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**THE IMPACT OF SOCIAL SUPPORT ON RESILIENCE OF SPOUSAL CAREGIVERS
IN WOUNDED WARRIOR FAMILIES**

A Dissertation in

Communication Arts and Sciences

by

Victoria S. Jennings-Kelsall

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The dissertation of Victoria S. Jennings-Kelsall was reviewed and approved* by the following:

Denise Haunani Solomon

Liberal Arts Research Professor of Communication Arts and Sciences

Dissertation Advisor

Chair of Committee

James P. Dillard

Distinguished Professor of Communication Arts and Sciences

Jon Nussbaum

Liberal Arts Research Professor of Communication Arts and Sciences

Amy Marshall

Associate Professor of Psychology

Kirt H. Wilson

Chair of Graduate Program, Department of Communication Arts and Sciences

*Signatures are on file in the Graduate School

ABSTRACT

The goal of this dissertation is to illuminate the resilient impact of supportive communication behavior within caregivers' social networks. Military couples challenged by the stress of serious injury or illness, are an important context in which to understand the processes that promote resilience. Theory and research on social networks and social support are integrated to frame this investigation into the communicative processes through which individuals elicit and receive support from their networks to emerge resilient within the wounded warrior context. To begin, Chapter 1 introduces key concepts presented in this dissertation. This includes a description of the experience of caregiving in military families, an overview of the topic of resilience and is followed by a discussion about social networks and social support. Chapter 2 presents a review of the literature on non-normative stressors, social support, and coping. Specifically, I offer insights into the stressful nature of military families. In Chapter 3, I discuss the factors that reside within the spousal caregiver and their social network that influence their interactions and perceptions of support, and I propose a series of hypotheses linking these variables to resilient outcomes.

Chapter 4 describes the methodology for the dissertation study and begins by describing participants, procedures, and the measures utilized in the three-phase study. In the first phase, information was collected from caregivers, which included soliciting the identities of up to six of their social network members. Phase two focused on gathering information from those network members, who described an interaction with the caregivers and reported on perceptions of the caregiver/network member relationship. Finally, phase three involved collecting the caregivers' views of interactions reported by the network members, as well as the caregivers' perceived stress level and current well-being. Chapter 4 concluded by summarizing the self-reported

variables used to test the hypotheses proposed in Chapter 3. Chapter 5 reports the results of the preliminary analyses and the substantive analyses that test the hypotheses advanced in Chapter 3. The analyses revealed caregivers' privacy concerns were associated with decreases in expression efficacy, whereas caregivers' face concerns were associated with decreases in outcome efficacy. Furthermore, face concerns and outcome efficacy tended to correspond with an increase in anxiety over time. Results also revealed that network members' proclivity to provide support was associated with decreased caregiver vigor, and increases in anxiety, depression, and distress. Network members' perceptions of caregivers' explicitness was positively and significantly related to increases in discrepancies between network member and caregivers' perceptions of emotional, informational, network and esteem support sought. Both caregiver and network member perspectives of caregivers' emotional interference predicted authenticity of network members' expression and both caregivers and network members' authenticity significantly predicted caregivers' vigor, anxiety, and depression. Discrepancies in emotional support were also linked to increases in both anxiety and distress for the caregiver. Finally, Chapter 6 considers the implications of this dissertation and concludes with a discussion of the strengths and limitations that contextualize these conclusions.

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CHAPTER 1

America's armed forces have been serving in the Global War on Terror for over a decade. Within weeks of the September 11, 2001 attacks, Operation Enduring Freedom (OEF) was launched and U.S. troops were deployed to Afghanistan, and years later they were sent to the Philippines and Africa. In 2003, the US concurrently opened a new front in the war on terror by leading a ground invasion into Iraq entitled Operation Iraqi Freedom (OIF). OIF combat operations officially ended in September of 2010 and the stability efforts that remained in Iraq fell under the moniker Operation New Dawn. More than fifteen years later, US troops are still deployed to Iraq and Afghanistan in support of these campaigns.

Although the number of servicemembers deployed in support of the Global War on Terror continues to decrease, the ranks of the Wounded Injured and Ill (WII) are increasing. A November 2016 casualty report indicated that 52,045 American servicemembers have returned from combat and have since been classified as WII (*DOD 2016 casualty report*). The WII veterans, commonly referred to as "wounded warriors," include servicemembers diagnosed with, among other conditions, Post Traumatic Stress Disorder (PTSD), Traumatic Brain Injury (TBI), and trauma from burn injuries and amputations. As of January 2007, there had been 500 amputations to a major limb as a result of the Global War on Terror, which accounts for 2.2% of those 22,700 troops wounded in action (Wieskopff, 2007). More than 20% of veterans who served in Iraq and Afghanistan have been diagnosed with either PTSD or depression (*www.rand.org*, 2012) and PTSD has emerged as the most prevalent psychiatric disorder among veterans with approximately 217,000 diagnosed cases (Seal et al., 2010). Furthermore, approximately 253,330 soldiers, of the 2.6 million who deployed, sustained a TBI during deployment (U.S. Department of Defense, 2012; Wolf, Kretzmer, Crawford, Thors et al., 2015).

A great deal of attention by both academic researchers and the government has been directed at ways to support these wounded warriors. In contrast, very little empirical research has focused on the spousal caregiver. The evidence that is available indicates that spousal caregivers of wounded warriors face the overwhelming stress of adjustment to physical injuries and mental health consequences that can occur following soldiers' engagement in combat (Hogencamp & Figley, 1983). In fact, caring for a spouse diagnosed with TBI or PTSD is associated with increased caregiver burden (Christensen et al., 2009), role engulfment (Christensen et al., 2009; Skaff & Pearlin, 1992), loss of self (Pagel & Becker, 1987; Skaff & Pearlin), social isolation (Landau & Hissett, 2008), and marital dissatisfaction (Beckham, Lytle, & Feldman, 1996; Calhoun et al., 2002; Manguno-Mire et al., 2007; Perlesz, Kinsella & Crowe, 1999).

Scholars who study stressful events that are "undesired, unscheduled, non-normative, and uncontrolled" have consistently demonstrated a relationship between life stress and both psychological distress and psychiatric disorder (Pearlin, 1989, p. 248). For instance, major life stressors have been associated with suicide, depression, lowered self-esteem, and anti-social behavior (McNamara, 2000). Furthermore, a link between life stress and physical outcomes such as tuberculosis, cancer, arthritis, diabetes, and sudden cardiac death has been identified (Jemmott & Locke, 1984). Because dealing with a serious health condition or wounds from combat constitutes a major, non-normative stressor, the demands faced by spousal caregivers have the ability to negatively affect their mental, physical, and relational well-being.

The support received from an individual's network of friends and family has been consistently linked to well-being, in general, as well as recovery from various non-normative stressors (Cohen & Wills, 1985; Cunningham & Barbee, 2000; Holahan & Moos, 1981). Although scholars who study the effects of social support on servicemembers find these same

beneficial outcomes (Egendorf, Kadushin, Laufer, Rothbart, & Sloan, 1981; Keane, Scott, Chavoya, Lamparski, & Fairbank, 1985; Solomon, Mikulincer, Avitzur, 1988), this research has generally neglected the provision of support to military spouses. In addition, most work on social support focuses on spousal or dyadic support, but individuals stressed by the challenges of caring for a husband or wife are unable and unwilling to turn to their spouses for support (Perlesz, Kinsella, & Crowe, 1999). Instead, Smale and Dupuis (2004) and Fuller-Jonap and Haley, (1995) found that the informal support caregivers receive from their networks is strongly correlated with both mental and physical well-being. Thus, for spousal caregivers of WWII, obtaining support from social networks is critical.

The goal of this dissertation is to document how wounded warrior caregivers manage the overwhelming non-normative stressors they are faced with by engaging their social networks. Specifically, this dissertation details the ways in which resilience is influenced by caregivers' support seeking strategies and the responsiveness of their social networks. In particular, I hope to gain insight into how communication can be used by spousal caregivers to achieve a desired level and type of support from network members. In the following sections, I first offer more detail on the experience of wounded warrior caregivers and an overview of the topic of resilience. Then, to lay a theoretical foundation for this dissertation, I provide a discussion about social networks and social support. The chapter concludes with a preview of the chapters that follow.

Caregivers' Stress and Resilience

Studies indicate that informal caregiving, or aid which is provided by those who are not financially compensated for their services, is a highly stressful experience across a variety of caregiving contexts (Vitaliano, Zhang, & Scanlan, 2003). For instance, individuals who provide

care for those who have impairments in memory, attention, cognition or motor functioning are exposed to “caregiving burden” which results from “physical, psychological, emotional, social and financial problems” intrinsic to the caregiving experience (George & Gwyther, 1986, p. 253). Caregiving burden can include feelings of embarrassment, entrapment, resentment, overload, and isolation from others (Zarit, Reever, & Bach-Peterson, 1980). In addition, caregivers report loss of control, poor communication and work pressure (Morris, Morris, & Britton, 1988), as well as sleep problems, poor eating habits, and sedentary behaviors (Fuller-Jonap & Haley, 1995; Gallant & Connell, 1997; Vitaliano, et al., 2002). As stated previously, the connection between stressors and health has been well documented (Vitaliano, et al., 2003). Due to the extensive physical and emotional stressors imposed by caregiving, along with the uncertainty of its ending, numerous government agencies and researchers have developed increasing concerns about the maintenance of caregiver health (Grad & Sainsbury, 1963). In this section, I discuss the caregiver experience and introduce the concept of resilience as a buffer against the deleterious effects of caregiver stress.

A variety of studies have examined the effects of *caregivers' stress* on people's mental and physical health. Studies that have examined matched caregiver and non-caregiver populations found a 22% rate of clinical depression in caregiver populations as opposed to a 11% rate of depression in noncaregiver families (Schulz, O'Brien, Bookwala, & Fleissner, 1995). The rate of depression within the caregiver population was 30% when those same individuals rated their depression via self-report. With regards to physical health, results from a meta-analysis indicated that caregivers had a 23% higher level of stress hormones and 15% lower level of antibody responses than noncaregivers (Vitaliano, et al., 2003). That meta-analysis also found 40 studies that concluded caregivers were higher than their noncaregiver counterparts in chronic

illnesses and use of medications (Baumgarten et al., 1992; Kiecolt-Glaser, Dura, Speicher, Trask, & Glaser, 1991; though other studies did not yield those same findings, George & Gwyther, 1986; Haley et al., 1987). These findings suggest that a more in-depth understanding of how caregiving affects health and well-being is warranted (Vitaliano, 2003).

Numerous variables have been explored in the context of the caregiving and health research. For example, ethnicity is related to health disparities (Kaplan, 1992) and ethnic groups manage caregiving in different ways (Hinrichsen & Ramirez, 1992). Comorbidities, such as cancer and coronary heart disease, have been found to moderate the relationship between caregiving and physiological measures that are manifestations of either of these diseases (Vitaliano, Scanlan, Ochs, et al., 1998; Vitaliano, Scanlan, Siegler, et al., 1998). Notably, social support has also been examined in both caregiver and noncaregiver populations to assess its moderating effect on the caregiving and health relationship. In noncaregivers, emotional and instrumental support have been linked to better health habits (Pierce, Frone, Russell, Cooper, & Mudar, 2000), less distress (Raikkonene, et al 1999), and lower rates of coronary heart disease (Niaura & Goldstein, 1992). A high degree of perceived support in caregivers has been linked to both better reports of health, as well as lower cardiovascular risk (Monahan & Hooker 1995; Vitaliano et al., 2002). Finally, demographics such as gender and marital status have been found to influence the relationship between caring on health, such that women have reported more health problems than men (Kessler et al., 1994; Rahman, Strauss, Gertler, Ashley & Fox, 1994; Schulz et al., 1995), and spousal caregivers report greater levels of isolation and distress than other caregivers (Cohen & Marx, 1993).

Resilience is the potential for individuals to thrive in the wake of non-normative stressors and the mental and physical health consequences that follow from them (Richardson, 2002).

Resilience has often been examined as an individual trait. For instance, scholars have examined how a person's temperament, cognitive complexity, cognitive hardiness, narcissism, and attachment style might influence their resilience (Charney, 2004; Fitzpatrick & Vacha-Haase, 2010). This perspective, however, assumes resilient individuals will always be resilient, to the extent that traits and personal dispositions are stable and rigid. Critics of the "resiliency as a trait" position have argued the importance of recognizing the fluidity and necessity of interaction in the concept of resiliency (Beasley, Thomson, & Davidson, 2003). These scholars aim to highlight the dynamic, transactional nature of resilience. Focusing on the development of resilience as a process emphasizes the ongoing construction and reconstruction of adaptive processes as people cope with a particular stressor.

A significant part of the idea of resilience as a process is identifying whether or not an individual, couple, or family is able to "thrive" despite the challenges set before them (Graham, 2000, p. 407). In Hawley and DeHaan's words, "the family must not only manage the crisis but they must prosper in the face of stress both in the present and over time" (1996, p. 295). This view highlights the need to delineate recovery from resilience. Recovery connotes "a trajectory in which normal functioning temporarily gives way to threshold or sub-threshold psychopathology (e.g., symptoms of depression or PTSD) for a period of several months at least, then returns to pre-event levels" (Bonanno, 2004, p. 21). Resilience, in contrast, is the ability to maintain a stable equilibrium through protective factors that foster the development of positive outcomes (Bonanno, 2004). In other words, whereas recovering individuals often experience sub-threshold symptom levels, resilient individuals may experience fleeting departures from normal functioning but will generally exhibit a stable trajectory of healthy functioning across time.

Non-normative and normative stressors often cluster together and create an overwhelming context for people who are affected (Pearlin, 1989). For example, wounded warrior couples may be susceptible to all the “normative” predictors of divorce, such as marrying at a younger age (Amato & Hohmann-Marriott, 2007; White, 1990), cohabiting prior to marriage (White), experiencing parental divorce (Amato & Hohmann-Marriott; White) or previous divorces (Levinger, 1980), experiencing premarital childbearing and childlessness (White), finding greater alternatives outside of marriage (Amato & Hohmann-Marriott; Levinger), and low income levels (Levinger). In addition to these risk factors, caregivers of wounded warriors must manage the typical stressors of military life that hinder their ability to seek support, which include network disturbance, in-group and out-group differences, and privacy concerns (Jennings-Kelsall & Solomon, 2013). And beyond the normal marital and military life stressors, these individuals must negotiate the new and unfamiliar complications of living with and caring for a wounded warrior.

The combination of normative and non-normative stress can have detrimental effects on military marriages. For example, one study found that more than 50% of military couples in which a spouse with a mental health or diagnosed condition had separated and 75% of these veterans reported significant family troubles, such as not feeling like part of the family or perceiving that others were treating them differently (Sayers, Farrow, Ross, & Oslin, 2009). Although these findings underscore the deleterious impact of stressors on military family functioning, it is notable that not all of the couples surveyed report these effects. In fact, these findings indicate that a quarter of wounded warrior families may not have significant family problems. What is it that sets these families apart so that they maintain family functioning in the

face of the stressors? What makes them emerge resilient? This question is the heart of this dissertation.

Social Network Support

Individuals are part of social networks that include their romantic partner, parents, friends, co-workers, and extended family. The examination of social networks, or a person's social embeddedness, recognizes how an individual's connections to others can provide them with resources that constitute social support (Barrera, 1986). Within research that examines caregiving, social support is often measured in terms of existence or lack of a social network (Pearlin, 1992). Networks can also be characterized in terms of density and complexity, size, reciprocity, proximity, homogeneity and accessibility (O'Reilly, 1988). A focus on communication within social networks includes factors such as the quality of the interactions, frequency of interactions, and durability of relationships over time (Stroebe & Stroebe, 1985; Burleson, Albrecht, & Sarason, 1994). The following section provides a general overview of the study of social networks and the study of social support.

Social Networks

Since the 1970s, the social and behavioral sciences have focused increasing attention on the study of social networks. The study of social networks provides a means to "explain variation in structural relations and their consequences (Knoke & Yang, 2008, p. 9). Generally, scholars who examine social networks assume that individuals within a network and their actions are interdependent, their relational ties have the potential to provide resources, and their networks can offer opportunities or constraints for the individual (Wasserman & Faust, 1994). Because social networks operate at the micro-level (e.g. dyads, triads, small groups, and ego-centered networks), or the macro-level (e.g. entire networks, societies, communities), they are relevant to

virtually all aspects of society. Early research efforts applied social network analysis to small group behavior (Moreno & Jennings, 1934), cultural anthropology (Nadel, 1957), and theoretic mathematics (Harary, 1959). More recently the examination of social networks has spread to studying virtual communities (Castells, 2001), technology convergence (Baker & Green, 2004), the evolution of interfirm business networks (Hite & Hesterly, 2001), the examination of social stigma with regards to health risks (Smith, Ferrara, & Witte, 2007), and military science (Ronfeldt & Arquilla, 2001). The breadth of this research illustrates the pervasiveness and significance of social networks in our society.

Social network analysis is employed for numerous reasons. One prominent implementation of social network analysis focuses on identifying the most important actors in a network by quantifying people's involvement in the network or 'network centrality' (Wasserman & Faust, 1994). Other uses of social network analysis focus on identifying which actors interact with and influence others. As mentioned previously, one assumption of the study of social networks is that individuals accrue both opportunities and constraints from their network. For instance, the notion that networks provide tangible and intangible resources for individuals and social support has been emphasized by social science scholars as one of the many benefits individuals accrue from their relationships. Furthermore, an individual's membership in social networks and the social support that does or does not occur has implications for their health and well-being.

Scholars who study network support have identified numerous associations between network support and health, well-being, and relationship satisfaction. For instance, the absence of familiar social support networks has been linked to coronary disease, accidents, suicides, mental health issues, and recovery from certain types of cancer (Pilisuk & Froland, 1978). Other

work suggests that people with particular life experiences might develop social networks with specific qualities. For example, characteristics of social networks may be related to the degree of adversity experienced by a person. Kazak and Wilcox (1984) found that parents with disabled children have smaller, but denser social networks than matched comparison families, and the parents of the handicapped children tended to rely more heavily on their network than did the comparison families.

Despite the volume of research that indicates that network ties may facilitate resilience through the provision of helpful support, disadvantages to network support have also been examined. Specifically, network members can present increased risk to the caregiver and the support receiver/provider relationship. For instance, empirical evidence suggests that network ties can introduce stressful demands (Berbrier & Schulte, 1993; Thoits, 1992), offer unhelpful advice or unsolicited support (Dunkel-Schetter & Skokan, 1990), and can be generally negative influences in a person's life (Rook, 1992). These positive and negative outcomes of network support encourage the claim that resilience is not a stable trait but one that "waxes and wanes" (Graham, 2002, p. 408).

Generally, to understand the benefits and disadvantages to network support, social network analysis focuses on the connections between actors and less attention is given to the qualities of the interactions that occur between network members (Wellman, 1988). Analysis of this kind neglects to examine the messages exchanged within the network. Thus, rather than focusing on identifying where individuals accrue the most support through an examination of network centrality, this dissertation seeks an understanding of what is happening communicatively in the framework of interactions which both propel distressed individuals to seek support and their support networks to provide it.

Social Support

Broadly defined, social support is comprised of the various tangible and intangible resources provided by others (Cohen & Syme, 1985). Over the last forty years, scholars have emphasized that social support is central to reducing the consequences of both normative and non-normative stress (Cohen, 1988, Reis, 1984; Wills, 1991). More specifically, empirical studies have consistently linked levels of perceived support to mental health and well-being (Uchino, 2009). The examination of these associations has received attention from sociologists, psychologists, and communication scholars alike. For instance, sociologists study the influence of social network density on health and well-being (Wellman & Wortley, 1993); psychologists tend to focus their investigations on perceptions of the availability of support (Sarason, Sarason & Pierce, 1990); and finally, communication scholars examine the ways in which messages convey comfort to a person in distress (Burlison, 1994).

Supportive communication can provide various forms of assistance, including information to address a problem, tangible aid, emotional comfort, identity affirmation, and connections to experts or peers (Xu & Burlison, 2001). Informational support includes the sharing of information that the support recipient did not have on their own (Sarason, Sarason, & Pierce, 1990). Tangible aid refers to the provision of material assistance (Stroebe & Stroebe, 1985). Emotional support, which includes listening and ‘being there’ in times of need, has been reported to have more clear and positive effects on health than the other forms of support (House, 1981; Pecchioni, Wright, & Nussbaum, 2005). Esteem support, or identity affirmation refers to the “role others play in helping individuals to evaluate themselves, as well as assess and structure their environment” (Stroebe & Stroebe, 1985, p. 441). Finally, connections to experts

and peers can facilitate network support, which includes the web of ties that can provide any of the aforementioned forms of assistance.

Communication scholars who study social support have identified person-centeredness as a quality of supportive messages that has the potential to express comfort. Burleson explains that person-centeredness is the extent to which messages exhibit “an awareness of an adaptation to the affective, subjective, and relational aspects of communication contexts” (1987, p. 305). Burleson’s earlier work established a hierarchy of person-centeredness that is comprised of three levels. The lowest level of the hierarchy includes messages that condemn and deny people’s feelings (Burleson, 1982; MacGeorge, Gillihan, Samter & Clark, 2003). The middle level of the hierarchy represents moderately person-centered messages (MPC), which implicitly acknowledge feelings and attempt to reframe stressful situations by distracting the individual. The final level, or top of the hierarchy captures high person-centered messages (HPC), which explicitly acknowledge and elaborate the distressed feelings. Furthermore, HPC messages are sophisticated messages that are capable of achieving multiple goals (Applegate, 1980, Burleson, 1982), such as reducing anxiety (Sgoutas-Emch & Johnson, 1998), lowering physical stress (Cohen & Wills, 1985; Smyth & Pennebaker, 1999), and improving psychosocial well-being (Pennebaker, 1993). Thus, Burleson proposes that messages higher in the hierarchy are more likely to achieve positive support outcomes.

The preponderance of work on the communication of social support has focused on how support unfolds within close, dyadic relationships. Positive dyadic coping strategies can include the incorporation of problem solving strategies and open communication (Badr & Taylor, 2008); the elicitation of emotional and problem focused social support (Bodenmann, 2005); and the ability to reframe stressors in a positive way (Cohan & Bradbury, 1997; Southwick, Vythilingam

& Charney, 2005). These strategies have generally been associated with increased well-being and fewer psychological symptoms (Fondacaro & Moos, 1989), as well as greater marital quality and marital stability (Bodenmann, 2005; Canary & Stafford, 1994; Cohan & Bradbury, 1997; Karney & Bradbury, 1995). In addition, empirical work on dyadic coping strategies indicates that dyads who develop “supportive stable unions” are able to practice problem-solving skills and interactions, thus gaining skills to overcome situations together (Bodenmann).

Because of the variety of stressors inherent in the context of military families, the various kinds of sociological, psychological and communication characteristics that lead to feeling supported can be especially important to spousal caregivers. To a large extent, research on promoting stable marriages and families, focuses on dyadic support between spouses. As mentioned previously, the unique stressors associated with being a spousal caregiver of WWII often hinders the support process between partners. Spousal caregivers of the wounded, injured, and ill, their families, and their networks encounter a variety of difficulties as they adjust to their new lifestyle (Jennings-Kelsall & Solomon, 2013). For better or worse, to overcome these difficulties spousal caregivers likely rely on network members for support. Thus, an examination of the network member’s influence on the caregiver’s resilience must include structural aspects of networks, as well as perceptions of the functional aspects of networks, to capture the quality of the content provided by those network ties.

Overview of the Dissertation

Military couples, especially those challenged by the stress of serious injury or illness, are an important context in which to understand the processes that promote resilience. The study of resilience aims to understand how caregivers thrive despite the numerous mental, physical, and relational challenges that they encounter. In particular, how caregivers employ and communicate

with their social networks may facilitate resilient outcomes. Thus, the aim of this dissertation is to illuminate the resilient impact of supportive communication behavior within caregivers' social networks.

To frame this investigation, I seek to integrate theory and research on social networks and social support. Although the research traditions of social networks and social support have overlapped, differences in the focus on connections in social network research versus interactions within in social support research have led to distinctions in the kinds of research questions that are prioritized. For example, the body of work on social networks and coping tends to focus on identifying which individuals facilitate the most coping; in contrast, the research on social support has been more oriented towards understanding aspects of support between partners.

Connecting these two paradigms is vital to understand and untangle the potential resilience of the caregivers of wounded warriors experiencing non-normative stress. Although the research traditions of social networks and social support have been previously examined together, this dissertation uniquely seeks to understand the communicative processes through which individuals elicit and receive support from their networks to emerge resilient within the wounded warrior context. Chapter 2 presents a review of the literature on non-normative stressors, social support, and coping. In Chapter 3, I discuss the factors that reside within the spousal caregiver and their social network that influence their interactions and perceptions of support, and I propose a series of hypotheses linking these variables to resilient outcomes. Chapter 4 describes the methodology for the dissertation study. Chapter 5 discusses the results from the study outlined in Chapter 4. Finally, Chapter 6 considers the implications of the results of this dissertation, as well as the strengths and limitations that contextualize those conclusions.

Chapter 2

Over the last fifty years, social scientists have displayed an overwhelming interest in what predicts the success or failure of marriages, as well as the subsequent effects of the relationship outcome (Cowan & Hetherington, 1991). Much of this work has focused on normative stressors or daily hassles that couples face, largely because empirical studies have consistently identified the culmination of these stressors as having a larger effect on the health, well-being, and satisfaction of couples than non-normative stressors (Jemmott & Locke, 1984; McNamara, 2000). As a result, the focus of interest for many scholars who study stress has become understanding how couples can overcome normative stressors that are predictive of marital dissolution. Scholars who study non-normative stressors have also uncovered numerous interactions between the non-normative stressful event, compounded daily hassles, and coping mechanisms (McNamara, 2000).

In Chapter 1, I introduced the experience of caregiving in military families. In this chapter, I probe more deeply into the stressful nature of military families, which experience both normative hassles and stressors that are unique to military and wounded warrior families. In the following sections, I first offer a description of the experience of stress in military families. Second, I provide a conceptualization of the stress process. Finally, I provide a brief review of the literature on the resilience factors that have been most prominent when studying couples' abilities to adapt and cope with both normative and non-normative stress.

The Experience of Stress in Military Families

An abundance of work has isolated stressors that place military families at risk for experiencing the aforementioned negative outcomes associated with stress. Military families share the same challenges as all families, such as financial difficulties, child-rearing issues,

insufficient alone time, spousal relationship troubles, and overscheduling (Curran, 1983). In addition, they are exposed to unique everyday stressors and non-normative stressors. These sources of stress and a theoretical model that has been widely used to investigate predictors and outcomes related to military stress are discussed next.

Sources of Stress

Families in the military are subject to distinct stressors that have a significant impact on the way in which they solicit and receive support. Most of these stressors are related to relocation and deployment. For example, the emergence of stress is often a result of issues internal to the family unit, such as disruptions to communication between spouses during training and deployment (Drummet, Coleman, & Cable, 2003; Merolla, 2010) and readjustment of roles during a servicemember's absence and return (Merolla, 2010). In addition, network disturbances, in-group and out-group differences, and privacy concerns arise because of issues involving people outside the family unit. Stress emerging from these external sources is particularly relevant to understanding impediments to support for caregivers of wounded warriors.

Network disturbance. The research on military families continues to underscore the various logistical challenges associated with life in the armed forces. Among these, the disturbance of social networks, or even loss of network support (Drummet, et al., 2003; Vormbrock, 1993) due to base reassignment (Black, 1993) is prominent. In fact, on average servicemembers and their families move more frequently and farther than non-military families. Moving outside the country is four times more likely in military families than nonmilitary families, and those who relocate within the country are more likely to move farther away than their nonmilitary counterparts (Drummet, et al.; Pittman & Bowen, 1994). According to Kaplan, Cassel and Gore (1977), a loss or change in social networks results in unmet supportive needs

and thus impacts both mental and physical health. In fact, for women and children, relocation has been found to cause grief symptoms similar to bereavement, which are visible up to and beyond two years after the actual move (Kaplan et al., 1977). Thus, disturbance to established social networks complicates the way in which individuals both give and receive support and further influences the likelihood of supportive and quality interactions.

In-group and out-group differences. In-group and out-group differences also become a source of stress among military families. Indeed, the culture of the military brings with it a unique jargon, a different way of life, and distinct stressors (Drummet, et al., 2003). As such, network members who are not part of this in-group are ostensibly immune from these stressors and generally uninformed about military culture. For instance, servicemembers' spouses have reported feeling isolated from family and friends who do not understand the nuances of their military life (Jennings-Kelsall, Aloia, Solomon, Marshall, & Leifker, 2012). Furthermore, several researchers who study in-group behavior (Outten, Schmitt, Garcia, & Branscombe, 2009) and social support have indicated that quality of support and perceived support availability often hinges on the relevance of a network members' experience to the stressor (Lehman, Ellard, & Wortman, 1986; Weber & Solomon, 2008). Thus, in the context of military families, this disparate understanding of stress may also influence the quality of support a network can provide.

Privacy concerns. The sensitive nature of the military deployments, as well as the general military culture, may present numerous privacy issues that affect the solicitation and provision of support. The threat and uncertainty of combat (Black, 1993) is cited as one of the most significant stressors that military families face. This deployment related stress is enhanced by the reluctance to discuss concerns about the specifics of the deployment (e.g., length of

deployments, departure and homecoming dates, whereabouts of servicemember) with those outside of the military to protect the operational security of the military unit and the safety of its servicemembers (Sayers, 2011).

In addition, the military is much more present in the family and personal lives of its “employees” than nonmilitary organizations (Drummet et al., 2003). This active involvement in the servicemembers’ personal lives introduces privacy concerns because family problems that are shared with formal support institutions may not be confidential. For instance, whereas information shared with chaplains and legal services is confidential, information shared between doctor and patient or counselor and client are not. Based on the military’s emphasis on independence and reputation, several scholars have indicated that there may also be a reluctance to air out family problems due to outsider perceptions of an inability to manage difficulties at home and the implications of what that may mean for the servicemember’s career (Gober, 2005; Orthner & Pittman, 1986; Segal, 1986). In other words, the stigma attached to seeking assistance for military members, may prevent them or their spouses from being open with informal and formal support providers.

In summary, there are numerous stressors that are unique to the lived experience of military families. Network disturbance, in-group and out-group differences, and privacy issues may serve as barriers to effective support seeking and provision. In the following section, I review theory and research that consider how military families manage their non-normative stress in a context that impedes engagement of typical support resources.

The Coping Process: Hill’s ABC-X Model

The most frequently employed model to explicate the stress process in the social sciences is the psychological model of stress. This model accounts for the relationship between the

environmental events, our attitudes about those events, and the physiological changes within our bodies, thus assuming an interaction between individuals and their environment (Lazarus, 2006). In the psychological model, stress is “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus, p. 219). Lazarus explained that both the processes of cognitive appraisal and coping mediate the relationship between person and environment. This view of the stress process has provided the framework for many of the subsequent more detailed models that have emerged. Namely, however, Hill’s ABC-X model has been the pioneering model of the stress process in the wake of non-normative stressors.

Hill’s (1949) landmark study of military induced separations during World War II provided a model to study changes in the family system following catastrophic events. The original model described the roller coaster of family adjustments: a state of disorganization created by deployment; recovery through affection, cohesion, and unity; and finally a new pattern of organization. Hill’s (1958) ABC-X model of family stress offered an explanation for why some families successfully adapt to stress, while others have more turbulent experiences of stress.

Hill’s ABC-X model consists of three variables, the event or non-normative stressor (A), the resources or strengths of the family at the time of the event or stressor (B), and the meaning the family attaches to the event (C); these factors interact to bring about the experienced stress level for the family (X) (Black, 1993). According to Boss (1986), a stressor does not act directly on the family; rather, it is the perception of the event as mediated by the family that determines how the family will experience the event. One particular strength of the ABC-X model of stress is that it allows for the examination of individual stressors as a phenomenon that affects not only

the individual, but also their partners, families, and social networks. As a result, this model implicitly highlights the transactional nature of coping.

The ABC-X model of stress promotes a study of both objective features of stressors, as well as the perceptions of family members and outside resources involved in coping with the experienced stress. Empirical research in this area has underscored that the impact of stress on well-being is moderated by access to social support (Lantz, House, Lepkowski, Williams, Mero, & Chen, 1998), and that military spouses' health and well-being is important to both the military and the family (Eaton, Hoge, Messer, Whitt, Cabrora, McGurk, et al., 2008). For instance, satisfaction of military spouses is directly related to servicemember retention in the armed forces (Knapp & Newman, 1993) and positively influences family functioning (Kelley, 1994). Although the ABC-X model allows an in-depth look into the experience of non-normative military stress, to have a more comprehensive understanding of military stress, scholars must also examine the more general representation of the stress experience.

Conceptualizations of the Stress Experience

Stressors have been broadly conceptualized as the “conditions, experiences, and activities that are problematic for people; that is that threaten them, thwart their efforts, fatigue them and defeat their dreams” (Pearlin, Mullan, Semple, & Skaff, 1990, p. 586). To narrow the broad nature of stress even further, those who study stress have categorized stress in numerous ways, such as chronic or acute stress (Karney, Story & Bradbury, 2005), and individual or dyadic stress (Bodenmann, 2005). Sociological literature, however, has tended to favor the broader categories of normative and non-normative stressors which may encapsulate any or all of the aforementioned terms. These conceptions of stress are clarified in the sections that follow.

Chronic and Acute Stress

Chronic stress is commonly defined as those aspects of the context that are relatively stable and enduring. Chronic stressors can “drain” the resources in the relationship, but often do not appear in a significant way in the daily life of the couple. Alternatively, acute stressors are those features of the environment that have a specific onset and offset (Karney et al., 2005). Whereas chronic stress might remain constant over a longer stretch of time, acute stress likely varies considerably over time (Neff & Karney, 2004).

The study of non-normative acute stressors has included time-limited stressors, such as military couples’ initial adjustment to the experience of a partner coming home with disabilities or an initial adjustment to PTSD, as well as the effects of stressors on health and well-being. For instance, assessments of relational well-being have been routinely associated with acute stress. Karney et al. (2005) discovered that spouses tend to report lower marital satisfaction when reports of acute stress are higher than average and higher marital satisfaction when acute stress is lower than average. In addition, when couples have the necessary resources to cope with a negative life event, or acute stressor, the ability to overcome these negative events brings the couple closer (Karney et al.).

According to Gump and Matthews (1999), there are also several health effects associated with acute stress. For instance, natural disasters and personal traumas have been linked to subsequent cardiac mortality rates (Kamarck & Jennings, 1991) and academic exams have been found to lead to lower immune functioning (Glaser, Kiecolt-Glaser, Speicher, & Holliday, 1985). Thus, an individual or couple’s inability to cope with either chronic or acute non-normative stressors may have numerous debilitating effects on both relationships and health.

Individual and Dyadic Stress

Although the majority of scholars who study coping and the effects of stress have focused on the individual, both theoretical essays and empirical articles have considered how dyadic coping occurs alongside individual coping efforts (Bodenmann, 2005). Revenson, Kayser, and Bodenmann (2005) stated, “people cope in the context of relationships with others. And those ‘others’ are affected by the same stressors in a pattern of radiating effects” (p. 3). Thus, inevitably, what the individual brings to the table and what the dyad brings to the table must both be considered when evaluating the stress process.

Dyadic stress and dyadic coping are two processes that have given social scientists insight into how couples and partners manage stress. Dyadic stress has been typically examined through three dimensions: (a) whether the stressful event affected each partner directly or indirectly, (b) whether the stress originates from inside or outside the dyad, and (c) the timing of when each partner enters the coping process (Bodenmann, 2005). Scholars who study dyadic coping have done so in a variety of ways. For instance, dyadic coping has been conceptualized as an individual coping efforts within the marriage (Pearlin & Schooler, 1978), as an interaction between each partner’s individual coping efforts (Berghuis & Stanton, 2002), as the coping efforts of each partner focused on better functioning of the other partner and the relationship (Coyne & Smith, 1991) and as a dyadic coping process in which both partners are involved (Bodenmann).

Normative and Non-normative Stressors

Research on normative stressors largely includes stressors that occur as the result of transitions inherent in a family life cycle. Specifically, normative stress includes the stressors associated with developmental role changes and the task realignment issues that accompany

various life stages in family life with children. In addition, scholars who examine normative stress also study individual “typical” events that are “ubiquitous, expectable, and short term” (McCubbin, Joy, Cauble, Corneau, Patterson, & Needle, 1980, p. 861). For instance, the study of normative life-span stress includes Rapoport’s (1963) examination of the transition of getting married and the subsequent changes in the family. Other work has focused on adolescent independence (Stierlin, 1974), family boundary negotiation (Kantor & Lehr, 1975), single parenting (McAdoo, 1995; Quinn & Allen, 1989), and the management of everyday stressors (Canary & Stafford, 1994).

Although research that examines the stress related to life events suggests that all change is harmful due to the necessary readjustment, Pearlin (1989) posited that this notion should be contested since “change is a normal and inexorable feature of every level of social life...it is not change per se but the quality of change [that] is potentially damaging to people” (p. 244). As stated previously, Pearlin indicated it is that change that is “undesired, unscheduled, non-normative, and uncontrolled” which is most harmful (p. 248) and in fact, Pearlin’s description has been predominantly attributed to non-normative stressors.

According to Lavee, McCubbin and Olson (1987), non-normative stressors are the result of events that occur unexpectedly and do not typically occur in most families (see also, Hauser & Bowlds, 1990). Non-normative events include even those events that are “statistically normative,” such as death at a certain age, when they are unexpected, undesired, and associated with severe effects (McCubbin et al., 1980, p. 859). A less common but similar concept to non-normative stress is Figley’s description of catastrophic or traumatic stress (1983). Catastrophic stress includes the following characteristics: (a) there is little or no time to prepare for the stressor; (b) there is little previous experience with the stressor; (c) there are few sources of

guidance about managing the stressor; (d) experiencing the stressor is not common; (e) the stressor may result in an endless time in crisis; (f) there is a sense of lacking control; (g) there is a sense of loss (e.g. of life, time, or innocence); (h) the stressor is not only disruptive, but can be destructive; (i) there is a degree of danger to one or more family members; (j) the emotional impact associated with the stressor may be both acute and chronic in nature; (k) the medical problems that accompany exposure to the stressor.

Criticisms of the Study of Stress

For decades, sociologists have been interested in the aforementioned types of catastrophic or non-normative crises encountered by families (Boss, 1980). For instance, in the 1930s, depression was studied (Angell, 1936; Cavan & Ranck, 1938), and in the 1940s and 1950s, World War II brought about interest in the effects of separation and reunion (Boulding, 1950; Duvall, 1945; Hill, 1949). Similarly, the 1970s saw an increased concentration on Prisoner of War studies that focused on military separation (McCubbin, Dahl, & Hunter, 1976). More recently scholars who study non-normative stress have examined various issues including the stress surrounding caring for disabled children (Kazak & Wilcox, 1984), PTSD of servicemembers (Merolla, 2010), and managing various diseases (Beasley et al., 2003). Importantly, however, numerous research design issues often hinder research on couples who experience non-normative stress.

Although sample selection and attrition have understandably limited the study of non-normative stress, the employment of inappropriate measures may be the predominant obstruction to the advancement of non-normative stress research (Cowan & Hetherington, 1991; McNamara, 2000). The most common approach to indexing non-normative stress is the use of life-event measures; however, this measure fails to include individual appraisals of those events. Instead,

the life event measures use objective, standardized weighting of the items included. In other words, this measure fails to account for the notion that individuals might not perceive certain events to be stressful and, as a result, the event may not have the assumed negative effect. Moreover, the cumulative total weighted score is assumed to create a reliable index of the stress experienced, but bypasses the normative or non-normative categorization of each event. Although the common measurement of non-normative stressors has been called into question, it is still the dominant research procedure for measuring variations in stress exposure (Cowan & Hetherington, 1991; Karney & Bradbury, 1995).

Another criticism of this body of work is that many studies of non-normative stress and their deleterious effects focus do not shed light on how the stress process operates (Wagner, et al., 1988). Put another way, the focus of the majority of this research has been on predicting the stability and satisfaction in marriage, rather than explicating how marriages can become more or less satisfying and stable in the face of various stressors (Cowan & Hetherington, 1991; Karney & Bradbury, 1995). Furthermore, research that has concentrated on enhancing the quality and strength of relationships has implicitly placed the onus of marital success on the behaviors of couples without considering the challenging context in which the relationship exists (Karney & Bradbury, 2005). Thus, this research brings attention to the necessity of exploring *how* couples function through non-normative stress.

A third major criticism of this body of work is that scholars who study stress tend to emphasize the dysfunctional and deleterious effects of stressful life events (Figley & McCubbin, 1983). Among other things, scholars have consistently emphasized the negative impact of stressors on one's mental health (Pearlin, 1989), physical health (Schulz et al., 1995) and

relationships (Kazak & Wilcox, 1984). In doing so, the examination of the stress process for those who emerge resilient has been overlooked.

Thus far, I have provided a brief discussion of the stress process and highlighted several conceptualizations of the stress experience culminating in a review of three critiques of this body of work. Next, I turn to a discussion on the study of resilience, which examines the question of why some individuals and couples recover from stress and in fact thrive, while others do not.

Resilience

The topic of resilience has been a burgeoning area of research for sociologists, psychologists, and communication scholars alike (Richardson, 2002). These scholars aim to understand what makes an individual (Bonanno, 2004), couple (Conger, Rueter, & Elder, 1999), or family (Oswald, 2002) resilient to stressful events. In addition, the concept of resilience has been examined as an individual trait (Charney, 2004), as a process (Conger & Conger, 2002; Luthar, Cicchetti, & Becker, 2000), and as an outcome (Patterson, 2002). To examine resilience, Beasley et al. (2003) indicated that scholars must differentiate between protective *factors* (e.g. individual traits or characteristics) and protective *mechanisms* (e.g. processes of resilience) that may be learned and developed. In the following sections, I first highlight areas of inquiry and integration that arise when conceptualizing resilience as a trait, and I then consider the research questions of interest when the focus is on resilience as a process.

Protective Factors of Resilient Individuals

Examining resilience as an individual trait underscores the characteristics that facilitate a resilient outcome (Cheung, 2008). Resiliency conceptualized in this manner could be stated as the capacity of an individual or couple to successfully manage the stressor (Patterson, 2002). According to Patterson, some psychologists who have attempted to differentiate resilience as a

trait and resilience as a process have suggested the use of “resiliency” when referring to the individual trait and “resilience” when referring to the process (see also, Luther et al, 2000; Masten, 1994).

Resiliency research initially focused on young children and adolescents who were raised in the contexts of war, family violence, poverty, and natural disasters. This research “revealed a consistent pattern of individual characteristics associated with successful adaptation” (Charney, 2004, p. 379). Specifically, numerous biological characteristics affect psychological processes, which in turn modify cognitive functioning (Luthar & Zelazo, 2003). Adult characteristics have also been examined (Charney; Fitzpatrick, & Vacha-Haase, 2010). For example, individuals who are flexible, have a positive self-image and outlook on life, and are realistic, secure, patient, adaptable, and self-efficient appear to have a higher likelihood of overcoming challenges (Fitzpatrick & Vacha-Haase, p. 168). According to Kobasa (1979), characteristics of resilience include an internal locus of control, strong sense of commitment to self, sense of meaningfulness, and the ability to view or change stress as a challenge. A study by Rutter (1985) concluded that resilient individuals had (a) the ability to engage the support of others, (b) a secure attachment to others, (c) personal or collective goals, (d) self-efficacy, (e) a sense of humor, (f) a strong self-esteem, (g) an action oriented approach, (h) the ability to perceive the strengthening effect of stress (h) the ability to adapt to change, and (i) the ability to use past successes to confront current challenges. Lyon’s (1991) adds to this list by indicating resilient individuals have patience and tolerance for negative affect. Connor and Davidson (2003) indicated that resilient individuals also have optimism and faith. Notably, this list of qualities implies that resilience may be related to overall mental health (Connor & Davidson, 2003).

A myriad of constructs have been equated with resiliency. One such characteristic is courage (Charney, 2004). Charney explains that resilient individuals may have a hypersensitive reward system, despite chronic exposure to neglect. Thus, these individuals strive to maintain optimism and a positive self-concept. Also, the self-enhancement characteristic has been used to describe resilient individuals. For example, Bonanno et al. (2002) established that individuals classified as “self-enhancers” were rated by mental health professionals as better adjusted. Furthermore, for those bereaved individuals who suffered from more severe losses, the self-enhancement characteristic was found to be particularly adaptive. Similarly, a study of individuals who were close to or in the World Trade Center during the 9/11 attacks demonstrated that self-enhancers reported better adjustment, had more active social networks, and showed cortisol levels consistent with a profile of minimal stress response (Bonanno et al., 2006). Thus, these studies highlight the benefits of those classified as self-enhancers: they are better adjusted, more adaptive, more social, and have lower physiological stress response than those who are not self-enhancers.

One particularly well developed and recent conception of resiliency focuses on cognitive hardiness. Cognitive hardiness has been used to describe the adaptive behaviors of high stress individuals who believe they have the ability to control events. Individuals high in cognitive hardiness view change as a challenge, have a commitment to their activities, relationships, and to their self, and they recognize their goals and priorities in life (Beasley et al., 2003). Indeed, the personality trait of cognitive hardiness has been suggested to buffer individual’s exposure to extremely adverse situations. Specifically, a five-year study examining associations among hardiness, stressful life events, and health found that hardiness was most beneficial to health when stressful life events accumulate (Kobasa et al., 1982). Correspondingly, in a study about

the effects of coping style and cognitive hardiness on life event stress, Beasley et al. (2003) found support for the buffering effect of cognitive hardiness on the management of life event stress, such that cognitive hardiness functioned as a moderator for females in mitigating the effects of negative life events and their impact on psychological health. In addition, cognitive hardiness had a direct effect on measures of psychological and somatic distress for both males and females in the study (Beasley et al.). Conversely, Fitzpatrick and Vacha-Haase (2010) conducted a study on marital satisfaction and resilience in caregivers of spouses with dementia and found that cognitive hardiness of the caregivers did not affect marital satisfaction. The authors suggest, however, that it may be the dynamic interplay of resilience with other adaptations in the relationship, which resulted in the negative, although non-significant, impact on marital satisfaction (Fitzpatrick & Vacha-Haase). Thus, with very few exceptions, research has found associations between cognitive hardiness and successful adaptation to stress.

Although many researchers who study resilience found interest in uncovering the positive phenomena of survival in the face of adversity, a divide emerged among resilience scholars. Some critics of the “resiliency as a trait” conceptualization point out that this perspective assumes resilient individuals will always be resilient, as traits and personal dispositions are typically stable and rigid. According to Graham (2002, p. 408), resilience is not a stable trait but one that “waxes and wanes” through the family lifecycle. Accordingly, critics of “resiliency as a trait” argued for recognizing the fluidity and necessity of interaction in dynamic and transactional conception of resiliency.

The Protective Process of Resilience

Examining the development of resilience allows a focus on the processes by which couples are able to adapt and function competently following exposure to a stressor. Put another

way, this approach to examining resilience highlights the ongoing construction and reconstruction of adaptive processes to a particular stressor. Furthermore, as indicated previously, the protective mechanisms of resilience are also processes that may be learned and developed as one faces crises and adversity. In this section, the processes of relational maintenance, dyadic adjustment, and social support are highlighted as several examples of resilience processes in social science research.

Work in psychology and communication has both acknowledged and highlighted the importance of marital satisfaction and adjustment as a process. Relational maintenance strategies posit that five communication behaviors allow partners to maintain feelings of being valued in the relationship, which ensures a certain optimal level of intimacy (Canary & Stafford, 1994). Canary and Stafford identified five relational maintenance strategies: (a) positivity, or acting polite, cheerful, and upbeat during conversations and avoiding criticism; (b) openness, which involves discussing the relationship and sharing thoughts and feelings; (c) assurances, such as expressing love and commitment thus implying the relationship will continue; (d) social networks, which involves spending time with and including mutual friends and family in activities; and (e) sharing tasks, which refers to engaging in household chores and any other tasks that constitutes the responsibilities of the couple. These strategies promote relational resilience by preventing relationship decay and repairing relationships that have been distressed (Canary & Stafford, 1994); they also maintain desired relational characteristics, including love, liking the partner, commitment, and control mutuality (Canary et al., 2002). In this body of work, relational characteristics are outcomes of maintenance activities such that strategies (which may be viewed as a resilience process) promote the relational characteristics. Other work, however, has

illustrated that the maintenance strategies promote relational resilience (Canary et al., 2002), thus acting as a resiliency process.

In a brief review of the literature, strategies that are characterized as resilient have had varying degrees of effectiveness as a variable that explains relational development. For example, Badr and Taylor (2008) found that processes that promote resilience, such as patient and partner engagement in maintenance strategies of positivity, openness, assurances, social networks, and sharing tasks, enhanced the lung cancer patient and spouse dyadic adjustment over a six-month period. Thus, the authors explicitly acknowledged, “psychological and marital adjustment to cancer may be tied together by relational processes” (p. 622). This study emphasizes that engaging in these resilience strategies may function as an implicit investment in the relationship during a stressful cancer treatment period, thus strengthening the marriage over time.

Another concept that mirrors that of the process of resilience and relational maintenance is dyadic adjustment. Dyadic adjustment with regards to stressors, involves positive coping processes to include the incorporation of problem-solving strategies and open communication (Badr & Taylor, 2008). For example, Banthia, Malcarne, Varni, Ko, Sadler, and Greenbergs (2003) examined couples coping with prostate cancer and how the dyadic strength of the couple influenced the relationship between coping and distress. Banthia et al. found that “stronger dyads,” operationalized as those who scored higher on the dyadic adjustment scale (Spanier, 1976), reported more distress than those “dysfunctional dyads,” those who scored lower on the dyadic adjustment scale. This finding emerged despite the couple’s use of maladaptive coping strategies, such as intrusive thoughts and avoidant behaviors. Very closely related to dyadic adjustment is the term “adaptive processes” which have been described as “behaviors spouses express while solving a marital problem and their appraisals of marital interaction” (Cohen &

Bradbury, 1997, p. 114; see also: Karney & Bradbury, 1995). Adaptive processes are suggested to affect marital quality, which then predicts marital stability. Put another way, adaptive processes are defined as those that restore “balance between capabilities and demands” (Patterson, 2002, p. 352). According to Southwick et al. (2005), resilient individuals generally engage in active, rather than passive, coping mechanisms. Active coping strategies involve seeking social support, adopting a “fighting spirit” and reframing stressors in a positive way (Southwick et al., p. 276). These strategies have been associated with outcomes such as increased well-being, fewer psychological symptoms, and greater ability for traumatized adults and depressed adults to manage stressful events (Fondacaro & Moos, 1989). Consistent with these findings, Bodenmann’s (2004) meta-analysis of dyadic coping strategies found support for the link between positive dyadic coping strategies and better marital functioning and relationship satisfaction. Positive dyadic coping strategies include both problem-focused and emotion-focused dyadic coping. Furthermore, in a 5-year longitudinal study of the influence of dyadic stress on relationship quality and stability, Bodenmann found that dyadic coping was one of the most powerful predictors of separation and divorce at year 1, 2, 3, and 5. Specifically, at the end of the study those couples who reported high marital satisfaction displayed more problem and emotion-focused coping earlier in the study than those couples who were separated or divorced by the end of the study.

A decade long longitudinal study that focused on the effects of economic adversity on resilient adolescents and parents underscored the effects of resilience. Specifically, Conger and Conger (2002) sought to examine how certain marital resources act as a buffer to the economic pressure and subsequent negative events in the family. One marital resource that was measured was supportiveness. Spousal support was measured through observations of aspects of caring,

warmth, and cooperation during videotaped interactions at the home. The authors found that high marital support reduced associations between economic pressure and emotional distress. Specifically, marital dyads characterized by higher levels of spousal support yielded little or no increase in emotional distress in the face of economic pressure. Conversely, those with little support experienced an increase in distress when challenged by economic pressure. Furthermore, successful couple problem-solving reduced the negative impact of marital conflict on marital distress. In sum, Conger and Conger found that couples who were able to enact effective problem-solving skills and engage in ongoing interaction processes effectively increased their resilience to the negative effects of economic pressure. Thus, the findings suggest that couples who develop “supportive stable unions” are able to practice problem-solving skills and interactions, thus gaining skills to overcome situations together.

In the psychological literature, social support has sometimes been captured under the “adaptive processes” umbrella. For example, Conger, Rueter, and Elder (1999) explained that social support processes have been found to have a direct influence on maintaining marital quality over time as well as a “source of couple resilience to stressful life events or conditions” (Conger et al., 1999, p. 57; see also Cohan & Bradbury, 1997; Cutrona, 1996). Cutrona further suggested that “social support may prevent conflict and relationship deterioration in times of duress through its impact on individual well-being” (p. 176). For instance, a study conducted by Lang Goulet and Amsel (2004) examined how both internal and external resources, including spousal support, as well as the appraisal of the situation, predict the health of 110 bereaved couples. In another study about the effects of support for couples, Lang et al. (2004) measured spousal support separately from “other” social support where a high score indicates a high degree of satisfaction with that support. The authors found that satisfaction with marital support, as well

as “other” social support, was predictive of how bereaved parents appraised their situation, and their health as individuals and as a couple over time (Lang et al.).

In another study of the impact of resilience behaviors on relational development, Cohan and Bradbury (1997) examined a specific point in relational development, the first six months of marriage, to identify how aspects of problem-solving behavior are associated with life events and spouses’ adjustment. Cohan and Bradbury found that spouses’ problem-solving behavior, measured through coding problem-solving tasks for verbal content and affective expressions, moderated the effect of their life events on marital adjustment. Specifically, wives who reported more anger and more major or interpersonal events experienced increases in marital satisfaction. In addition, the authors found that for couples who reported more major life events, husband’s use of humor during the problem-solving tasks were positively associated with permanent separation or divorce 18 months later. Overall, the authors found that problem-solving behavior was not independent of the life events reported. As such, both the context and the problem-solving behavior or communication were more likely to influence marital adjustment than just the main effect of life events. These empirical findings highlight the suggestion that the accumulation of successful navigation of life events through adaptive problem solving increases the possibility of positive appraisals of marriage satisfaction.

In this section, I juxtaposed extant research that examines resiliency factors and resilience processes. Resiliency factors highlight those characteristics of individuals that allow them to emerge resilient in the face of adversity whereas resilience processes highlight the ongoing nature of employing adaptive processes such as social support, dyadic adjustment, or relational maintenance. Both resiliency factors and resilience processes are critical and relevant to the production of resilient outcomes.

In summary, this chapter offers an explication of the many facets of stress faced by military families. In addition to all the stressors that non-military families routinely manage, military families face unique non-normative stressors that create coping challenges, but also opportunities for resilience. As such, this chapter highlighted how individuals with resilient traits engage in resilient processes and subsequently have the potential to produce resilient outcomes.

CHAPTER 3

In general, individuals seek support from their social network when they perceive a threat that requires a response, they believe information or assistance would ameliorate the threat, and they expect that aid is available from the network. Empirical evidence suggests that the experience of caregiving complicates these support seeking efforts because caregiving has a deleterious influence on interactions with an individual's support network (Hanks, Rapport, & Vangel, 2007; MacDonald & Callery, 2007). For instance, caregiving presents strain on the family system (Brashiers, Goldsmith, & Hsieh, 2002; Calhoun, Beckham, & Bosworth, 2002) and poses chronic stress, which has been shown to erode social support (Kaniasky & Norris, 1983). Dupuis et al. (2004) explains that in these non-normative contexts, the unpredictable behavior and changes in the distressed person cause friends and family to report a sense of unease which eventually leads them to "withdrawal emotionally and physically" (p. 27). As a result, distressed individuals experience an onset of isolation as they "watch friends drift away" (p. 27). Spousal caregivers' experience of coping with wounded warriors' mental and behavioral issues, as well as the stigma and subsequent social isolation associated with physical and mental illness, further fractures the caregiver's support network thereby hindering support seeking efforts. In short, numerous interpersonal barriers impede the ability of caregivers to solicit and receive support, placing them at mental, physical, and relational risk.

Although interactions with support networks may be especially important to caregivers faced with significant threats to well-being (Hanks, et al., 2007; Kaniasty & Norris, 1983), not all support provided by networks is perceived as helpful. In non-normative circumstances, loved ones often rally to support the distressed, but the recipient may view the support provided as unwelcome and ineffective (Davidowitz & Myrick, 1984). This potential misunderstanding as to

what constitutes a 'helpful' message can have deleterious effects as negative and unsupportive interactions are linked more strongly and consistently to mental health outcomes than positive interactions (Fiore, Becker, & Coppel, 1983; Rook, 1984). Indeed, Julien and Markman (1991) have found that network members may mediate, rather than mitigate, the negative effects of stress on health.

Both implicitly and explicitly, communication has surfaced as a variable that may play a significant role in the association between network members and the well-being of distressed individuals. For instance, individuals with higher distress levels have been found to mobilize more outsiders to discuss problems than individuals with lower distress levels (Julien & Markman, 1991). In addition, disclosures to network members are associated with both low marital adjustment (Julien & Markman) and high marital adjustment (Julien, 1986). Finally, communication within families impacts relationships with network members (Spanier & Thompson, 1984) and communication with networks influences the communication that occurs within the family (Mitchel & Hodson, 1986). Thus, distressed individuals have been shown to not only mobilize more outsiders for support, but also disclosure to those members may affect marital adjustment and communication within the family which can in turn affect the communication with network members.

In the previous chapter, I explicated the phenomenon of caregiver stress and resilience. The focus of this dissertation is how resilience can emerge from supportive interactions with members of the caregiver's social network. In this chapter, I focus more specifically on the qualities of caregivers, network members, and interpersonal interactions that contribute to resilience. To begin, I identify the outcomes that characterize caregivers who develop resilience in response to the non-normative stress they face. Then, I examine the qualities of caregivers that

contribute to resilient outcomes. Third, I review factors that affect network members' tendency to provide support. Fourth, I analyze factors that affect qualities of interactions between caregivers and network members. Finally, I identify how resilient processes contribute to resilient outcomes.

Resilient Outcomes

Recall that resilience is defined as the potential for individuals to thrive in the wake of non-normative stressors and the mental and physical health consequences that follow from them. Resilient outcomes have been documented in the following ways: (a) mental and physical health, (b) individual growth, and (c) management of distress. The following sections examine each of these in turn.

Mental and Physical Health

Mental and physical health have been operationalized in many ways. Evaluating an individual's affective state has been shown to be an effective measure of their psychological well-being (Usala & Hertzog, 1989). Specifically, depression, anxiety, and hostility have been especially linked to stress outcomes (Kiecolt-Glaser et al., 2002). Alternatively, physical health is typically evaluated by the extent that individuals have sought medical attention or wished they could seek medical attention for their ailments (King & Emmons, 1990; Pennebaker, 1982).

Scholars who study the mental and health effects of stress have highlighted the importance of examining a variety of mental and physical health outcomes in a single study. Aneshensel et al. (1991) argues that only a limited understanding of stress-disorder relationships can be achieved when examining one health outcome at a time. Furthermore, this approach undervalues the influence of the stressor. As such, several robust studies of stress have followed this practice (e.g. Dohrenwend et al. 1992; Conger et al. 1993; Thoits, 1994), but is more

prominent in the physical health domain. Consequently, scholars who study physical health have consistently linked stressors to physical illness and medical treatment seeking through depression, anxiety, or general distress (Cohen & Williamson, 1991; Creed, 1985).

Individual Growth

Individual growth refers to the notion that a distressed person has developed beyond their pre-stressor state. Risemann (1990) found that after experiencing stress individuals have been found to thrive in their self-perception through gains in confidence, a stronger sense of control, greater interpersonal skills, and willingness to offer emotional self-disclosures.

A specific manifestation of individual growth that has been largely unexamined is flexibility of support-seeking or coping. A limited number of studies indicate that individuals who rely on a variety of coping strategies in the face of stressors experience lower emotional distress than those who do not (Mattlin et al., 1990; Pearlin & Schooler, 1978). In addition, Mattlin et al. found that “passive” coping or using few to no coping strategies, increased psychological adjustment to chronic stress. Furthermore, few studies have investigated the impact of perceived or received support on individuals’ choice of coping strategies, while studies that have investigated these relationships have had mixed findings (Dunkel-Schetter, Folkman & Lazarus, 1987; Holahan & Moos, 1987, Ross & Mirowsky, 1989).

Management of Distress

Management of distress refers generally to a person’s perception that they can withstand the challenges that confront them; in the context of caregiving, perceptions of distress management have been conceptualized as *caregiver burden*. According to Kasuya, Polgar-Bailey, and Takeuchi (2000, p. 119), caregiver burden is “a multidimensional response to physical, psychological, emotional, social, and financial stressors associated with the caregiving

experience.” Other scholars indicate that caregiver burden is best defined as the extent to which caregivers perceive that their psychological or physical health, their social life, or their financial well-being suffers as a result of their caregiver duties (Zarit & Zarit, 1986, p.261).”

Empirical studies have consistently found that caregiver burden is alleviated when the social support is perceived as adequate and caregiver burden is worse when support is perceived to be inadequate (Clipp & George, 1990; George & Gwyther, 1986; Johnson & Catalano, 1983, Vitaliano et al, 1991). Jung (1987) emphasizes that distress may indeed worsen if recipients view their supporters as ineffective or “meddling” and subsequently cause further problems between the caregiver/provider relationship. Furthermore, individuals who reported higher quality prior relationships also reported lower levels of caregiver burden (Cox, Parsons, & Kimboko, 1988; Pratt, Schmall, & Wright, 1986; Williamson & Schulz, 1990, Zarit, Todd & Zarit, 1986).

In this section, I reviewed mental and physical health, individual growth, and management of distress as outcomes that have been employed as indicators of resilience in previous research. In this chapter, they are used to characterize caregivers who develop resilience in response to the non-normative stress they face. Within the subsequent sections, I lay out how qualities of caregivers, network members, and interactions contribute to the aforementioned outcomes.

Qualities of Caregivers that Contribute to Resilient Outcomes

Previous research has highlighted traits that characterize resilient people as those who are flexible, have a positive self-image and outlook on life, and are realistic, secure, patient, adaptable, and self-efficient appear to have a higher likelihood of overcoming challenges (Fitzpatrick & Vacha-Haase, 2010). Additional characteristics include internal locus of control and the ability to view or change stress as a challenge (Kobasa, 1979), as well as patience and

tolerance for negative affect (Lyons, 1991), optimism, and faith (Connor & Davidson, 2003). My focus on how supportive interactions contribute to resilient outcomes highlights the qualities of caregivers that promote engagement with the social network as also relevant to resilience. Of central importance is a person's aptitude for the kinds of communication necessary to marshal support.

Communication efficacy refers to a person's belief in their ability to communicate sensitive, confrontational, or difficult information to an interaction partner (Afifi & Weiner, 2004; Bandura, 1977; Makoul & Roloff, 1998). The revelation risk model incorporates communication efficacy as a variable highlighting how an individual is more willing to disclose their secrets when they believe they have the ability to talk about them (Afifi & Steuber, 2009). Afifi and Steuber found that individuals with lower levels of communication efficacy used "incremental disclosures" to disclose secrets (p. 172). Alternatively, those with greater communication efficacy were more likely to use direct strategies to reveal secrets. By extension, in the context of social support, I expect a distressed individual's communication efficacy to manifest through their explicitness of their support seeking behavior. In the following sections, I identify qualities of caregivers likely to affect their communication efficacy and, in turn, their support seeking and resilience outcomes.

Face Concerns

Theories of politeness suggest that people employ particular message features beyond what is required to communicate information in order to preserve their own self-image (Brown & Levinson, 1987). Politeness theories have also examined how speakers show concern for not only the interaction partner's face, but their own face as well (Hymes, 1986). The study of politeness examines message features such as syntax, intonation, emphasis, modifiers in-group

language, repetition, hedging, joking, laughter, and other message characteristics (Goldsmith, 1992). Goldsmith highlights that supportive interactions are replete with themes of positive and negative face and these face concerns may impact the outcomes which link the interaction to mental and physical well-being. Indeed, social support has been associated with both feelings of acceptance (Sarason, Shearin, Pierce, & Sarason, 1987) and personal control (Albrecht & Adelman, 1984). Attention to the management of face work is the way in which messages about these feelings become discernible in the interaction. Furthermore, the study of face concerns allows scholars to understand how supportive communication is related to perceptions of self (Sarason, et al., 1990), the relationship (Coyne et al., 1990), and resilience.

Numerous interpersonal barriers related to distressed individuals face concerns may influence how they express a need for support. For instance, individuals have experienced uneasiness with soliciting help because: (a) it causes dilemmas of self-presentation by calling the solicitor's competence into question (DePaulo, 1992; DePaulo, Brown, Ishii, & Fisher, 1981) or reveals undesirable information (Albrecht, Burlison, & Goldsmith, 1994) (b) on a somewhat related note, it can thus lower their self-esteem (Chesler & Barbarin, 1984), and (c) it may change the perception of power or dominance in the relationship (Fisher, Nadler, & Witcher-Alagna, 1983). Indeed, empirical evidence on face concerns suggest that in the context of social support the least polite (e.g. most direct and explicit) strategies will be employed when distressed individuals have greater power, an intimate relationship with the support provider, and are expressing a need for support that minimally threatens their face concerns. As such, I predict that caregivers who do not experience a threat to their face report greater communication efficacy than those who do experience a threat to their face.

Privacy Concerns

Privacy concerns, rules and norms may also affect a distressed individual's appraisal of their communication efficacy when disclosing a need for support. According to the theory of communication privacy management, individuals establish privacy rules or decision rules to ascertain when disclosures are warranted and to control their release (Petronio, 2002). Privacy rules are influenced by five criteria: culture, gender, motives, context, and the risk-benefit ratio (Petronio, 2000) and these associations may help explain numerous studies in the support-seeking literature. For instance, cultural privacy rules might explain the finding that both Hispanic and African American families avoid seeking support from outside their family (Boulware, Cooper, Ratner, LaVeist, & Powe, 2003; Cox & Monk, 1993). Gendered privacy rules may offer an explanation for a woman's tendency to seek support from a few confidants rather than a dense network (Hirsch, 1980) and seek emotion-focused support more often than problem-focused support (Billings & Moos, 1984; Folkman & Lazarus, 1980). Finally, the risk-benefit ratio privacy rules may illuminate why couples who experience greater marital distress are more likely to seek support from their larger support networks and as such, risk-benefit ratio privacy rules are of particular interest in this dissertation.

Research on social support indicates that the provision of aid generally requires some level of disclosure of personal information or involvement in relatively personal areas (Goldsmith, 1988). In the context of caregiving for a WII servicemember, spouses have reported that their lack of knowledge and inability to relate to their wounded warrior's deployment experience places implicit barriers on their willingness to disclose specific information about their husband's circumstances (Mendoza, 2011). Furthermore, to avoid exposing their WII servicemember to the judgment of others, spouses avoid answering questions about the nature of

their situation and begin to isolate themselves from their network (Sherman, Zanotti, & Jones, 2005). Similarly, caregivers may feel reluctant voicing family problems due to outsider perceptions of an inability to manage difficulties at home and the implications of what that may mean for their servicemember's career (Gober, 2005; Orthner et al., 1990; Segal, 1986). Other research indicates that seeking assistance from others may invade an individual's privacy, especially when aid that is not desired is provided (Chesler & Barbarin, 1984).

Emotional Interference

Generally, research indicates that sharing emotions is beneficial for both physical and psychological health (Pennebaker, 1993; Zech & Rime, 2005) because it helps individuals regulate their emotions (Pennebaker, 1993; Rime, Mequita, Philippot, & Boca, 1991). Lepore, Fernandez-Berrocal, Ragan, and Ramos (2004) indicated that typically emotional disclosures about traumatic and stressful events are offered to those who are members of a person's support convoy. Unfortunately, if these disclosures are offered with the hope that a supportive interaction will ensue, other research indicates this expectation may not be met. Indeed, the inability to control distress in supportive interactions can heighten the support provider's level of discomfort which may influence their ability to provide support (Coates, Wortman, & Abbey, 1979; Peters-Golden, 1982). Burlison and Goldsmith (1998) propose that in order to promote distressful disclosures both individuals must trust each other, create a feeling that it is appropriate to talk about feelings, obtain enough emotional control to discuss the situation rationally, and be comfortable with the environment in which the conversation occurs.

Numerous lines of research have examined how emotions may influence interactions. Whereas some scholars examine how emotions affect a speaker's message, other lines of work examine how interaction partner's behavior is influenced by emotion. Regarding the former,

strong emotional states often affect the fluency of an individual's message (Alm, 2004; Butler, Egloff, Wilhelm, Smith, Erickson & Gross, 2003). Furthermore, Berger (2004) indicates that speakers are often aware that intense emotions get in the way of transmitting desired messages and as such, they may make a strategic decision not to engage in speak acts. Regarding the latter, emotional disclosures in medical settings has been found to result in blocking behaviors (Wilkinson, 1991) or distancing behaviors (Heaven & Maguire, 1996). In addition, research on the relationship between emotions and communication suggests that unexpected emotional outbursts can result in conversational silence (Bruneau, 1973). By extension, emotions likely play a significant role in the communication efficacy of distressed individuals as they engage in supportive interactions. In fact, Bodie et al.'s (2011) work on emotional upset uncovered a curvilinear effect on message processing where both high and low levels of emotional upset were found to impede message-processing capabilities.

In this section, I explored face-concerns, privacy concerns, and emotional interference as factors that may influence a caregiver's communication self-efficacy. Caregivers may not share their difficulties with others to avoid criticism about their caretaking capabilities or repercussions for their servicemember's career (Gober, 2005; Orthner et al., 1990; Segal, 1986). Rigid privacy boundaries may likewise prevent caregivers from being open with informal and formal support providers. Thus, I predict the following:

H1: Caregiver's face concerns, privacy concerns and emotional interference are negatively associated with caregivers' communication efficacy.

H2: Caregivers' communication efficacy is positively associated with the frequency of caregivers' support seeking attempts.

H3: The association between caregivers' face concerns, privacy concerns, and emotional interference and frequency of support-seeking is mediated by caregivers' communication efficacy (See Figure 1).

The first three hypotheses address how qualities of caregivers shape their tendency to engage social network members as sources of support. In a fourth hypothesis, I link these qualities to the emergence of resilient outcomes over time. As detailed previously, resilience is embodied in physical and mental health, individual growth and management of distress in the face of ongoing threats to well-being. When face concerns, privacy boundaries, and emotional interference undermine communication efficacy and, in turn, support seeking, caregivers lose access to an important resource that might contribute to resilient outcomes. Conversely resilient outcomes should increase over time when caregivers have the personal qualities that enable them to seek support from their social network. This prediction is formalized in H4.

H4: Caregivers' physical and mental health; individual growth, and management of distress over time are predicted by caregivers' face concerns, privacy concerns, emotional interference, communication efficacy, and support seeking.

Qualities that Affect Network Members' Tendency to Provide Support

Qualities of support providers are equally relevant to the stressed individual's likelihood of securing support. Supportive attempts become complicated when interacting with individuals experiencing extreme tragedy or non-normative stress. Support providers report feeling uncertain about what to say or do, and often feel anxious about the delicate nature of the situation given that an inappropriate comment or behavior may intensify the distress of the support target (Wortman & Lehman, 1985). Indeed, support efforts in non-normative circumstances are still generally reported as insufficient (Dunkel-Schetter & Skoan, 1990). A relatively unexamined

area that may affect the resilience of the distressed includes network members' perceptions of the circumstances surrounding the stressor and their ability to assist the distressed. Extant research indicates that network members' are generally motivated to help distressed friends and family. Moreover, they understand their ability to provide network support (Dunkel-Schetter & Skoan, 1990). Thus, variables that examine network members' motivation and ability to provide support are discussed next.

Controllability and Blame

Perceptions of controllability and blame are key factors that may impact whether support providers decide to engage in supportive efforts (Brickman, Rabinowitz, Karuza, Coates, Cohn & Kidder, 1982). Controllability refers to the notion that individuals can be held responsible for influencing events. Blame, in contrast, indicates when individuals are held responsible for creating problems (Brickman et al., 1982). Specifically, perceptions of controllability and blame in this context are related to observations about distressed individuals' capacity and effort to control the problem, as well as their responsibility for the source and resolution of the problem (Betancourt, 1990; Schmidt & Weiner 1988).

Numerous empirical studies have highlighted attributions of control and blame as key variables that influence one's motivation to offer help to distressed individuals; however findings are mixed regarding the quality and type of support that follows. For instance, individuals have been found to offer support to distressed others who are active in employing problem-solving behaviors to ameliorate their situation (Schwarzer & Weiner, 1991). Similarly, helpers who perceive support-seekers as having greater responsibility for their situation are less willing to provide quality emotional support (MacGeorge, 2001). Indeed, continued solicitation of support over time has been found to pose a significant threat to the structure of a person's support

network and thus affects subsequent perceived or actual support (Barrera, 1986; Quittner, Glueckauf, & Jackson, 1990). Although speculative, continued solicitations may be viewed by support providers as an indication of inability to cope with distress. Thus, findings indicate that support providers are more motivated to help distressed individuals who offer signals that they are taking control of their stressor; conversely, support providers are less motivated to help distressed individuals who are perceived as capable of affecting the outcome of their distress, but are unwilling to do so.

Relational Norms

Each relationship and situation holds certain behavioral attributes, which regulate the conduct of the individuals involved. These attributes can be referred to as relational norms, or similar patterns of feelings, thoughts, and behaviors which are not unique to the individual, but rather unique to the relationship and situation at hand (Hogg & Reid, 2006). Thus, support seeking requests and opportunities to provide support surface as a result of the norms that have been established within the relationship based on past interactions and role obligations.

According to Barbee and Cunningham (1995) the best predictor of the subsequent behavior of a support provider are their interaction partners' previous behaviors. For example, the history of a support provider's exchanges with the distressed individual may increase or decrease their perceived ability to provide support. For example, frustration that past supportive efforts have not met expectations (Fiore et al., 1983), succeeded, or been received in a welcome manner may impact future efforts to help (Bennett & Dunkel-Schetter, 1990).

Norms of social responsibility indicate that we tend to feel responsible for those individuals who depend on us (Dunkel-Schetter & Skokan, 1990; Schwartz, 1970). This dependence may be based on the nature of the relationship (e.g. family, friend), or the

relationship role of the provider (e.g. mother, sister, friend, neighbor). Indeed, several studies indicate the intensity of motivation to assist another is likely increased by individuals in a 'natural' network (Thoits, 1995). In addition, the provider's past experience with the stressor may also influence their tendency to provide support. Whereas support providers without experience may be hesitant to offer support due to a perceived or real lack of competence in their ability to offer meaningful assistance (Jung, 1985), individuals who have faced similar stressors are more likely to offer support that provides a best fit to the emotional and practical needs of the distressed individual (Cohen & McKay, 1984; Jung, 1985). For instance, support providers' experiences with drug abuse or bereavement were associated with greater support efforts to those experiencing that same stress, than support providers without this relevant experience (Dunkel-Schetter, 1990). This perceived ability to offer appropriate support may be particularly important in the context of supporting distressed individuals given the discomfort that has been associated with communicating with those in the throes of an extremely distressful event. Although numerous interventions suggest affiliation with relevant support groups, few studies have examined how the relevance of these networks affects caregivers' perceptions of support, support providers' perceptions of support, and how these factors interact to create resilient outcomes.

In summary, this section explored the qualities of social network members' that influence network members' motivation and ability to provide support. Prior research leads me to conclude that a network member's tendency to provide support will be less likely when both blame and lack of effort to control distress levels can be attributed to caregivers. Relational norms between caregiver and network members that are built upon past experiences and role obligations and opportunities, may all play a part in a network members' perception that they have not just a

right, but an obligation to provide support as it is a norm that is allowable in the relationship. Furthermore, network members will be more likely to offer support when they assess that they have a normative right to provide support in their relationship. Formally stated:

H5: Network members' attributions and perceptions of blame are negatively associated with network members' proclivity to provide support.

H6: Network members' perceptions of relationship closeness and relational standing to provide support, are positively associated with network members' proclivity to provide support.

The hypotheses presented in this section address how qualities of social network members' shape network members' motivation and ability to provide support to caregivers. In a fourth hypothesis, I connect network members' proclivity to provide support to the development of caregivers' resilient outcomes over time. As mentioned previously, resilience is represented in physical and mental health, individual growth and management of distress in the face of ongoing threats to well-being. A wealth of empirical studies have consistently linked network support to mental health and well-being (Uchino, 2009; see also (Burlinson, 1994; Sarason, Saranson & Pierce, 1990; Wellman & Wortley, 1990). Simply put, caregivers who have network members who are inclined to provide them support may be more likely to benefit from resiliency. This prediction is formalized in H7.

H7: Caregivers' physical and mental health; individual growth, and management of distress over time are predicted by caregivers who have network members who are willing to provide support.

Interactions between Caregivers and Network Members

Thus far, this chapter has focused on caregiver's intention to communicate with their social networks and network members' inclination to engage in supportive efforts with the distressed individual. In this section, I address characteristics of interactions and promote resilience processes. Specifically, I outline dimensions of support seekers' communication that influence support providers' provision of support.

Caregiver Disclosiveness in Interactions with Social Network Members

According to Wheelless (1978), disclosiveness refers to one's predisposition to disclose or be open to others. Other work has measured self-disclosure by looking at dimensions such as the amount of disclosure, the honesty or accuracy of the disclosure, and the depth or intimacy of the message being disclosed (Martin, et al. 1997; Martin, Anderson & Mottet, 1999; Wheelless, 1978). In the context of providing quality support, the honesty or intimacy of distressed individuals' disclosures is especially beneficial to network members as it provides the information needed to construct more comforting messages to the distressed individual. Indeed, communication satisfaction has been linked with both the amount of disclosures, as well as the honesty of disclosures (Martin & Anderson, 1995). A support seeker's disclosiveness is especially likely to shape the support provider's ability to craft person-centered support messages.

Messages that are highly person-centered include those that "acknowledge, elaborate, legitimize and contextualize the feelings of the other" (Jones & Burleson, 1997, p. 530) as opposed to low person-centered messages that "deny or challenge the legitimacy of the other's feelings, ignore the other's feelings, or tell the other how he or she should feel" (p. 531). Moderate person-centered messages include those that implicitly acknowledge feelings by

offering distractions, expressions of condolence, or explanations for situations that would reduce the effects of the stressor (Bodie et al., 2011). This definition of person-centered messages implies that support providers have the requisite information about the distressful context to offer either low, moderate or high person-centered messages. Self-disclosure facilitates the production of person-centered messages which are experienced as more supportive.

A meta-analysis of verbal person-centered messages conducted by High and Dillard (2012) demonstrated that within their study, verbal person centered messages were universally associated with positive social support outcomes. According to Jones, individuals' evaluations of highly person centered messages are reported as more "appropriate, sensitive, effective and helpful" than low person centered messages (2004, p. 341). Specifically, this research indicated that not only did high person centered messages make participants feel better, but they also helped alleviate negative feelings experienced by participants. As such, it would be reasonable to conclude that increased levels of self-disclosure from support seekers results in increased overall perceptions of supportiveness.

Caregivers' Emotional Interference in Interactions with Social Network Members

As indicated previously, strong emotional states affect the fluency of an individual's message (Alm, 2004; Butler, Egloff, Wilhelm, Smith, Erickson, & Gross, 2003) and as such may complicate the transmission of desired support seeking messages. According to Jung (1987), support providers may feel alienated or discouraged from providing support to recipients in a negative affective state, especially one that may be heightened because of the distress they are experiencing (see also, Coyne, 1976). Thus, caregivers' who demonstrate emotional control are more likely to benefit from their support seeking interactions than those caregivers who exhibit a lack of emotional control as this has been shown to result in network members' feeling flooded

and subsequently acting distant and withdrawn (Bodie et al., 2011). A support seeker's inability to exert emotional control about their distress is especially likely to influence the authenticity of the support provider's communication.

Researchers have examined the authenticity construct in various ways. For example, remaining attentive physically and mentally, as well as signaling interest in the topic, relationship, and situation (Coker & Burgoon, 1987) indicates a certain level of conversational involvement that indicates high levels of sensitivity to the situation and subsequent comfort (Burlleson, 1994). Numerous studies have identified the significance of "being there" in times of need (Burlleson & Goldsmith, 1998; Dakof & Taylor, 1990). This sense of authenticity may be based on sensitivity, relational context, situational context, and adherence to norms relative to the situation (Larson et al., 1978). For instance, support seekers have been found to question the authenticity or sincerity of support that is offered by friends and family due to the inherent obligations attached to these relationships (Jung, 1987). This finding may also help shed light on why family members and close friends are responsible for some of the most helpful and unhelpful responses to distress (Lehman et al. 1986). Finally, support providers' messages may be viewed as inauthentic, or even aversive with the use of minimization or patronizing statements especially when these statements do not meet caregivers' expectations for support (Canary & Spitzberg, 1987; Cutrona, 1996; see also, Jung).

Empirical studies on emotional disclosures indicate that interaction partners often respond to disclosures of this type with blocking behaviors (Wilkinson, 1991), distancing behaviors (Heaven et al., 1996) or conversational silence (Bruneau, 1973). Additionally, distressed individuals who have been described by providers as interacting in a 'depressed' manner are often isolated further as support providers find it unpleasant to engage with them

(Jung, 1987). In contrast, those individuals with greater social skills and an ability to address their stress in a competent manner in conversation attract more social support than those who are unable to do so (Eckenrode, 1983; Hansson, Jones & Carpenter, 1984; Sarason, Sarason, Hacker & Basham, 1985). Thus, I expect inability to exert emotional control over one's distress to affect the authenticity of support providers' responses as they engage in supportive interactions. More specifically, caregivers who express a lack of emotional control will be less likely to receive authentic support from their network members.

Caregivers' Explicitness in Interactions with Social Network Members

Explicitness is a message feature that has been found to influence clarity, comprehension (e.g., Brown & Levinson, 1987; Dillard, Wilson, Tusing, & Kinney, 1997; Solomon, 1997), levels of uncertainty and goal achievement (Knobloch, 2006). Explicitness has been defined as "the degree to which a message source makes his or her intentions transparent in the message itself" (Dillard, et al., 1997, p. 300). High levels of explicitness feature messages that are blunt and straightforward, whereas low levels of explicitness include those messages that are described as vague and unclear and as such, require greater interpretation.

Explicitness is a factor that may facilitate the reception of the kind of support the caregiver desires. Asking for specific forms of help, telling potential helpers about details of a problem, or producing obvious displays of distress are reflections of explicit requests for support. In contrast, distressed individuals implicitly indicate their need for support by hinting or sulking about a problem and making global complaints (Barbee & Cunningham, 1995; Sullivan, 1989). According to Barbee and Cunningham (1995), these indirect forms of requesting support fail to give providers the requisite information needed to communicate the desired comfort. As a result, the use of direct requests for support are more likely to result in desired forms of comfort than

indirect requests, which are often associated with avoidant forms of comfort (Sullivan, 1989). In addition, the use of positive support seeking behaviors, such as being open about the details of a stressor, is associated with receiving favorable or desired forms of comfort (Derlega, Barbee, & Winstead, 1994; Dyregrov, 2006).

Distressed individuals prefer varying types of support based on their circumstances (Xu & Burleson, 2002). As mentioned in chapter 1, previous research has identified five types of support: informational, instrumental, emotional, esteem and network support (Xu & Burleson, 2001). When a support provider is able to communicate the kind of support that is most desired by a support receiver, an effective supportive interaction has been achieved (Cutrona & Russell, 1990) and as a result, a number of resilient outcomes are possible. On the other hand, when receivers are not provided with the support they desire, they can experience increased stress, negative relational outcomes, (Barbee & Cunningham, 1995; Gottlieb & Wagner, 1991; Holmstrom, Burleson, & Jones, 2005) and detrimental mental health (Fiore et al., 1983; Rook, 1984).

In this section, I explored the ways in which disclosiveness, emotional interference, and explicitness by caregivers can, respectively, influence network members' supportiveness, authenticity, and discrepancy between network members' and caregivers' perceptions of caregivers' support type preferences. Network members are more capable of crafting messages that are perceived as supportive if caregivers are able to self-disclose information that provides them with the information necessary to engage in more supportive communication (Bodie et al., 2011). Authentic communication is likely hindered by powerful displays of caregivers' emotions, such that network members' might avoid, block or withdraw from supportive communication opportunities. Finally, caregivers' explicit communication is more likely to

provide the requisite information network members need in order to understand the type of support that has been requested. Thus, I predict the following:

H8: Caregivers' self-disclosure is positively associated with support network members' supportiveness.

H9: Caregivers' emotional interference is negatively associated with network members' authenticity.

H10: Caregivers' explicitness will vary as a function of discrepancy between network members' and caregivers' perceptions of caregivers' preferences for support type.

Although the effects of supportive messages seem largely beneficial, scholars who study non-normative stress indicate that two of the benefits of highly person-centered messages may be exceedingly problematic for distressed individuals in the context of non-normative stress. First, a reported concern of distressed individuals is the experience of "forced cheerfulness" (Peters-Golden, 1982). Researchers who examine support providers' reactions to those in life crises have found that support providers tend to direct conversations away from negative feelings. Research suggests that this optimism, designed to direct grief to a more cheerful disposition, has been regarded as unhelpful as breast cancer patients reported, these attempts at "cheerfulness... eclipsed the opportunity to reveal and discuss their true feelings" (Peters-Golden, p. 486). Thus, messages that may be perceived as moving too quickly to discuss positive emotions may result in a negative reaction. Second, Jones and Wirtz (2006) suggest that person-centered messages, a feature of supportive messages, indicate the support provider understands the distressed individual's feelings. Scholars who study non-normative stress indicate that messages of this type are largely unhelpful and seen as disingenuous as non-normative events are atypical in nature (Lehman et al., 1986).

These disparate views on supportive messages also align with in-group and out-group research that indicates that quality of support and perceived support availability often hinges on the relevance of a network members' experience to the stressor (Lehman et al., 1986; Weber & Solomon, 2008). Thus, it is reasonable to believe that even the highest quality supportive messages from network members who are not part of the wounded warrior or larger military in-group will be met with dissatisfaction. I predict that the context of non-normative stress modifies the effect of supportive messages such that supportive messages may in fact elicit a negative evaluation from caregivers.

The aforementioned hypotheses from this section speak to how network members' provision of support is influenced by the ways in which caregivers communicate their supportive needs. In two subsequent hypotheses, I link these factors to the development of caregivers' resilient outcomes over time. As illustrated previously, extant research indicates that qualities of the support seeker will influence the interactions with their social network members, I propose that the network members' subsequent use of supportive messages, authenticity as well as the discrepancy between network members' and caregivers' perceptions of caregivers' preferences for support type, will predict resilient outcomes over time. As such, I offer the following hypotheses:

H11: Caregivers' perception of network members' authenticity and discrepancy between network members' and caregivers' perceptions of caregivers' preferences for support type are positively associated with caregiver's resilient outcomes over time.

H12: Caregivers' perception of network members' supportiveness are negatively associated with caregivers' resilient outcomes over time.

Together, the hypotheses proposed in this chapter address two areas of inquiry. First, the quality and diversity of support offered by networks is often overlooked by scholars who study resilience. Instead, studies of resilience tend to focus solely on individual characteristics or individual dyadic relationships (Bonnano, 2000). Second, the examination of both provider and support receiver is necessary to provide a cohesive understanding of how partners attempt to manage a distressed individual's resilience. Generally, scholars who study social support examine outcomes from the perspective of either the recipient or the provider, thus losing the valuable information that is offered by understanding what happens as the support process unfolds.

This chapter reviewed characteristics of caregivers, network members, and interactions that contribute to resilience. First, I presented the resilient outcomes of mental and physical health, individual growth, and management of distress over time which emerge despite the non-normative stressors faced by caregivers. Then I discussed face-concerns, privacy, and emotional interference as features that may impact a caregivers' communication self-efficacy. Following this, I investigated perceptions of blame, emotional interference, relational norms, and network members' standing as qualities of social network members' that influence a network members' tendency to provide support. Finally, I explored self-disclosure, emotional interference, and explicitness as factors of caregivers that influence supportiveness, authenticity of network members' support, and the reception of the kind of support the caregiver desires. In total, this chapter advanced twelve hypotheses, which arose from my integration of research on social support, coping, social networks, and resilience. In the next chapter I provide a description of the methods I use to test these hypotheses.

CHAPTER 4

In the previous chapters, I introduced the focus of this dissertation, which is to examine the factors that promote resilience in spousal caregivers of wounded warriors. More specifically, I reviewed the literature on individual resiliency factors and resilience processes, which can be understood in the examination of non-normative stressors. I also reviewed how resilience emerges in social support from social networks as both network member and spousal caregiver coordinate supportive efforts to relieve distress. In chapter 3, I deduced hypotheses about the associations between factors that affect caregivers' engagement with their networks, factors that affect the tendency of network members to provide support, and communication characteristics of the interaction that influence resilience through support. In the current chapter, I describe the methodology that I used to test those predictions.

Method

To test the proposed hypotheses, I conducted a study of spouses and significant others living with and caring for a wounded warrior. The data collection occurred in three phases. In the first phase, I collected information from caregivers, which included soliciting the identities of up to six of their social network members. Phase two focused on gathering information from those network members, who described an interaction that occurred with the caregivers and reported on perceptions of the caregiver/network member relationship. Finally, phase three involved contacting the caregivers once again to collect their views of interactions reported by the network members and report on the caregivers' perceived stress level and current well-being.

Participants

Participants included 74 caregiver and network member pairs. Caregivers were recruited through a number of strategies. The first step of recruitment occurred through official channels at

Headquarters Marine Corps, in Washington DC. Several contacts facilitated recruitment of spousal caregivers of wounded warriors from the ranks of the Wounded Warrior Regiments (WWR) on both the East and West coasts. Recruitment through official channels included information announced in base-sponsored spouse websites, wounded warrior caregiver 'group' facebook pages, and wounded warrior caregiver distribution email lists. In addition, several family support groups that serve wounded warrior families facilitated recruitment through their web-sites and newsletters as well as distribution lists. To advertise the study, flyers, or Internet postings indicated that \$75 would be offered to spousal caregivers for their participation in a study of communication with family and friends. All posters, flyers, and announcements provided a phone number for interested parties to call and an email address for those who chose to email. Volunteers were informed about the length of the study, that several members of their network would be involved, and upon completion of the study, network members would receive \$25 for participating.

A total of 161 caregivers (157 females, 4 males) responded to the initial call to participate. Of the 161 caregivers, participants ranged in age from 22-58 years old ($M = 36.65$, $SD = 7.79$). The majority of caregivers self-identified as Caucasian ($n = 132$); 15 were Hispanic, 8 were African American, 3 were Native American, 3 were Asian, and 6 identified as "other." Of the 161 caregivers in the original participant pool, 117 identified as Christian, 10 reported that they were protestant, 1 was Jewish, 1 was Islamic, 1 was Buddhist, 2 were Atheist, 22 reported no religion, and 7 identified as "other." Most caregivers reported they earned between \$40,000-\$69,999 annually ($n = 75$); 38 reported earnings of \$70,000-\$99,999, 30 caregivers reported earning between \$25,000-39,999, 11 caregivers indicated earning less than \$24,999 and 7 reported earning more than \$100,000. The majority of caregivers completed some college

education ($n = 55$); 32 graduated college with an Advanced Associates degree, 25 graduated college with a bachelor of arts or sciences, 20 earned a graduate or professional degree, 17 graduated from high school, 10 completed some graduate or professional school, and 2 completed some high school.

All caregivers were in a committed relationship, with 152 being married and 9 being in a “serious committed, long-term relationship.” The length of the relationship ranged from 1 month to 20 or more years ($M = 5.83$, $SD = 1.846$). The majority of participants reported that this was their first marriage ($n = 112$); 49 reported that it was not their first marriage. Of those who had been married previously, 38 had been married only one time previously, 7 had been married twice previously, and 4 had been married 3 or more times. The majority of caregivers had 3 or more children ($n = 61$); 44 reported they had 2 children, 28 reported they had one child, 20 reported no children, and 8 reported “other.”

The majority of caregivers reported that their wounded, injured or ill servicemember was a member of the Army when the injury occurred ($n = 90$); 33 were Marines, 24 were Airmen, 10 were Sailors, and 4 identified that their servicemember was part of the National Guard. When asked the current status of their significant other’s service, the majority reported that they were medically retired from service ($n = 70$), 46 reported their significant other was still active duty, 19 were retired from the military, 15 were reservists, 4 were still active with the national guard, and 6 reported “other.” The years of military service for caregivers’ servicemember ranged from 2 to 35 years ($M = 11.62$, $SD = 7.08$). The majority of the 161 caregivers reported that their servicemembers suffered from PTSD; other ailments, which were not mutually exclusive, included TBI, back injury, hearing injury, sleep disorders, burns, amputations, and paralysis.

Upon completion of the first survey, caregivers were directed to the second portion of phase 1 of the study, which required them to report on a relationship with a network member. Of the 161 caregivers who began the study, 127 completed the second half of phase 1. The length of relationships with network members ranged from 1 to 58 years. The majority of caregivers reported on a friend ($n = 54$); 27 reported on a parent, 19 identified a sibling, 1 reported on a neighbor, and 26 indicated the individual was “other” (5 spouses, 8 children, 13 extended family members).

All of the network members identified by the 127 caregivers were invited to participate in the study. No responses were obtained from the network members of 45 caregivers, which left 82 caregivers (74 Females, 8 Males) who had at least one network member participate in phase two of the procedures. The bulk of caregivers had only one network member complete phase 2 ($n = 48$). For that reason, I focused on caregiver-network member dyads rather than caregiver-network relations. For caregivers who had more than one network member response, I randomly chose one of the network member responses to include in further analyses. The majority of network members identified as Caucasian ($n = 70$), 6 were African American, 5 were Hispanic, and 1 identified as ‘other.’ Ages ranged from 18-85 years old ($M SD$). The majority of network members identified as Christian ($n = 65$), 4 reported that they were Protestant, 1 was Buddhist, 10 reported no religion and 2 identified as ‘other’. Most network members reported they earned between \$40,000-\$69,999 annually ($n = 25$), 16 reported earnings of \$70,000-\$99,999, 13 network members reported earning between \$25,000-39,999, 18 network members indicated earning less than \$24,999 and 10 reported earning more than \$100,000. The majority of network members completed some college education ($n = 28$), 14 graduated college with an advanced associates degree, 7 graduated college with a bachelor of arts or sciences, 4 earned a graduate or

professional degree, 15 graduated from high school, 11 completed some graduate or professional school and 3 completed some high school. Most of these network members were immediate family members ($n = 36$), 33 were friends, 6 were extended family members, 2 were co-workers, and 8 identified as 'other' (2 spouses, 5 in-laws, 1 co-worker). The majority of network members reported they had daily contact with the caregiver ($n = 42$), 30 reported contact 'a few times a week', 9 reported they had contact 'every other week', and 1 reported contact 'once a month.'

At the start of phase three, the 82 caregivers who had network member responses were contacted to complete the final survey comprising phase three. Seventy-seven caregivers completed the first survey in phase three and 75 subsequently completed the final survey and 74 completed the entire study. Of the initial 161 caregivers who answered the initial call, 74 completed all the surveys and had at least one network member participate.

Thus, the final sample included caregivers (72 Female, 2 Male) whose age ranged from 23-58 years old ($M = 36.47$, $SD = 8.19$). The majority of caregivers self-identified as Caucasian ($n = 59$); 7 were Hispanic, 3 were African American, 3 were Native American, 1 was Asian, and 3 identified as "other." Fifty-seven identified as Christian, 5 reported that they were protestant, 10 reported no religion, and 2 identified as "other." Most caregivers reported they earned between \$40,000-\$69,999 annually ($n = 32$); 20 reported earnings of \$70,000-\$99,999, 12 caregivers reported earning between \$25,000-39,999, 6 caregivers indicated earning less than \$24,999 and 4 reported earning more than \$100,000. The majority of caregivers completed some college education ($n = 26$); 14 graduated college with an advanced associates degree, 8 graduated college with a bachelor of arts or sciences, 14 earned a graduate or professional degree, 7 graduated from high school, 5 completed some graduate or professional school.

All caregivers were in a committed relationship, with 70 being married and 4 being in a “serious committed, long-term relationship.” The length of the relationship ranged from 1 month to 20 or more years ($M = 5.92$, $SD = 1.83$). The majority of participants reported that this was their first marriage ($n = 57$); 17 reported that it was not their first marriage. Of those who had been married previously, 15 had been married only one time previously, 1 had been married twice previously, and 1 had been married 4 or more times. The majority of caregivers had 3 or more children ($n = 31$); 23 reported they had 2 children, 11 reported they had one child, 9 reported no children, and 7 reported “other.”

The majority of caregivers reported that their wounded, injured or ill servicemember was a member of the Army when the injury occurred ($n = 40$); 16 were Marines, 11 were Airmen, 4 were Sailors, and 3 identified that their servicemember was part of the National Guard. When asked the current status of their significant other’s service, the majority reported that they were medically retired from service ($n = 35$), 23 reported their significant other was still active duty, 7 were retired from the military, 4 were reservists, 2 were still active with the national guard, and 3 reported “other.” The years of military service for caregivers’ servicemember ranged from 3 to 35 years ($M = 11.85$, $SD = 7.22$). The majority of the 74 caregivers reported that their servicemembers suffered from PTSD; other ailments, which were not mutually exclusive, included TBI, back injury, hearing injury, sleep disorders, burns, amputations, and paralysis. These participants will be the focus of the study.

Procedures

Caregivers who contacted the researcher via email or phone call and those who qualified for the study (based on marriage or long-term committed relationship and caring for a wounded warrior) were provided with a link to the study. The study began with an informed consent form,

which indicated the effects of the study, and explained that if they so desired, they could withdraw their participation at any time. After reading and signing the informed consent form, the first set of phase one questionnaires was distributed to caregivers of the wounded, injured, and ill. All individuals were instructed to complete these questionnaires alone and free from distraction.

The phase one questionnaire began with gathering information about the caregiver, including demographics, their perceptions of the quality of their relationship quality with the wounded warrior, general communication characteristics, and information about their perceived stress level and well-being. Phase one ended with a network member listing task. Specifically, caregivers were asked to indicate six individuals with whom they had a personal relationship and had interacted with in the last two weeks. Methods of contact could include face-to-face communication, texting, email, video-chat, or conversations that occurred over the telephone. After reporting on general characteristics of the relationship – such as length of relationship, nature of relationship, and the overall degree of closeness felt within the relationship – caregivers reported on their general perceptions of their communication with each nominated individual with regards to issues of privacy concerns, face concerns, communication efficacy, and frequency of support seeking.

In phase two, network members who were listed in the caregivers' network member listing task were contacted automatically via the Qualtrics survey platform, as well as by the primary investigator via email. Both methods provided the network members with information about the study and a link which brought them immediately to an informed consent page. The majority of network members began phase two within one week of the completion of phase one. The longest time interval between phases was six weeks. Once the individual network members

consented to participate they were automatically directed to the online survey. This questionnaire began with gathering demographic information from the network members. Then, open-ended descriptions of the conversation were collected to increase the salience of the experience. Network members were instructed to “describe a significant interaction during which the caregiver was discussing any stressful situation they were experiencing.” This interaction must have taken place within the last three weeks and may have taken place in person, over the phone, or via video chat, email or text. After describing this interaction, the network member was asked to complete measures intended to evaluate their perceptions of their relationship with the caregiver, as well as their opinions of their ability, obligation, or right to help with the challenges the caregiver experiences caring for a Wounded Injured and Ill servicemember. Additionally, network members’ proclivity to provide support and their perceptions of their interaction with the caregiver were assessed.

Within 48 hours of receiving a network member’s completed their questionnaire, caregivers were contacted via email and provided a link to the follow-on survey to complete phase three. The majority of caregivers completed procedures within one week; the longest interval taken to complete phase three was 15 days. First, caregivers were given another informed consent form to complete. Upon completion, they were provided with a verbatim description of the salient interaction reported by the network member, as well as some descriptive background about the interaction, to prompt recollection of the conversation. The description included details surrounding the context of the interaction, such as approximate time, date, subject matter, and mode of communication, that were copied directly from the network member’s responses. For each interaction, caregivers were asked whether they recalled the interaction. If so, they were instructed to report their recollection of the context surrounding the

interaction, as well as their perceptions of the communication that occurred. Caregivers who were unable to recall a similar interaction, were asked to report their recollection of a different salient interaction with the respective network member, and they answered the questions in the questionnaire accordingly. Subsequent questions solicited information from caregivers about the length of relationship with the network member, as well as the relationship role of that individual (i.e., parent, sibling, friend, neighbor). In addition, caregivers reported on their perceptions of communicative characteristics that occurred within the interaction, as well as those that occur with the network member in general.

To conclude phase three, caregivers were directed to a final questionnaire. The majority of caregivers responded within one week of receiving the prompt; the longest response interval was 19 days. This questionnaire gathered information to assess the caregivers' perceived stress level and current well-being.

Measures of Caregiver Resilience

In both phase one and phase three of the study, I included measures of individual growth, caregiver burden, mental and physical health, and perceived stress. These measures operationalize over time changes in well-being that are the focus of H4, H8, H14, and H15.

Individual growth. Ten items were adapted from the posttraumatic growth scale (Tedeschi & Calhoun, 2004) to assess the extent to which caregivers experienced interpersonal growth or positive change as a result of or despite their trauma. Caregivers employed a 7-point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*) where higher scores indicated greater growth. Items included statements such as "Because of my spouse's injuries, I know I can handle difficulties" and "I appreciate each day more than I did before my spouse was injured." Item and scale analyses indicated that inter-item consistency was improved by removing two items ("I

have established a new path for my life since my spouse was injured” and “Since my spouse’s injuries new opportunities are available which wouldn’t be otherwise”). Responses to the remaining 8 items were averaged to create a single composite score for individual growth in phase 1 ($M = 4.70$, $SD = 1.20$, $\alpha = .83$) and phase 3 ($M = 4.74$, $SD = 1.19$, $\alpha = .83$).

Caregiver burden. Management of distress was evaluated based on an adaptation of the caregiver appraisal scale (Hanks et al., 2007). The 10 items included questions about perceived burden, caregiving relationship satisfaction, caregiving ideology, and caregiving mastery. For example, caregivers evaluated statements such as “I can’t socialize with my friends because of my caregiving responsibilities” and “I am unable to manage all the various duties involved with being a caregiver.” Responses were recorded on 7-point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*), with higher scores indicating greater degrees of caregiving burden. Item and scale analyses indicated that inter-item consistency was improved by removing one item (“I am unable to manage all the various duties involved with being a caregiver”). Responses to the remaining 9 items were averaged to create a single composite score for caregiver burden in phase 1 ($M = 5.00$, $SD = 1.24$, $\alpha = .86$) and phase 3 ($M = 4.83$, $SD = 1.35$, $\alpha = .89$).

Physical and mental health. Physical health was evaluated by the extent that caregivers experienced various symptoms in the past month. In both phase one and phase three, participants were asked to report how many days in the past month they had experienced symptoms such as headache (phase 1: $M = 11.72$, $SD = 9.51$; phase 3: $M = 11.09$, $SD = 9.09$), stomach ache (phase 1: $M = 10.50$, $SD = 8.61$; phase 3: $M = 9.27$, $SD = 8.45$), shortness of breath (phase 1: $M = 8.83$, $SD = 9.99$; phase 3: $M = 7.21$, $SD = 8.88$), racing heart (phase 1: $M = 9.96$, $SD = 10.02$; phase 3: $M = 7.86$, $SD = 8.11$), and sore muscles (phase 1: $M = 16.33$, $SD = 10.44$; phase 3: $M = 14.56$, $SD = 10.94$). In addition, caregivers were also asked whether or not they sought medical

attention for these symptoms (phase 1: yes=35, no=39; phase 3: yes=28, no=46), and how many days out of the month they were unable to perform normal daily activities because of the reported symptoms in both phase one and phase 3 respectively (phase 1: $M = 3.23$, $SD = 6.33$; phase 3: $M = 3.49$, $SD = 6.44$).

To assess mental well-being, caregivers were provided a list of positive and negative adjectives to assess their affective state over the last three weeks (per Usala & Hertzog, 1989). For instance, participants rated their how often they were “cheerful,” “on edge,” “energetic,” and “resentful.” Response options were 1 = *not at all*, 2 = *occasionally accurate*, 3 = *frequently accurate* and 4 = *extremely accurate*). The positive adjectives formed three scales vigor (lively, full-of-pep and energetic); well-being (happy, pleased, and cheerful); calm (at ease, calm, and relaxed). The negative adjectives formed three scales: depression (sad, depressed, and unhappy); anxiety (on edge, nervous, and tense); and hostility (hostile, resentful, and angry). Responses were averaged to form subscale measures for both phase 1 and phase for *vigor* (phase 1: $M = 1.94$, $SD = .70$, $\alpha = .83$; phase 3: $M = 1.91$, $SD = 0.65$, $\alpha = .90$) *well-being* (phase 1: $M = 2.39$, $SD = 0.69$, $\alpha = .86$; phase 3: $M = 2.35$, $SD = 0.72$, $\alpha = .92$) *calm* (phase 1: $M = 2.02$, $SD = 0.69$, $\alpha = .84$; phase 3: $M = 2.02$, $SD = 0.69$, $\alpha = .88$) *depression* (phase 1: $M = 2.50$, $SD = 0.84$, $\alpha = .85$; phase 3: $M = 2.32$, $SD = 0.78$, $\alpha = .86$) *anxiety* (phase 1: $M = 2.81$, $SD = 0.79$, $\alpha = .82$; phase 3: $M = 2.59$, $SD = 0.83$, $\alpha = .88$) and *hostility* (phase 1: $M = 2.17$, $SD = 0.82$, $\alpha = .80$; phase 3: $M = 1.98$, $SD = 0.87$, $\alpha = .85$).

Distress level. The caregiver’s distress level was measured using a previously established measure of perceived stress (Cohen, Kamarck, & Mermelstein, 1983). The 14 items evaluated the participants’ stress levels over the previous month using items such as, “In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?”

and “In the last month, how often have you felt you were effectively coping with important changes that were occurring in your life?” Responses were recorded on a 5-point Likert-type scale (1 = *never*, 5 = *very often*), and some items were recoded so that higher values reflected greater perceived stress. Item and scale analyses indicated that inter-item consistency was improved by removing two items (“In the last month how often have you dealt successfully with irritating life hassles” and “In the last month, how often have you found yourself thinking about things that you have to accomplish?”). The responses to the remaining 12 items were averaged to create a composite measure of perceived stress in phase 1 ($M = 3.19$, $SD = 0.72$, $\alpha = .90$) and phase 3 ($M = 4.13$, $SD = 0.72$, $\alpha = .90$).

Measures of Caregivers’ Resilience Factors

The phase one questionnaires also included measures of five variables I previously linked to a caregiver’s resilience. Specifically, H1, H2, and H3 predict that a caregiver’s face concerns, privacy rules, and emotional interference influence communication efficacy, which in turn promotes support seeking in ways that contribute to resilient outcomes over time (H4). The measures utilized to assess these characteristics are described in this section.

Face concerns. Participants were asked to report the degree to which seeking support would threaten their face (1 = *strongly disagree*, 7 = *strongly agree*). Six items assessed face concerns that caregivers felt when seeking support. Examples of items include, “I feel as though people would judge me for seeking support,” and “Seeking support calls my competence into question.” The responses to each question were averaged to create a composite measure of face concerns present when seeking support ($M = 4.39$, $SD = 1.46$, $\alpha = .87$).

Emotional interference. Participants were asked to report how much emotions interfere with their ability to seek support (1 = *strongly disagree*, 7 = *strongly agree*). Five items assessed

this effect. Examples include, “My emotions would get in the way of talking to people who are close to me about things that bother me.” and “Talking about my stress with close family and friends is hard because I’m overwhelmed by my emotions.” The items were recoded so that higher values reflected a greater sense of emotional interference. The items were averaged to create a composite measure of emotional interference in general ($M = 4.15$, $SD = 1.20$, $\alpha = .71$).

Privacy concerns. Participants were asked to report how comfortable (1 = *strongly disagree* 7 = *strongly agree*) they were with seeking support despite privacy concerns. Five items adapted from Serewicz, Dickson, Morrison and Poole’s privacy orientation scale (2007) assessed this comfort level. Examples of items include, “I am concerned about revealing too much information about my situation” and “I like to be in control of who knows about my personal situation.” The items were recoded so that higher values reflected a greater desire for privacy. The responses to each question were averaged to create a composite measure of privacy needs ($M = 5.47$, $SD = 1.15$, $\alpha = .84$).

Communication efficacy. Communication efficacy was assessed using adjusted items from Makoul and Roloff’s (1998) measure of confrontation self-efficacy. Using a Likert-type scale (1 = *very strongly disagree*, 7 = *very strongly agree*) respondents provided answers to 11-items based on their agreement that seeking support would be “very easy.” Item and scale analyses indicated that inter-item consistency was improved by creating two subscales that reflect *efficacy* and *efficacy outcome*. A sample *efficacy* item included “It would be very easy for me to tell people/express feelings about my situation” and a sample *outcome* item included “The people I am close to would do anything to help me in my situation.” Additionally, removing one item from each subscale also improved inter-item consistency (“If I talked with friends or family about my situation, I would feel better” and “I would have no trouble reminding others that I’m

experiencing a lot of stress”). The responses to the remaining items were averaged to create a composite measures of each efficacy subscale (*efficacy* $M = 3.61$, $SD = 1.35$, $\alpha = .83$; *efficacy outcome* $M = 4.56$, $SD = 1.50$, $\alpha = .86$).

Support seeking. A four-item measure was created to assess participants’ general tendencies towards support seeking behaviors (1 = *strongly disagree*, 7 = *strongly agree*). For instance, participants were asked, “I talk to others frequently about things I need help with” and “Often I will ask people their opinion when I have a problem.” Some items were recoded so that higher values reflected a greater tendency towards support seeking. Item and scale analyses indicated that inter-item consistency was improved by removing two items (“I like to figure out how to handle problems on my own” and “I only talk to others when I need assistance”). The responses to the remaining 2 items were averaged to create a composite measure of support seeking behaviors in general ($M = 3.62$, $SD = 1.52$, $\alpha = .70$).

Measures of Network Members’ Supportiveness Factors

Network members were asked to complete five measures related to their proclivity to provide support. The caregiver’s blameworthiness, relationship closeness, network member’s standing, and network member’s proclivity to provide support were assessed through 7 point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*).

Perceptions of blame. Network members were asked to report on the extent to which they perceived that the caregiver is generally responsible for contributing to his or her own stress levels. Participants responded to 10 items such as “when she is feeling the stress of being a caregiver, she generally brings it upon herself” and “She has attempted to do something constructive in response to this situation.” Item and scale analyses indicated that inter-item consistency was improved by removing two items (“She contributes to the challenges she faces

as a caregiver” and “She is typically responsible when she is feeling stress as a caregiver”). The responses to the remaining questions were averaged to create a composite measure of ‘blameworthiness’ ($M = 3.60$, $SD = 0.70$, $\alpha = .89$).

Relationship closeness between network member and caregiver. Closeness was evaluated by 12 items selected from Dibble, Levine, and Park’s (2011) measure of unidimensional relationship closeness. Eleven items were used to evaluate closeness from the network member’s perspective. Network members and caregivers were asked to reflect on their relationship and indicate the extent to which they agreed with statements such as, “When we are apart, I miss her a great deal” and “My relationship with her is important in my life.” The responses to each question were averaged to create a composite measure of relational closeness from the network member’s perspective ($M = 6.08$, $SD = 0.74$, $\alpha = .90$).

Standing. This measure sought to index the relational standing of the network member to provide support to the caregiver from the perspective of the network member. Twelve items were measured through 7-point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*). Participants were asked to their agreement with statements such as “It is appropriate for me to offer assistance” and “She should be able to count on me for help.” Item and scale analyses indicated that inter-item consistency was improved by removing five items (“Other people are in a better position to help her than I am”, “I don’t feel like she wants help from me”, “I am better positioned than most to help her with the challenges that she experiences”, “I don’t feel like I should assume that I can help her”, and “I don’t feel obligated to help her”). The responses to the remaining questions were averaged to create a composite measure of ‘standing’ as perceived by the network member ($M = 5.97$, $SD = 0.77$, $\alpha = .77$).

Proclivity to provide support Ten items were adapted from the significant others scale (Power, Champion, & Aris, 1988) to measure the network member's general proclivity to provide support to the caregiver. Participants were asked items such as "I want to give help in an emergency to her" and "I want to give reassurance to her when needed." Item and scale analyses indicated that inter-item consistency was improved by removing one item ("I want to provide physical comfort to her"). The responses to the remaining items were averaged to create a composite measure of 'ability to provide support' ($M = 6.25$, $SD = 0.70$, $\alpha = .92$).

Measures of Resilience Processes

In chapter 3, I argued that caregivers' self-disclosure, emotional interference, explicitness, and perceptions of influence, respectively, the network member's supportiveness (H8), authenticity (H9), and provision of the desired support (H10) within the interaction in ways that affect markers of caregiver resilience over time (H12). Additionally, I suggested that caregivers' perception of network members' authenticity and discrepancy between network members' and caregivers' perceptions of caregivers' preferences for support type are positively associated with caregiver's resilient outcomes over time (H11). To index these qualities of the interaction, items included in phase two and phase three surveys operationalized the aforementioned six variables from both the caregiver and network members' perspective.

Explicit communication of support needs. This measure sought to index the caregiver's use of explicit support seeking communication within the interaction from the perspective of both the network member and the caregiver. Items were measured through 7-point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*). For the network member, five items were worded to provide face valid indicators of the caregiver's explicit support seeking communication. For instance, items included: "In this situation I was certain of her request for help" and "She didn't

come right out and say she needed anything.” For the caregiver, five items were worded to provide face valid indicators of caregivers’ perception of how explicit their support seeking communication was within the interaction. Examples include: “I didn’t come right out and say that I needed anything” and “In this situation, it was obvious that I was requesting help.” Items were recoded so that higher values reflected a greater perception of caregiver explicitness within the interaction. The responses to each question were averaged to create a composite measure of explicitness from both the network member perspective ($M = 4.69$, $SD = 1.32$, $\alpha = .80$) and caregiver perspective ($M = 4.25$, $SD = 1.33$, $\alpha = .80$).

Emotional interference. To assess the extent to which network member and caregivers perceived that the caregiver’s emotions influenced their ability to seek support within the interaction, four items were employed. Examples of items include, “During this interaction it seemed hard for her to manage her emotions when talking with me about her distress,” “During this interaction she was able to keep her emotions in check when talking to me about her personal situation,” “My emotions got in the way of talking to this person during the described interaction,” and “During this interaction I didn’t want to talk about my stress with this person because it aroused unpleasant emotions.” The responses were evaluated through 7-point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*), and items were recoded so that higher values reflected a greater sense of emotional interference. Item and scale analyses indicated that inter-item consistency was improved by removing one item (“I try to discuss my distress without revealing emotions during this interaction”). The responses to the remaining questions were averaged to create a composite measure of emotional interference perceived by the network member ($M = 2.66$, $SD = 1.41$, $\alpha = .88$), and by the caregiver ($M = 2.86$, $SD = 1.29$, $\alpha = .66$) both

within the interaction. Notably, the alpha for the emotional interference measure reported by the caregiver was lower than preferred.

Self-disclosure. Nine items evaluated the extent to which caregivers engaged in self-disclosure from both the perspective of the network member and from the perspective of the caregiver. These nine items comprised an adapted version of the abbreviated self-disclosure measure derived from Wheelles and Grotz (1976). For instance, network members were asked to indicate the extent to which they agreed with statements such as, “During this interaction, her disclosures of personal beliefs and opinions were always directly related to the conversation” and “During this interaction she was not always seemingly honest in her self-disclosures.” Alternatively, caregivers were asked to indicate the extent to which they agreed with statements such as, “My turn at talk lasted the least time when I was discussing myself” and “I did not feel completely sincere when I revealed my feelings, emotions, behaviors or experiences.” The responses were evaluated through 7-point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*), and items were recoded so that higher values reflected greater self-disclosure. Item and scale analyses indicated that inter-item consistency was improved by removing four items (“I did not often talk about myself”, “Once I got started, my self-disclosures lasted a long time,” “My disclosures of personal beliefs and opinions were always directly related to the conversation,” “When I revealed my feelings, I consciously intended to do”). The responses to the remaining questions were averaged to create a composite measure of self-disclosure perceived by the network member ($M = 5.15$, $SD = 1.17$, $\alpha = .75$), and by the caregiver ($M = 4.50$, $SD = 1.21$, $\alpha = .72$).

Supportiveness. To evaluate the presence of supportiveness within the interaction, network members were asked to rate their perception of their behavior during the interaction.

Subsequently, caregivers were asked to report their observations of supportive communication employed by network members. For this measure, fourteen items were included to gauge the extent to which support was conveyed in the interaction. For instance, network members were asked, “My behavior during this interaction was generally understanding” and “my behavior during this interaction was generally cold.” Caregivers were asked, “My interaction partner’s behavior during this conversation was insensitive” and “my interaction partner’s behavior during this conversation was caring.” The responses were evaluated through 7 point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*) and items were recoded so that higher values reflected greater supportiveness. The responses to each question were averaged to create a composite measure of supportiveness as perceived by the network member ($M = 6.03$, $SD = 0.86$, $\alpha = .94$), and by the caregiver ($M = 5.89$, $SD = 1.17$, $\alpha = .98$).

Authenticity. Ten items were included to gauge the extent to which both caregivers and network members felt network members’ behavior was authentic during the interaction. These items comprised an adapted version of Cupach and Spitzberg’s (1981) ratings of alter competence measure. Following the original source, the *Expressiveness* subscale of authenticity included questions for the network member such as, “I appeared tired and sleepy during this interaction” and “My voice was boring and monotonous during this interaction.” The responses were evaluated through 7 point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*). For those interactions that occurred in a context where auditory or visual judgements were not relevant (e.g. texting or email) participants were instructed to mark “not applicable” (8 = *not applicable*). Those cases ($n = 32$ caregivers and $n = 38$ network members) were dropped from the scale analysis and tests of H10. The responses to each question were averaged to create

composite measures for the *expressiveness* subscale (network member: $M = 6.06$, $SD = 1.02$, $\alpha = .85$; caregiver: $M = 6.23$, $SD = 1.05$, $\alpha = .91$).

Motivation to provide support within interaction. Both network members and caregivers were asked to reflect on the interaction and indicate the extent to which they felt the network member was inclined to support them in the interaction. Five items were included to assess this effect including statements such as, “In this interaction, this person/I didn’t want to offer me/my interaction partner assistance” and “In this situation, my interaction partner/I was motivated to help me/my interaction partner.” The responses were evaluated through 7 point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*) and items were recoded so that higher values reflected increased amounts of proclivity to provide support. Item and scale analyses indicated that inter-item consistency was improved by removing one item from both network member and caregiver scales (“I couldn’t bring myself to give her support” or “In this situation it seemed my interaction partner wasn’t inclined to give me support”). The responses to the remaining questions were averaged to create a composite measure of proclivity to provide support as perceived by the network member ($M = 6.13$, $SD = 1.02$, $\alpha = .83$), and by the caregiver ($M = 5.68$, $SD = 1.28$, $\alpha = .85$).

Discrepancy between network members’ and caregivers’ perceptions of the caregivers’ preferences for support type. Both network members and caregivers were asked to report how much the caregiver wanted instrumental, emotional, informational, network and esteem support within the interaction. Five items were used to assess these evaluations, one for each type of support. Items from the network members’ perspective included statements such as “She turned to me for advice and guidance on problems” and “She came to me for a ‘listening-ear’ or because she knew I’ll be ‘there.’” Items from the caregivers’ perspective included

statements such as “I asked this person for help with chores and errands” and “I went to this person because I wanted help with self-reflecting on my thoughts and actions”. The responses were evaluated through 7 point Likert scales (1 = *strongly disagree*; 7 = *strongly agree*).

H10 focused on the discrepancy between a caregiver’s desire for types of support and the network member’s perception of the caregiver’s desired support; therefore, I used both the caregiver and network member scores to operationalize discrepancy of perception. Specifically, I regressed the network members’ perception of the caregiver’s desire for each type of support onto the caregivers’ self-reported desire for that same type of support, and I used the residual variance as a variable reflecting discrepancy between the two perspectives. In total, I obtained a residual score for each type of support (instrumental, emotional, informational, network, esteem); because the residuals are standardized variables, $M = .0000$, $SD = 0.99$).

CHAPTER 5

The methods described in the previous chapter provided the data to test the hypotheses advanced in Chapter 3. In this chapter, I report the results of the preliminary analyses and the substantive analyses that test the hypotheses.

Results

To test the proposed hypotheses, I computed correlations, conducted regression analyses, and conducted SEM. The results are organized in terms of three sets of hypotheses. The first set addresses caregivers' resilience factors, the second set focuses on predictors and outcomes of network members' proclivity to provide support, and the final set examines caregivers' and network members' perceptions of a recent interaction with each other.

Tests of H1 – H4

H1 predicted that caregivers' face concerns, privacy rules, and emotional interference are negatively associated with caregivers' communication efficacy. H2 predicted that caregivers' communication efficacy is positively associated with the frequency of caregivers' support seeking attempts. H3 predicted that the association between caregivers' face concerns, privacy concerns, and emotional interference and frequency of support-seeking is mediated by caregivers' communication efficacy. Finally, H4 predicted that changes in caregivers' physical and mental health, individual growth, and management of distress over time are predicted by caregivers' face concerns, privacy concerns, emotional interference, communication efficacy, and support seeking. These predictions were tested using data from phase 1, in which caregivers responded to items about their perceptions of face concerns, privacy rules, emotional interference, and communication, in general, as well as indices of resilience outcomes. In

addition, data from the final survey allowed me to assess changes in resilience outcomes over time, as predicted by H4.

To test H1-H3, I first examined the bivariate relationships among caregivers' face concerns, privacy rules, emotional interference, expression efficacy, outcome efficacy, and support seeking behavior (see Table 1). Results showed a significant positive association between caregivers' face concerns and both privacy concerns and emotional interference, but privacy concerns and emotional interferences were not correlated. I also observed a significant positive association between expression and outcome efficacy. With regards to H1, I observed that caregivers' face concerns and privacy concerns are negatively associated with expression efficacy and outcome efficacy; whereas emotional interference was negatively and significantly associated with only outcome efficacy. Consistent with H2, the correlations revealed that caregivers' expression efficacy and caregivers' outcome efficacy were positively correlated with caregivers' frequency of support seeking. Finally, as preliminary evidence consistent with H3, I observed that face concerns and privacy concerns were negatively associated with support seeking.

To provide a more comprehensive test of H1, I performed two regression analyses. For the first analysis, the dependent variable was expression efficacy and the independent variables were face concerns, privacy concerns, and emotional interference. For the second regression analysis, the dependent variable was outcome efficacy and once again face concerns, privacy concerns and emotional interference were the independent variables (see Table 2). Both regression models explained a significant proportion of variance in the efficacy variable. As predicted, there was a negative association between caregivers' privacy concerns and communication efficacy, as well as a negative significant association between caregivers' face

concerns and outcome efficacy. The other predictor variables within each model were not significant. Thus, H1 was partially supported.

As noted previously, H2 was supported by evidence of the predicted positive association between caregivers' communication efficacy and support seeking attempts. To further examine H2, I conducted a regression analysis where support seeking was the dependent variable and expression and outcome efficacy were the independent variables. The overall model explained a significant amount of variance ($F(2, 71) = 33.41, p < .001, R^2 = .49$). I observed a significant and positive association between caregivers' efficacy expression and support seeking ($\beta = .64, t = 71, p < .001$); however, outcome efficacy was not significant in the model ($\beta = .15, ns$). With evidence that face and privacy concerns are negatively correlated with support seeking, partial support for H1, and support for H2, I turned to structural equation modeling to test H3.

A structural equation analysis of the set of relationships was conducted using AMOS 24.0. As Figure 2 shows, caregivers' face concerns, privacy concerns, and emotional interference were exogenous variables, expression efficacy and outcome efficacy were the mediators, and frequency of support seeking was the final outcome of interest. All of the constructs were treated as latent variables with a single indicator whose error variance was estimated as the product of $1 - \alpha$ times the observed variance of the scale. Exogeneous variables were allowed to correlate.

The fit statistics of the initial model were favorable: $\chi^2 = 3.35, df = 4, \chi^2/df = 0.84, TLI = 1.021, RMSEA = .00$. These values are well within the guidelines for acceptable fit as articulated by Browne and Cudeck (1993) and Kline (1998). Specifically: χ^2/df ratio of less than 3, TLI of at least .95, and RMSEA of less than .08. But, because several paths were nonsignificant, the model was modified to reflect that lack of association. One at a time, nonsignificant paths were removed and the model was re-run. The final obtained model fit the data well: $\chi^2 = 9.45, df = 9,$

$\chi^2/df = 1.05$, TLI = .99, RMSEA = .026 (90% confidence interval = .00/.13). All of the remaining directional paths in Figure 3 were significant at $p < .05$. Privacy and expression efficacy were negatively and significantly related. Efficacy was positively and significantly related to support seeking. Alternatively, face concerns and outcomes efficacy were negatively and significantly related. To test for mediation, a direct path was added in the final model from privacy concerns to support seeking. Results indicated that the path from caregivers' privacy concerns to support seeking was nonsignificant ($\beta = .05$). Thus, because the association between caregivers' privacy concerns and their frequency of support-seeking is mediated by caregivers' communication efficacy, H3 is supported.

To test H4, I first considered the association between the IVs and time 2 outcomes, controlling for resilience outcome levels at time 1. To evaluate these associations, I computed partial correlations between the independent variables and the outcome variables at time 2, while controlling for the corresponding outcomes variable at time 1 (See Table 3). This analysis showed that caregivers' face concerns were associated with a significant increase of anxiety at time 2, when controlling for anxiety at time 1 and tended to be associated with increased distress at time 2, when controlling for distress at time 1. Similarly, caregivers' privacy concerns were also associated with a significant increase of both anxiety and distress at time 2, when controlling for anxiety and distress at time 1. Finally, caregivers' expression efficacy tended to increase vigor and decreased physical symptoms in time 2, controlling for time 1. No other partial correlations within this analysis were significant.

To examine the predictor variables together within one analysis, I used hierarchical regression techniques (see Table 4). On step 1, I regressed one outcome variable as measured at time 2 (i.e., caregivers' individual growth, caregiver burden, vigor, well-being, depression,

anxiety, distress, and total physical symptoms) onto the same outcome variable so at time 1; this step controls for variance in the time 2 outcomes explained by resilience outcomes at time 1. As expected, all time 1 outcome variables accounted for a significant portion of the variance in the time 2 outcome variables. On step 2, I added face concerns, privacy concerns, and emotional interference to the regression model. This block contributed significantly to the proportion of variance in anxiety accounted for by the regression model; however, none of the individual predictor variables were statistically significant. Results for individual variables suggest that face and privacy concerns contribute to increases in anxiety. On step 3, expression efficacy and outcome efficacy were added to the analysis. Again, the outcome of anxiety was the only model that demonstrated a significant increase in the proportion of variance accounted for by the model. This effect was driven by a positive association between outcome efficacy and time 2 anxiety; a positive association between face concerns and time 2 anxiety was also documented. Finally, on step 4, I added frequency of support seeking to the regression model. No significant improvement in variance explained emerged for any of the resilience outcomes.

In summary, within the first set of hypotheses, which focused on the relationships between caregivers' resilience factors and caregivers' resilience outcomes, I observed partial support for H1, support for H2, support for H3, and partial support for H4. Specifically for H1, I observed a negative association between caregivers' privacy concerns and communication expression efficacy, as well as a negative significant association between caregivers' face concerns and communication outcome efficacy. H2 was supported by evidence of the predicted positive association between caregivers' communication efficacy and support seeking attempts. The SEM analysis illustrated that there was no evidence of mediation to support H3. For H4,

although there are not many significant effects exhibited through the analyses, I observed that face concerns and outcome efficacy tended to correspond with an increase in anxiety over time.

Tests of H5-H7

H5 predicted that network members' attributions and perceptions of blame are negatively associated with network members' proclivity to provide support. H6 predicted that network members' perceptions of relationship closeness and relational standing to provide support are positively associated with network members' proclivity to provide support. Finally, H7 predicted that changes in caregivers' physical and mental health, individual growth, and management of distress over time are predicted by network members' proclivity to provide them with support.

To test H5 and H6, I first examined the bivariate relationships among network members' perceptions of caregiver blame, relational closeness, and relational standing, and network members' proclivity to provide support (see Table 5). Results showed a negative and significant relationship between network members' perceptions of caregiver blame and perceptions of their own standing to provide support to the caregiver. Additionally, I observed a positive and significant relationship between network members' perceptions of their standing to provide support and their perceptions of closeness with the caregiver. Contrary to H5, the negative association between network members' perceptions of blame and network members' proclivity to provide support only approached statistical significance ($p < .08$). Consistent with H6, the correlations showed that network members' perceptions of relational closeness and standing to provide support were significantly associated with an increase in network members' proclivity to provide support.

To further test H5 and H6, I conducted a regression analysis in which the dependent variable was network members' proclivity to provide support and the independent variables were

perceptions of caregiver blame, relational closeness, and standing to provide support (see Table 6). The regression model explained a significant proportion of variance in the proclivity to provide support variable. Results indicated that network members' perceptions of caregivers' blameworthiness were not significantly associated with network members' proclivity to provide support. As predicted, relational closeness and a network members' perception of their own standing to provide support were significantly associated with increases in a network members' proclivity to provide support. Thus, H5 was not supported, whereas H6 was supported by both variables evaluated.

To test H7, I examined the association between the IVs and time 2 outcomes, controlling for resilience outcome levels at time 1. To evaluate these associations, I first computed partial correlations between the network members' supportiveness factors (i.e., blame, closeness, standing and proclivity to provide support) and the outcome variables at time 2 while controlling for the variables at time 1 (See Table 7). The results of this analysis showed significant associations for three outcome variables at time 2. No significant associations were observed for network members' perceptions of caregiver blame and any of the caregiver resilience outcomes at time 2. I observed a significant and positive correlation between network members' perceptions of relational closeness and increases in caregiver burden at time 2, as well as a marginally significant association between network members' perceptions of relational closeness and increases of caregivers' anxiety at time 2. Furthermore, I observed that network members' perceptions of their own standing to provide support tended to be associated with caregivers' increases in caregivers' vigor at time 2. Finally, network members' proclivity to provide support was significantly associated with increases in caregivers' burden and anxiety and marginally associated with increases in caregivers' depression at time 2.

Subsequently, I conducted a hierarchical regression analysis (see Table 8). On step 1, I regressed one outcome variable as measured at time 2 (i.e. caregivers' individual growth, caregiver burden, vigor, well-being, depression, anxiety, distress, and total physical symptoms) onto the same outcome variable measured at time 1. These analyses were identical to the first step of H4, and all time 1 outcome variables accounted for a significant portion of the variance in the time 2 outcome variables. On step 2, I added network members' perceptions of caregiver blame, relational closeness, and relational standing to the model. This step contributed significantly to the proportion of variance explained for the analysis focused on caregivers' vigor; however, no individual variables emerged as significant on this step of the analysis. I also observed a positive association between relational closeness and time 2 caregiver burden, although the overall improvement in variance explained by the model was not statistically significant. On step 3, network members' proclivity to provide support was added to the analysis. This step contributed significantly to the proportion of variance explained for the analyses focused on caregivers' vigor, depression, anxiety, and distress. Results indicated network members' perceptions of relational standing are associated with increases in caregiver vigor at time 2. Conversely, network members' proclivity to provide support was associated with decreases in caregiver vigor at time 2. Additionally, network members' proclivity to provide support was associated with increases in both time 2 anxiety and time 2 depression. Finally, relational closeness was associated in decreases in caregiver distress at time 2 and proclivity to provide support was associated with increases in caregiver distress. Because these patterns suggest that a network member's proclivity to provide support decrease vigor, and exacerbate anxiety, depression, and distress, H7 was not supported.

In review, within this set of analyses which focused on factors of network members' supportiveness, I observed that H5 was not supported, H6 was supported, and finally H7 was also not supported. Specifically, network members' perceptions of relational closeness and standing were positively and significantly associated with a network members' proclivity to provide support. Conversely, a network members' perception of caregivers' blameworthiness was only marginally associated with a network members' proclivity to provide support. Finally, I observed that, contrary to H7, network members' proclivity to provide support was associated with decreased caregiver vigor, and increases in anxiety, depression, and distress.

Tests of H8-H12

H8 predicted that caregiver self-disclosure is positively associated with network members' supportiveness. H9 predicted caregivers' emotional interference is negatively associated with network members' authenticity. H10 predicted that the discrepancy between the type of support network members' think the caregivers want and what the caregivers report they want will vary as a function of caregivers' explicitness. H11 predicted that caregivers' perception of network members' authenticity and discrepancy in perceptions of support sought are positively associated with caregivers' resilience outcomes over time. Finally, H12 predicted that caregivers' perception of network members' supportiveness is negatively associated with caregivers' resilience outcomes over time.

Recall that the procedures of the study enabled me to collect the perceptions relevant to these hypotheses from both the caregivers' and network members' points of view. In particular, caregivers' reported on their own level of self-disclosure, explicitness, and emotional interference during the interaction, and they evaluated their network member's supportiveness, authenticity of focus on them, and authenticity of expression. Focusing on that same interaction,

network members evaluated the caregiver's self-disclosure, explicitness, and emotional interference, and they reported on their own supportiveness, authenticity of focus on the caregiver, and authenticity of expression. In addition, as described in Chapter 4, I used the caregivers' and network members' reports of how much the caregiver wanted instrumental, emotional, informational, network, and esteem support to create an index of the discrepancy between the network members' and caregivers' perceptions of the caregivers' preferences. Gathering data from both perspectives on the interaction allowed me to use an actor-partner interdependence model to assess the hypotheses, while controlling for dependence in the dyadic data. As preliminary steps, I examined bivariate patterns first (See Table 9).

Observations of correlations within caregiver variables revealed numerous patterns in the data that were unrelated to the hypotheses. Caregivers' perceptions of self-disclosure were negatively associated with their own perceptions of how much emotions interfered with their ability to communicate with their partner, and positively associated with their perceptions of network members' authenticity of expression of support. Furthermore, caregivers' self-report of explicitness within the interaction was significantly and positively related to their perceptions of their network members' supportiveness. Conversely, a negative and significant association was observed between caregivers' self-perception of emotional interference and their perception of network members' supportiveness. Finally, I also observed a significant and positive association between caregivers' perceptions of network members' supportiveness and authenticity of expression.

Correlations within network members' perceptions of resilience processes showed that consistent with H8, network members' perceptions of caregivers' self-disclosure was positively and significantly correlated with their own perceptions of their supportiveness towards

caregivers. Additionally, consistent with H9, I observed network members' perceptions of caregivers' emotional interference was negatively associated with their expression of their authenticity within the interaction. A further examination of this analyses revealed other patterns in the data unrelated to the hypotheses. First, a network members' perception of caregivers' self-disclosure was negatively and significantly correlated with perception of network members' perceptions of caregivers' emotional interference when seeking support, and it was positively and significantly correlated with their expression of authenticity. Network members' perceptions of caregivers' explicitness was also revealed as positively and significantly correlated with network members' self-perception of supportiveness. I also observed network members' perceptions of caregivers' emotional interference was negatively associated with network members' perceptions of their supportiveness in the interaction. Finally, this analysis revealed that network members' perceptions of supportiveness were positively and significantly related to their own perceptions of authenticity expression.

A review of the analysis with regards to the variables that examine the discrepancy between types of support sought showed that counter to H10, network members' perceptions of caregivers' explicitness was positively and significantly correlated with discrepancy in perceptions of emotional, informational, and network support sought by the caregiver; however, I also observed other patterns in the data unrelated to this set of hypotheses. For instance, caregivers' perceptions of authenticity of expression were significantly and positively associated with discrepancy in perceptions of emotional and informational support. Correlations within network members' perceptions of resilience processes showed a positive and significant association between network members' perception of caregivers' self-disclosure and discrepancy in perceptions of emotional and informational support sought. The analysis also showed that

network members' perceptions of supportiveness were positively and significantly related to discrepancy in perceptions of emotional, informational, and esteem support sought. Finally, network members' perceptions of the authenticity of their expressions within the interaction were significantly and positively associated with the discrepancy in perceptions of emotional and informational support sought.

Next, although the findings were unrelated to this set of hypotheses, I examined the correlations between the caregivers' and the network members' perceptions of resilience processes during the interaction (i.e., caregivers' self-disclosure, caregivers' emotional interference, caregivers' explicitness, network members' supportiveness, network members' authenticity, and discrepancy in perceptions of support sought as perceived by the caregiver and network member) (See Table 10). Values on the diagonal show the correspondence between caregivers and network members making the same evaluation. Within this analyses I observed a significant and positive association between network members' and caregivers' perceptions of caregiver self-disclosiveness and explicitness. The results also revealed a significant and positive correlation between network members' and caregivers' perceptions of network members' supportiveness. Additionally, I observed a significant and positive association between network members' and caregivers' perceptions of authenticity of network members' expressions within the interaction. Furthermore, I observed a significant negative correlation between caregivers' perceptions of self-disclosure and network members' perceptions of caregivers' emotional interference. Furthermore, the analysis also showed a significant and positive association between caregivers' perception of network members' authenticity of expression within the interaction and network members' perceptions of caregivers' self-disclosure within the interaction, perceptions of their own supportiveness, and authenticity of expression.

A review of the discrepancy variables within the analysis also revealed other patterns in the data unrelated to the hypotheses besides the aforementioned findings regarding H10. For instance, the results revealed a significant positive correlation between the discrepancy of emotional support sought and network members' perceptions of caregiver self-disclosure, perceptions of their own supportiveness and authenticity expressions. Additionally, I observed a positive and significant association between the discrepancy of informational support sought and network members' perceptions of caregivers' self-disclosure, as well as perceptions of their own supportiveness and authenticity. Additionally, I observed a positive and significant association between discrepancy of esteem support sought and network members' perceptions of their own supportiveness. Finally, I observed a positive association between caregivers' perceptions of authenticity of expression in the interaction and discrepancy of emotional and informational support sought.

To shed light on H11 and H12, I first examined that association between both the caregivers' and network members' perceptions of the resilience processes and time 2 outcomes, controlling for resilience outcome levels at time 1. To evaluate these associations, I first computed partial correlations between the network members' perceptions of resilience processes (i.e., self-disclosure, explicitness, emotional interference, supportiveness, authenticity of expression and discrepancy variables) and the outcome variables at time 2 while controlling for the variables at time 1 (See Table 11). The results of this analysis showed significant associations for two outcome variables at time 2. Specifically, network members' perceptions of their own supportiveness towards the caregiver was significantly associated with increases in caregivers' vigor at time 2. Additionally, network members' perceptions of their own authenticity of expressions in the interaction were significantly associated with increases in caregivers' anxiety

at time 2. Marginal effects were also noted. Network members' perceptions of caregivers' self-disclosure within the interaction were associated with increases in vigor and well-being at time 2. Additionally, I observed a marginal association between network members' perceptions of both their own explicitness and caregivers' emotional interference and caregivers' vigor at time 2. Finally, discrepancy between caregivers' and network members' preferences for emotional support were significantly associated with increases in caregivers' vigor at time 2.

Caregivers' perceptions of resilience processes and their associations with caregivers' resilience outcomes were also reviewed (also in Table 11). This analysis yielded two significant effects. Specifically, caregivers' perceptions of their own explicitness within the interaction was significantly associated with decreases in individual growth at time 2. Additionally, I observed that caregivers' perceptions of network members' authentic expression within the interaction were significantly associated with increases in caregivers' depression at time 2. Two marginal effects were also uncovered. Caregivers' perceptions of their own emotional interference was associated with decreases in caregivers' vigor at time 2. Additionally, caregivers' perceptions of network members' authenticity of expression was associated with increases in individual growth at time 2. Finally, discrepancy between caregivers' and network members' preferences for emotional support were significantly associated with increases in caregivers' vigor at time 2.

The data set included evaluations of the interaction from the perspectives of both the caregiver and network member; therefore I conducted an alternative test of H11 and gained preliminary insight into H12 using an actor-partner interdependence model (APIM) to control for dependence in the dyadic data. Figure 4 shows the general model used to examine the role of network member's supportiveness and authenticity. Specifically, the caregiver's and network member's evaluations of the caregiver's communication (i.e., self-disclosure and emotional

interference) are the exogenous variables. Paths then link the exogenous variables to caregiver and network member evaluations of the network member's supportiveness and authenticity during the interaction. Separate models evaluated the associations between self-disclosure and supportiveness (per H8) and emotional interference and authenticity (per H9). Finally, perceptions of the network member's supportiveness or authenticity were linked to a variable representing the variance in time 2 resilience outcomes, after covarying the corresponding time 1 variable. The eight resilience outcomes were each evaluated in a separate model.

The fit statistics of the initial models for the resilience outcomes of vigor, well-being, and distress were favorable as determined by the guidelines for acceptable fit as articulated by Browne and Cudeck (1993) and Kline (1998). The fit statistics for the model for the resilience outcome of physical symptoms was also favorable, though there were no significant paths. For the outcomes of depression and anxiety, because several paths were nonsignificant, the model was modified to reflect that lack of association. One at a time, nonsignificant paths were removed and the model was re-run. The fit statistics for all 8 models are summarized in Table 12.

The patterns of association revealed in these analyses for H9 and H11 are summarized in Table 13. Path a reflects caregiver actor effects, or the association between caregivers' evaluations of their own communication behavior and their evaluations of the network members' supportiveness or authenticity. Similarly, path b reflects network member actor effects. Partner effects are indexed by paths that link the caregivers' self-assessments to the network member's self-assessment (path c) or the network member's assessment of the caregiver to the caregiver's assessment of the network member (path d). Paths e and f reflect the resilience outcome effects

of, respectively, the caregiver's and network member's assessments of the network member's communication during the interaction.

These analyses revealed that there was no association between caregivers' self-disclosure and support network members' supportiveness and as such, H8 was not supported. For H9, although there were no partner effects, actor effects showed both network members' perceptions of caregivers' emotional interference corresponds with authenticity of network members' communication. In support of H11, I observed three significant paths. Both caregivers and network members' authenticity had significant paths to caregivers' vigor. Similarly, both caregivers and network members' authenticity had significant paths to caregivers' anxiety. There was also a direct path from caregivers' perception of their own emotional interference to their anxiety. Finally, caregivers' perceptions of network members' authenticity had a significant path to caregivers' depression. There was also a direct path from caregivers' emotional interference to depression. There were no partner effects for any of these three models.

I also gained insight into H10 using an APIM to control for dependence in the dyadic data. Specifically, the caregivers' and network members' perception of caregivers' explicitness are the exogenous variables. Paths then link the exogenous variables to a discrepancy variable representing the discrepancy between network members' and caregivers' preferences for support type. Finally, the discrepancy variable was linked to a variable representing the variance in time 2 resilience outcomes, after covarying the corresponding time 1 variable (per H11). The five discrepancy variables and eight resilience outcomes were each evaluated in separate models.

The fit statistics of the instrumental growth model, all caregiver models, all vigor models except the instrumental vigor model, all depression models, all anxiety models, all distress models, and all physical symptom models were acceptable as articulated by Browne and Cudeck

(1993) and Kline (1998). For those models that had paths which were nonsignificant, the model was modified to reflect that lack of association. One at a time, nonsignificant paths were removed and the model was re-run. Model fit indices are summarized in Table 14.

The patterns of association revealed in these analyses are summarized in Table 15. Analyses of H10 uncovered caregivers' perspectives of their own explicitness was associated with decreases in discrepancies between network member and caregivers' perceptions of emotional, informational and esteem support for all outcome models. Whereas an examination of network members' perspectives of caregivers' explicitness was linked to increases in discrepancies between network member and caregivers' perceptions of emotional, informational, network and esteem support for all models, with the exception of the well-being outcome. Regarding H11, these analyses revealed that increases in caregivers' vigor was associated with discrepancies between network member and caregivers' perceptions of emotional, informational, network, and esteem support. Additionally, discrepancies in emotional support were also linked to increases in both anxiety and distress for the caregiver. The APIM analyses also uncovered that the linear association between both caregivers' and network members' perceptions of network members' supportiveness and the caregivers' resilient outcomes was nonsignificant.

Finally, I conducted a hierarchical regression analysis to assess whether there was a nonlinear association between caregivers' and network members' perceptions of network members' supportiveness and caregivers' resilient outcomes, as predicted by H12. On step 1, I regressed one outcome variable as measured at time 2 (i.e. caregivers' individual growth, caregiver burden, vigor, well-being, depression, anxiety, distress, and total physical symptoms) onto the same outcome variable measured at time 1. These analyses were identical to the first step of H4 and H7, and all time 1 outcome variables accounted for a significant portion of the

variance in the time 2 outcome variables. On step 2, I separately added caregivers' and network members' perceptions of their own supportiveness to the model. For network members' perceptions of their own supportiveness, this step contributed significantly to the proportion of variance explained for the analysis focused on caregivers' vigor ($F(2, 71) = 19.50, p < .001, R^2 = .34$). Results indicated that network members' perceptions of their supportiveness are associated with increases in caregivers' vigor at time 2 ($\beta = .27, p < .01$). On step 3, the quadratic variable representing caregivers' and network members' perceptions of supportiveness was squared to assess whether there was a curvilinear effect to the results. For caregivers' perceptions of network member supportiveness, this step only approached statistical significance of the proportion of variance explained for the analyses focused on caregivers' growth ($F(3, 70) = 23.77, p = .09, R^2 = .48$). Results indicated caregivers' perceptions of network members' supportiveness result in a positive beta and thus produced a U-shaped curve. Specific to H12, because these patterns suggest that caregivers' perceptions of network members' supportiveness are not associated with caregivers' resilient outcomes over time, H12 was not supported.

Table 1.

Correlations among Caregivers' Face Concerns, Privacy Concerns, Emotional Interference, Expression Efficacy, Outcome Efficacy, and Support Seeking

Variables	1	2	3	4	5	6
Face Concerns	--					
Privacy Concerns	.59***	--				
Emotional Interference	.26*	.05	--			
Expression Efficacy	-.36**	-.50***	-.20	--		
Outcome Efficacy	-.41***	-.24*	-.24*	.26*	--	
Support Seeking	-.24*	-.39***	-.11	.68***	.31**	--

Note. $N=74$.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 2.

The Regression of Expression Efficacy and Outcome Efficacy onto Face Concerns, Privacy Concerns, and Emotional Interference

	Expression Efficacy	Outcome Efficacy
R ²	.28***	.19**
Face Concerns	-.04	-.37**
Privacy Concerns	-.46***	-.02
Emotional Interference	-.17	-.14

Note. $N = 74$. Cell entries for the variables are standardized slopes.

** $p < .01$. *** $p < .001$.

Table 3.

*Partial Correlations between Caregivers' Resilience Factors and Caregivers' Resilience**Outcomes at Time 2 Controlling for Caregivers' Resilience Outcomes at Time 1*

Outcomes at Time 2	Face Concerns	Privacy Concerns	Emotional Interference	Expression Efficacy	Outcome Efficacy	Support Seeking
Individual Growth	.14	.05	-.01	.07	-.09	.10
Caregiver Burden	.05	-.04	-.15	-.03	.12	-.12
Vigor	-.16	-.15	-.16	.23†	.09	.21
Well-Being	.04	-.12	-.11	-.03	.03	-.05
Depression	.19	.15	-.03	-.07	.05	-.17
Anxiety	.29*	.28*	-.04	-.07	.18	-.03
Distress	.23†	.27*	-.04	-.10	.11	-.10
Physical Symptoms	.12	.18	.04	-.23†	-.20	-.21

Note. $N=74$.

* $p < .05$, † $p < .10$

Table 4.

The Regression of Time 2 Caregivers' Resilience Outcomes onto the Caregivers' Face Concerns, Privacy Concerns, and Emotional Interference

	Individual Growth	Caregiver Burden	Vigor	Well-Being	Depression	Anxiety	Distress	Physical Symptoms
Step 1:								
R ²	.48***	.70***	.29***	.39***	.47***	.39***	.64***	.75***
Outcome at T1	.69***	.83***	.53***	.63***	.69***	.63***	.80***	.87***
Step 2:								
R ² Δ	.01	.01	.06	.02	.03	.07*	.03	.01
Outcome T1	.70***	.82***	.48***	.59***	.65***	.56***	.77***	.88***
Face Concerns	.10	.10	-.08	-.10	.18	.17	.10	-.00
Privacy Concerns	-.03	-.06	-.07	.06	.00	.14	.11	.11
Emotional Interference	-.01	-.03	-.19	-.10	-.11	.00	-.02	.04
Step 3:								
R ² Δ	.00	.01	.01	.00	.01	.06*	.01	.01
Outcome T1	.70***	.83***	.47***	.59***	.66***	.55***	.77***	.88***

Table 4 Continued

	Individual Growth	Caregiver Burden	Vigor	Well-Being	Depression	Anxiety	Distress	Physical Symptoms
Face Concerns	.10	.12	-.04	-.08	.20	.27*	.14	-.02
Privacy Concerns	-.02	-.09	-.03	.03	-.02	.15	.14	.08
Emotional Interference	-.01	-.03	-.16	-.10	-.01	.04	.01	.02
Expression Efficacy	.04	-.07	.09	-.05	-.05	.02	.06	-.08
Outcome Efficacy	-.02	.07	.09	.06	.06	.26**	.11	-.02
Step 4:								
R ² Δ	.00	.00	.01	.01	.02	.00	.00	.00
Outcome T1	.70***	.84***	.49***	.58***	.69***	.55***	.77***	.88***
Face Concerns	.09	.13	-.05	-.06	.22	.27*	.15	-.02
Privacy Concerns	-.01	-.10	-.02	.02	-.04	.15	.14	.08
Emotional Interference	-.01	-.03	-.16	-.09	-.01	.04	.01	.02
Expression Efficacy	-.02	-.02	.02	.04	.07	.02	.08	-.08
Outcome Efficacy	-.03	.09	.07	.08	.10	.26**	.12	-.03
Support Seeking	.68	-.09	.12	-.15	-.20	-.01	-.03	.01

Note. $N = 74$. Cell entries for the variables are standardized slopes.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5.

Correlations among Network Members' Perceptions of Caregiver Blame, Relational Closeness, Standing, and Network Members' Proclivity to Provide Support

Variables	1	2	3	4
Caregiver Blame	--			
Relational Closeness	-.16	--		
Relational Standing	-.31**	.44***	--	
Proclivity to Provide Support	-.21	.75***	.58***	--

Note. $N=74$.

** $p < .01$, *** $p < .001$.

Table 6.

The Regression of Network Members' Proclivity to Provide Support onto Network Members' Perceptions of Caregiver Blame, Relational Closeness, and Relational Standing

	Proclivity to Provide Support
R ²	.65***
Caregiver Blame	.01
Relational Closeness	.61***
Relational Standing	.32***

Note. $N = 74$. Cell entries for the variables are standardized slopes.

*** $p < .001$.

Table 7.

Partial Correlations between Network Members' Supportiveness Factors and Caregivers' Resilience Outcomes at Time 2 Controlling for Caregivers' Resilience Outcomes at Time 1

Outcomes at Time 2	Caregiver Blame	Relational Closeness	Standing to Provide Support	Proclivity to Provide Support
Individual Growth	-.08	.03	.12	-.00
Caregiver Burden	.09	.26*	.17	.36**
Vigor	-.18	.17	.23‡	-.04
Well-Being	-.06	.01	.11	-.10
Depression	-.08	.02	.08	.23‡
Anxiety	-.15	.21‡	.11	.37**
Distress	-.14	-.10	.03	.10
Physical Symptoms	-.04	-.19	-.08	-.06

Note. $N=74$.

* $p < .05$. ** $p < .01$. ‡ $p < .10$.

Table 8.

The Regression of Time 2 Caregivers' Resilience Outcomes onto the Network Members' Proclivity to Provide Support

	Individual Growth	Caregiver Burden	Vigor	Well-Being	Depression	Anxiety	Distress	Physical Symptoms
Step 1:								
R ²	.48***	.69***	.28***	.39***	.46***	.39***	.64***	.75***
Outcome at T1	.69***	.83***	.53***	.63***	.68***	.63***	.80***	.87***
Step 2:								
R ² Δ	.02	.03	.08*	.01	.00	.03	.01	.01
Outcome T1	.68***	.84***	.51***	.60***	.68***	.65***	.80***	.86***
Caregiver Blame	-.07	.06	-.09	-.04	-.03	-.09	-.06	-.04
Relational Closeness	-.01	.15*	.06	-.01	-.02	.15	-.06	-.05
Relational Standing	.10	.02	.21	.10	.00	-.01	-.02	-.04
Step 3:								
R ² Δ	.01	.01	.04*	.02	.05**	.07**	.02*	.00
Outcome T1	.68***	.84***	.50***	.61***	.72***	.69***	.83***	.86***
Caregiver Blame	-.06	.06	-.09	.12	-.04	-.10	-.06	-.04

Table 8 Continued

	Individual Growth	Caregiver Burden	Vigor	Well-Being	Depression	Anxiety	Distress	Physical Symptoms
Relational Closeness	.09	.06	.26	.12	-.25	-.12	-.22*	-.09
Relational Standing	.15	-.03	.31**	.16	-.12	-.13	-.10	-.07
Proclivity to Provide Support	-.15	.14	-.33*	-.22	.38**	.43**	.25*	.08

Note. $N = 74$. Cell entries for the variables are standardized slopes.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 9.

Correlations among Caregivers' and Network Members' Perceptions of Resilience Processes

	SD	EX	EM	SU	A:E	INS	EMO	INF	NET	EST
Self-Disclosure	--	.17	-.37***	.42***	.48***	-.09	.40***	.26*	.00	.09
Explicitness	.04	--	.18	.30**	.06	.02	.26*	.49***	.36**	.16
Emotional Interference	-.31**	-.12	--	-.29**	-.36**	.20	-.02	.04	.14	.05
Supportiveness	.17	.36**	-.57***	--	.49***	-.21	.56***	.47***	.04	.27**
Authenticity: Expression	.29*	-.10	-.24	.31**	--	-.24	.25*	.27*	-.04	.02
Instrumental Support Discrepancy	.04	.12	-.00	.02	-.02	--	-.16	-.05	.42***	.12
Emotional Support Discrepancy	.02	-.04	-.03	.02	.32**	-.16	<i>1</i>	.56***	.05	.50***
Informational Support Discrepancy	-.01	.01	.03	.06	.27*	-.05	.56***	<i>1</i>	.31**	.38***
Network Support Discrepancy	-.03	.09	.11	-.08	-.03	.42***	.05	.31**	<i>1</i>	.20
Esteem Support Discrepancy	.00	-.08	-.03	.01	.09	.12	.50***	.38***	.20	<i>1</i>

Note. $N = 74$. Values below the diagonal represent correlations among the variables for the caregivers' perceptions of resilience processes within the interaction. Values above the diagonal represent correlations among the variables for the network members' perceptions of the resilience processes within the interaction. SD = Self-Disclosure; EX = Explicitness; EM = Emotional Interference;

SU = Supportiveness; A:E = Authenticity Expression; INS= Instrumental Support Discrepancy; EMO = Emotional Support Discrepancy; INF = Informational Support Discrepancy; NET = Network Support Discrepancy; EST = Esteem Support Discrepancy.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 10.

Correlations between Caregivers' perceptions of Resilience Processes and Network Member perceptions of Resilience Processes

Caregivers' Perceptions of Resilience Processes	Network Members' Perceptions of Resilience Processes									
	SD	EX	EM	SU	A:E	INS	EMO	INF	NET	EST
Self-Disclosure	.32**	.17	-.35**	.05	.18	.04	.02	-.01	-.03	.00
Explicitness	.01	.47***	.17	.04	.02	.12	-.04	.01	.01	-.08
Emotional Interference	-.10	-.05	.20	-.11	-.04	-.00	-.03	.03	.11	-.03
Supportiveness	.11	.18	-.07	.26*	.09	.02	.02	.06	-.08	.01
Authenticity: Expression	.32**	.13	-.24	.43***	.42***	-.02	.32**	.27*	-.03	.09
Instrumental Support Discrepancy	-.09	.02	.20	-.21	-.24	--	--	--	--	--
Emotional Support Discrepancy	.40***	.26*	-.02	.56***	.25*	--	--	--	--	--
Informational Support Discrepancy	.26*	.49***	.04	.47***	.27*	--	--	--	--	--
Network Support Discrepancy	.00	.36**	.14	.04	-.04	--	--	--	--	--
Esteem Support Discrepancy	.09	.16	.05	.27*	.02	--	--	--	--	--

Note. $N = 74$. SD= Self- Disclosure; EX = Explicitness; EM = Emotional Interference; SU = Supportiveness; A:E = Authenticity Expression; INS= Instrumental Support Discrepancy; EMO = Emotional Support Discrepancy; INF = Informational Support Discrepancy; NET = Network Support Discrepancy; EST = Esteem Support Discrepancy.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 11.

Partial Correlations between Network Members' and Caregivers' Perceptions of Resilience Processes and Caregivers' Resilience Outcomes at Time 2 Controlling for Caregivers' Resilience Outcomes at Time 1

Network Members' Perceptions										
Outcomes at Time 2	Self Disclosure	Explicitness	Emotional Interference	Supportiveness	Authenticity: Expression	INS	EMO	INF	NET	EST
Individual Growth	-.20	-.04	.03	-.03	.21	-.09	-.03	-.00	.05	.12
Caregiver Burden	.08	-.14	-.15	.14	.09	-.08	-.01	-.10	-.10	-.05
Vigor	.23†	.23†	-.24†	.25*	.06	-.13	.29*	.19	.13	.20
Well-Being	.21†	.03	-.04	.05	.13	-.05	.10	.16	-.07	.03
Depression	.07	-.06	-.13	-.05	.15	.02	.03	-.06	-.18	.02
Anxiety	.08	-.03	-.07	.11	.32*	.01	.20	-.03	-.14	.09
Distress	-.04	.12	.01	.03	-.14	.15	.11	.03	.13	.02
Physical Symptoms	-.04	.11	.03	.08	.10	-.09	.19	.14	-.14	.08
Caregivers' Perceptions										
Outcomes at Time 2	Self Disclosure	Explicitness	Emotional Interference	Supportiveness	Authenticity: Expression	INS	EMO	INF	NET	EST

Table 11 Continued.

Outcomes at Time 2	Caregivers' Perceptions									
	Self Disclosure	Explicitness	Emotional Interference	Supportiveness	Authenticity: Expression	INS	EMO	INF	NET	EST
Individual Growth	.05	-.37**	.20	-.16	.22‡	-.09	-.03	-.00	.05	.12
Caregiver Burden	-.06	-.05	.10	.10	.12	-.08	-.01	-.10	-.10	-.05
Vigor	.19	.04	-.22‡	.07	.16	-.13	.29*	.19	.13	.20
Well-Being	.12	-.13	.13	-.07	-.02	-.05	.10	.16	-.07	.03
Depression	.13	.09	.02	-.04	.32**	.02	.03	-.06	-.18	.02
Anxiety	.13	.07	.11	.00	.15	.01	.20	-.03	-.14	.09
Distress	.10	.11	.09	.12	.12	.15	.11	.03	.13	.02
Physical Symptoms	.11	.01	.10	-.04	.08	-.09	.19	.14	-.14	.08

Note. $N=74$. INS= Instrumental Support Discrepancy; EMO = Emotional Support Discrepancy; INF = Informational Support Discrepancy; NET = Network Support Discrepancy; EST = Esteem Support Discrepancy.

* $p < .05$. ** $p < .01$. *** $p < .001$. ‡ $p < .10$

Table 12.

Fit Statistics of H9 and H11 Models

Fit Statistics					
Outcomes at	χ^2	DF	P-value	TLI	RMSEA
Time 2					
Individual Growth	4.18	2	.12	.57	.13
Caregiver Burden	3.10	2	.21	.73	.10
Vigor	2.57	2	.28	.89	.07
Well-Being	1.72	2	.42	1.08	.00
Depression	2.20	4	.70	1.15	.00
Anxiety	.31	1	.58	1.25	.00
Distress	2.64	2	.27	.85	.07
Physical Symptoms	1.45	2	.49	1.15	.00

Table 13.

Associations between Perceptions of Emotional-Interference, Authenticity, and Time 2 Outcomes after covarying Time 1.

Outcomes at Time 2	Path Coefficients					
	A	B	C	D	E	F
Individual Growth	-.23	-.47***	.02	-.18	.21‡	.20
Caregiver Burden	-.26	-.46***	-.01	-.18	.05	.02
Vigor	-.28‡	-.47***	-.18	-.04	.25*	.26*
Well-Being	-.26	-.46***	-.18	-.02	.03	.07
Depression	-.31*	-.42***	--	--	.45**	--
Anxiety	-.26*	-.45*	-.17	-.02	.26*	.34*
Distress	-.27‡	-.46***	-.18	-.02	.05	-.19
Physical Symptoms	-.26	-.46***	-.18	-.02	.01	.08

Note. $N=74$. Cell entries are the model coefficients

* $p < .05$. ** $p < .01$. *** $p < .001$. ‡ $p < .10$.

Table 14.

Fit Statistics of H10 Models

Fit Statistics					
Outcomes at	χ^2	DF	P-value	TLI	RMSEA
Time 2					
Individual Growth- INS	.99	1	.32	1.00	.00
Individual Growth- EMO	.00	0	--	--	--
Individual Growth- INF	.00	0	--	--	--
Individual Growth- NET	6.29	2	.04	.68	.19
Individual Growth- EST	.00	0	--	--	--
Caregiver Burden- INS	2.16	2	.34	.97	.04
Caregiver Burden- EMO	1.65	2	.44	1.04	.00
Caregiver Burden- INF	1.35	2	.51	1.05	.00
Caregiver Burden- NET	2.35	2	.50	1.06	.00
Caregiver Burden- EST	2.23	2	.33	.97	.04
Vigor- INS	7.02	2	.03	.27	.20
Vigor- EMO	3.60	2	.17	.85	.12
Vigor- INF	2.55	2	.28	.96	.07
Vigor- NET	4.73	2	.19	.88	.10
Vigor- EST	5.22	2	.07	.67	.16
Well-Being- INS	1.29	2	.53	1.14	.00
Well-Being- EMO	1.67	2	.44	1.04	.00
Well-Being- INF	1.67	2	.44	1.03	.00

Table 14 Continued.

Outcomes at	Fit Statistics				
	χ^2	DF	P-value	TLI	RMSEA
Time 2					
Well-Being- NET	2.32	2	.51	1.06	.00
Well-Being- EST	5.22	2	.07	.67	.16
Depression- INS	.77	3	.86	1.32	.00
Depression- EMO	.22	2	.89	1.25	.00
Depression- INF	.19	2	.91	1.16	.00
Depression- NET	.87	3	.83	1.20	.00
Depression- EST	.04	2	.98	1.29	.00
Anxiety- INS	.62	3	.89	1.34	.00
Anxiety- EMO	1.06	2	.59	1.11	.00
Anxiety- INF	.45	2	.80	1.13	.00
Anxiety- NET	.65	3	.88	1.24	.00
Anxiety- EST	.11	2	.95	1.29	.00
Distress- INS	1.96	3	.58	1.13	.00
Distress- EMO	.57	2	.75	1.17	.00
Distress- INF	.64	2	.73	1.12	.00
Distress- NET	1.77	3	.62	1.12	.00
Distress- EST	1.29	2	.53	1.10	.00
Physical Symptoms- INS	1.89	2	.49	1.02	.00
Physical Symptoms- EMO	1.36	2	.49	1.08	.00

Table 14 Continued.

Fit Statistics					
Outcomes at	χ^2	DF	P-value	TLI	RMSEA
Time 2					
Physical Symptoms- INF	.78	2	.49	1.10	.00
Physical Symptoms- NET	3.79	3	.49	.93	.07
Physical Symptoms- EST	1.43	2	.49	1.08	.00

Note. INS= Instrumental Support Discrepancy; EMO = Emotional Support Discrepancy; INF = Informational Support Discrepancy; NET = Network Support Discrepancy; EST = Esteem Support Discrepancy.

Table 15.

Associations between Perceptions of Explicitness, Discrepancies between Support Preferences and Time 2 Outcomes after covarying Time 1.

Outcomes at Time 2	Path Coefficients		
	A	B	C
Individual Growth- INS	--	--	--
Individual Growth- EMO	-.50*	.63**	.02
Individual Growth- INF	-.59**	.90***	--
Individual Growth- NET	-.16	.47*	.05
Individual Growth- EST	-.56**	.52*	.02
Caregiver Burden- INS	-.50	.63	-.10
Caregiver Burden- EMO	-.50*	.63**	-.10
Caregiver Burden- INF	-.59**	.90***	-.12
Caregiver Burden- NET	--	.36**	-.09
Caregiver Burden- EST	-.56**	.52*	-.01
Vigor- INS	.28	-.16	.01
Vigor- EMO	-.50*	.63**	.35**
Vigor- INF	-.58**	.90***	.31**
Vigor- NET	--	.36**	.30*
Vigor- EST	-.56**	.52*	.28*
Well-Being-INS	.29	-.16	-.10
Well-Being-EMO	-.50**	.63	.00

Table 15 continued.

Outcomes at Time 2	Path Coefficients		
	A	B	C
Well-Being-INF	-.59**	.90***	.01
Well-Being-NET	--	.36**	-.11
Well-Being-EST	.13	-.03	.03
Depression- INS	.17	--	-.07
Depression- EMO	-.50*	.63**	.04
Depression- INF	-.59**	.90***	.02
Depression- NET	--	.36**	-.18
Depression- EST	.52*	-.05**	-.05
Anxiety- INS	.17	--	-.06
Anxiety- EMO	-.50*	.63**	.27*
Anxiety- INF	-.59**	.90***	.10
Anxiety- NET	--	.36*	-.11
Anxiety- EST	-.56**	.52*	.07
Distress- INS	.17	--	.09
Distress- EMO	-.50*	.63**	.26*
Distress- INF	-.59**	.90***	.12
Distress- NET	--	.36**	.06
Distress- EST	-.56**	.52*	.03

Table 15 continued.

Outcomes at Time 2	Path Coefficients		
	A	B	C
Physical Symptoms- INS	.29	-.16	.00
Physical Symptoms- EMO	-.50*	.63**	.10
Physical Symptoms- INF	-.59**	.90***	.15
Physical Symptoms- NET	--	.36**	-.12
Physical Symptoms- INS	.52*	-.56**	.10

Note. $N=74$. Cell entries are the model coefficients

* $p < .05$. ** $p < .01$. *** $p < .001$. † $p < .10$.

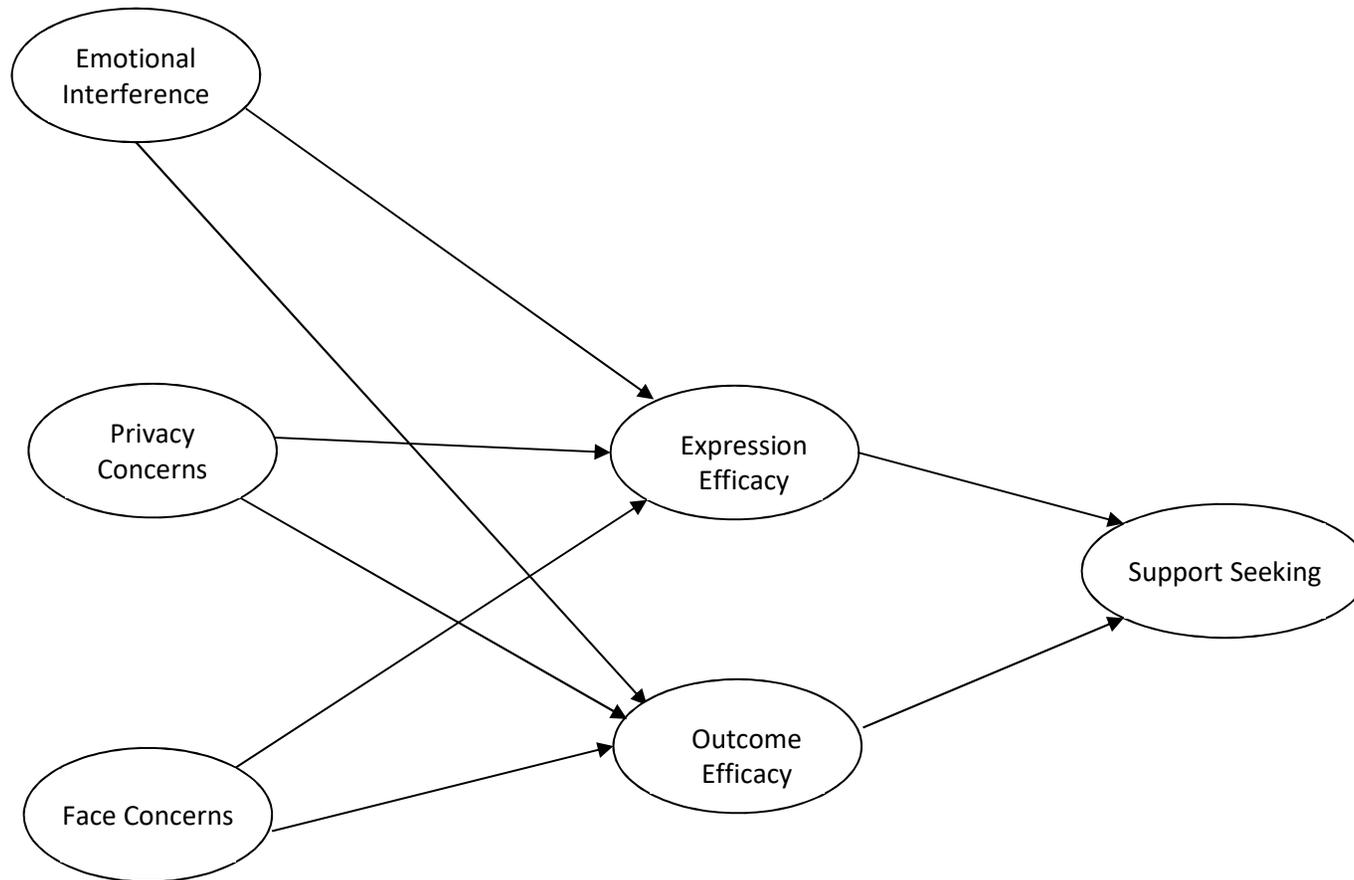


Figure 1. *Caregiver Resilience Factors Predicting Support Seeking*

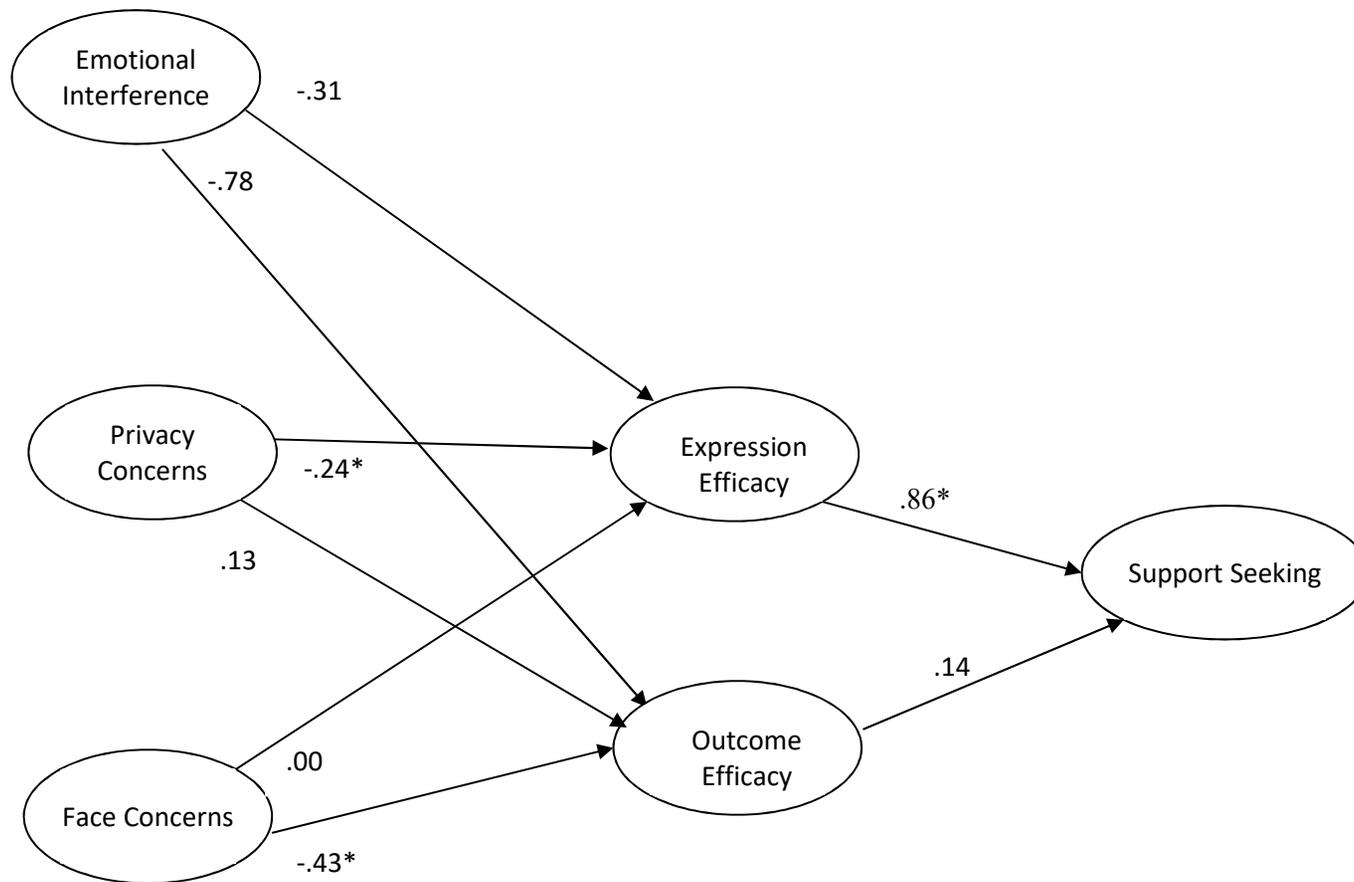


Figure 2. *Structural Equation Model of Caregiver Resilience Factors Predicting Support Seeking*

$\chi^2 = 3.35$, $df = 4$, $\chi^2/df = 0.84$, TLI = 1.021, RMSEA = .00

* $p < .05$.

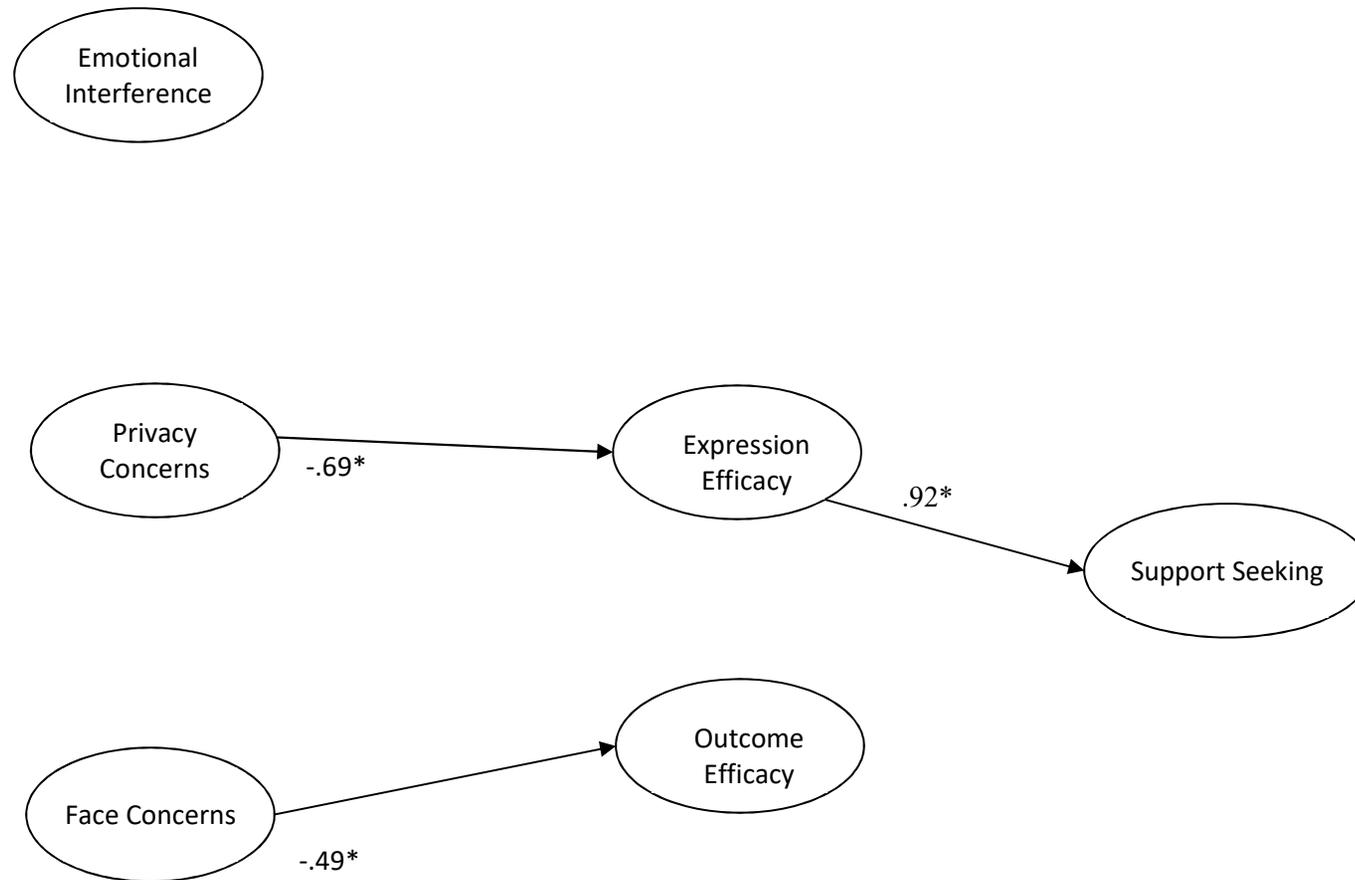


Figure 3. *Final Structural Equation Model of Caregiver Resilience Factors Predicting Support Seeking*

$\chi^2 = 9.45$, $df = 9$, $\chi^2/df = 1.05$, TLI = .99, RMSEA = .026

* $p < .05$.

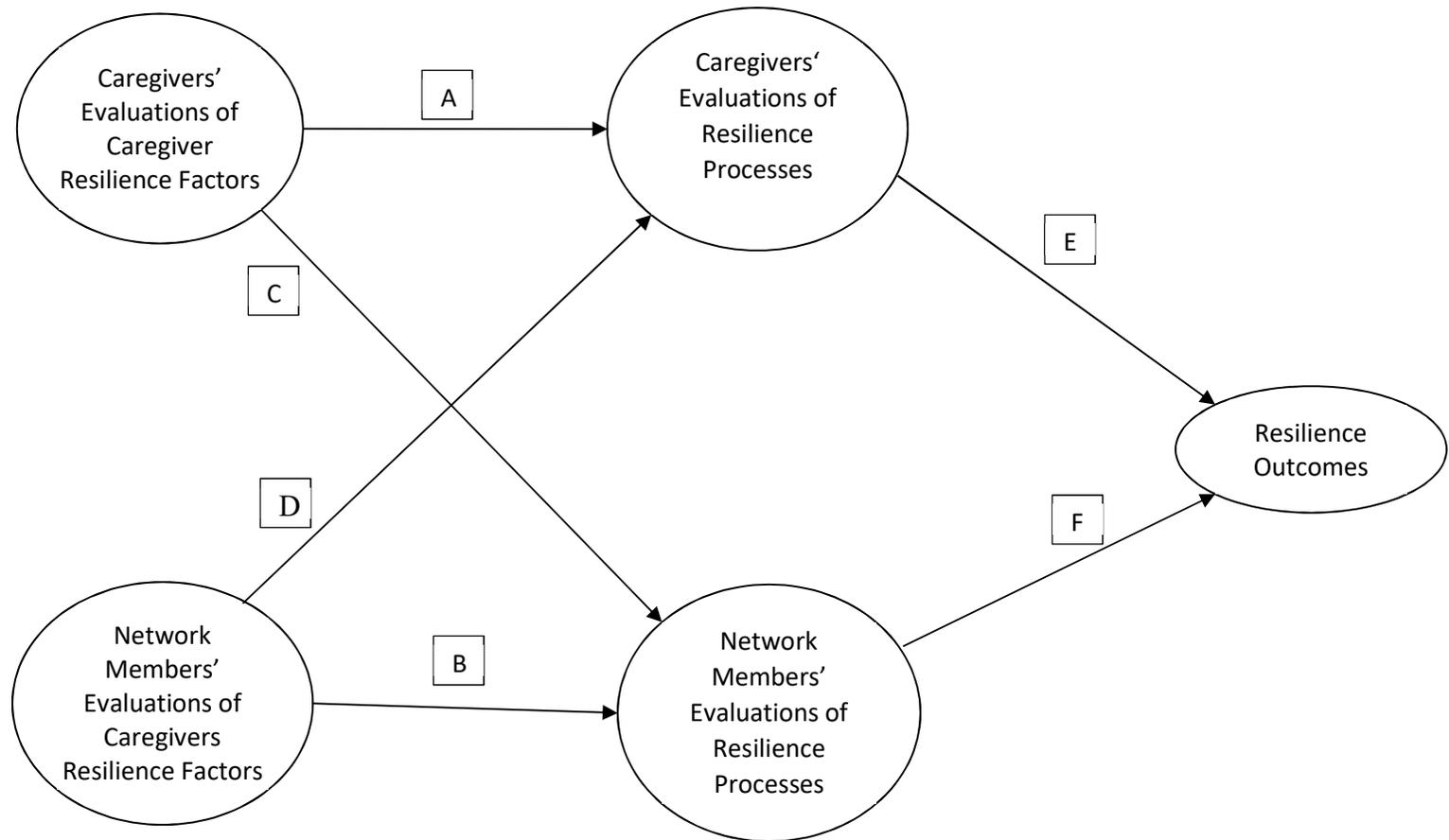


Figure 4. *General Structural Equation Model of Caregiver Resilience Factors and Resilience Processes Predicting Outcomes*

CHAPTER 6

The focus of this dissertation is how resilience can emerge from supportive interactions with social network members of caregivers of wounded injured and ill servicemembers. This dissertation draws from the notion that there are ways in which resilience is influenced by caregivers' support seeking strategies and the responsiveness of their social networks. To gain insight into how communication can be used by spousal caregivers to achieve a desired level of support and facilitate resilience and well-being, I examined three subsets of hypotheses. In the following sections, I discuss the context of wounded warrior caregivers' lives, followed by the results, strengths, and limitations for the study.

The Women Behind the Warriors

The caregivers' in this study were representative of much of the extant work that has been published on caregivers' of wounded warriors. The research in this dissertation, however, provides a deeper appreciation of who these women are by examining the life that they lead. To recap, all but two of the caregivers in this study were female. The majority of the 72 women highlighted in this dissertation were Caucasian, Christian, earned between \$40,000-\$69,999 annually, completed some college education, were married to an Army soldier, and in their first marriage and had more than 3 children. On average the women were in their mid-thirties, married almost 6 years and the majority reported their servicemember was medically retired from service with the average length of military service being almost 12 years. Almost all the women reported that their significant others suffered from PTSD, among other ailments including TBI, back injury, hearing injury, sleep disorders, burns, amputations, and paralysis.

I opened this dissertation by observing that, military families encounter similar stressors to civilian life such as financial difficulties, child-rearing issues, insufficient alone time, spousal

relationship troubles, and overscheduling (Curran, 1983). In addition, they are exposed to unique everyday stressors and non-normative stressors including enhanced disruption to communication between spouses during training and deployment (Drummet, et al., 2003; Merolla, 2010) and readjustment of roles during a servicemember's absence and return (Merolla, 2010). In addition, network disturbances, in-group and out-group differences, and privacy concerns arise because of issues involving people outside the family unit. Stress emerging from these external sources is particularly relevant to understanding impediments to support for caregivers of wounded warriors.

Caregivers' faced with caring and living with a wounded, injured, or ill servicemember face a variety of challenges including all the stressors associated with military life in addition to adjustment to physical and mental injuries following servicemembers' engagement in combat (Hogencamp & Figley, 1983) which has been associated with social isolation (Landau & Hissett, 2008), loss of self (Pagel & Becker, 1987; Skaff & Pearlin), and marital dissatisfaction (Beckham, Lytle, & Feldman, 1996; Calhoun et al., 2002; Manguno-Mire et al., 2007; Perlesz, Kinsella & Crowe, 1999). Studies that examine the act of caregiving outside a military context have identified the caregiving experience as highly stressful (Vitaliano et al., 2003). As such, military caregivers also endure caregiving burden which has been associated with loss of control, poor communication and work pressure (Morris, et al., 1988), as well as sleep problems, poor eating habits, and sedentary behaviors (Fuller-Jonap & Haley, 1995; Gallant & Connell, 1997; Vitaliano, et al., 2002).

Social support has consistently been linked to well-being and it has also been associated with beneficial outcomes for servicemembers experiencing non-normative stressors. Generally, this research has not included the benefits of support for military spouses, especially those who

are stressed by the challenges of caring for their spouse and who are unwilling to turn to their spouse for support. As such, network support, which has been strongly correlated with both mental and physical well-being, was of particular interest as a critical source of support to examine. The findings from this dissertation, however, led to unexpected findings about the social support experienced by these caregivers which is likely explained by the unique context of the military caregiving experience. These findings will be discussed next.

Summary of Findings

This dissertation segmented questions about the supportive relations between caregivers and their network members into three substantive points of emphasis. The first concerned caregivers' resilience factors. The second highlighted network members' supportiveness factors. Finally, the third foci took a closer look at resilience processes. In the following sections I discuss the ways in which the results of this study resonate with and extend the literature on the social support in non-normative contexts.

Caregivers' Resilience Factors

The first set of hypotheses follows from past work that links a person's resilience outcomes to their own resilience resources. The hypotheses in this subset focused on relationships between caregivers' resilience factors (i.e., caregivers' face concerns, emotional interference, caregivers' privacy concerns, communication efficacy, and frequency of support seeking) and caregivers' resilience outcomes (i.e., individual growth, caregiver burden, mental and physical health, and distress level).

Results indicated that there was only partial support for the claim that caregivers' face concerns, privacy concerns, and emotional interference are negatively associated with caregivers' communication efficacy. Only caregivers' privacy concerns and caregivers' face

concerns were negatively associated with communication efficacy, and each were associated with different facets of communication efficacy. Caregivers' privacy concerns were associated with decreases in expression efficacy, whereas caregivers' face concerns were associated with decreases in outcome efficacy. One way to interpret this finding is that individuals with privacy concerns felt inhibited in their ability to talk about their concerns, whereas the relationship with caregivers' face concerns and outcome efficacy indicates that individuals with face concerns felt that others ultimately would not help them, perhaps because the caregiver believed the network member would think less of them. These findings are consistent with research that indicates that soliciting help can cause dilemmas of self-presentation by calling one's competence into question (DePaulo, 1992), lower self-esteem (Chesler & Barbarin, 1984), or even change the power dynamics in the relationship (Fisher, Nadler, & Whitcher-Alagna, 1983).

With regards to the findings on privacy concerns, these findings also parallel past research in that previous research has linked concerns about revealing undesirable information with a reluctance to seek support (Albrecht, Burlison, & Goldsmith, 1994). Specifically, extant research has indicated that the context surrounding military experiences and the nuances of navigating their WWII servicemembers' treatment and well-being may also place implicit barriers on caregivers' willingness to disclose information about their circumstances (Mendoza, 2011; Sherman, Zanotti, & Jones, 2005). Furthermore, researchers have documented caregivers' hesitance to discuss family issues due to outsider perceptions of an inability to manage difficulties at home (Gober, 2005; Orthner et al., 1990; Segal, 1986).

The lack of findings for emotional interference deviated from my expectations such that no effects related to emotional interference were statistically significant. It could be the case that the results of these tests were affected by low reliability of the 5-item scale that comprised this

variable. Additionally, this specific analysis included the caregivers' perspective of how their emotional interference affected their communication efficacy. Although speculative, I wonder if network members' ratings of caregivers' emotional interference and its relationship with their communication efficacy would have uncovered significant results. Previous research has highlighted the biased nature of self-reporting, and caregivers' perceptions of their own ability to control their emotions may be greater than they actually are when perceived by others.

The findings associated with the claim that caregivers' communication efficacy is positively associated with the frequency of caregivers' support seeking attempts illustrated that there was indeed a positive association between caregivers' communication efficacy and support seeking attempts. Furthermore, expression efficacy was shown to predict caregivers' frequency of support seeking. This is consistent with research that supports the revelation risk model which highlights an individuals' willingness to disclose their secrets is indeed enhanced when they believe they have the ability to talk about them (Afifi & Steuber, 2009).

I found partial support for the claim that changes in caregivers' physical and mental health, individual growth, and management of distress over time are predicted by caregivers' face concerns, privacy concerns, emotional interference, communication efficacy, and support seeking. Although there were not many significant effects for this prediction, caregivers' face concerns and outcome efficacy were linked to increases in their anxiety overtime. With regards to the former finding, this finding is related to previous research on face threats in that much like a conflict episode, supportive interactions have the opportunity to threaten an individuals' autonomy and decision making (Brew & Cairns, 2004; Cupach & Metts, 1994, Frisby et al. 2006). As such, caregivers' face concerns and their consistent association with increases in anxiety over time speak to the possibility that communication about the context of their stressor,

or simply engaging in a conversation about the need for support is a potentially anxiety-provoking event. The finding that caregivers' outcome efficacy was linked to increases in anxiety over time could indicate the effect that might result from individuals who believe talking about their stress will produce the desired outcome, but are either somehow hindered, or met with dissatisfaction with the result, thus resulting in anxiety. The fact that caregivers' feel confident that talking about their stress will produce a certain result, even if they don't engage in this interaction, is the significant issue. Research on both disclosures and secret-keeping have indicated that revealing stressful and upsetting information to one's network may be cathartic and offer an opportunity for self-reflection which has the potential to improve both physical and mental well-being (Stiles et al., 1992), however this research does not align with the results from this study. According to Leary and Atherton (1986), individuals who exhibit higher self-presentational outcome expectancies are generally less socially anxious. However, it is often the case that individuals who encounter certain individuals or situations that may not result in the outcome they desire will thus exhibit anxiety. One cause for this may be unrealistic goals and expectations for the interaction (Leary & Atherton, 1986).

Network Member Supportiveness Factors

The second set of hypotheses follows from past work that links an individual's network members' supportiveness to their own resilience resources. Specifically, this subset of hypotheses focuses on the relationships between factors that characterize network member supportiveness (i.e., blame, relational closeness, relational standing, and proclivity to provide support) and caregivers' resilience outcomes (i.e., physical and mental health, individual growth, caregiver burden, and management of distress over time).

The findings associated with H5 revealed that network members' perceptions of blame and network members' proclivity to provide support only approached significance. This marginal association might be explained by both a small sample size and network members' reluctance to assign blame to a troubled friend or family member. Though speculative, I wonder if the research design, which indicated that all responses were confidential except the description of the stressful interaction gave pause to network members about revealing any information that might get back to the caregiver. Similarly, network members' these network members may have self-selected as those were on the more supportive end of the spectrum as proven by their participation in the study. This may have skewed this type of hypothesis and prevented us from analyzing a negative characteristic of the caregiver.

The analyses for the claim that network members' perceptions of relationship closeness and relational standing to provide support are positively associated with network members' proclivity to provide support was supported. This is consistent with previous research that indicates that the intensity of motivation to assist an individual is increased by those in ones' 'natural' network (Thoits, 1995). Additionally, extant literature has highlighted that past experience with the stressor is associated with greater support efforts and support that is more closely aligned to that which is desired for those who are experiencing the same type of stress (Cohen & Mckay, 1984; Jung 1985). These results continue to support those findings.

The prediction that changes in caregivers' physical and mental health, individual growth, and management of distress over time are predicted by network members' proclivity to provide them with support were not supported by the findings from this study. Specifically, the findings indicated that contrary to the hypothesis, a network member's proclivity to provide support decrease vigor, and exacerbate anxiety, depression, and distress. Although speculative, one

explanation for this counter-intuitive finding is that while network members are providing reassurance, their engagement with the caregiver makes their concerns salient. Another explanation is that network members may have differed in the support provided in response to seeing support partners who were not doing well.

Resilience Processes

The final set of hypotheses follows past research that links resilience processes between caregivers and their network members to caregivers' resilience outcomes. This subset of results focused on both caregivers' and network members' perceptions of resilience processes that took place during the interaction (i.e., caregivers' self-disclosure, explicitness, and emotional interference, as well as network members' supportiveness and authenticity within the interaction).

The findings associated with H8 revealed that there was no association between caregivers' self-disclosure and network members' supportiveness. Although I observed significant correlations between network members' perceptions of caregivers' self-disclosiveness and their own perceptions of supportiveness, these correlations did not emerge for caregivers' perceptions of their own self-disclosiveness and their perceptions of network members' supportiveness. Although speculative, it is reasonable that network members' find that their ability to provide support is hindered or helped by the degree to which caregivers disclose information to their networks. Additionally, it could be the case that the results of these tests were affected by low reliability of the 5-item scale that comprised this variable.

The analysis for the claim that caregivers' emotional interference is negatively associated with network members' authenticity was supported. I found partial support for the claim that the discrepancy between network members' and caregivers' perceptions of caregivers' preferences

for support type would vary as a function of caregivers' explicitness such that the analysis revealed network members' perceptions of caregivers' explicitness was positively and significantly related to increases in discrepancies between network member and caregivers' perceptions of emotional, informational, network and esteem support sought. Although this finding is highly counter-intuitive, it is interesting that our substantive analysis highlighted caregivers' perceptions of their own explicitness showed less discrepancy, whereas network members' perceptions of caregiver explicitness showed more discrepancy.

The prediction that caregivers' perception of network members' authenticity and discrepancy between network members' and caregivers' perceptions of caregivers' preferences for support type are positively associated with caregivers' resilient outcomes over time was also partially supported. Removing the dependence from the data revealed that the actor paths for both caregiver and network member perspectives of caregivers' emotional interference predicted authenticity of network members' expression and both caregivers and network members' authenticity significantly predicted caregivers' vigor, anxiety and depression. These findings are in line with extant research on emotional interference which indicates that intense emotions can result in blocking behaviors or distancing behaviors (Wilkinson, 1991; Heaven & Maguire, 1996). Further research has highlighted that unexpected emotional behavior can result in conversational silence (Bruneau, 1973). Finally, although it was not measured in this study, Bodie et al. (2011) found that both high and low levels of emotional upset impeded message processing capabilities. As such, these findings add to the research by illuminating the relationship between perceived emotional interference and the authenticity of a support networks response. Furthermore, the finding that the authenticity of the network member has direct effects on caregivers' vigor, anxiety and depression is worth noting and again highlights the significance

of interactions between those who are distressed and their support convoys as it relates to their well-being.

General Implications

In addition to the contributions this dissertation made to each of the theories and bodies of literature that it pulled from, there are numerous broader implications that can be taken away from this study. One of the most apparent implications in this study is that the application of theoretical models into real world scenarios highlights the rigidity of theoretical models. For example, theories on social support and comforting tell us that if one is explicit about their support needs and if their relational partner is inclined to offer support, this combination should result in enhanced well-being. This study indicates that this is not necessarily the case. This study highlighted that caregivers' well-being decreased over time despite the communicative attempts and presence of support by network members. As such, although theory certainly helps us identify the skills needed to enhance the chances of resilience in those experiencing stress, this dissertation emphasizes the need to uncover what it is within the process that will increase and affect well-being in those experiencing non-normative stress.

This dissertation also highlights the need for a more robust network study. In particular, this study only included data from one network member within the caregiver's support network. Previous research has underscored that individuals are part of a larger system and that individuals accrue both opportunities and constraints from their network (Pilisuk & Foland, 1978). Although the analysis in this dissertation captured dyadic relationships and gathered data from both partners' perspectives on the same interaction, including other perspectives on how the caregiver enacted and received support from additional network members would have provided a more holistic picture of their support seeking efforts. Continuing the discovery of how not only

the distressed individual enacts support, but how various network members who have the potential to increase or reduce their stress, will enable communication scholars to further theories of support. Furthermore, this will provide more insight into how communication in supportive environment unfolds and has the potential to shape our understanding of well-being and resilience of those in non-normative stressful situations.

Finally, this dissertation stresses the importance for studying the communication at the intersection of multiple disciplines and theories. Each of the disciplines and theories that were incorporated into this dissertation offered valuable contributions about social support and its relationship with resilience for those enduring stress, but bringing these frameworks together allowed me to examine the unique context of the lives of caregivers' who live with and care for a wounded, injured and ill servicemember. Leaving out any one of these theories and disciplines would have hindered my ability to capture and analyze the complex nuances and challenges these families face every day.

Strengths and Limitations

The conclusions reached in this dissertation are qualified by strengths and limitations of this study. One strength of this dissertation is that it emphasizes the unique nature of non-normative stress. Whereas many theories of comforting and social support are focused on understanding how these communication processes can alleviate stressors, the stressors are in large part "every day" stressors that do not encompass tragic events which often leave individuals "at a loss for words." It is during these times that family and friends often struggle to support their loved ones, and even more so struggle with appropriate ways to communicate support. This dissertation focuses on a context unique to military families, yet still isolates military families from those who do not have a wounded, injured or ill service member. The

findings that highlighted caregivers' measures of resilience were not improving over time, even though they had network members who were enacting support, illustrates the perhaps unique nature of non-normative stress which is certainly worth further exploration.

This dissertation also contributed in several methodological ways to this body of research. First, one methodological strength to this study is the longitudinal analysis of caregivers' well-being. To date, much of the literature on well-being in resilience work is measured at one point in time, whereas this dissertation included duplicate measures of well-being at the beginning of the study and during the final phase of the study which took place after the interaction reflection phase. Future research should consider the benefits of an additional measurement point further along the journey of caregivers' experience as research on patients undergoing PTSD treatment, for example, often demonstrate signs of decline before signs of recovery (Bares, 2005). It is possible that our study measured resilience outcomes at the caregivers' low point, and following this study caregivers' resilience outcomes did indeed improve.

Additionally, this dissertation used a real-world stressor as its context and included natural network members who nominated their recollection of a recent stressful disclosure as the context of the interaction. Although using this design presented challenges, allowing these stressors to be presented naturally is of critical importance if research is to be applied outside the walls of academia.

As mentioned previously, this dissertation culled research from multiple theories and disciplines. This combination of extant work presented some measurement and design challenges, however including these bodies of literature allows a more comprehensive understanding of how caregivers' and their networks can work together to overcome the

numerous challenges that they face in the context of living with and caring for a wounded, injured and ill servicemember. Additional research in the future should continue to examine how these theories might apply to other individuals experiencing non-normative stressors.

Certain aspects of the research design restrict the generalizability of my conclusions. First, the sample used in this investigation was generally white, educated and from a higher socioeconomic status. To the extent that these characteristics influence one's ability to communicate or receive support from one's network, future research ought to examine these findings on a more diverse sample. Additionally, the network sample for this study was limited in number due to caregivers' difficulty in recruiting network member participation. This challenge is seemingly unique to the military caregiver context as other caregiving network member studies report significantly higher response rates situated at approximately 70% (Kahn & Antonucci, 1984). On the one hand, had the network member response been greater, it would certainly have contributed to more generalizable and powerful findings. On the other hand, this sample size was reflective of the reality of support that existed for the caregiver and an indicator of the difficulty many of these caregivers' had in cultivating support from their network. My personal interactions with these women about their frustration with this portion of the study, which was not measured as part of the research design, indicated to me on a qualitative level that the seemingly simple task to recruit a network member to participate in a study on supporting caregivers' of wounded warriors was indeed a stressor in itself.

On a related note, another limitation in the research design of this study was that it is possible that the network members who self-selected to participate in this study were indeed those who were the more supportive network members in one's support convoy. Alternatively, previous literature has emphasized that individuals who are distressed, often have network

members who are distressed. Unfortunately, this study did not examine other qualities of the network members, such as their stress levels, which might influence their ability to provide support. As such, this may have skewed the findings and future research should attempt to include multiple network members, as well as characteristics of the network members themselves, to account for this potential concern. Nevertheless, the ability to combine both network member and caregiver reflections of the caregiving experiences, is one of the major strengths of this study.

Conclusion

The goal of this dissertation was to understand the communicative processes through which individuals elicit and receive support from their networks to emerge as resilient within the wounded warrior context. To accomplish this, I connected theory and research from both social networks and social support literature to untangle the potential resilience of caregivers of wounded warriors experiencing non-normative stress. Although this dissertation uncovered findings that were not anticipated, I am optimistic that the results of this study illuminate the importance of further examination into the ways non-normative stress affects supportive communication between individuals and their support networks so that researchers can continue to identify communicative skills and processes that have the potential to offer comfort and solace during times individuals need it most.

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CURRICULUM VITAE

VICTORIA JENNINGS-KELSALL

Pennsylvania State University
Department of Communication Arts and Sciences
234 Sparks Building
University Park, PA 16802
victoriasjk@gmail.com

EDUCATION

- Ph.D.** The Pennsylvania State University, State College, Pennsylvania
Department of Communication Arts and Sciences (August 2017)
Chair: Dr. Denise Haunani Solomon
Committee: Dr. James P. Dillard, Dr. Jon Nussbaum, Dr. Amy Marshall
- M.A.** San Diego State University, San Diego, California
Department of Communication Studies (May 2008)
- B.S.** The University of Texas at Austin, Texas
Department of Communication Studies (May 2002)

EMPLOYMENT

- Naval Special Warfare Gold Star & Surviving Family Support Program Manager:** *Department of Defense*, Dec 2012-May 2016
- Graduate Teaching and Research Assistant:** *The Pennsylvania State University*, Aug 2008-Dec 2012
- Public Affairs Officer, 12th Marine Corps District (Captain, O-3):** *United States Marine Corps*, May 2005-July 2008
- Public Affairs Officer, Marine Corps Station Miramar (1stLt, O-2):** *United States Marine Corps*, March 2003-May 2005
- Public Affairs Officer, 3rd Marine Air Wing - Al Asad, Iraq (1stLt, O-2):** *United States Marine Corps*, Feb. 2004-Sept 2004

PUBLICATIONS

- High, A. C., Jennings-Kelsall, V., Solomon, D. H., & Marshall, A. D. (2015). Military families online: Seeking and providing support through Internet discussion boards. In E. Sahlstein & L. M. Webb (Eds.), *A communicative perspective on the military: Interactions, messages and discourses* (pp. 101-120). New York: Peter Lang.
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