response sets. Items one through 15 ask individuals to provide answers on a six point

Likert scale (" 0 = "*always disagree;* 5 = "*always agree*") with higher scores indicating greater marital satisfaction.

Items 16 through 22 feature responses on a six point Likert scale (0 = "*all the time*"; 5 = "*never*". Items 18 and 19 are reverse coded and within items 16 through 22, higher scores indicate higher levels of marital satisfaction. Item 23 features a five point Likert response with anchors of 4 = "*every day*" and 0 = "*never*". Item 24 features a five point Likert response with anchors of 4 = "*All of them*" and 0 = "*None of them*." Items 25 through 28 again feature a six point Likert scale with anchors of 0 = "*never*" and 5 = "*more often*." Items 29 and 30 are simple yes or no (0 = "*yes*; 1 = "*no*) response options. Item 31 operates on a seven point Likert response with anchors of 0 = "*extremely unhappy*" and 6 = "*perfect.*" Item 32 asks respondents to mark a single item that best describes the relationship with six possible selections (Spanier, 1976). Across the items just described, higher scores again indicate higher levels of marital satisfaction (Spanier, 1976).

Initially developed with a sample comprised of 218 (Spanier, 1976) Caucasian, married adults, factor analyses generated four subscales that demonstrated acceptable to excellent levels of reliability within this aforementioned sample. These subscales are: Dyadic Consensus (α = .90), Dyadic Satisfaction (α = .94), Dyadic Cohesion (α = .86), and Affectional Expression (α = .73). These four scales comprised the entire Dyadic Adjustment Scale that further demonstrated excellent reliability (α = .96) within the original sample as described (Spanier, 1976). Criterion validity was established in that scores on this scale between married and divorced couples differed significantly (Spanier, 1976). Construct validity was established in that the DAS correlated highly with other

similar measures at the time, including the Marital Adjustment Scale (r = .86) (Spanier, 1976). A meta-analysis of 91 studies with a combined sample pool of 25,083 participants evaluated the internal consistency of the DAS (Graham, Liu, & Jeziorski, 2006) and further demonstrated that scores comprising the total scale have excellent reliability (α = .915). Scores in the subscales of Dyadic Consensus (α = .872), Dyadic Satisfaction (α = .848), Dyadic Cohesion (α = .789), and Affectional Expression (α = .714) featured comparable reliability coefficients to those reported by Spanier (1976) (Graham, Liu, & Jeziorski, 2006). Specifically relevant to aging populations, scores generated by participants in a study yielded acceptable reliability coefficients across the DAS subscales (α = 0.71 to 0.84; Humbad, Donnellan, Iacano, & Burt, 2010). In this study, scores on the DAS showed good internal consistency (α = 0.804).

Procedure

The first step was to perform internet searches for agencies, organizations, and professionals in Eastern Colorado and Western Washington that provide support or information to informal caregivers. Step two was to identify national organizations, that provide support to informal caregivers, maintain up-to-date websites and that send out regular newsletters to their target audience. This was accomplished by viewing the current copyright date of websites and the dates of recently released newsletters. Step three involved contacting the gatekeepers (e.g., office managers, agency directors, editors) of these identified sources and then orient them to this study and ultimately request permission to recruit participants by attending classes, support groups, orientation meetings, or advertising the study via listservs, email lists, or newsletters. A total of 11 physical locations were contacted, with three sites returning phone calls, and of those

three sites, each required multiple meetings with various individuals to go through the approval process. Of the four large, online agencies contacted, three responded within one business week. These three were the Family Caregiver Alliance, the Alzheimer's Association, and Caregiver.org. While awaiting return calls from physical agencies and approval through the internal IRB of the Alzheimer's Association, this researcher provided Family Caregiver Alliance and caregiver.org with the survey link and a brief description to begin data collection. Three weeks after this process, the Alzheimer's Association gave approval and began listing this study on their listserv and TrialMatch website. Within four more weeks, half of data collection had been completed.

By this time, meetings with two physical locations had taken place, with other meetings still being discussed. Both sites that this researcher was able to visit resulted in information demonstrating that a large amount of resources in terms of money and time would be necessary to gather significant numbers of participants. With the success that online data collection up to this time, the decision was made to cease further attempts at in-person recruitment. Four months after beginning online data collection, 67 participants had completed the study. This researcher then sent requests to the three online agencies to relist this study, and all three agencies agreed. Two months later, a total of 107 participants had responded and data collection was complete. At this time, the online survey was closed, data were downloaded and then inputted into SPSS version 19 for analysis.

Research Questions

Q1 How much variance in marital satisfaction is accounted for by anxious attachment, avoidant attachment, and perceived closeness?

H1 It was hypothesized that anxious attachment, avoidant attachment, and perceived closeness would collectively account for a statistically significant amount of the variance in marital satisfaction.

H2 It was hypothesized that less anxious attachment, less avoidant attachment and greater perceived closeness would be associated with greater marital satisfaction.

Q2 How much variance in life satisfaction is accounted for by anxious attachment, avoidant attachment and perceived closeness?

H3 It was hypothesized that anxious attachment, avoidant attachment, and perceived closeness would collectively account for a statistically significant amount of the variance in life satisfaction.

H4 It was hypothesized that less anxious attachment, less avoidant attachment and greater perceived closeness would be associated with greater life satisfaction.

Q3 How does anticipatory grief moderate the relationship between anxious attachment, avoidant attachment and perceived closeness with marital satisfaction and life satisfaction?

H5 It was hypothesized that anticipatory grief would have a negative moderating effect between anxious attachment, avoidant attachment, and perceived closeness with marital satisfaction.

H6: It was hypothesized that anticipatory grief would have a negative moderating effect between anxious attachment, avoidant attachment, and perceived closeness with life satisfaction.

Design

This study was quantitative, non-experimental, and cross-sectional by design. Convenience sampling was used to recruit participants through electronic methods. Data were collected via self-report surveys completed online by participants. The five measures used in this study are established in published psychological literature and are free to use and dispense by researchers. Statistical analysis was conducted in SPSS and while the primary research questions are answered via hierarchical regression analysis to

measure moderation, additional results in the form of descriptive statistics, frequencies, correlational coefficients, and MANOVA are reported in Chapter IV.

Statistical Analysis

Statistical analysis was conducted in SPSS (version 19) with necessary Bonferroni corrections to reduce the likelihood of a Type I error, or finding a significant result when one does not exists. While the *p* value to test for significance is .05, because a total of three regression analyses were conducted to test the multiple research hypotheses, the appropriate *p* value this analysis will be set at .0125 (Tabachnik & Fidell, 2007). This was determined by dividing the standard *p* value of .05 by the total number of analyses being conducted, which in this study's case are three.

Next, the assumptions relevant to this study's statistical analysis were tested. As outlined by Baron and Kenny (1986), testing for moderation involves the use of regression analyses, thus meaning that the assumptions of multiple regression must be met (Pedhazur, 1997). The first assumption is that the dependent variable is continuous, such as previously outlined by the measures all being Likert-scale, and as a result this assumption was met (Pedhazur, 1997). The second assumption is that the independent variables are continuous or categorical, such as already described by the measures being Likert-scale and also in the demographic questionnaires being categorical by nature (Pedhazur, 1997). Therefore, the second assumption was met. The third assumption is that there will be independence of observation that can be tested by running a Durbin-Watson analysis in SPSS (Pedhazur, 1997). This assumption was met.

The fourth assumption is that the relationship between variables will be linear, and was tested by examining scatterplots and partial regression plots of the spread of data generated by SPSS (Pedhazur, 1997). This assumption was met. The fifth assumption is that data will demonstrate homoscedasticity and was tested by again reviewing the scatterplots generated by the independent variables onto the dependent variables. Homoscedasticity is met when the residual plot line is linear across the line of best fit, and this assumption was satisfied (Pedhazur, 1997). Assumption six is that the variables do not demonstrate multicollinearity and was tested by examining the correlation coefficients and conducting a flation factor test (VIF). In the former, correlation coefficients beneath .70 suggest no multicollinearity while in the latter a VIF score beneath 10 also indicates no multicollinearity (Kline, 2011; Tabachnick & Fidell, 2007). As previously discussed in the section of instrumentation, this assumption was met.

The seventh assumption is that there will not be outliers among the response set of variables that may skew the final data (Pedhazur, 1997) and was tested by reviewing the range of scores of each variable. This assumption was met. The final assumption is that the residuals of the data will be approximately normally distributed (Pedhazur, 1997) and was tested by producing a normalized histogram along with a normal P-P Plot of the residuals and reviewing the diagrams for normalcy in SPSS (Tabachnick & Fidell, 2007). The final assumption was met.

Moderation and Mediation

Because the primary purpose of this study was to evaluate if anticipatory grief moderates the relationship between relationship quality, measured by the ECR-R and PAM, and both life satisfaction and marital satisfaction, differentiating between

moderation and mediation is necessary (Baron & Kenny, 1986). Baron and Kenny's landmark article (1986) provided guidelines for psychological researchers to follow in order to assess for mediating and moderating variables when performing regression analyses. Variables act as moderators when they explain when a variable has its strongest effect on another variable and act as mediators when they explain why a relationship between two variables exists (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004).

A mediator explains why a relationship exists between two variables, with the assumption that if the mediator were removed from the situation, the relationship between the two initial variables would no longer exist (Baron & Kenny, 1986; Frazier et al., 2004). Anticipatory grief is unlikely to exist as a mediator in that measures of relationship quality have consistently been found to be related to measures of life and marital satisfaction without the presence of grief (Itzhar-Nabarro & Smoski, 2012). However, experiencing a grief process may strengthen or weaken the correlation between relational measures and satisfaction with life and marriage (Mancini, Robinaugh, Shear, & Bonanno, 2009). Therefore, statistical techniques to detect moderation effects were indicated for this study. The measures used in this study are all comprised of continuous data, and while Barron and Kenny (1986) discussed that detecting moderation effects with purely continuous data was difficult at the time, more recent publications have acknowledged that modern statistical software makes the process more streamlined (Frazier et al., 2004).

Rather than using cut-points to separate continuous data into distinct groups, which reduces the amount of variance and power of a study (Cohen, 1992), the use of hierarchical regression modeling allows a researcher to retain the full range of available

information within a pool of continuous data while minimizing the likelihood of Type I and Type II errors (Frazier et al., 2004; Tabachnik & Fidell, 2007). Frazier et al. (2004) provided a comprehensive step-by-step process for researchers to follow when exploring the moderating effects of third variables. The following section describes the steps outlined Frazier et al. (2004).

The first step was to appropriately code categorical variables. For this study, categorical variables comprised the demographic questionnaire as previously described and were organized by dummy coding the variables. The remaining measures were already organized into continuous data. The next step was to standardize the variables that are measured on a continuous scale. This reduces the possibility of multicollinearity, makes it easier to visually check for moderation effects in scatterplots, and also allows for easier interpretation of data (Cohen et al., 2003). This was done by converting the scores on continuous scales to z-scores in SPSS. The next step was to generate product terms that provided a representation of the interaction between predictor variables and the moderating variable. This was done by multiplying each predictor variable by each moderating variable and creating a new single product term for each combination.

The next step was to structure the equation into a hierarchical regression that used theory to inform the researcher about what step to include each cluster of variables (Frazier et al., 2004). As previously mentioned, demographic information (e.g. age, gender, income, education) is often controlled for in research on spousal caregivers, and as such was included in the first step of this study's hierarchical regression (Savundranayagam & Montgomery, 2010; Van Den Winjgaart et al., 2007). The standardized variables of the PAM and ECR-R subscales along with the standardized

MMCGI short form variable were entered in step two. Step three consisted of the product terms that were developed by multiplying the predictor variables by the moderating variables. These product terms are considered the interaction variables and are entered in separately to examine if they account for significant levels of variance beyond what is separately accounted for by the predictor and moderator variables (Frazier et al., 2004). The outcome, or dependent variables, of this hierarchical regression were the DAS and SWLS.

Additional research questions and appropriate statistical analyses began with examining how marital satisfaction of spousal caregivers is affected by perceived closeness and attachment style. The hypothesis was that higher levels of perceived closeness and greater attachment security result in higher levels of marital satisfaction. This hypothesis was tested by Pearson *r* correlations along with a multiple regression with the PAM and ECR-R subscales as concurrently entered predictors with the DAS as the outcome variable. An additional question was how life satisfaction of spousal caregivers is affected by perceived closeness and attachment style. The hypothesis was that higher levels of perceived closeness and greater attachment security will result in higher levels of life satisfaction. This hypothesis was tested by Pearson *r* correlations along with a multiple regression with the PAM and ECR-R subscales as concurrently entered predictors with the SWLS as the outcome variable. Given that two multiple regressions were conducted, to minimize the likelihood of committing a Type I error, a Bonferroni correction were used. The *p* value were set at .0125 rather than the standard .05, based on the four analyses conducted (Tabachnik & Fidell, 2007).

Threats to Validity

The validity of this study was impaired by the cross-sectional nature of the methodology. While cross-sectional research is low in cost and convenient in terms of data collection for both researchers and participants, it cannot be used to determine causality or change over time (Tabachnik & Fidell, 2007). Threats to the internal validity of results may have included history in the fashion of new developments or experiences that affect participants in a negative or positive manner, thus skewing their responses. Testing itself may be another threat to internal validity as the only measures that were not Likert-format are demographic information. Likert –format measures consist of forced responses, and this may not always be easily understood by participants. The issue of sampling may also be a threat to internal validity due to the nature of it being largely a convenience sample based on proximity and accessibility by this researcher, and limited options for exposure through online means (Cook & Campbell, 1979; Dillman et al., 2009).

While the measures in this study were counter-balanced, there is still the potential for interaction effects to occur across the measures where later responses were affected by the effect that earlier items have on participants' response patterns (Cook & Campbell, 1979; Dillman et al., 2009). History effects, such as recent changes in the functioning of the individual with dementia, could also skew how participants responded to various items on the measures, and this skewing could be exacerbated by the cross-sectional nature of this study (Cook & Campbell, 1979).

Threats to external validity are generally considered to be threats to the generalizability of the results of a research study (Dillman et al., 2009). Such threats may

come in the form of a small or homogenous sample that does not accurately represent the characteristics of the larger target population The potential for reactivity also existed in that participants may have altered their response patterns simply as a matter of being observed, whether in person or via online methods (Tabachnik & Fidell, 2007). The situation itself (Cook & Campbell, 1979) may also hinder generalizability as not all spousal caregivers use sources like adult day programs or receive electronic newsletters. Finally, the potential for Pygmalion or golem effects to occur may exist as a factor of how the study is introduced, or how participants interpret the study's introduction (Terence & Daniels, 2003). This may result in participants exaggerating or minimizing their levels of grief or satisfaction with life and marriage as a result of their inferred expectations of this researcher.

CHAPTER IV

RESULTS

Descriptive Statistics

Descriptive statistics for participants were previously reported in Chapter III. Table 4 shows the correlation matrix of the variables measured in this study while Table 5 shows the range, standard deviation, and mean. Every correlation coefficient is statistically significant at $p < .01$. Within the sample of this study, the participants as a whole were not significantly different in terms of avoidance or anxiousness regarding attachment style. Measures of relational constructs were all significantly correlated as well. Regarding marital satisfaction, anxious attachment ($r = -.355$, $p < .001$), avoidant attachment ($r = -.606$, $p < .001$), and perceived closeness ($r = .422$, $p < .001$) demonstrated correlation coefficients that were in the hypothesized direction. These same measures were all significantly related with life satisfaction as well (see Table 4).

Regarding anticipatory grief, relationship measures yielded significant correlation coefficients. Higher levels of anxious attachment ($r = .305$, $p = .004$) and avoidant attachment ($r = .319$, $p = .003$) were correlated with higher levels of anticipatory grief. Perceived closeness yielded the inverse relationship ($r = -.346$, $p < .001$). Furthermore, both marital satisfaction ($r = -.272$, $p = .01$) and life satisfaction ($r = -.391$, $p < .001$) were significantly and negatively correlated with anticipatory grief.

Table 4

Correlation Matrix for Measured Variables

Measured Variables	2	3	4	5	6
1. ECR-ANX	.443***	-.378 ***	.305**	-.355***	-.332**
2. ECR-AV	-	-.651***	.319**	-.606***	-.386***
3. PAM		-	-.346**	.422***	.448***
4. MWCGI-SF			-	-.272*	-.391***
5. DAS				-	.548***
6. SWLS					-

Note. ECR-ANX = Attachment anxiety, ECR-AV = Attachment Avoidance, PAM = Personal Acquaintance Measure, MWCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form, DAS = Dyadic Adjustment Scale, SWLS = Satisfaction with Life Scale.
$n = 90$
* $p < .05$, ** $p < .01$, *** $p < .001$

The correlation matrix of demographic variables of interest, as determined through post-hoc analysis discussed later, and the primary variables of interest in this study are found in Table 4. Age was significantly correlated with the measures of anxious attachment ($r = .270$, $p = .01$) and life satisfaction ($r = .215$, $p = .042$). Length of marriage ($r = .240$, $p = .023$) and also the type of dementia ($r = -.211$, $p = .046$) a loved one was diagnosed with were also significantly correlated with life satisfaction. Dementia type was further correlated with both anxious attachment ($r = -.250$, $p = .017$) and marital satisfaction ($r = .292$, $p = .005$). The final statistically significant correlations were observed between having additional caregiving support and anxious attachment ($r = -.286$, $p = .006$) and avoidant attachment ($r = -.219$, $p = .009$) and perceived closeness with number of children ($r = .272$, $p = .049$).

Table 5

Range, Standard Deviation, Means, and Reliability of Primary Variables

Measurement	Range	*sd*	*m*	α
ECR-ANX	27 – 101	15.672	71.74	.771
ECR-AV	33 – 111	69.8	20.493	.918
PAM	44 – 89	9.541	66.289	.822
MMCGI-SF	41 – 83	8.367	63.044	.754
DAS	58 – 116	12.952	85.444	.804
SWLS	9 – 34	6.052	23.8	.773

Note. ECR-ANX = Attachment Anxiety, ECR-AV = Attachment Avoidance, PAM = Personal Acquaintance Measure, MWCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form, DAS = Dyadic Adjustment Scale, SWLS = Satisfaction with Life Scale

Table 6

Correlation Matrix of Demographics and Variables of Interest

	ECR-ANX	ECR-AV	SWLS	MWCGI-SF	PAM	DAS
Age	.270**	.040	.214*	-.096	.038	.004
Gender	.034	-.027	.191	-.094	.040	.014
Income	.100	.099	-.036	-.082	-.030	-.093
Ethnicity	.028	.062	-.008	-.191	.038	.150
Education	-.154	-.129	.025	-.036	.076	-.178
Marriage Length	.50	.041	.240*	-.185	.115	.007
Dementia Type	-.250*	.033	-.211*	.047	-.084	.292**
Support	-.286**	-.219*	.031	-.032	.077	-.004
Children	-.035	-.208	.138	.022	.272**	-.191

Note. ECR-ANX = Attachment anxiety, ECR-AV = Attachment Avoidance, PAM = Personal Acquaintance Measure, MWCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form, DAS = Dyadic Adjustment Scale, SWLS = Satisfaction with Life Scale

* $p < .05$, ** $p < .01$

Because the categorical nature of dummy coded variables does not provide information on means or standard deviations, additional information is needed to more fully understand group differences and correlations using these measures (Tabachnick &

Fidell, 2007). Additional analyses were used to group differences in reported levels of marital satisfaction, life satisfaction, and anxious attachment as clustered by dementia type of participants' spouses. Therefore, analyses were conducted to determine means and standard deviations of anxious attachment (Table 7), life satisfaction (Table 8), and marital satisfaction (Table 9) with participants grouped by the reported type of dementia their loved one was diagnosed with. Alzheimer's disease (n = 54) was the most reported type of dementia reported, with vascular dementia (n = 13) as the second most reported type. Tables 7 through 9 can be used as a reference for the different number of reported types of dementia. A one-way MANOVA with dementia type as the independent variable and anxious attachment, life satisfaction, and marital satisfaction as the dependent variables did not yield any statistically significant group differences. Given this lack of significance based on group, the correlation between dementia type and these three measures is unlikely to be due to a single group skewing the results (Tabachnik & Fidell, 2007).

Table 7

Anxious Attachment Mean and Standard Deviations Across Dementia Types

Dementia Type	*n*	*m*	*sd*
Alzheimer's	54	74.44	15.604
Vascular	13	69.308	11.153
Parkinson's	6	75.333	8.116
Lewy-Bodies	5	68.2	22.174
Frontotemporal	5	59.2	19.215
Creutzfeldt-Jakob	1	62	-
Other	6	61.67	18.184

Table 8

Life Satisfaction Mean and Standard Deviations Across Dementia Types

Dementia Type	*n*	*m*	*sd*
Alzheimer's	54	24.26	5.963
Vascular	13	25.462	5.348
Parkinson's	6	24.833	2.483
Lewy-Bodies	5	18.2	7.19
Frontotemporal	5	24.6	6.268
Creutzfeldt-Jakob	1	26	-
Other	6	19.167	7.679

Table 9

Marital Satisfaction Mean and Standard Deviations Across Dementia Types

Dementia Type	*n*	*m*	*sd*
Alzheimer's	54	83.56	13.782
Vascular	13	83.923	8.26
Parkinson's	6	85	9.55
Lewy-Bodies	5	88.2	17.283
Frontotemporal	5	90.2	9.68
Creutzfeldt-Jakob	1	84	-
Other	6	95.67	8.548

This section sets the foundation for the more powerful analyses used to answer the primary research questions of this study. Prior to running the multiple regression analyses to test this study's hypotheses, the assumptions of multiple regression were tested prior to conducting the analyses. The first assumption was met given the continuous nature of the data generated by the measures for the dependent variables. The second assumption was met given the continuous and categorical nature of the measures for this study's independent variables. The third assumption was met in that Durbin-Watson statistics indicated that there was independence of observation for this study's measures. Scatterplots and partial regression plots were examined to determine if the

relationships between independent variables and dependent variables were linear. Assumption four was met as these relationships were clearly linear upon evaluation.

Scatterplots were also used to determine and confirm that the data demonstrated homoscedasticity around the line of best fit. This fifth assumption was met based on examining the scatterplots. For the sixth assumption, the correlation matrix of this study's variables were examined in addition to interpreting the VIF and tolerance coefficients to test for multicollinearity. No correlation exceeded the recommended level of .85, tolerance for each variable exceeded the minimum of .2, and VIF scores were well below the recommended cutoff of 5 (Kline, 2011). Therefore, the sixth assumption was met as these analyses did not reveal any indicator of multicollinearity. Assumption seven was tested by checking histograms and P-Plots of residual scores to check for outliers of data. No outliers were observed in this study's spread of data, and thus assumption seven was met. Given that the assumptions for multiple regression analyses were all met the results reported in the following section are considered to be valid.

Restatement of Research Questions

Q1 How much variance in marital satisfaction is accounted for by anxious attachment, avoidant attachment, and perceived closeness?

H1 It was hypothesized that anxious attachment, avoidant attachment, and perceived closeness would collectively account for a statistically significant amount of the variance in marital satisfaction.

To answer this research question, a multiple regression was conducted. The three variables of the avoidant attachment, anxious attachment, and perceived closeness comprised the predictor group with marital satisfaction as the outcome variable. This cluster of predictor variables accounted for a statistically significant amount of variance in marital satisfaction ($R^2 = .379$, $F\ (3, 86) = 17.461$, $p < .001$). The model accounted for

37.9% of the variance in marital satisfaction. Within this model, avoidant attachment was the strongest predictor (β = .540, p < .001). Table 8 demonstrates the results from this regression analysis. Based on these results, the initial hypothesis was supported.

Table 10

Multiple Regression with Marital Satisfaction as Outcome Variable

Measure	*t*	*p*	β	R^2	*F*	*p*
Total Model				.379	17.461	.000
Anxious Attachment	1.150	.253	.110			
Avoidant Attachment	4.64	.000	.540			
PAM	-.263	.793	-.030			

Note. PAM = Perceived Closeness. PAM, Anxious Attachment, and Avoidant Attachment comprised the predictor variables.

H2 It was hypothesized that less anxious attachment, less avoidant attachment and greater perceived closeness would be associated with greater marital satisfaction.

The individual Pearson product correlation coefficients for anxious attachment (r = -.651, p < .001), avoidant attachment (r = -.355, p < .001), and perceived closeness (r = .422, p < .001) with marital satisfaction were all statistically significant. These results support the second hypothesis of this first research question and provide additional interpretation for the results related to the first hypothesis.

Individually, the three predictor variables were significantly related with marital satisfaction, and in the predicted directions. When clustered together as a single predictor group, this cluster accounts for 37.9% of the overall variance of marital satisfaction, Within this model, avoidant attachment was the strongest predictor (β = .540, p < .001).

Q2 How much variance in life satisfaction is accounted for by anxious attachment, avoidant attachment and perceived closeness?

H3 It was hypothesized that anxious attachment, avoidant attachment, and perceived closeness would collectively account for a statistically significant amount of the variance in life satisfaction.

To test this hypothesis, a second multiple regression was conducted with Bonferroni correction used to minimize the likelihood of Type II error; alphas for each analyses were set to .0167 for significance (i.e., .05/3=.0167). The three variables of the avoidant attachment subscale of the ECR-R, anxious attachment subscale of the ECR-R, and total scale of the PAM comprised the predictor group with the total scale of the SWLS as the outcome variable. This cluster of predictor variables accounted for 23.8% of the variance in life satisfaction. This result is statistically significant (R^2 = .238, F (3, 86), p < .001). The strongest variable within this model was the PAM (β = .2, p = .014) as its beta weight yielded statistical significance. Table 8 shows the results from this regression. Based on these results, the hypothesis is supported.

Table 11

Multiple Regression with Life Satisfaction as Outcome Variable

Measure	*t*	*p*	β	R^2	*F*	*p*
Total Model				.238	8.958	.000
Anxious Attachment	-1.569	.120	-.165			
Avoidant Attachment	-.847	.399	-.109			
PAM	2.516	.014	2.516			

Note. PAM = Perceived Closeness. PAM, Anxious Attachment, and Avoidant Attachment comprised the predictor variables.

H4 It was hypothesized that less anxious attachment, less avoidant attachment and greater perceived closeness would be associated with greater life satisfaction.

The individual Pearson product correlation coefficients for anxious attachment (r = -.332, p = .001), avoidant attachment (r = -.386, p < .001), and perceived closeness (r = .448, p < .001) with life satisfaction were all statistically significant. These results support the second hypothesis of this second research question and provide additional interpretation for the results related to the first hypothesis.

Individually, the three predictor variables are significantly related with life satisfaction, and in the predicted directions. When clustered together as a single predictor group, only perceived closeness continued to be a statistically significant factor. This suggests that of the 23.8% variance in life satisfaction collectively accounted for, perceived closeness is the strongest predictor within this model.

Q3 How does anticipatory grief moderate the relationship between anxious attachment, avoidant attachment and perceived closeness with marital satisfaction and life satisfaction?

H5 It was hypothesized that anticipatory grief would have a negative moderating effect between anxious attachment, avoidant attachment, and perceived closeness with marital satisfaction.

After computing the interaction variables and structuring the hierarchical regression, analysis for moderation effects was conducted. At step one, demographics accounted for a statistically significant amount of marital satisfaction ($R^2 = .429$, F (22, 66) = 2.258, $p = .006$). At step two, with the subscales of the ECR-R, PAM, and MMCGI-SF were entered, this cluster accounted for an additional amount of variance that was statistically significant ($R^2 = .314$, F (4, 62) = 18.998, $p < .001$). At step three, the test for moderation, the interaction variables of the ECR-R subscales and PAM with the MMCGI-SF did not yield statistically significant findings ($R^2 = .009$, F (3, 59) = .740, $p = .553$). Because this third cluster of variables did not account for a statistically significant amount of additional variance, anticipatory grief cannot be said to moderate the relationships between attachment anxiety, attachment avoidance, and perceived closeness on marital satisfaction (Baron & Kenny, 1986). Therefore the first hypothesis for research question three was not supported.

Table 12

Test for Moderating Effect of Anticipatory Grief with DAS as Dependent Variable

				Change Statistics		
	R^2	Adjusted R^2	Std. Error of the Estimate	R Square Change	F Change	Sig. F Change
Step 1 Demographics	.340*	.171	11.86290	.340	2.006	.021
Step 2 Anxious Attachment Avoidant Attachment PAM MMCGI-SF	.643**	.524	8.98530	.303	14.004	.000
Step 3 Interaction Variables	.649	.510	9.12151	.006	.348	.791

Note. PAM = Personal Acquaintance Measure, MMCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form.
The following demographics were entered in Step 1: Age, Gender, Income, Ethnicity, Education, Marriage Length, Dementia Type, External Support Received, Number of Children.
* $p < .05$, ** $p < .01$
The final model was statistically significant (F (25, 64) = 4.659, $p < .001$)

For variables of interest in this study, at step two of this regression, the beta weights for avoidant attachment (b = -.369, $p < .001$) and anxious attachment (b = -.330, $p < .001$) were statistically significant, indicating that both types of attachment are significant predictors of marital satisfaction. This suggests that within this model, attachment styles do maintain a significant effect on the variance in marital satisfaction above and beyond that of other variables accounted for in this study. Given the hypothesized role of anticipatory grief as a moderating variable, it is further worth noting that the MMCGI-SF's direct correlation coefficient with the DAS (r = -.272, p = .01), though statistically significant, still did not represent as strong of a relationship as the

ECR-R subscales or PAM. The MMCGI-SF was also not a significant contributor to the variance in the DAS in the test for moderation (b = -.127, p = .355). See Table 12 for the results of this test of moderation.

H6: It was hypothesized that anticipatory grief would have a negative moderating effect between anxious attachment, avoidant attachment, and perceived closeness with life satisfaction.

Table 13

Test for Moderating Effect of Anticipatory Grief with SWLS as Dependent Variable

				Change Statistics		
	R^2	Adjusted R^2	Std. Error of the Estimate	R Square Change	F Change	Sig. F Change
Step 1 Demographics	.243	.048	5.89629	.243	1.246	.251
Step 2 Anxious Attachment Avoidant Attachment PAM MMCGI-SF	.558**	.411	4.63707	.316	11.795	.000
Step 3 Interaction Variables	.568	.397	4.469193	.010	.489	.691

Note. PAM = Personal Acquaintance Measure, MMCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form. The following demographics were entered in Step 1: Age, Gender, Income, Ethnicity, Education, Marriage Length, Dementia Type, External Support Received, Number of Children.
* $p < .05$, ** $p < .01$
The final model was statistically significant (F (25, 64) = 3.319, $p < .001$)

After computing the interaction variables and structuring the hierarchical regression, an analysis for moderation effects was conducted. At step one, demographic variables (see table 6) did not account for a statistically significant amount of life satisfaction (R^2 = .243, F (22, 66) = 2.416, p = .251). At step two, with the anxious and

avoidant subscales of the ECR, the PAM, and MMCGI-SF entered, this cluster did account for a statistically significant amount of variance (R^2 = .558, F (4, 62) = 11.785, p < .001). At step three, the test for moderation, the interaction variables of the ECR-R subscales and PAM with the MMCGI-SF did not yield statistically significant findings (R^2 = .568, F (3, 59) = .489, p = .691). Therefore, this second hypothesis was not supported, and based on these results, anticipatory grief cannot be said to moderate the relationships between attachment anxiety, attachment avoidance, and perceived closeness on life satisfaction. See Table 13 for the results of this test of moderation.

Post Hoc Demographic Analysis

To explore potential group differences based on the demographics of age, gender, income, ethnicity, education, marriage length, dementia type, external support received, and the number of children, a MANOVA was conducted for each demographic variable. Demographic variables were entered as the independent variable and the subscales of the ECR-R and total scales of the PAM, DAS, SWLS, and MMCGI-SF as dependent variables. One-way MANOVA analyses yielded statistically significant group differences for anxious attachment based on age (Wilks' λ = .045, F (24, 65) = 2.236, p < .001, η = .463) and partner's length of time with a dementia diagnosis (Wilks' λ = .454 F(6, 83) = 2.315, p < .001, η= .146). The effect size for age (F (24, 65) = 1.896, p = .022, R^2 = .412) was large and accounted for 41.2% of the differences of anxious attachment with a positive relationship (Cohen, 1988). The effect size for partner's length of time with a dementia diagnosis (F (6, 83) = 2.524, p = .027, R^2 = .154) was medium and indicates that the length of time that a participant's spouse had been diagnosed with a dementia disease accounts for 15.4% of the variance in anxious attachment (Cohen, 1988).

Remaining demographic variables were not statistically significant correlates with anxious attachment. This relationship between length of time with a diagnosis and anxious attachment featured a positive relationship.

Further multivariate analyses with avoidant attachment as the dependent variable unveiled significant group differences for length of marriage (Wilks' λ = .018, F (38, 51) = 1.573, p < .001, η = .554), partner's length of time with a dementia diagnosis (Wilks' λ = .454 F(6, 83) = 2.315, p <.001, η = .146), and number of children (Wilks' λ = .587 F(5, 84) = 1.841, p = .01, η = .101). Thus, 5.79% of the variance in avoidant attachment was accounted for by the length of a participant's marriage (F (38, 51) = 1.848, p = .02, R^2 = .0579), an effect considered to be small (Cohen, 1988). This relationship was positive.

The effect size for the length of time that a participant's partner had a dementia diagnosis (F (24, 65) = 3.874, p = .002, R^2 = .219) was large and indicates that 21.9% of variance in avoidant attachment was accounted for (Cohen, 1988). This relationship was positive in its correlation. For the number of children (F (5, 84) = 3.201, p = .011, R^2 = .16), the effect size was medium and suggested that 16% of the variance in avoidant attachment was accounted for by this variable (Cohen, 1988). The relationship between number of children and avoidant attachment was negative, meaning that higher numbers of children were associated with more secure attachment.

Two group differences were found for perceived closeness. Again, a group difference was found based on partners' length of time with a dementia diagnosis (Wilks' λ = .454 F(6, 83) = 2.315, p < .001, η= .146). This was a medium effect size (F (6, 83) = 2.316, p = .041, R^2 = .143) accounting for 14.3% of the variance in perceived closeness,

with a negative relationship (Cohen, 1988). The number of children a participant had also generated a significant group difference (Wilks' λ = .587 $F(6, 83) = 1.841$, $p = .004$, $\eta = .101$) that featured had a medium effect size ($F(5, 84) = 3.82$, $p = .004$, $R^2 = .185$). This was a positive relationship and accounted for 18.5% of the variance in perceived closeness (Cohen, 1988).

Anticipatory grief was found to differ across groups as organized by age, length of marriage, and annual income. For age (Wilks' λ = .045, $F(24, 65) = 2.236$, $p < .001$, $\eta = .463$), the effect was small ($F(24, 65) = 2.176$, $p = .007$, $R^2 = .046$) and this variable accounted for 4.6% of the variance in anticipatory grief (Cohen, 1988). This relationship featured a negative correlation. Length of marriage (Wilks' λ = .018, $F(38, 51) = 1.573$, $p < .001$, $\eta = .554$) generated a small (Cohen, 1988) effect size ($F(38, 51) = 1.929$, $p = .014$, $R^2 = .059$) suggesting that this variable accounted for 5.9% of the variance in anticipatory grief. This relationship was negative in its correlation. For annual income (Wilks' λ = .508, $F(7, 82) = 1.649$, $p = .014$, $\eta = .127$) the effect size ($F(7, 82) = 2.973$, $p = .008$, $R^2 = .202$) was large and suggested that 20.2% of the variance in anticipatory grief could be accounted for by income (Cohen, 1988). This relationship was also negative.

Two statistically significant group differences for life satisfaction were found based on age (Wilks' λ = .045, $F(24, 865) = 2.236$, $p < .001$, $\eta = .463$) and annual income (Wilks' λ = .508, $F(7, 82) = 1.649$, $p = .014$, $\eta = .127$). The effect size ($F(24, 65) = 2.399$, $p = .003$, $R^2 = .47$) for age is considered to be large while the effect size for annual income ($F(7, 82) = 2.906$, $p = .009$, $R^2 = .199$) was medium (Cohen, 1988). Age and life satisfaction featured a positive relationship while the relationship of income and

life satisfaction featured a negative correlation. Based on these results, age may account for up to 46.3% of the variance in life satisfaction while annual income accounted for up to 19.9% of the variance.

Finally, with marital satisfaction as the dependent variable, two significant group differences emerged as determined by age (Wilks' λ = .045, F (24, 65) = 2.236, p <.001, η = .463) and the number of children a participant had children (Wilks' λ = .587 F(5, 84) = 1.841, p = .01, η= .101). Age (F (24, 65) = 2.334 p = .004, R^2 = .046) accounted for 4.6% of the variance in marital satisfaction with a small effect size while the number of children (F (5, 84) = 5.054, p < .001, R^2 = .231) generated a large effect size (Cohen, 1988). Age and marital satisfaction featured a positive relationship while the number of children had a negative relationship with marital satisfaction.

Table 14 on the following page summarizes the results of post-hoc MANOVA analyses from this study. On the y-axis are the dependent variables with the independent variables that determined group differences on the x-axis. For the dependent variables in which group differences emerged, relevant F and R^2 statistics are reported. With the results of this study presented and data available to answer the primary research questions along with additional post-hoc analyses, Chapter V synthesizes these results with theory and research first discussed in Chapter II.

Table 14

Significant Results of MANOVA Post-Hoc Analyses

		ANX		AV		PAM		MMCGI-SF		SWLS		DAS	
	λ	F	R^2	F	R^2	F	R^2	F	R^2	F	R^2	F	R^2
Age	.045**	1.896	.412*	-	-	-	-	2.176	.445**	2.399	.47**	2.334	.463**
Length of Marriage	.018**	-	-	1.848	.579*	-	-	1.929	.59*	-	-	-	-
Length of Diagnosis	.454**	2.524	.154*	3.874	.219**	2.316	.143*	-	-	-	-	-	-
Income	.508*	-	-	-	-	-	-	2.973	.202**	2.906	.199**	-	-
Children	.587*	-	-	3.201	.16*	3.82	.185**	-	-	-	-	5.054	.231*

Notes. ANX = Anxious Attachment subscale of ECR-R, AV = Avoidant attachment subscale of ECR-R, PAM = Personal Acquaintance Measure, SWLS = Satisfaction with Life Scale, DAS = Dyadic Adjustment Scale, MMCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form.
*** p <.001, ** p < .01, * p < .05

CHAPTER V

SUMMARY AND CONCLUSIONS

This study was conducted to answer three research questions and to test a total of six hypotheses. Both standard multiple regression and hierarchical regression for detecting moderation effects were used to test this study's respective hypotheses. Analyses used to examine group differences within the primary variables of interest were also conducted. One finding that readers may note is that there is striking similarity in the results for marital satisfaction and life satisfaction. Given that a previous meta-analysis has found that these two constructs were strongly related, the results to be discussed are not altogether unsurprising (Heller et al., 2004).

This study generated results confirming that low levels of anxious and avoidant attachment in conjunction with high levels of perceived closeness were related to higher levels of life satisfaction and marital satisfaction. Furthermore, low levels of avoidant attachment and anxious attachment were associated with lower levels of anticipatory grief. High levels of perceived closeness were also associated with lower levels of anticipatory grief. These findings were all in line with what different studies have found when examining these constructs individually prior to this study suggested and theorized.

Collectively, anxious attachment, avoidant attachment, and perceived closeness accounted for statistically significant amounts of variance in both life satisfaction (23.8%) and marital satisfaction (37.9%). While anticipatory grief did not moderate these

findings, its significant negative relationship with marital satisfaction and life satisfaction still provide some support that it impacts these two domains of spousal caregiver functioning. Fostering high levels of marital satisfaction and life satisfaction, through promoting improved attachment and closeness, likely improves the quality of care that spousal caregivers can provide in numerous ways.

First, spousal caregivers' overall emotional and physical well-being may be improved, thus buffering against injury or mental illness (Garand et al., 2012; Holley & Mast, 2009). Second, improving a caregiver's quality of life through increased marital and life satisfaction may result in improved decision-making and ability to recognize specific needs as exhibited by their loved one (Garand et al., 2012). Finally, using the results of this study to guide assessment and intervention may help spousal caregivers to adapt and cope with issues related to caregiver stress in a positive and constructive manner, and thus lead to improved ability in providing care (Garand et al., 2012; Holley & Mast, 2009; Walker & Pomeroy, 1996).

Unsurprisingly, some group differences were unveiled through post-hoc analyses. Some results were consistent with previous research, such as that older adults had higher life satisfaction while individuals who were younger and had been married for a shorter time reported higher levels of marital satisfaction (Gottman & Notarius, 2002). In this study, the average length of marriage for a participant was 35.18 years with a range of 2 to 64 years (*sd* = 14.13). In general, life satisfaction tends to increase in old age, while marital satisfaction is often highest at the beginning of a marriage, and may show a positive increase when children leave the home (Gorchoff, John, & Helson, 2008).

Relative to attachment, higher levels of anxious attachment were associated with increased age and length of time a loved one had been diagnosed with dementia. Certainly, both of these may be a function of time, as the likelihood for a partner developing a dementia disorder increases as that partner ages (Thies & Bleiler, 2013). Perhaps as one ages and sees a partner decline due to a dementia process, he or she becomes increasingly preoccupied with this relationship. Worrying about a partner's well-being and behaviors may very well underlie this increased attachment anxiety (Feeney & Hohaus, 2001; Perren et al., 2007). Furthermore, individuals with higher levels of avoidant attachment were found to have had partners who had been diagnosed with a dementia for a longer period of time than less avoidant participants.

So, while individuals in this study became more preoccupied with their relationships as a partner's time with dementia increased, they were also attempting to put distance between themselves and their partner. This may have served as a buffer to diminish the stress caused by seeing a loved one deteriorate (Feeney et al., 2013). This distancing may also have resulted in lower levels of perceived closeness, as individuals who reported less factual knowledge about a partner also reported a greater length of time for their partner's diagnosis.

While the results of this study do not support the hypotheses that anticipatory grief moderates the relationships of attachment and perceived closeness with satisfaction with life and marriage, the actual final hierarchical regression models of both these analyses showed the demographics, attachment, perceived closeness, and anticipatory grief collectively account for significant amounts of variance for both types of satisfaction. Specifically, 56.8% ($p < .01$) of the variance in life satisfaction and 64.9%

($p < .01$) of the variance in marital satisfaction were accounted for by the aforementioned variables. These results are paramount in understanding the experiences of spousal caregivers of individuals with dementia. While demographics provide the most fundamental understanding about a person's unique contextual factors, explicating the emotional and psychological underpinnings of a spousal caregiver's relationship may help unveil previous unknown personal strengths, challenges or experiences (Bodner & Cohen-Fridel, 2010; Cicirelli, 2010; Noyes et al., 2010).

Attachment

The subscales of the ECR-R were related ($r = .443$, $p < .001$), which is unsurprising as they measure separate, yet related, processes within the larger construct of attachment (Fraley et al., 2000). The measures of attachment are negatively correlated with perceived closeness. This too makes conceptual sense, particularly when the correlation between perceived closeness and avoidant attachment ($r = -.651$, $p < .001$) is larger than the correlation between perceived closeness and anxious attachment ($r = -.378$, $p < .001$). Individuals with avoidant attachment styles with partners may in fact perceive themselves to be more distant from their partners and thus have less factual knowledge about their loved ones (Vance et al, 2008). Individuals with anxious attachment styles are often pre-occupied with their romantic partners, and thus may see themselves as closer to a loved one by way of managing their own insecurity and need for closeness (Mikulincer & Shaver, 2009). It may be that individuals who are more secure in their attachment style spend more time with loved ones and thus have more opportunity to learn information about individuals they are close to.

Lower levels of anxious attachment (r = -.355, p = <.001) and avoidant attachment (r = -.606, p <.001) were associated with higher levels of marital satisfaction. Similarly, lower levels of anxious attachment (r = -.332, p = .001) and avoidant attachment (r = -.386, p = <.001) were associated with higher levels of life satisfaction. This is consistent with previous research as secure attachments are found to be predictive of higher levels of satisfaction with both life and marriage (Feunfhausen & Cashwell, 2013; Kirchmann et al., 2013). Given that positive and meaningful relationships buffer against the negative effects of physical and psychological distress, it is of little surprise that this study found consistent results with prior research (Collins & Feeney, 2004; Feeney & Thrush, 2010; Shaver & Mikulincer, 2002). This may also be why higher levels of anxious attachment (r = .305, p = .003) and avoidant attachment (r = .319, p = .002) correlated with higher levels of anticipatory grief.

Individuals who are less secure in their attachments may have fewer interpersonal and intrapersonal resources to use as a way of coping with distressing experiences (Feeney & Thrush, 2010; Gable & Reis, 2010; Mikulincer & Shaver, 2009). Particularly for spousal caregivers who trend towards insecure attachment, having regular contact with a loved one who suffers from a progressive dementia disease may be frequently reminded of challenges and stressors facing them on a daily basis (Chen et al., 2013). Perhaps for insecurely attached caregivers, this develops into a pattern in which they struggle to positively appraise their relationship and situation, which then feeds into their own anxieties or tendencies to avoid interacting with others (Gentzler, Kerns, & Keener, 2010). As a result, when experiencing thoughts around anticipatory grief, managing these

negative cognitions may prove difficult for caregivers who are more anxious or avoidant in their attachment (Behringer et al., 2011).

Perceived Closeness

As a construct measuring one's cognitive appraisal of a relationship as based upon factual knowledge of a spouse, the results of this study supported the theory that a more closely perceived relationship would be associated with positive benefits in other domains of one's life (Selfhout et al., 2009; Tower & Krasner, 2006). As mentioned above, less anxious attachment and avoidant attachment were associated with higher levels of perceived closeness. Furthermore, this construct was positively correlated with higher levels of marital satisfaction ($r = .442$, $p < .001$) and life satisfaction ($r = .448$, $p < .001$). Finally, higher levels of perceived closeness was associated with lower levels of anticipatory grief ($r = -.391$, $p < .001$).

These findings mirror those of attachment avoidance and anxiety as demonstrated in this study. Given that individuals who have higher levels of secure attachment are more likely to have more frequent and positive interactions with loved ones, it is unsurprising that this would then be associated with higher levels of perceived closeness as well (Bodner & Cohen-Fridel, 2010; Main et al., 1985; Powers et al., 2006). It is further unsurprising that individuals with higher perceived closeness of a partner also experience higher degrees of satisfaction with life and marriage. Certainly, the happier people are in a relationship, the more likely they are to spend time and learn about their partner (Starzyk et al., 2006). Furthermore, individuals with positive relationships are much more likely to see their lives as positive and meaningful (Gana et al., 2013; Schilling, 2006)

Regarding anticipatory grief, it may be that individuals who perceive their relationship as being close while having more factual knowledge about their partner are more prone to experience secure attachments (Spake & Bishop, 2009). More factual knowledge about a partner likely indicates more positive experiences across the relationship's duration, thus offering more positive memories that can be used to reappraise negative experiences as they arise (Macfie & Swan, 2009). Therefore, caregivers with higher levels of perceived closeness may also be more able to utilize personal coping skills or seek out support when faced with psychological or emotional distress (Ben-Naim et al., 2013; Karreman & Vingerhoets, 2012). Promoting reflection and exploration of factual information of a loved one may spur spousal caregivers to become closer and more securely attached to their spouse.

Marital Satisfaction

The first research questions consisted of hypotheses stating that anxious attachment and avoidant attachment would have a negative relationship with marital satisfaction while perceived closeness would have a positive relationship with this construct. Furthermore, it was proposed that both types of attachment and perceived closeness would collectively account for a significant amount of the variance in marital satisfaction. The final results supported both of these hypotheses. Higher marital satisfaction was correlated with lower levels of anxious (r = -.355, p < .001) and avoidant attachment (r = -.606, p <. 001) and higher levels of perceived closeness (r = .422, p <. 001). Furthermore, results from the regression analysis supported the second hypothesis as this cluster of variables accounted for a 37.9% of marital satisfaction's variance (R^2 = .379, p < .001). This large effect size (Cohen, 1988) suggests that these three constructs

collectively may be extremely important to assess when marital satisfaction is the focus of a spousal caregiver.

Previous research has found that levels of anxious and avoidant attachment impact marital satisfaction of various populations (Feunfhausen & Cashwell, 2013; Hirschberger et al., 2009; Shaver & Mikulincer, 2002). Consistent with these findings, lower levels of attachment avoidance and attachment anxiety were associated with higher levels of marital satisfaction. Bowlby (1969, 1973) and Main et al. (1985) would suggest that this is because relationships featuring higher levels of security feature better communication and attunement to one another's needs, thereby fostering a more mutually beneficial and meaningful relationship. While the results of this study are consistent with theory and research, the addition of perceived closeness into the analyses adds further clarity into the role of relationship quality and marital satisfaction.

Indeed, higher levels of perceived closeness were associated with higher levels of marital satisfaction. While no previous research had reported such findings, rationally it makes sense that relationships in which a person knows more about the other person are relationships an individual also finds more satisfying (Starzyk et al., 2006). It also makes sense that individuals who are less anxious and avoidant around a partner also tend to interact more and know more about their partner, and thus have higher degrees of marital satisfaction. The inclusion of perceived closeness into this model adds more predictive power to the already established power of attachment style when evaluating factors of marital satisfaction of spousal caregivers (Bodenmann, 2005; Feunfhausen & Cashwell, 2013; Fiori et al, 2011).

The population of this study's sample showed higher levels of marital satisfaction with increased age and fewer numbers of children. While age and children were the only two significant group differences that generated main effects, these results can be further interpreted within the lens of past research. While marital satisfaction tends to decrease steadily over the years (Belsky & Pensky, 1988; Gottman & Notarius, 2002; Twenge et al., 2003), it often increases once a couple's children reach adulthood and leave the home (Gorchoff, John, & Helson, 2008; Hirschberger et al., 2009). Given the advanced age of this study's sample, it is likely there are fewer, if any, children cohabiting with the couple and may thus provide the couple with an opportunity to spend higher quality of time together independent of the distraction of children and parenting (Fiori et al., 2011; Fitzpatrick & Vacha-Haase, 2010).

While there were no other significant group differences within marital satisfaction, correlation coefficients generated in this study were consistent with findings from other researchers. Regarding attachment style, as levels of avoidant attachment (r = -.606. p < .001) and anxious attachment (r = -.355. p < .001) decreased, marital satisfaction increased. This suggests that as participants in this study moved towards higher levels of secure attachment, the quality of their marriage was also higher. Several studies have found that secure attachments towards spouses leads to increased satisfaction with marriage (Feunfhausen & Cashwell, 2013; Givertz et al., 2013; Shaver & Mikulincer, 2006).

It was presumed, for this study, that perceived closeness would parallel much of what is expected of secure attachment as defined by lower levels of anxious and avoidant attachment (Bodenmann, 2005; Feunfhausen & Cashwell, 2013; Fiori et al., 2011;

Starzyk et al., 2006). This was demonstrated by the significant and positive correlation (r = .422 p < .01) between perceived closeness and marital satisfaction within this study. Also expected was that there would be a positive relationship between marital satisfaction and life satisfaction. This expectation was met (r = .548, p < .001) and continued to support the significant interaction between life satisfaction and marital satisfaction that has been found in numerous research (Heller et al., 2004; Kirchmann et al., 2013; O'Rourke et al., 2011).

There have been inconsistent findings in terms of how marital satisfaction is affected by grief. Some studies found that high levels of marital satisfaction led to greater levels of distress when the partner passed away than individuals who may have distanced themselves from a partner in an unhappy marriage (Page-Howard, 1999). Other researchers had demonstrated that high levels of marital satisfaction buffered against the negative consequences of bereavement, perhaps by offering more positive memories that could be used as a source of self-soothing (Bethel-Thornton, 1997; Sable, 1989). Consistent with the theoretical guidelines of Itzhar-Nabarro and Smoski (2012), this study found a negative correlation between anticipatory grief and marital satisfaction (r = -.272. p = .01). The inference from this result is that the presence of grief-related symptoms is higher for those with lower levels of marital satisfaction. Given this correlation and the fact that anticipatory grief, in conjunction with the other predictors of this study (i.e., anxious attachment, avoidant attachment, and perceived closeness), predicted decreased satisfaction with marriage, it may prove helpful to assess how a caregiver's subjective experience with grief affects other domains of their functioning,

including the quality of their marriage (Anngela-Cole & Basch, 2011; Holley & Mast, 2009).

Life Satisfaction

Other research questions regarding life satisfaction featured the hypothesis that anxious attachment (r = -.332, p <. 001) and avoidant attachment (r = -.386, p < .001) would have negative correlations with life satisfaction while perceived closeness (r = .448, p < .001) would have a positive correlation with life satisfaction. Additionally, it was hypothesized that this cluster of variables would collectively account for a statistically significant amount of the variance in life satisfaction (R^2 = .238, p < .001). Both of these hypotheses were supported. Avoidant attachment, anxious attachment and perceived closeness collectively generated a large effect size (Cohen, 1988). Based on these findings, relationships that are stronger both emotionally and psychologically will likely contribute to higher levels of life satisfaction of spousal caregivers.

Research has previously established that both anxious attachment and avoidant attachment might affect one's level of life satisfaction. Particularly in older populations, lower levels of anxious and avoidant attachment seemed to foster higher life satisfaction (Barnas, Pollina, & Cummings, 1998; Webster, 1997; Wensaur & Grossman, 1995). As suspected this current study supports these findings. What this study adds in is the element of perceived closeness, a more psychological appraisal of relationship quality based on factual knowledge of another person (Starzyk et al., 2006; Tse & Chang, 2005). Previous research seemed to indicate that higher degrees of perceived closeness would potentially have beneficial effects on life satisfaction, inverse to the effects of anxious and avoidant attachment (Spake & Bishop, 2009; Tse & Chang, 2005). Again, results

from this study supported the positive effects that perceived closeness were believed to have on life satisfaction.

If anxious attachment, avoidant attachment, and perceived closeness each have a significant relationship to life satisfaction, then it intuitively makes sense that this collection of interpersonal constructs would then account for significant amounts of life satisfaction. In fact, this study confirmed this. Furthermore, each of these three constructs, while sharing some degree of overlap, are still significantly different from one another to warrant inclusion when evaluating factors contributing to the life satisfaction of spousal caregivers (Tabachnik & Fidell, 2007). The addition of perceived closeness into this model adds an additional layer of understanding that attachment style may not necessarily capture (Kahn et al., 2012). Given that lower levels of anxious attachment and avoidant attachment were correlated with higher levels of perceived closeness, this would indicate that relationships featuring more emotional closeness also tend to feature increased psychological closeness and therefore foster higher levels of life satisfaction (Kim et al., 20008; Shaver & Mikulincer, 2006; Starzyk et al., 2006).

Similar to marital satisfaction, anticipatory grief ($r = -.391$, $p < .001$) would appear to negatively affect the life satisfaction of spousal caregivers. Thoughts associated with anticipatory grief may skew a caregiver to appraise his or her life in a more negative fashion (Ott et al., 2007). This is contrary to the positive effects that secure attachment and high levels of perceived closeness seem to provide in terms of one's subjective quality of life (Fowler et al., 2013; Garand et al., 2012). Unsurprisingly, anticipatory grief, in conjunction with the other predictors of this study, predicts levels of life

satisfaction of spousal caregivers. However, as will be discussed in the next section, this construct fails to moderate the positive effects of attachment and perceived closeness.

Of note, this study also generated results that demonstrated some group differences based on age and income. Research has found that as individuals age, they generally develop higher levels of life satisfaction (Gana et al., 2013; Mroczek & Spiro, 2005). This current study supported this finding. For this study's particular sample, there were significant group differences for life satisfaction as based on income, but given the lack of a significant correlation between these two constructs, it is difficult to draw a strong conclusion that higher income was associated with increased satisfaction with life. Research varies in terms of the relationship between income and life satisfaction (Bonanno et al., 2010; Magee, Mille, & Heaven, 2013). Regarding spousal caregivers, those with more financial resources may be more able to seek out respite care that buffers against some of the negative stressors associated with caregiving, and thus maintains one's subjective quality of life (Borg & Hallberg, 2006).

Anticipatory Grief

The previous two sections set the foundation for the inclusion of anticipatory grief as a potential moderator between measures of relationship quality and satisfaction with life and marriage. Previous research, theory, and as well as results from this study established that higher levels of attachment security and perceived closeness contribute to higher levels of both marital satisfaction and life satisfaction. Based on prior research, anticipatory grief was suspected to negatively impact the relationship of attachment and perceived closeness with marital satisfaction and life satisfaction (Fraley & Bonanno, 2004; Itzhar-Nabarro & Smoski, 2012). In both tests of moderation where interaction

variables were introduced into hierarchical regression analyses, one with life satisfaction as the dependent variable and another with marital satisfaction as the dependent variable, the results were not statistically significant. According to Baron and Kenny (1988), if the inclusion of interaction variables, as generated by predictor variables combined with the moderating variable, does not account for a statistically significant amount of variance, then the conclusion is that there is no moderating effect. Based on these guidelines and the non-significant findings from this study's analyses for moderation, anticipatory grief does not moderate the relationship between attachment, perceived closeness and marital satisfaction or life satisfaction.

Worth nothing is that the final regression models of both tests of moderation generated statistically significant results for marital satisfaction (F (25, 64) = 4.659, p <.001, R^2 = .649) and life satisfaction (F (25, 64) = 3.319, p <.001, R^2 = .568) that also featured large effect sizes (Cohen,1988). Given that anticipatory grief had a significantly negative relationship with both marital satisfaction (r = -.272, p = .01) and life satisfaction (r = -.391, p < .001), one conclusion can be that grief processes do impair these latter two constructs. So, while anticipatory grief neither strengthens nor weakens the direct relationship between attachment and perceived closeness and satisfaction with life and marriage, it may still continue to account for some variability in these two dependent variables. Therefore, assessing this domain of a caregiver's functioning may still yield important information about their experience.

Spousal Caregiving

While the purpose of this study was to generate insight into the life and the marital satisfaction of spousal caregivers, the greater intent was that this information be

used to foster an increased quality of life for these individuals. It has previously been established that attachment style can influence one's own behaviors when in a caregiving role (Bowlby, 1969, 1980; Cicirelli, 1983,1993,1995; Perren et al., 2007). Improving the quality of the relationship between a spousal caregiver and his or her loved one would likely elevate the quality of care they provide (Vance et al., 2008).

This current study not only reinforced the previous notion that lower levels of anxious attachment and avoidant attachment are associated with greater marital satisfaction, but also unveiled the importance of determining levels of perceived closeness. The addition of perceived closeness into the discussion of one's marital satisfaction may generate additional information that can be used to heighten this area of a caregiver's quality of life (Uchino et al., 1996). And, improving the relationship between a spousal caregiver and his or her spouse has been found to result in higher caregiver satisfaction and improved care towards the individual diagnosed with dementia (Magai & Cohen, 1998).

Caregivers with better quality relationships and higher levels of self-efficacy within their role also report higher levels of subjective well-being, such as life satisfaction (Cicirelli, 2010; Webster, 1997). Secure attachment has been found to be positively predictive of higher life satisfaction, and this study also found that higher levels of perceived closeness were associated with higher levels of life satisfaction (Chen et al., 2013). Therefore, such as with marital satisfaction, it would be worthwhile to assess a caregiver's levels of secure attachment and perceived closeness and exploring how this may be impacting his or her satisfaction with life. Given the importance that quality relationships have in terms of elevating one's subjective well-being, and vice

versa, attachment and perceived closeness become highly relevant to understanding a spousal caregiver's satisfaction with life and marriage (Feeney at al., 2013; Heller et al.,2004; Webster, 1997).

Anticipatory grief was found to have negative relationships with both life satisfaction and marital satisfaction for this study's sample of spousal caregivers, but was not determined to act as a moderator between perceived closeness and satisfaction with life or marriage. Additionally, anticipatory grief was not found to moderate the relationship between attachment and satisfaction with life or marriage. This likely means that anticipatory grief's negative effect is linear in nature but does not interact with attachment or perceived closeness (Baron & Kenny, 1988; Tabachnik & Fidell, 2007). This study did generate evidence that anticipatory grief should be evaluated when providing support to spousal caregivers, particularly given that this process has been implicated in lower levels of life satisfaction and decreased quality of caregiving (Holley & Mast, 2012; Ott et al., 2007). While these findings were consistent with what past research would suggest, this current study did not generate consistent findings regarding demographic variables found to be consistent with higher levels of anticipatory grief, such as increased time spent caregiving or lower levels of support (Angela-Cole & Busch, 2011; Stroebe et al., 2007). By no means does the lack of statistical significance in this study disconfirm what other research has found, but it was still relevant to note given this study's emphasis on further exploring this construct.

Practice Implications

Results from this study feature several implications for counseling psychologists and other helping professionals that may work with caregivers. Individuals seeking

support or psychotherapy who are providing care to a spouse with dementia certainly need to first be given a chance to provide background information and a psychosocial history (Wallin, 2007). This often occurs in the form a comprehensive clinical interview that may provide important diagnostic information and unveil patterns of attachment that may be quite useful in understanding a caregiver's behaviors and relational internal working model (Benson et al., 1992; Collins & Feeney, 2004; Mikulincer & Shaver, 2009). In addition to focusing on relational attachment history, clinicians should inquire about the degree that a caregiver is satisfied with his or her life and marriage. This is important given that high levels of life satisfaction and marital satisfaction are protective factors of mental illness and caregiver stress (Bonanno et al., 2010; Gana et al., 2013; Thorpe et al., 2009).

During these discussions, clinicians should also inquire about details relating to the caregiver's spouse in regards to historical friendships, goals across the lifespan, and personal values This would provide information to the levels of perceived closeness that a caregiver has towards his or her loved one, which is more information about the quality of this important relationship. Furthermore, discussing the spouse's behaviors may generate information around what triggers emotional or relational distress for the caregiver (Garand et al., 2012; Holley & Mast, 2012; Livingston et al., 2010). Finally, it is important to assess how the caregiver feels about their spouse having a dementia diagnosis. Exploring the changes they have experienced and their expectations for the future would provide insight into their feelings of anticipatory grief and loss that may be affecting their moods and behaviors in ways they have not yet considered (Angela-Cole & Busch, 2011; Kehl, 2005).

The purpose of a comprehensive psychosocial assessment is to develop a holistic understanding of the caregiver's past and present situations in life. After the interview, counseling psychologists should then collaborate with the caregiver to develop a treatment plan to clarify what the caregiver's goals for treatment are and how those goals will be evaluated. This will produce more targeted treatment and establish a frame of reference for caregivers to apply their in-session processing to their life at home (Baldwin, Wampold, & Imel, 2007). Once a treatment plan has been established, any number of psychotherapeutic approaches will likely be beneficial for a spousal caregiver (Wampold et al., 1997). However, despite the benefits that all psychotherapies might have for caregivers, it is still important to clinicians to continuously incorporate empirical research into their approach to psychotherapy. Doing so will enhance clinical judgment and effectiveness (Wampold, Goodheart, & Levant, 2007).

Though many types of psychotherapy may have positive results on the well-being of caregivers, two particular approaches show promise for spousal caregivers. Reminiscence therapy and life review have demonstrated to be effective in treating anxiety, depression, social isolation, and low levels of self-esteem and life satisfaction (Latorre et al., 2015; Moral, Terrero, Galan, & Rodriguez, 2015). Given that these approaches are particularly effective with elderly adults, and spousal caregivers are likely to be elderly, this strongly indicates that clinicians consider integrating these modalities into their clinical toolbox (Moral et al., 2015; Thies & Bleiler, 2013). However, no readily available research has yet been conducted that directly evaluates the effectiveness of either approach specifically with caregivers.

Reminiscence therapy bears a resemblance to client-centered psychotherapy that emphasizes warmth, empathy, and open-ended questions. Where reminiscence differentiates, is that questions are often targeted to address impactful life experiences, either positive or negative, that a client sees as having had a permanent effect on their identity or functioning (Chueh & Chang, 2013; Moral et al., 2015). This non-confrontational approach focuses on various timeframes of a client's life, such as considering the most impactful even from adolescence, then young adulthood, and so forth (Chueh & Chang, 2013). The next step, in essence, is to engage in a cognitive restructuring process where emphasis is placed on what was gained from each experience, and to foster a sense of gratitude or acceptance (Ando, Tsuda, & Moorey, 2006; Chueh & Chang, 2013). This method of treatment can be short-term, comprise a portion of treatment, or be integrated into other psychotherapies such as cognitive-behavioral therapy (Chueh & Chang, 2013). Reminiscence psychotherapy can be synthesized with the results from this current study by targeting the spousal caregiver's experiences with his or her loved one, both past and present (Holley & Mast, 2012).

Alternatively, life review is a journal-based intervention that invites clients to focus specifically on positive life events around a particular theme (e.g. major life experiences; Latorre et al., 2015). By emphasizing positive life experiences, it is theorized that life reviews fosters increased levels of happiness and satisfaction with life as older adults explore and revisit memories that may have become veiled over time or as a result of some level of distress (Subramaniam, Woods, & Whitaker, 2014). This approach has been correlated with improvements in mood, relationships, autobiographical memory, and life satisfaction for cognitively intact older adults as well

as older adults with mild dementia disorders (Latorre et al., 2015; Subramaniam et al., 2014). Important differences between life review and reminiscence are that life review focuses extensively on journaling and positive events while reminiscence addresses both positive and negative experiences through less writing intensive methods. Counseling psychologists should take care in considering the relative strengths and individuals needs of clients when selecting an intervention and tailoring psychotherapy appropriately (Norcross & Wampold, 2011).

Given that individuals diagnosed with mid to late stage dementia may not benefit from traditional psychotherapy (Jo & Song, 2015), addressing issues related to poor marital satisfaction or low levels of life satisfaction may be an individual endeavor for a caregiver (Perren et al., 2007). Broaching these constructs in addition to directly discussing anticipatory grief and perceived closeness may allow caregivers to feel permission to discuss something they had previously avoided sharing with others (Shear et al., 2014). Inviting caregivers to discuss their current level of anticipatory grief and therefore begin the process of understanding and transforming their current relationship with a partner who will continue to decline may help prevent prolonged or complex grief once their spouse passes away (Funk, Waskiewich, & Stajduhar, 2013). Clinicians providing services to caregivers may find that anticipatory grief becomes the focus of treatment. In such cases, clinicians can then support caregivers in developing new thoughts or attitudes that are beneficial in managing, or improving, current levels of grief (Funk et al., 2013). This may very well then improve satisfaction with life and marriage, and further improve caregivers' quality of life.

In addition to these points around intervention, it is also important to highlight the role that knowledge and social support can play in the well-being and functioning of spousal caregivers of individuals with dementia (Noyes et al., 2010). Discussing ways to improve self-care through proper diet, exercise, engaging in leisure activities, having social interactions with friends and family, and utilizing community resources such as respite all become important when providing support and intervention to caregivers (Cicirelli, 2010; Noyes et al., 2010). It is critical that clinicians who work with spousal caregivers stay current with what resources are available in a respective community that could be beneficial to caregivers. From respite, to adult day cares, to support groups, there may be any number of services in a region that can be adjunctive to psychotherapy or even be a referral source if psychotherapy is not needed. Clinicians may even consider engaging in community outreach for not only networking purposes, but also to determine if there is a need in the community that is not being fulfilled. Such a process may inform additional collaboration or program development (Noyes et al., 2010).

Particularly relevant to marital satisfaction for spousal caregivers is the potential for the behaviors of an individual with dementia to interact with a caregiver's own attachment style and internal working model. While there is significant symptom overlap between various dementia disorders, it is common for individuals with Alzheimer's disease to appear more withdrawn in social settings while individuals with vascular dementia may seem impulsive or excessively talkative at times (Mez et al., 2014). Consider a spousal caregiver who tends towards avoidant attachment now providing care to a spouse who appears avoidant or impulsive. Such a caregiver may struggle to reach out to a now distant partner, or may try to retreat from the individual who is impulsive or

perhaps even seen as excessively needy (Main et al., 1985). Alternatively, a caregiver with a more anxious attachment style may be overly persistent in his or her interactions with a partner who appears withdrawn (Main et al., 1985). It could also be that anxiously attached caregivers whose spouse is more dysexecutive are more prone to conflict within the marriage (Wallin, 2007). Incorporating the nuances of dementia-related behavior and how it could trigger a caregiver's own attachment behaviors into psychotherapy may result in improved awareness and marital satisfaction for the caregiver.

Given that the majority of individuals with dementia often receive care from medical providers, and spouses frequently attend medical appointment with them, the integration of behavioral health services into primary care settings would like improve access and utilization of services that may benefit both the individual with dementia and his or her spouse (Ashrafioun, Pigeon, Conner, Leong, & Oslin, 2015; Miller, Petterson, Burke, Philips Jr., & Green, 2014). Counseling psychologists working in a primary care setting can provide same-day access and short-term intervention for a variety of presenting issues, such as caregiver stress, marital problems, psychoeducation on caregiving, or helping an individual or caregiver adjust to stressful life circumstances (Miller et al., 2014). This is a burgeoning field of psychology, and counseling psychologists can play a vital role in advocacy, leadership, and policy-making in developing positions and training medical staff on how to best refer patients to a behavioral health specialist (Vogel, Kirkpatrick, Collings, Cederna-Meko, & Grey, 2012). Furthermore, given the unique training and skillset that counseling psychologists have regarding program development and evaluation, the results of this study could be

useful in creating or adjusting psychoeducational groups for caregivers to be administered in outpatient or primary care settings.

Research Implications

With hypotheses around anxious attachment, avoidant attachment, and perceived closeness being significant predictors of satisfaction with life and marriage, an additional research question was on how anticipatory grief may moderate these believed linear relationships. Research on anticipatory grief and relationship quality in spousal caregivers is sparse, and while theory would suggest that the introduction of a grief process would result in lower levels of life and marital satisfaction, theory alone is insufficient to draw conclusions. Therefore, future research should continue to use advanced statistical methods in exploring the mediators and moderators of life and marriage satisfaction of spousal caregivers. Given some unusually large effect sizes generated through this study's methodology, researchers should consider additional covariants that may have inflated the effects unveiled through this author's research. Examples of covariants not accounted for in this study are levels of depression and anxiety of participants or their spouses. It is also strongly recommended that future research using electronic methods of data collection inquire about region in which a participant resides. This would help improve external validity of research results (Tabachnik & Fidell, 2007)

While this study did not explicitly address caregiver stress, secure attachment, grief, marital satisfaction, and life satisfaction have all been found to affect the subjective experience of burden that is associated with being a caregiver (Borg & Hallberg, 2006; Cicirelli, 2010; Holley & Mast, 2009). While anticipatory grief is one element of

caregiver stress, measures of caregiver stress often feature greater breadth in terms of assessing specific areas of concern (e.g., finances). Incorporating measures of caregiving stress into research on relationship quality and satisfaction with life and marriage may reveal moderation effects or significant statistical predictors that this current study did not evaluate. Such information would further add to the understanding of spousal caregivers' experiences, and thus lead to improved interventions or resources for this population.

Additionally, while this study generated support that perceived closeness correlates significantly with multiple domains of caregiver functioning, further research in this area is needed. Understanding how informational knowledge of a loved one affects caregiving behaviors or one's evaluation of the relationship may help inform treatment or unveil other interactions effects that this study did not address. It is recommended that perceived closeness be utilized as an outcome measure in couples counseling, particularly with spousal caregivers. Interventions such as emotion focused couples therapy have been found to improve levels of secure attachment and marital satisfaction (Dalgleish et al., 2015). However, this research fails to account for how factual knowledge of a partner may affect the quality of the relationship. It may be that supplementing improved communication regarding emotions with inquiry and learning about one another's goals and interest further improves the quality of one's relationship. In turn, this may buffer against the negative effects that grieving may have on subjective quality of life and thus lead to improved quality of caregiving (Boylstein & Hayes, 2011; Davies, 2011). Given the significant relationship that perceived closeness has with various domains of interpersonal and intrapersonal functioning as unveiled in this study, evaluating how

changes in perceived closeness further affects attachment, marital satisfaction, and life satisfaction is indicated for future research.

Longitudinal research tracking levels of attachment avoidance and anxiety in conjunction with anticipatory grief, perceived closeness, and satisfaction with life and marriage would clarify the extent to which the progression of a loved one's dementia disorder may affect the functioning of a spousal caregiver. Evaluating how decline in a spouses cognitive functioning alters attachment style for a caregiver may yield important information relevant for additional intervention. Evaluating how changes in anticipatory grief changes over time affect attachment style or satisfaction with life and marriage may reveal important areas of intervention or support that can mitigate the burden associated with caregiving. Longitudinal research may further benefit by recruiting larger samples and also comparing differences amongst caregivers based on the type of dementia disorder their loved ones have. Future research with larger samples may benefit by having similarly sized groups of individuals with dementia diagnoses, and then analyzing group differences. This may unveil currently unknown differences among caregivers as a function of the type of dementia their loved ones suffer from.

Recruiting spousal caregivers for social science research is difficult, particularly given their limited time and resources (Emami & Mazaheri, 2007; Haley et al., 2003). Developing a registry in which spousal caregivers can submit their information in order to be contacted by researchers may help researchers with limited resources gain access to larger sample sizes, thus increasing the power of longitudinal and cross-sectional research. Not only would this registry improve access for researchers to recruit

participants, it might also be a way to disseminate helpful information to the caregivers who opt in for this service.

While scales such as Likert-type measures produce quantified information necessary for many statistical analyses, some participants may not be able to fully convey the extent of their experiences due to the restricted and forced-response style of these scales. It is possible that anticipatory grief does affect the satisfaction with life and marriage of spousal caregivers in ways that this study's tests of moderation were unable to account for. Therefore, it may be helpful for future researchers to use qualitative methods to inquire about how caregivers see their marriage and life affected by their current levels of grief. Open-ended questions about their subjective experiences related to their satisfaction with life and marriage may highlight common themes that provide detailed and rich information that structured questionnaires can miss. Furthermore, inquiring about how demographic information, such as finances and external support, exacerbates or buffers levels of grief would provide psychologists with more data on how to support the population of caregivers.

Finally, psychologists can engage in research to clarify if there are specific mechanisms or psychotherapeutic approaches that are most effective for spousal caregivers. While theory and anecdotal evidence suggest that reminiscence psychotherapy would be effective in supporting improved quality of life for caregivers (Moral et al, 2015; Thies & Bleiler, 2013), no clinical study with high internal validity has evaluated this approach with the specific population of spousal caregivers. Psychologists in clinical settings that provide care to this population would significantly contribute to this gap in research by exploring the effectiveness of reminiscence

psychotherapy and how this might improve levels of anticipatory grief and satisfaction with life and marriage. In addition to formal intervention, the results of this study can be used to develop psychoeducational groups and material that can then be evaluated in terms of promoting change or reduced levels of burden in spousal caregivers.

Limitations

The biggest limitation from this study was the relatively small sample size. Though the number of participants were enough to meet the criteria for regression analyses, it has been established that detecting moderation effects is notoriously difficult, and often necessitates several hundred, if not thousands, of participants (Baron & Kenny, 1986; Frazier et al., 2004). Generalizability of this study's results was also limited by the method of data collection (Tabachnik & Fidell, 2007). While the initial goal was to collect data both electronically and through in-person recruitment, limited resources prevented the latter from occurring. There may be qualitative differences between spousal caregivers who self-selected to respond to the questionnaires of this study and those who might have responded through in-person recruitment (Dillman et al., 2009). By nature of the electronic method of recruitment and data collection, individuals without internet access or the skills to use technology never had the opportunity to see this study's advertisements or to engage in the survey methods. This missed population of caregivers may very have different experiences than those who were able, and chose to, participate in this study. They may have different motives, different levels of grief, different quality of relationships, and therefore the results of this study may not generalize to caregivers outside of the targeted sample of this research (Dillman et al., 2008). Also limiting the generalizability of this study's results is that participants were not asked to identify the

region in which they lived, thus making it impossible to know if some parts of the country were over or under represented.

Furthermore, the relatively high level of education (62% with at least some college), large degree of social support (77% indicated they receive support in providing care) and young age (*m* = 63 years old) of this study's sample seems to describe caregivers who have some significant degree of personal resources that may not be representative of the general population of caregivers untapped by this study. Larger sample sizes and more robust methods of data collection may control for these limitations in future studies by generating responses from a greater breadth of caregivers.

In addition to have personal resources, the electronic nature of this study's data collection procedures means that those who participated in this study have internet access. This means that they are able to access electronic resources that may be of additional help or support regarding caregiving. This underlies another limitation of this study, which is that no information was gathered about the types of online supports already being utilized. Upon completion of the study, participants could have been given specific ways of accessing online supports, or even been given personalized suggestions based on region or individual need. Future researchers should consider how to provide directions or ways of accessing online resources that may also feature information on local community resources for participants.

The nature of self-reports and cross-sectional research is also a limitation of this study. Self-report methods rely on participants' self-assessment and subjective experience, and their responses may not always be an accurate representation of their levels of a given construct (Cook & Campbell, 1979). Cross-sectional research is subject

to validity threats such as history or misinterpretation of the measurement directions or items (Cook & Campbell, 1979). This study featured Likert-type measures that were also forced choice, and this may have made it difficult for some participants to respond to, or may have resulted in some participants avoiding the study or quitting prematurely (Dillman et al., 2009). As mentioned in the section on research implications, open-ended questions and qualitative research may result in richer information or higher response rates from participants. When given the opportunity to use their own words to describe their experiences, spousal caregivers may very well provide information that the measures in this study failed to capture.

The world of caregiving is complex and subjected to one's past experiences, present circumstances, and future expectations. Any number of psychological constructs may be implicated in the functioning of spousal caregivers. This study targeted specific constructs relevant to spousal caregivers, and as a result, other important constructs were intentionally omitted (e.g., caregiving stress). It is possible that there are different interactions or moderation effects within caregiving that were not measured and tested for (Tabachnik & Fidell, 2007). Future research can continue to explore mediators and moderators within the realm of caregiving while also incorporating other measures of grief and caregiving stress as relevant to spousal caregivers.

Conclusions

The purpose of this study was to explore how anxious attachment, avoidant attachment, and perceived closeness predict levels of marital satisfaction and life satisfaction of spousal caregivers of individuals with dementia. As hypothesized, the three variables accounted for significant levels of variance in both life satisfaction and

marital satisfaction. This study generated evidence that cognitive appraisal of relationship quality, as measured by perceived closeness, is an important construct to evaluate when working with spousal caregivers.

Once the significance of anxious attachment, avoidant attachment, and perceived closeness was determined, exploring the potential for anticipatory grief as a moderating variable was the next step. Though hypothesized that anticipatory grief would negatively moderate the positive relationships previously established, results did not support this. Anticipatory grief was not a moderator for either marital satisfaction or life satisfaction. However, this construct likely affects caregivers in other ways that this study did not evaluate and future research directions were offered. Each construct measured in this study was significantly related to one another, clearly supporting the notion that the experience of spousal caregivers is complex and worthy of ongoing research.

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APPENDIX A

IRB APPROVAL

UNIVERSITY of NORTHERN COLORADO

Institutional Review Board

DATE:	December 15, 2014
TO:	Steven Pote
FROM:	University of Northern Colorado (UNCO) IRB
PROJECT TITLE:	[649330-2] The Moderating Effect of Anticipatory Grief on the Relationship between Attachment and Perceived Closeness with Satisfaction of Life and Marriage for Spousal Caregivers of Individuals with Dementia
SUBMISSION TYPE:	Amendment/Modification
ACTION:	APPROVED
APPROVAL DATE:	December 11, 2014
EXPIRATION DATE:	December 11, 2015
REVIEW TYPE:	Expedited Review

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of December 11, 2015.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

APPENDIX B

INFORMED CONSENT

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH

UNIVERSITY OF NORTHERN COLORADO

Project Title: Moderating Effects of Anticipatory Grief on the Marriage and Life Satisfaction of Spousal Caregivers

Researchers: Steven Pote, M.A., Department of Counseling Psychology, UNC
Phone Number: (970)351-1645 Email: pote8892@bears.unco.edu
Sponsor Faculty: Stephen Wright, Ph.D., Department of Counseling Psychology, UNC
Phone Number: (970)351-1838 Email: stephen.wright@unco.edu

Under the supervision of my research advisor, I am conducting a study on how levels of grief affect perception of relationships and the life and marital satisfaction of spousal caregivers of individuals with dementia. As a participant, you will be asked to complete five scales asking you to respond to statements about your relationship with your spouse, grief you may be experiencing, and your satisfaction with life. Your responses will be valuable in the further understanding of spousal caregivers and their experiences and will lead to new ways of providing help and support to individuals in similar situations such as yourself.

You will not be asked to provide any identifiable personal information other than some basic personal information (e.g. highest level of education, hours spent caregiving, etc.). Each packet will be assigned a numeric code and the data will be recorded under this code. Therefore, your anonymity will be maximized. All data collected will be stored in a locked file cabinet in the faculty sponsor's UNC office, until data are destroyed after 3 years.

You may experience mild discomfort such as anxiety as the participation in this study requires a certain degree of self-disclosure and self-reflection. However, the degree of stress is not expected to be any greater than the level of stress that is normally encountered during everyday life. Should you experience severe distress that you did not expect, please feel free to contact this researcher at the contact information above. I will provide resources for further counseling if you desire such service.

Participating in this study may allow you to gain new awareness of your relationship with your spouse and experience as a caregiver. The information from this study is also expected to contribute to the development of education and interventions for spousal caregivers of individuals with dementia. With individuals living longer and healthcare costs rising, more and more men and women will find themselves in the role of caregiver as more individuals receive diagnoses of Alzheimer's and other dementias.

Participation is voluntary and it is your right to withdraw from participation at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please complete the questionnaires if you would like to participate in this research. Completion of the surveys indicates consent to participate in the study. You may keep this form for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.

APPENDIX C

INTRODUCTION TO STUDY

Thank you so much for your participation in my study. I believe this is a wonderful opportunity for me to get to know about you and your situation in life. I also believe this is a wonderful opportunity for you have a voice that will be extremely valuable in furthering awareness of your emotional and mental experiences as a caregiver. Individuals such as myself who care very deeply about your lives will learn a lot from your contribution to my research. My goal is to use the findings from this study to develop new therapies, support groups, and points of emphasis necessary to improve the quality of your lives. By doing this, not only will you be happier, but you will likely be an even greater source of care for your loved one.

There are five different surveys I am going to ask you to fill out. They inquire about a variety of things, much of which is personal in nature. Some questions may be very difficult for you while others may be quite easy. The questions require you to respond with a number that matches a certain answer, and this is described in the directions for each survey. This may be frustrating at times, but please make sure you pick answers that are the best match for you. Even if a question does not seem applicable to your situation, think about how it might fit to your current life as it is now. I know you have had many experiences throughout your life that have been very meaningful, and for this study to be most impactful, it is very important that you think about how life is now presently when responding to the questions. The entire process should take around 20 minutes. Once you are done, please place the packets in the envelope. Thank you very much once again.

APPENDIX D

DEMOGRAPHIC FORM

This form contains questions about important areas of a person's life. While some questions may be personal or private in nature, please remember that your responses are anonymous and in no way are linked to your name. Please read each question and write your answer on the appropriate line. It is important that you answer every question.

1. What is your age? _____

2. What is your gender? _____

3. What is your ethnicity? _____

4. How long have you been married? _____

5. How many previous marriages have you had? _____

6. What is the highest level of education that you have completed? _____

8. What is your annual income? Please circle your response.

$0 – $15,000	$15,001 - $30,000	$30,001 - $45,000
$45,001 - $60,000	$60,001 - $75,000	$75,001 - $90,000
$90,001 - $105,000	$105,001+	Rather not say

9. What type of dementia has your partner been diagnosed with? _____

10. How long has your partner had a dementia diagnosis? _____

11. What stage of dementia does your partner have (if applicable)? _____

12. How long have you been a providing care to your partner? _____

13. On average, how many days a week do you provide care to your partner?

_____

14. On average, how many hours a week do you spend caregiving? _____

15. How many children do you have? _____

16. Do you receive support or help with your partner's care from other individuals? _____

If so, from whom (e.g. son, sibling, home healthcare, etc.)?

_____ _____ _____

_____ _____ _____

_____ _____ _____

17. What types of caregiving activities do you provide directly to your partner?

_____ _____ _____

_____ _____ _____

_____ _____ _____

18. Are you employed? _____

If so, how many hours a week do you spend working? _____

19. Do you volunteer outside of caring for your partner? _____

If so, how many hours a week do you spend volunteering? _____

20. Do you spend time on parental tasks? _____

If so, how many hours a week do you spend parenting? _____

21. Do you have other obligations outside of caregiving, working, childcare, and/or volunteering? _____

If so, how many hours a week do you spend on these other obligations?

_____

And, what other obligations do you have?

_____ _____ _____

_____ _____ _____

22. Are you currently diagnosed with a medical illness, injury, or disability that affects your ability as a caregiver?

_____

23. What other factual information about yourself do you believe is important for this researcher to know?

_____

_____

_____

_____

_____

APPENDIX E

EXPERIENCES IN CLOSE RELATIONSHIPS – REVISED

The statements below concern how you feel in emotionally intimate relationships. We are interested in how you *generally* experience relationships, not just in what is happening in a current relationship. Respond to each statement by writing in a number to indicate how much you agree or disagree with the statement. Refer to the scale below in responding to each statement.

Strongly Disagree Disagree Neutral/Mixed Agree Strongly Agree
1----------2----------3----------4----------5----------6----------7

_____1. I'm afraid that I will lose my partner's love.

_____2. I often worry that my partner will not want to stay with me.

_____3. I often worry that my partner doesn't really love me.

_____4. I worry that romantic partners won't care about me as much as I care about them.

_____5. I often wish that my partner's feelings for me were as strong as my feelings for him or her.

_____6. I worry a lot about my relationships.

_____7. When my partner is out of sight, I worry that he or she might become interested in someone else.

_____8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.

_____9. I rarely worry about my partner leaving me.

_____10. My romantic partner makes me doubt myself.

_____11. I do not often worry about being abandoned.

_____12. I find that my partner(s) don't want to get as close as I would like.

_____13. Sometimes romantic partners change their feelings about me for no apparent reason.

_____14. My desire to be very close sometimes scares people away.

_____15. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.

_____16. It makes me mad that I don't get the affection and support I need from

my partner.

_____17. I worry that I won't measure up to other people.

_____18. My partner only seems to notice me when I’m angry.

_____19. I prefer not to show a partner how I feel deep down.

_____20. I feel comfortable sharing my private thoughts and feelings with my partner.

_____21. I find it difficult to allow myself to depend on romantic partners.

_____22. I am very comfortable being close to romantic partners.

_____23. I don't feel comfortable opening up to romantic partners.

_____24. I prefer not to be too close to romantic partners.

_____25. I get uncomfortable when a romantic partner wants to be very close.

_____26. I find it relatively easy to get close to my partner.

_____27. It's not difficult for me to get close to my partner.

_____28. I usually discuss my problems and concerns with my partner.

_____29. It helps to turn to my romantic partner in times of need.

_____30. I tell my partner just about everything.

_____31. I talk things over with my partner.

_____32. I am nervous when partners get too close to me.

_____33. I feel comfortable depending on romantic partners.

_____34. I find it easy to depend on romantic partners.

_____35. It's easy for me to be affectionate with my partner.

_____36. My partner really understands me and my needs.

APPENDIX F

PERSONAL ACQUAINTENCE MEASURE

Please think of the person you have chosen to describe (whom we'll refer to as "___"), read each statement carefully, and circle the answer that best corresponds to your agreement or disagreement with each statement.

SD = definitely false or strongly disagree
D = mostly false or disagree
N = about equally true or false, cannot decide, or neutral
A = mostly true or agree
SA = definitely true or strongly agree

Please respond to and only circle one answer for each statement.

1. I have known ___ for many years.	SD D N A SA
2. ___ and I are physically affectionate.	SD D N A SA
3. I have known ___ for a long time.	SD D N A SA
4. I have gone to parties with ___.	SD D N A SA
5. ___ often hides his/her true feelings from me.	SD D N A SA
6. Seeing ___ is part of my weekly routine.	SD D N A SA
7. I know what ___'s goals are.	SD D N A SA
8. ___ hides his/her true feelings from me.	SD D N A SA
9. ___ has told me about his/her interests.	SD D N A SA
10. I have spent time with ___ and his/her friends.	SD D N A SA
11. ___ and I have been physically intimate.	SD D N A SA
12. ___ avoids showing his/her true feelings around me.	SD D N A SA
13. ___ and I go way back.	SD D N A SA
14. I am familiar with ___'s friends.	SD D N A SA
15. I see ___ a lot.	SD D N A SA
16. ___ and I often hold hands when we walk together.	SD D N A SA

17. Seeing ___ is part of my daily routine. SD D N A SA

18. ___ has told me what his/her goals are. SD D N A SA

APPENDIX G

SATISFACTION WITH LIFE SCALE

DIRECTIONS: Below are five statements with which you may agree or disagree. Using the 1 – 7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Agree or Disagree
5 = Slightly Agree
6 = Agree
7 = Strongly Disagree

____ 1. In most ways, my life is ideal.

____ 2. The conditions of my life are excellent.

____ 3. I am satisfied with my life.

____ 4. So far I have gotten the important things I want in life.

____ 5. If I could live my life over, I would change almost nothing.

APPENDIX H

MARWIT-MEUSER CAREGIVER GRIEF INVENTORY – SHORT FORM

This inventory is designed to measure the grief experience of family caregivers of persons living with a progressive dementia, such as Alzheimer's disease. Read each statement to the right carefully, then decide how much you agree or disagree. Circle the number 1 – 5 that reflects your response (1 = Strongly Disagree, 5 = Strongly Agree).

1. I've had to give up a great deal to be a caregiver.

1 2 3 4 5

2. I feel I am losing my freedom.

1 2 3 4 5

3. I have nobody to communicate with.

1 2 3 4 5

4. I have this empty, sick feeling knowing that my loved one is "gone."

1 2 3 4 5

5. I spend a lot of time worrying about the bad things to come.

1 2 3 4 5

6. Dementia is like a double loss… I've lost the closeness with my loved one and connectedness with my family

1 2 3 4 5

7. My friends simply don't understand what I'm going through.

1 2 3 4 5

8. I long for what was, what we had and shared in the past.

1 2 3 4 5

9. I could deal with other serious disabilities better than with this.

1 2 3 4 5

10. I will be tied up with this for who knows how long.

1 2 3 4 5

11. It hurts to put her/him to bed at night and realize that she/he is "gone."

1 2 3 4 5

12. I feel very sad about what this disease has done.

1 2 3 4 5

13. I lay awake most nights worrying about what's happening and how I'll manage tomorrow.

1 2 3 4 5

14. The people closest to me do not understand what I'm going through.

1 2 3 4 5

15. I've lost other people close to me, but the losses I'm experiencing now are much more troubling.

1 2 3 4 5

16. Independence is what I've lost… I don't have the freedom to go and do what I want.

1 2 3 4 5

17. I wish I had an hour or two to myself each day to pursue personal interests.

1 2 3 4 5

18. I'm stuck in this caregiving world and there's nothing I can do about it.

1 2 3 4 5

APPENDIX I

DYADIC ADJUSTMENT SCALE

Most persons 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
1. Handling family finance	1	2	3	4	5	6
2. Matters of recreation	1	2	3	4	5	6
3. Religious matters	1	2	3	4	5	6
4. Demonstration of affection	1	2	3	4	5	6
5. Friends	1	2	3	4	5	6
6. Sex relations	1	2	3	4	5	6
7. Conventionality (correct or proper behavior)	1	2	3	4	5	6
8. Philosophy of life	1	2	3	4	5	6
9. Ways of dealing with parents or in-laws	1	2	3	4	5	6
10. Aims, goals, and things believed important	1	2	3	4	5	6
11. Amount of time spent together	1	2	3	4	5	6
12. Making major decisions	1	2	3	4	5	6
13. Household tasks	1	2	3	4	5	6
14. Leisure time interests and activities	1	2	3	4	5	6
15. Career decisions	1	2	3	4	5	6

	All of the time	Most of the time	More often than not	Occasionally	Rarely	Never
16. How often do you discuss or have you considered divorce, separation, or terminating of your relationship?	1	2	3	4	5	6
17. How often do you or your mate leave the house after a fight?	1	2	3	4	5	6

18. In general, how often do you think that

things between you and your partner are going well?	1	2	3	4	5	6
19. Do you confide in your mate?	1	2	3	4	5	6
20. Do you ever regret that you married? (or lived together)	1	2	3	4	5	6
21. How often do you and your partner quarrel?	1	2	3	4	5	6
22. How often do you and your mate "get on each other's nerves?"	1	2	3	4	5	6
23. Do you kiss your mate?	1	2	3	4	5	6
24. Do you and your mate engage in outside interests together?	1	2	3	4	5	6

How often would you say the following events occur between you and your mate?

	All of the time	Most of the time	More often than not	Occasionally	Rarely	Never
25. Have a stimulating exchange of ideas	1	2	3	4	5	6
26. Laugh together	1	2	3	4	5	6
27. Calmly discuss something	1	2	3	4	5	6
28. Work together on a project	1	2	3	4	5	6

There are some things about which couples sometimes agree and sometime disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Check yes or no).

	Yes	No	
29.	_____	_____	Being too tired for sex.
30.	_____	_____	Not showing love.

Extremely Unhappy | Fairly Unhappy | A Little Unhappy | Happy | Very Happy | Extremely Happy | Perfect

31. The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

□ □ □ □ □ □ □

32. Which of the following statements best describes how you feel about the future of your relationship?

____ I want desperately for my relationship to succeed, and *would go to almost any length* to see that it does.
____ I want very much for my relationship to succeed, and *will do all I can* to see that it does.
____ I want very much for my relationship to succeed, and *will do my fair share* to see that it does.
____ It would be nice if it succeeded, but I *refuse to do any more than I am doing* now to keep the relationship going.
____ My relationship can never succeed, and *there is no more that I can do* to keep the relationship going.

APPENDIX J

ADVERTISEMENT FOR STUDY

Being a caregiver is difficult. You are faced with challenges that many people do not fully understand. You might also feel alone in facing this challenge. You may find yourself grieving over what you have lost, or what you may lose, due to your loved one's disease. Within yourself, you have so much to offer, not only to your loved one, but also to other caregivers around the country. I have been passionate about working with older adults ever since I was an adolescent, and now I hope to give individuals like you a voice. I am conducting research to explore how your relationship with your loved one may interact with types of grief that caregivers often experience. While this may be difficult material to respond to, this opportunity represents hope for greater awareness of what it means to be a caregiver. Your participation will help me, and others, to develop better ways of providing support to caregivers such as yourself.

Some questions may be very difficult for you to answer, but please do your best to answer each question even if it does fully fit your personal situation in life. I encourage you to provide short comments if a question strikes you in some way. The more you express yourself, the more insight I will have into your experience. You work very hard to provide an invaluable service, and as more and more individuals go on to live longer and longer, the need to understand what it means to be a spousal caregiver will increase. You have the chance to make a difference now and also for future individuals who will someday be faced with the same tasks and challenges that you face today. Thank you so much for everything you do, and I cannot thank you enough for your participation.

APPENDIX K

LETTER TO GATEKEEPERS

To Whom It May Concern:

I am a fourth year doctoral student of counseling psychology at the University of Northern California. I am in the process of completing my dissertation, and I am reaching out to you for permission and approval to advertise on your website/newsletter/through your listserv in order to recruit participants for my study. My area of interest in research relates to the experience of romantic partners of individuals with dementia, and their experiences of providing care to their loved one as the disease progresses. I recognize the ever-growing population of spousal caregivers and how there is a great deal left unknown about what types of challenges they face as they provide care to a spouse and experience potentially drastic changes to their romantic relationship.

My dissertation is focusing on how grief over anticipated loss may affect the life and marital satisfaction of spouses who provide care partners with dementia. Satisfaction with life and marriage has implications for the psychological and physical health of individuals, and this may further affect the quality of care that a person with dementia receives from his or her spouse. Given that your office/setting/agency provides services to individuals with dementia, I am requesting permission and access to recruit participants through attending support groups/placing an ad in a newsletter/sending out recruitment emails through a listserv.

At this time I have been approved by my university's IRB and am also under the supervision of Dr. Stephen Wright, Ph.D. Participation in my study involves self-report, is entirely anonymous, and will take most participants 20 minutes or less to complete the process. If there are any further questions I can answer, please contact me.

Thank you very much for your time,

Steven Pote, MA, LPC

Counseling Psychology Doctoral Student

University of Northern Colorado

APPENDIX L

PREPARED MANUSCRIPT FOR PUBLICATION

The Moderating Effect of Anticipatory Grief on the Relationship between Attachment and Perceived Closeness with Satisfaction of Life and Marriage for Spousal Caregivers of Individuals with Dementia.

Steven C. Pote, Ph.D. & Stephen L. Wright, Ph.D.

University of Northern Colorado

Abstract

Understanding the role that anticipatory grief plays in moderating the interaction between relationship quality and marital and life satisfaction may help psychologists to better awareness of the challenges associated with providing care to one's mate. This awareness may then lead to new ways of providing education or intervention to spousal caregivers that would result in higher quality of care to individuals with dementia. The purpose of this study is to provide such awareness by evaluating the moderating role of anticipatory grief between perceptions of the relationship and marriage and life satisfaction. There were 90 spousal caregivers of individuals with dementia that participated in this research. Through the use of multiple regression it was found that attachment and perceived closeness significantly predict satisfaction with life and marriage. Tests of moderation did not demonstrate that anticipatory grief served as a moderator for marital satisfaction or life satisfaction.

Keywords: Caregiving, Anticipatory Grief, Attachment, Life Satisfaction, Marital satisfaction, Moderation

Introduction

In the United States, there are up to 5.2 million individuals who have diagnoses of Alzheimer's or other forms of dementia (Thies & Bleiler, 2013). Care is provided to these individuals by approximately 15.4 million informal caregivers, with up to 70% of those individuals being the spouse of the person with dementia (Thies & Bleiler, 2013). The annual growth rate of informal caregivers (caregivers with no formal training) is expected to be five times that of the annual growth rate of formal caregiving services (Raschick & Ingersoll-Dayton, 2004). It is of utmost importance for mental health professionals working with familial caregivers to have as in-depth of an understanding of the psychological intricacies of this population in order to be maximally beneficial to those in need (Holley & Mast, 2012; Jones, 2006).

Caregiving can take a heavy toll on those providing such services and the unique demands of this role often leads to emotional and physical distress (Brodaty & Donkin, 2009; Schoenmakers, Buntinx, & De Lepeliere, 2009). The progressive nature of dementia means that as the abilities of the loved one decline, the caregiver must compensate for these deficits. What may initially be a matter of tying a loved one's shoes or doing the majority of the household chores may eventually become tasks of lifting, dressing, and bathing a loved one, thus putting increased strain on the physical health of the caregiver (Long et al., 2004).

Long-term romantic partners are often the primary caregivers of individuals with dementia. Unsurprisingly, the level of marital satisfaction reported by spousal caregivers is often lower than that of non-caregiving peers (Williams, 2011; Braun et al., 2009). The ramifications of this decreased level of marital satisfaction may include elevated levels of

depression, anxiety, stress related to caregiving duties, or feelings of isolation (Braun et al., 2009; Boylstein & Hayes, 2011; Williams, 2011). As might be expected, decreased levels of marital satisfaction and other stressors related to caregiving are strongly related to decreased life satisfaction (Hawkins & Booth, 2005).

Regarding their loved ones, caregivers experiencing psychological distress may be less likely to adhere to medical recommendations and utilize medical resources (Thorpe et al., 2006). Lower life satisfaction and mental illness predicts psychological distress and may lead to higher negligence of a loved one's personal and medical needs (Beach et al., 2005; Thorpe, Van Houtven, & Sleath, 2009). Spousal caregivers with low levels of life satisfaction are more likely to have poor physical health, decreased social support, lower employment, lower levels of energy, and lower levels of fulfillment related to their role as a caregiver (Borg & Hallberg, 2006). These individuals are more likely to struggle to positively reappraise stressful situations, which can further increase their risk of experiencing psychological distress and decrease the quality of care they provide (Haley, LaMonde, Han, Burton, & Schonwetter, 2003).

The romantic relationships between spousal caregivers and individuals with dementia are subject to many of the same processes that influence other interpersonal relationships. One such process is the widely studied construct of attachment theory, first conceptualized by John Bowlby in 1969. According to Bowlby and other researchers, interactions with primary caregivers result in long-standing, implicit attachment styles that highly affect one's interpersonal and intrapersonal functioning (Behringer, Reiner, & Spangler, 2011; Bowlby, 1969). Decades of research have resulted in the conceptualization of attachment styles to exit on a continuum between attachment

avoidance and attachment anxiety (Fraley & Spieker, 2003). By measuring where individuals fall on these two spectrums, it is believed that a more accurate understanding of a person's interpersonal functioning is generated (Fraley, Waller, & Brennan, 2000).

Individuals who are securely attached are more likely to report high levels of marital satisfaction and life satisfaction while also being perceived as happier by their partners (Givertz, Woszidio, Segrin, & Knutson, 2013). Recent research suggests that life satisfaction predicts marital satisfaction as adjustments to the relationship become necessary (Stanley, Ragan, Rhoades, & Markman, 2012) and that life satisfaction between partners becomes shared in that either partner's level of life satisfaction migrates towards a common level (Powdthavee, 2009). Given that attachment style can predict so many different facets of human functioning, and that both life satisfaction and marital satisfaction are affected by attachment styles, it is clear that attachment should be evaluated within the topic of spousal caregiving.

If there is one criticism about using attachment theory to assess the relational dynamics of a person, it is that the construct is primarily emotional in content and context (Schore & Schore, 2008). In order to more thoroughly understand the nature of relationships, it is relevant to include other, non-emotionally laden measures when conducting psychological research. A less utilized construct of relationships is that of perceived closeness, which is one's cognitive appraisal of various components of his or her relationship towards an identified other (Starzyk, Holden, Fabrigar, & MacDonald, 2006). This construct differs from attachment in that perceived closeness is measured by factual knowledge of one's relationship, such as about a partner's friendships (Starzyk et al., 2006) whereas attachment is a more emotional construct related to cognitive internal

working models. Some research has demonstrated that individuals with higher degrees of perceived closeness are more able to differentiate their needs from the needs of their spouse, which may very likely be an important ability for spousal caregivers (Petrican, Burris, Bielak, Schimmack, & Moscovitch, 2011). Further relevant to caregiving is that with higher levels of this construct are associated with higher levels of trust, satisfaction, and collaborative problem-solving towards the target of their evaluations (Selfhout, Branje, & Meeus, 2008; Spake & Bishop, 2009).

While understanding the interpersonal and intrapersonal experiences of informal caregivers is important in maximizing their well-being, and therefore improving the quality of care they provide, it is also important to understand the specific sources of stress they face when interacting with their loved one. Anticipatory grief is a process that many informal caregivers go through and involves a series of losses that stem from their loved one's progression of cognitive and physical decline (Kuhn, 2001). Unique to informal caregivers is the likelihood that their relationship with their loved one undergoes drastic changes, to the point that the individual with dementia no longer recognizes the caregiver as the relative or spouse that he or she truly is. In these situations, a caregiver may go through a mourning process regarding the loss of this relationship even though the loved one is still physically alive (Kehl, 2005).

Current research has found anticipatory grief to be independent, and predictive, of measures of caregiver stress (Holley & Mast, 2009, 2012). Furthermore, as individuals with dementia deteriorate, their behaviors and increased need for supervision may serve as constant reminders about the changes in the relationship and associated losses. This can result in elevated levels of anticipatory grief that may lead to higher levels of

psychological distress, thus hampering the quality of care provided by the caregiver (Holley & Mast, 2012). However, anticipatory grief appears to be understudied in the realm of spousal caregiving and it is unknown how it may affect caregivers' life and marital satisfaction, as well as their relationship with their loved one.

Purpose of the Study

Independent of one anther, attachment, perceived closeness, anticipatory grief, and satisfaction with life and marriage may very well affect the interpersonal, and intrapersonal, functioning of spousal caregivers. It is necessary to understand how perceptions of their relationship towards their loved one affect these two domains. Furthermore, knowing how this relationship may be moderated by anticipatory grief would fill a gap in the current research by revealing how this type of grief may impact various areas of caregiver functioning. Given the protective factors associated with high levels of life and marital satisfaction, knowing how to minimize the potential negative effects of anticipatory grief may enable helping professionals to intervene and support spousal caregivers during periods of distress. By empowering the spouses to maximize their well-being, the service and care they provide to their loved one will be of higher quality and thus promote better well-being for the individual with dementia as well (Thorpe et al., 2006).

Hypothesis

It was hypothesized that less anxious attachment, less avoidant attachment and greater perceived closeness would be associated with greater marital and life satisfaction. It was also hypothesized that anticipatory grief would have a negative moderating effect

between anxious attachment, avoidant attachment, and perceived closeness with marital and life satisfaction.

Method

Participants

A total of 107 self-identified spousal caregivers of individuals with dementia began the electronic survey. Of those 107 participants, 90 completed the survey in its entirety. This final sample of 90 consisted of 66 females and 24 males with an average age of 63 years and a range of 39 to 81 years old. The ethnicity consisted of: 62.2% Caucasian, 20% African American, 14.4% Asian, 1.1% Hispanic or Latino, and 2% identified their ethnicity as "other." In terms of education, 37.8% had completed high school or received a GED, 14.4% had some college, 2.2% had a two-year degree, 31.1% had a four-year degree, and 14.4% had received a graduate degree.

Based on the responses by participants, 60% had spouses with an Alzheimer's diagnosis, 14.4% had a partner with vascular dementia, 6.7% had dementia due to Parkinson's, 5.6% had dementia due to Lewy-bodies, 5.6% had frontotemporal dementia, 1.1% had Creutzfeldt-Jacob, 6.7% had dementia categorized as "other." The vast majority (65.6%) of participants provided care to their spouses seven days a week. There were 67.8% of participants that had two, 26.7% had one child, and 5.6% had no children. Relevant to support, 77.8% of participants reported that they received additional help in providing care to their spouse and 61.1% of the participants were retired. Regarding additional responsibilities, 18.9% of participants reported that they spend time volunteering on a weekly basis while 14.4% stated they had parental duties. Finally,

45.6% of participants indicated that they had some degree of medical illness, injury, or disability that affected their ability to provide care to their spouse.

Procedure

After IRB approval, participants were recruited through electronic procedures that consisted of contacting gatekeepers of online listservs, newsletters, or email lists through organizations. The three organizations contacted were the American Alzheimer's Association, Family Caregiver Alliance and caregivers.org. Each organization agreed to disseminate this study through their online newsletters and listservs. After providing informed consent, participants were first presented with a basic demographic questionnaire followed by the instruments used in the study that were administered in a counter-balanced order to control for order effects. All data were collected online using the researchers' university secure online system.

Instruments

The Experiences in Close Relationship Scale – Revised (ECR; Fraley et al., 2000) was used to measure attachment and is a Likert scale featuring responses ranging from 1(*strongly disagree*) to 7(*strongly agree*). The Personal Acquaintance Measure was used to assess perceived closeness (PAM; Starzyk et al., 2006) and is also a Likert scale with responses ranging from 1(*strongly disagree*) to 5(*strongly agree*). For this study, the two subscales from the ECR, anxious attachment and avoidant attachment, were used while the total scale of the PAM was used for analysis. Lower scores on the ECR-R subscales indicated more secure attachment while higher scores on the PAM indicate greater levels of perceived closeness. Previously research yielded good reliability for the ECR-R subscales of anxious attachment ($\alpha = 0.80$) and avoidant attachment ($\alpha = 0.88$)

respectively (Bodner & Cohen-Fridel, 2010) with validity established with other attachment measures (Fairchild & Finney, 2006). Good reliability for the PAM Total Scale had been reported ($\alpha = 0.92$) with validity also established with other relational measures of closeness (Starzyk et al., 2006).

Anticipatory grief was measured by the Marwit-Meuser Caregiver Grief Inventory – Short Form that features a Likert scale with responses ranging from 1(*strongly disagree*) to 5(*strongly agree*) (MMCGI-SF; Marwit & Meuser, 2005). Higher scores on the MMCGI-SF indicate higher levels of anticipatory grief. This measure's total scale was used and had demonstrated good reliability in previous research ($\alpha = 0.92$) with validity established on other measures of caregiver stress (Marwit & Meuser, 2005). Marital satisfaction was measured by the Total Scale of the Dyadic Adjustment Scale (DAS; Spanier, 1976). Using a Likert scales for various subscales, lower scores indicate less agreement with a statement while higher scores indicate greater agreement (e.g. 0 = *never* and 5 = *every* day). Higher scores on the DAS indicate higher levels of marital satisfaction. The Total Scale of the DAS has been found to have strong reliability ($\alpha = 0.96$) and was validated with other measures of marital satisfaction (Spanier, 1976). The Satisfaction with Life Scale (SWLS) was used to determine participants' life satisfaction, with higher scores indicating greater life satisfaction based on a Likert scale with responses ranging from 1(*strongly disagree)* to 6(*strongly agree*). Scores on the SWLS have demonstrated good reliability ($\alpha = .91$) and strong validity with other measures of subjective quality of life (Deiner, Emmons, Larsen, & Griffin, 1985). Reliability coefficients for measures in this current study varied from acceptable to excellent.

Statistical Analysis

Statistical analysis was conducted in SPSS (version 19) with necessary Bonferroni corrections to reduce the likelihood of a Type I error, or finding a significant result when one does not exists. To clarify how variables were managed in order to test for moderating effects of anticipatory grief, differentiating between moderation and mediation is necessary (Baron & Kenny, 1986). Variables act as moderators when they explain when a variable has its strongest effect on another variable and act as mediators when they explain why a relationship between two variables exists (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004). Frazier et al. (2004) provided a comprehensive step-by-step process that this researcher used in order to explore the moderating effects of anticipatory grief.

Results

Table 1 lists the intercorrelation matrix of the primary variables of this study while Table 2 shows the correlation matrix of demographic variables with this study's predictor variables. As seen in Table 1, each construct measured in this study was significantly related to the other constructs. The first hypothesis was therefore supported as anxious attachment and avoidant attachment were negatively correlated with marital satisfaction and life satisfaction while perceived closeness had a positive correlation with these latter two constructs. Demographic variables as measured categorically through dummy coding were generally not significantly related to the primary constructs of interests.

Table 1

Correlation Matrix for Measured Variables

Measured Variables	2	3	4	5	6
1. ECR-ANX	.443***	-.378 ***	.305**	-.355***	-.332**
2. ECR-AV	-	-.651***	.319**	-.606***	-.386***
3. PAM		-	-.346**	.422***	.448***
4. MWCGI-SF			-	-.272*	-.391***
5. DAS				-	.548***
6. SWLS					-

Note. ECR-ANX = Attachment anxiety, ECR-AV = Attachment Avoidance, PAM = Personal Acquaintance Measure, MWCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form, DAS = Dyadic Adjustment Scale, SWLS = Satisfaction with Life Scale.
$n = 90$
* $p < .05$, ** $p < .01$, *** $p < .001$

Table 2

Correlation Matrix of Demographics and Variables of Interest

	ECR-ANX	ECR-AV	SWLS	MWCGI-SF	PAM	DA
Age	.270**	.040	.214*	-.096	.038	.00
Gender	.034	-.027	.191	-.094	.040	.01
Income	.100	.099	-.036	-.082	-.030	-.09
Ethnicity	.028	.062	-.008	-.191	.038	.15
Education	-.154	-.129	.025	-.036	.076	-.17
Marriage Length	.50	.041	.240*	-.185	.115	.00
Dementia Type	-.250*	.033	-.211*	.047	-.084	.292
Support	-.286**	-.219*	.031	-.032	.077	-.00
Children	-.035	-.208	.138	.022	.272**	-.19

Note. ECR-ANX = Attachment anxiety, ECR-AV = Attachment Avoidance, PAM = Personal Acquaintance Measure, MWCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form, DAS = Dyadic Adjustment Scale, SWLS = Satisfaction with Life Scale
* $p < .05$, ** $p < .01$

Age was positively associated with anxious attachment ($r = .27$, $p = .01$) and life satisfaction ($r = .214$, $p = .042$). Length of marriage was positively correlated with life satisfaction ($r = .24$, $p = .023$). The type of dementia that a participant's spouse had been diagnosed with was negatively correlated with anxious attachment ($r = -.25$, $p = .017$)

and life satisfaction (r = -.211, p = .046) but positively associated with marital satisfaction (r = .292, p = .005). Additional support in terms of caregiving was negatively correlated with anxious (r = -.286, p = .006) and avoidant attachment (r = -.219, p = .038). Finally, the number of children a participant had was positively correlated with perceived closeness (r = .272, p = .009).

Table 3

Multiple Regressions with Marital Satisfaction and Life Satisfaction as Outcome Variables

Effect of Attachment and Perceived Closeness on Marital Satisfaction						
Measure	*t*	*p*	β	R^2	*F*	*p*
Total Model				.379	17.461	.000
Anxious Attachment	1.150	.253	.110			
Avoidant Attachment	4.64	.000	.540			
PAM	-.263	.793	-.030			
The final model was statistically significant (F (3, 86) = 17.461, p <.001)						

Effect of Attachment and Perceived Closeness on Life Satisfaction						
Measure	*t*	*p*	β	R^2	*F*	*p*
Total Model				.238	8.958	.000
Anxious Attachment	-1.569	.120	-.165			
Avoidant Attachment	-.847	.399	-.109			
PAM	2.516	.014	2.516			
The final model was statistically significant (F (3, 86) = 8.958, p <.001)						

Note. PAM = Perceived Closeness. PAM, Anxious Attachment, and Avoidant Attachment comprised the predictor variables.

Table 3 shows the results of multiple regressions to test the hypothesis that attachment and perceived closeness would predict significant amounts of variance in satisfaction with life and marriage. This hypothesis was supported as the predictor group of anxious attachment, avoidant attachment, and perceived closeness accounted for a significant amount of variance of marital satisfaction (R^2 = .379, F (3, 86) = 17.461, p <.001). Furthermore, anxious attachment, avoidant attachment, and perceived closeness

again accounted for a statistically significant amount of variance of life satisfaction (R^2 = .238, F (3, 86), $p < .001$).

Table 4

Test for Moderating Effect of Anticipatory Grief with DAS as Dependent Variable

				Change Statistics		
	R^2	Adjusted R^2	Std. Error of the Estimate	R Square Change	F Change	Sig. F Change
Step 1 Demographics	.340*	.171	11.86290	.340	2.006	.021
Step 2 Anxious Attachment Avoidant Attachment PAM MMCGI-SF	.643**	.524	8.98530	.303	14.004	.000
Step 3 Interaction Variables	.649	.510	9.12151	.006	.348	.791

Note. PAM = Personal Acquaintance Measure, MMCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form.
The following demographics were entered in Step 1: Age, Gender, Income, Ethnicity, Education, Marriage Length, Dementia Type, External Support Received, Number of Children.
* $p < .05$, ** $p < .01$
The final model was statistically significant (F (25, 64) = 4.659, $p < .001$)

Tables 4 and 5 show the results of the tests to evaluate if anticipatory grief moderated the linear and significant relationship that the predictors of anxious attachment, avoidant attachment, and perceived closeness had with satisfaction with life and marriage. The interaction variables did not account for statistically significant amounts of variance in life satisfaction or marital satisfaction, and thus anticipatory grief does not meet the criteria as a moderator within this study's results (Barron & Kenny, 1986; Frazier et al., 2004).

Table 5

Test for Moderating Effect of Anticipatory Grief with SWLS as Dependent Variable

				Change Statistics		
	R^2	Adjusted R^2	Std. Error of the Estimate	R Square Change	F Change	Sig. F Change
Step 1 Demographics	.243	.048	5.89629	.243	1.246	.251
Step 2 Anxious Attachment Avoidant Attachment PAM MMCGI-SF	.558**	.411	4.63707	.316	11.795	.000
Step 3 Interaction Variables	.568	.397	4.469193	.010	.489	.691

Note. PAM = Personal Acquaintance Measure, MMCGI-SF = Marwit-Meuser Caregiver Grief Inventory – Short Form. The following demographics were entered in Step 1: Age, Gender, Income, Ethnicity, Education, Marriage Length, Dementia Type, External Support Received, Number of Children.
* $p < .05$, ** $p < .01$
The final model was statistically significant (F (25, 64) = 3.319, $p < .001$)

Discussion

This study generated results confirming that low levels of anxious and avoidant attachment in conjunction with high levels of perceived closeness were related to higher levels of life satisfaction and marital satisfaction. Furthermore, low levels of avoidant attachment and anxious attachment were associated with lower levels of anticipatory grief. High levels of perceived closeness were also associated with lower levels of anticipatory grief. These findings were all in line with what different studies have found when examining these constructs individually prior to this study suggested and theorized.

Collectively, anxious attachment, avoidant attachment, and perceived closeness accounted for statistically significant amounts of variance of both life satisfaction (23.8%) and marital satisfaction (37.9%) featuring large effect sizes (Cohen, 1988). While anticipatory grief did not moderate these findings, its significant negative relationship with marital satisfaction and life satisfaction still provide some support that it impacts these two domains of spousal caregiver functioning.

Attachment

The subscales of the ECR-R were significantly related which is unsurprising as they measure separate, yet related, processes within the larger construct of attachment (Fraley et al., 2000). The measures of attachment are negatively correlated with perceived closeness. This too makes conceptual sense, particularly when the correlation between perceived closeness and avoidant attachment is larger than the correlation between perceived closeness and anxious attachment. It may be that individuals who are more secure in their attachment styles spend more time with loved ones and thus have more opportunity to learn information about individuals they are close to. Lower levels of anxious attachment and avoidant attachment were associated with greater satisfaction with life and marriage. This is consistent with previous research as secure attachments are found to be predictive of higher levels of satisfaction with both life and marriage (Feunfhausen & Cashwell, 2013; Kirchmann et al., 2013).

Perceived Closeness

The results of this study supported the hypothesis that a more closely perceived relationship would be associated with positive benefits in other domains of one's life (Selfhout et al., 2009; Tower & Krasner, 2006). Given that individuals who have higher

levels of secure attachment are more likely to have more frequent and positive interactions with loved ones, it is unsurprising that this would then be associated with higher levels of perceived closeness as well (Powers, Pietromonaco, Gunlicks, & Sayer, 2006). It is further unsurprising that individuals with higher perceived closeness of a partner also experience higher degrees of satisfaction with life and marriage. Certainly, the happier people are in a relationship, the more likely they are to spend time and learn about their partner (Starzyk et al., 2006).

Marital Satisfaction

Higher marital satisfaction was correlated with lower levels of anxious and avoidant attachment and higher levels of perceived closeness. This cluster of variables accounted for a 37.9% of marital satisfaction's variance ($R^2 = .379$, $p < .001$). This large effect size (Cohen, 1988) suggests that these three constructs collectively may be extremely important to assess when marital satisfaction is the focus of a spousal caregiver. Bowlby (1969, 1973) might that this is because relationships featuring higher levels of security feature better communication and attunement to one another's needs, thereby fostering a more mutually beneficial and meaningful relationship.

Higher levels of perceived closeness were associated with higher levels of marital satisfaction. While no previous research had reported such findings, rationally it makes sense that relationships in which a person knows more about the other person are relationships an individual also finds more satisfying (Starzyk et al., 2006). It also makes sense that individuals who are less anxious and avoidant around a partner also tend to interact more and know more about their partner, and thus have higher degrees of marital satisfaction. The inclusion of perceived closeness into this model adds more predictive

power to the already established power of attachment style when evaluating factors of marital satisfaction of spousal caregivers (Bodenmann, 2005; Feunfhausen & Cashwell, 2013; Fiori, Consendine, & Merz, 2011).

Life Satisfaction

Higher levels of life satisfaction were related to lower levels of avoidant and anxious attachment. Higher levels of perceived closeness were associated with higher levels of life satisfaction. This cluster of three variables accounted for a significant amount of variance of life satisfaction, generated a large effect size ($R^2 = .238$, $p < .001$; Cohen, 1988). Based on these findings, relationships that are stronger both emotionally and psychologically will likely contribute to higher levels of life satisfaction of spousal caregivers. As suspected this current study supports these findings. The addition of perceived closeness into this model adds an additional layer of understanding that attachment styles may not necessarily capture (Kahn, Hucke, Bradley, Glinski, & Malak, 2012). Given that lower levels of anxious attachment and avoidant attachment were correlated with higher levels of perceived closeness, this would indicate that relationships featuring more emotional closeness also tend to feature increased psychological closeness and therefore foster higher levels of life satisfaction (Kim, Carver, Deci, & Kasser, 2008; Shaver & Mikulincer, 2002; Starzyk et al., 2006).

Similar to marital satisfaction, anticipatory grief would appear to negatively affect the life satisfaction of spousal caregivers. Thoughts associated with anticipatory grief may skew a caregiver to appraise his or her life in a more negative fashion (Ott, Sanders, & Kelber, 2007). This is contrary to the positive effects that secure attachment and high

levels of perceived closeness seem to provide in terms of one's subjective quality of life (Fowler, Hansen, Barnato, & Garand, 2013).

Spousal Caregiving

This current study not only reinforced the previous notion that lower levels of anxious attachment and avoidant attachment are associated with greater marital satisfaction, but also unveiled the importance of determining levels of perceived closeness. The addition of perceived closeness into the discussion of one's marital satisfaction may generate additional information relevant to caregiver's quality of life. Given that improving the relationship between a spousal caregiver and his or her spouse has been found to result in higher caregiver satisfaction and improved care towards the individual diagnosed with dementia, understanding and improving a caregiver's attachment and perceived closeness will likely lead to higher quality caregiving (Feeney, Collins, Van Vleet, & Tomlinson, 2013; Magai & Cohen, 1998).

Practice Implications

Results from this study feature several implications for counseling psychologists and other helping professionals working with caregivers. When gathering relevant history, it will be important to consider caregivers' attachment styles and level of factual knowledge about their spouse (i.e., perceived closeness). This will inform the motivation behind their caregiving behaviors and perhaps unveil areas of clinical focus (Collins & Feeney, 2004; Mikulincer & Shaver, 2009). In addition to focusing on relational attachment history, clinicians should inquire about the degree that a caregiver is satisfied with his or her life and marriage as these domains can buffer against mental illness and caregiver stress (Bonanno, Brewin, & Kaniasty, 2010; Thorpe et al., 2009).

It is also important to assess how the caregiver feels about their spouse having a dementia diagnosis. Exploring the changes they have experienced and their expectations for the future would provide insight into their feelings of anticipatory grief and loss that may be affecting their emotional state and behaviors in ways they have not yet considered (Angela-Cole & Busch, 2011; Kehl, 2005). This information can be used to develop a treatment plan to target areas of intervention. Once a treatment plan has been established, any number of psychotherapeutic approaches will likely be beneficial for a spousal caregiver (Wampold et al., 1997). One particularly modality to consider is reminiscence therapy as it has demonstrated effectiveness treating anxiety, depression, social isolation, and low levels of self-esteem and life satisfaction in elderly populations (Moral, Terrero, Galan, & Rodriguez, 2015). Finally, discussing ways to improve self-care through proper diet, exercise, engaging in leisure activities, having social interactions with friends and family, and utilizing community resources such as respite all become important when providing support and intervention to caregivers (Cicirelli, 2010).

Research Implications

Future research should continue to explore how measures of caregiver stress, such as anticipatory grief, affect caregivers' relationships with their loved ones. Furthermore, perceived closeness should continue to be evaluated for its role in the functioning and behavior of caregivers. This construct may be useful to incorporate in couples therapy or psychoeducation (Dalgleish et al., 2015). Longitudinal research tracking changes in the relationships, anticipatory grief, and satisfaction with life and marriage would clarify the extent to which the progression of a loved one's dementia disorder may affect the psychological functioning of a spousal caregiver. It is also recommended that future

research use qualitative methods to inquire about how caregivers' satisfaction with life and marriage is affected by their current levels of grief. Open-ended questions may highlight common experiences that provide detailed and rich information that structured questionnaires can miss.

Limitations

The generalizability of this study is limited due to its relatively small sample size, exclusive use of electronic methods of recruitment and data collection, cross-sectional design, and measures that are based on self-report (Cook & Campbell, 1979; Dillman, Smyth, & Christian, 2008; Tabachnik & Fidell, 2007). Furthermore, the relatively high level of education (62% with at least some college), large degree of social support (77% indicated they receive support in providing care) and young age (M = 63-years-old) of this study's sample seems to describe caregivers who have some significant degree of personal resources that may not be representative of the general population of caregivers untapped by this study. There may be qualitative differences between spousal caregivers who self-selected to respond to the questionnaires of this study and those who might have responded through in-person recruitment (Dillman et al., 2008).

By nature of the electronic method of recruitment and data collection, individuals without Internet access or the skills to use technology never had the opportunity to see this study's advertisements or to engage in the survey methods. This missed population of caregivers may have very different experiences than those who were able, and chose to, participate in this study. They may have different motives; different levels of grief; different quality of relationships; and therefore the results of this study may not

generalize to caregivers outside of the targeted sample of this research (Dillman et al., 2008).

Self-report methods rely on participants' self-assessment and subjective experience, and their responses may not always be an accurate representation of their levels of a given construct (Cook & Campbell, 1979). This study featured Likert-type measures that were also forced choice, and this may have made it difficult for some participants to respond to, or may have resulted in some participants avoiding the study or quitting prematurely (Dillman et al., 2009).

Conclusions

The purpose of this study was to explore how anxious attachment, avoidant attachment, and perceived closeness predict levels of marital satisfaction and life satisfaction of spousal caregivers of individuals with dementia. As hypothesized, the three variables accounted for significant levels of variance of both life satisfaction and marital satisfaction. While it was hypothesized that anticipatory grief would negatively moderate the positive relationships previously established, results did not support this. Anticipatory grief was not a moderator for either marital satisfaction or life satisfaction. However, this construct likely affects caregivers in other ways that this study did not evaluate. Each construct measured in this study was significantly related to one another, clearly supporting the notion that the experience of spousal caregivers is complex and worthy of on-going research.

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