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Kristen Carr

University of Nebraska-Lincoln, kristencarr@huskers.unl.edu

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EXAMINING THE ROLE OF FAMILY AND MARITAL
COMMUNICATION IN UNDERSTANDING RESILIENCE TO
FAMILY-OF-ORIGIN ADVERSITY

by

Kristen Carr

A DISSERTATION

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EXAMINING THE ROLE OF FAMILY AND MARITAL
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Kristen Carr, Ph.D.

University of Nebraska, 2012

Advisor: Jody Koenig Kellas

Resilience, or the “successful adaptation to adversity,” is often investigated as an individual response to stressful experiences (Zautra, Hall, & Murray, 2010, p. 4). After the experience of stress or adversity, most people seek to return to some degree of normalcy, but their ability to do so varies widely. To understand this variation in individuals’ responses to adversity, most researchers have focused on resilience as a process that occurs *within* individuals, rather than between them. However, in the current study, resilience is positioned as an *interpersonal* process as well as an individual one, in that people interpret and respond to adversity through their communication with others. Specifically, this study examines how resilience varies as a function of individual, familial, and marital qualities after the experience of family-of-origin adversity.

Participants in the current study included 201 married individuals who reportedly experienced significant adversity in their families of origin. All participants completed an online questionnaire about their family of origin, individual characteristics and resilience, and their current marital relationship. Results indicated that individuals’ family functioning (as measured by the circumplex model) was the

strongest predictor of resilience, such that individuals from families characterized by a balance between cohesion and flexibility, open communication, and an overall sense of satisfaction with the family were most resilient. Individuals' from families with more adversity characterized their families as less functional in terms of their cohesion, flexibility, and overall satisfaction. In contrast to the significance of family functioning, individual characteristics and the marital environment were both unrelated to resilience when considered separately, but a significant interaction effect emerged when individual characteristics and the marital relationship were considered together. Specifically, individuals who were lower in optimism and efficacy were more likely to be resilient when they were in a close and highly supportive marital environment. Theoretical and interdisciplinary implications of these results are discussed in addition to suggestions for future resilience researchers.

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CHAPTER ONE: RATIONALE

Introduction

A considerable amount of scholarship across a variety of disciplines has focused on the often-detrimental consequences of difficult family experiences. Indeed, there is significant evidence that individuals who experience stressful events such as parental illness or abuse at a young age are more likely to face a variety of social and emotional issues later in life (Benson, 1997; Richardson, 2002). Despite the established inverse association between adversity and well-being, there is a small but significant subset of individuals (on average, approximately 24%; Werner & Smith, 1992) who experienced substantial risk factors during childhood such as abuse, neglect, and parental divorce yet emerged in adulthood as happy, healthy, functioning adults (Bernard, 1995; Garmezy, Masten, & Tellegen, 1984; Rutter, 1985; Werner & Smith, 1992). These individuals who are able to avoid the negative outcomes commonly associated with childhood adversity are often characterized as *resilient*. However, we know significantly more about the personality and psychological characteristics associated with resilient individuals than how resilience is developed. Examining the factors that support or hinder the individual and communicative development of resilience may provide important insight toward understanding adaptive responses to stressful experiences.

Defined as the “successful adaptation to adversity,” *resilience* is often investigated as an individual response to stressful experiences (Zautra, Hall, & Murray, 2010, p. 4). Most people naturally seek to return to some degree of normalcy after experiencing stress or adversity (Zautra et al., 2010), but the degree to which they are able to do so varies widely. Researchers have investigated a variety of factors with the

potential to affect variation in individuals' resilience, the majority of which have taken a decidedly psychological approach (Richardson, 2002). Specifically, previous waves of inquiry emerging from psychology have examined resilience as an individual trait/characteristic, process, motivational force, and genetic predisposition, but they have primarily focused on resilience as a process that occurs *within* individuals, rather than between them (Richardson, 2002). However, resilience is an *interpersonal* process as well as an individual one, in that people experience, make sense of, and interpret difficulty through their communication with others (Koenig Kellas & Trees, 2006).

Understanding the ways in which resilience is interpersonally constructed may be particularly important because nearly all stressful experiences are shared, either directly or indirectly, with others. For example, over 85% of adults who experienced significant adversity reported that their negative experiences occurred in their family of origin prior to the age of 18 (Anda et al., 2006). For these individuals, their response to stressful events was filtered through their family interaction, creating a climate in which their personal resiliency had the potential to either thrive or diminish (Zautra et al., 2010). In addition to the filter of family interaction relevant to the experience of adversity, other close relationships across the lifespan are likely to help to explain the development and maintenance of resilience. Specifically, marital relationships may be especially important in understanding resilience because of the degree of relational closeness reported by married partners (Aron, Aron, & Smollen, 1992), and the likelihood that married partners cope with stress together (Bodenmann, 2005). Even when adversity is experienced prior to the marital relationship, the process of coping with stress and making sense of the adverse experience often continues for years

(Zautra et al., 2010). Additionally, the development of one's own family through marriage may bring up past adverse family experiences from one's family of origin, thus reintroducing the need to manage and cope with these experiences (Luecken & Gress, 2010). In his summary of nearly five decades of resilience research, Luthar (2006) concluded that, "Resilience rests, fundamentally, on relationships" (p. 780). Because most negative events have a social component, it seems likely that communication in close interpersonal relationships plays a significant role in developing a resilient response to stressful events across the lifespan (Montpetit, Bergeman, Deboeck, Tiberio, & Boker, 2010).

Given the emerging influence of close relationships in developing resilience, it is unsurprising that scholars are increasingly interested in resilience as a process that emerges through *interaction* (Buzzanell, 2010; Lucas & Buzzanell, 2010). Specifically, taking a communicative perspective to resilience inquiry acknowledges that resilience is shaped by a variety of forces that are both internal and external to the individual, but focuses primarily on the ways that resilience unfolds through interaction. Yet, with a few notable exceptions (e.g., Buzzanell & Turner, 2003; Lucas & Buzzanell, 2010), the research positioning relational interaction at the forefront of resilience inquiry has been largely theoretical rather than empirical. Therefore, the purpose of the dissertation study was to examine how communication in marital and family relationships intersects with individual characteristics in the development of resilience as a way of coping with stressful family experiences.

The current chapter begins with an overview of the literature on resilience and highlights the significance of individuals, families, and marital relationships in the

process of developing resilience. To synthesize these bodies of literature and clarify the role of communication in resilience, the role of family functioning, individuals' characteristics, and the nature of communication in the marital environment are also discussed. Chapter Two provides an overview of the methods used in this study, including details on recruitment and participant demographics, procedures, descriptions of the measures used for each variable, and a summary of the hypothesized model. The results of the statistical analyses including item-level psychometrics, confirmatory factor analysis, and tests of the hypothesized structural model are discussed in Chapter Three. Finally, Chapter Four considers these findings from the current study in light of the existing resilience literature, including study limitations and suggestions for future research on resilience.

The Evolution of Resilience Inquiry

When compared to the development of other theories, the evolution of resilience research has been an organic, inductive process (Richardson, 2002). Rather than emerging from a structured theoretical approach, resilience inquiry has been guided by researchers' observations about human experience. As a result, the development of resilience research has emphasized its discontinuous nature (Miller, 2011). That is, individuals do not become resilient in a gradual, predictable manner. By definition, resilience necessitates a disruption in life, such as the experience of significant adversity, which in turn facilitates its development. In other words, without adversity, individuals may have the potential for *resiliency* (i.e., as a trait or personality characteristic) but not *resilience*, which describes the developmental process and

sustained outcome of experiencing and overcoming adversity (Luthar, Cicchetti, & Becker, 2000; Richardson, 2002).

The distinction between the personality characteristic of resiliency and the outcome of resilience alludes to the considerable debate as to whether the ability to overcome adversity is best considered as a process, a trait, or an outcome. Although there are likely benefits to all three perspectives, Zautra and his colleagues (2010) argue convincingly for defining resilience as an *outcome* of successful adaptation. Specifically, the identification of resilient processes, genes, or characteristics is only salient if functional outcomes are reached after the experience of adversity. In other words, understanding the *path* to resilience becomes significantly less important if the outcome of resilience is never achieved. In this way, positioning resilience as an outcome is ideal because it acknowledges that there are both internal and external influences throughout the process of developing resilience, but ultimately shifts the focus of inquiry to resilience as a sustained outcome (Buzzanell, 2010; Richardson, 2002). Considering resilience as an outcome introduces two important aspects of resilience inquiry that help to bridge the path between adversity and resilience: recovery and sustainability.

Resilience as Sustained Recovery

When examining individual responses to adversity, there are two considerations that undergird the study of resilience as an outcome. First, *recovery* is defined as the ability to return to a more balanced state – physiologically, psychologically, and in social relationships – after stressful events (Zautra et al., 2010). To be clear, some degree of initial distress is expected after adversity, and often serves a beneficial

function in the process of adaptation. The defining characteristic of a resilient recovery is that the return to well-being is substantially better than what is typically expected (Masten, Best, & Garmezy, 1991). Taken in isolation, however, the ability to recover (i.e., return to a previous way of life) after a distressing event does not constitute resilience; it is also necessary that a resilient response be characterized by sustainability.

Thus, the second feature necessary for considering resilience as an outcome is *sustainability*, or the ability to continue in the face of adversity (Bonanno, 2004). More than just a superficial shift in affect and behavior, sustainability refers to the capacity to absorb disturbances before they result in enduring changes in one's ability to pursue positive life meaning (Zautra et al., 2010). In contrast to characterizing resilience simply as the process of healing after negative events, sustainable resilience requires that individuals play a more active role in the process through awareness and choice *in addition to* recovery.

Therefore, defining resilience as an adaptive outcome highlights its two distinct components of recovery and sustainability. When considering resilience as an outcome for adults who have experienced early family stress, as in the case of the current study, recovery and sustainability become particularly important because they capture individuals' initial recovery from adversity as well as their sustained resilience into adulthood. These two components were particularly influential in the early waves of research on resilience (Greve & Staudinger, 2006), which are discussed in the sections that follow.

The First Wave: Qualities of Resilience

In its infancy, resilience inquiry was marked by a shift from the desire to understand individual risk factors for psychosocial problems to the identification of traits that allow individuals to transcend negative life events (Benson, 1997). In an attempt to answer the question, “What characteristics mark people who will thrive in the face of risk factors or adversity, as opposed to those who succumb to destructive behavior?” Werner and Smith (1992) studied a group of 200 children categorized as *at risk* because of perinatal stress, poverty, daily instability, and/or significant parental mental health problems over the course of 30 years. By comparing the life trajectories of these children through adulthood, Werner and Smith found that 72 of these 200 children were significantly more functional and healthy than what they expected given their early life experiences. They were then able to compile a list of qualities or factors that described these individuals, which included being female, socially responsible, adaptable, achievement-oriented, a good communicator, and having high self-esteem (Werner & Smith). Additional factors such as self-efficacy, planning skills, close interpersonal relationships (Rutter, 1985), positive outlook, self-discipline, humor, and receiving social support (Garmezy, 1991) have also been associated with early research on resilience. More recently, individual predictors of resilience were expanded to include subjective well-being (Diener, 2000), optimism (Peterson, 2000), gratitude (Emmons & Crumpler, 2000) and forgiveness (McCullough, 2000). From this profile of resilient individuals, researchers then turned their attention to understanding the process of *attaining* these protective factors in the second wave of resilience inquiry.

The Second Wave: Process of Resilience

As research in resilience evolved, scholars were increasingly interested in individual reactions to life events in an attempt to answer the question of how resilient qualities were acquired through the process of disruption and reintegration (Flach, 1988, 1997; Richardson, 2002). Findings from this second wave suggest that the process begins prior to the experience of disruption with a period of equilibrium in which individuals are adapted to their current situation—whether good or bad—called biopsychospiritual homeostasis (Richardson, 2002). Over time, individuals are routinely faced with a variety of internal and external factors with the potential to disrupt this adapted state. Because these disruptions may be relatively trivial (e.g., exposure to new information, experiences, thoughts, or feelings), they often occur with such frequency that they go largely unnoticed. However, when existing protective factors are not enough to maintain a homeostatic state, or when life events are significant or traumatic, the process of disruption and reintegration occurs. Disruptions can take a variety of forms such as illness, death of a loved one, financial hardship, divorce, or abuse. After a disruption, individuals experience primary emotions such as hurt, loss, guilt, fear, and confusion that potentially leads to introspection and adaptation to disruptions in one of four ways: through resilient reintegration, by attempting to return to homeostasis, through reintegration with loss, or by dysfunctional reintegration (Richardson, 2002).

The first option, *resilient reintegration*, is the process of experiencing a form of growth or insight as the result of a disruption. After a negative experience/disruption, individuals' protective factors identified in the first wave of resilience research (i.e., self-efficacy, social support, adaptability, etc.) are accessed and cultivated, resulting in

personal growth. As one might imagine, this is often the standard by which resilience is judged, although such a response is not always realized. Instead of resilient reintegration, some individuals respond to adversity by *returning to homeostasis*: simply healing, and putting the disruptive event in their past. Although not as beneficial as resilient reintegration, returning to homeostasis is often considered a functional alternative.

The final two options for reintegration are significantly less beneficial to the individual. *Recovering with loss* indicates that individuals cope with disruption by relinquishing some aspect of their previous worldview, perhaps in the form of reduced motivation, hope, or drive (Richardson, 2002). Similarly, and perhaps simultaneously, individuals may resort to internal or external destructive means of coping with disruptions such as substance abuse or self-sabotaging behavior. The emergence or progression of mental health conditions is also an indication of *dysfunctional reintegration*.

In addition to the four types of resilient adaptation described above, research from the second-wave of resilience highlighted several key assumptions that influenced later research. First, resilience may occur nearly simultaneously with the disruption, or it may take years for the process to be completed. The severity of the disruption likely plays a significant role in determining the length of the resilience process (Richardson, 2002). In some cases, individuals may be able to quickly develop resilience to an event that they perceive as relatively minor, such as a moving to a new home or experiencing a change in family responsibilities. In the case of more disruptive experiences of adversity such as divorce or the death of a family member, individuals may cycle

through a series of negative or maladaptive responses to a disruption before eventually resiliently reintegrating (Richardson, 2002). Ultimately, one of the most important ideas to emerge from the second wave of research was that individual choice plays an important part in the resilience process. In other words, examining the nature of adversity and individual characteristics do not fully account for variation in individuals' responses. Thus, although the first two waves of inquiry were successful in describing the characteristics and process of resilience, neither wave was able to account for the variation within people with seemingly resilient qualities. Therefore, the third wave of inquiry examined individuals' motivation for resilience.

The Third Wave: Motivation for Resilience

Clearly, all individuals do not respond to negative life experiences in the same way. Resilience, like other adaptive emotions, requires a degree of personal energy to enact. However, the previous waves of resilience inquiry lacked an explanation of the role of motivation in the resilience process. Thus, in the third wave, researchers proposed a variety of sources to explain variations in individual levels of motivation for enacting resilience (Wilber, 1998). In this wave of inquiry, researchers attempted to explain why some people with protective factors identified in the first wave (e.g., self-efficacy, self-esteem, adaptability, social support) were able to respond to adversity in a resilient manner, whereas others with very similar characteristics could not. As a way to explain motivation for the resilience process, researchers in the third wave of inquiry drew concepts from physics, religion, mythology, and medicine (Richardson, 2002; Wilbur, 1998). Multiple (and often competing) theories emerged about the most valid way to identify the source of individuals' motivation to be resilient. For example, some

researchers borrowed ideas from religion and described resilience as the realization that individuals' strength comes from a higher power (Richardson, 2002). Other researchers in this wave of inquiry took a more scientific approach and concluded that motivation for resilience came from an unconscious neurological desire for chemical stability in the brain. Collectively, inquiry in the third wave of resilience was characterized by significantly more theorizing than empirical research, and thus, was less influential in guiding resilience research than the previous two waves. Despite drawing from both historical and modern ideas, the theoretical perspective regarding the role of motivation in resilience remained divisive, value-laden, and ultimately, inconclusive (Richardson, 2002).

A Fourth Wave?: Recent Developments in Resilience Research

Theoretically, the goal of resilience research has recently shifted toward an integration of the elements from the previous three waves of inquiry on individual traits, process, and motivation as a means of examining the complex sets of factors that lead to resilience (Masten, 2007; Masten & Wright, 2010). However, recent research on resilience has focused primarily on advances in genetics and neurobiological development as a way to explain variations in response to adversity (Chicchetti & Curtis, 2007; Kim-Cohen & Gold, 2009; Masten & Wright, 2010). Although examining individuals' genetic predispositions is an important aspect of understanding resilience, it is also inherently limiting. Indeed, narrowing the focus of resilience inquiry to genetic and neurobiological influences seems likely to result in a more detailed description of the (genetic) traits and characteristics of resilient individuals, thus returning to the first wave of resilience inquiry that began over four decades ago. Perhaps more importantly,

a purely descriptive approach limits the ability of individuals to *develop* resilience by categorizing them into those who are resilient and those who are not. Thus, although a biological perspective is important in initially identifying traits that may contribute to resilience, it provides a very narrow view of a much more complex process.

In contrast, other contemporary researchers recognize that the process of resilience is emergent, continuous, and *social* (Lucken & Gress, 2010). In addition to the foundation for resilience that may be created through individual and familial factors early in life (DuMont, Widom, & Czaja, 2007), resources related to resilience can accumulate over time (Werner, 2005). Specifically, the development of close, supportive relationships in adulthood may provide new means of promoting resilience later in life (Luecken & Gress, 2010).

In light of the waves of past and present resilience research and the need to further investigate this relational and interactional component of resilience, the overarching purpose of this dissertation study was to consider the ways in which individual and family characteristics provide a base for resilience, but also add to the developing fourth wave to explore the potentially moderating influence of interpersonal communication in adult relationships. Specifically, the influence of individual characteristics and family functioning on resilience is significant and well established, but much less is known about the role of important relationships that emerge later in life. Thus, a primary purpose of the present study is to examine the role of communication in the marital environment in developing resilience in adulthood based on the experience of childhood family adversity.

The Development of Resilience as a Communicative Process

Although this study offers an initial investigation into how adult relationships might moderate the relationship between childhood adversity and the outcome of resilience, examining aspects of families, individuals, and close relationships to predict resilience is not entirely a new pursuit. For example, research on the role of *families* in resilience points to the importance of attachment with parental figures (Svanberg, 1998) and parent-child bonding (Parker, 1983), in addition to the influence of a variety of socioeconomic factors such as family income and community support (see Werner & Smith, 1992) in understanding resilience. Similarly, resilience research from the first wave suggests that resilient *individuals* tend to be efficacious (Lin, Sandler, Ayers, Wolchick, & Luechen, 2004; Rutter, 1987), future-oriented (Masten, Hubbard, Gest, Tellegen, Garmezy, & Ramirez, 1999; Mayer & Faber, 2010), optimistic (Peterson, 2000; Seligman, 2002), and believe that they have the agency necessary to enact change in their lives (Skodol, 2010). Likewise, supportive and close marital *relationships* may provide resources that enable individuals to reconceptualize adversity (Schaefer & Moos, 1992) and restore their faith in others (McMillen, 1999, 2004). Although researchers have examined the roles of families, individuals, and spousal relationships, these factors have yet to be examined in combination. One way to connect these seemingly disparate influences on resilience is by examining the role of communication.

Across families, individuals and marital relationships, a common thread that potentially serves as the mechanism through which resilience develops is communication. Specifically, a constitutive view of human behavior suggests that no one person exists in a vacuum and that we only come to understand ourselves through

interaction with others (Baxter, 2004). Thus, as a supplement to the existing psychological approach, and in keeping with the interdisciplinary roots of resilience inquiry, it is both relevant and useful to consider resilience as a process that emerges through interpersonal communication (Buzzanell, 2010). The sections that follow first consider how the family can support or diminish resilience, even when the family has experienced adversity. Next, the ways in which the characteristics associated with resilient individuals in previous waves of inquiry emerge through communication are considered. This chapter concludes with a discussion of how one type of close relationships (i.e., marriage) has the potential to moderate the effect of individual characteristics and family functioning on the outcome of resilience.

The Role of Family in the Resilience Process

Throughout the history of resilience inquiry, the importance of the family has surfaced as a key factor in understanding how individuals respond to adverse experiences. Specifically, the link between negative early life experiences and detrimental outcomes later in life is both well-established and empirically supported, placing individuals at increased risk of depression (Parker, 1983), increased physiological stress (Heim & Nemeroff, 2001) as well as other kinds of psychopathology (Benson, 1997; Richardson, 2002). Indeed, there are several reasons that an important factor associated with the differences in individuals' resilience may be tied to the degree of family stress they have experienced over the course of their lives and how their family approached those stressors.

First, the definition of resilience requires that individuals have experienced significant adversity in their lives (Richardson, 2002; Werner & Smith, 1992).

According to Richardson (2002), resilience necessitates a ‘disruption’ that creates an opportunity for individuals to respond in a resilient manner. Without this disruption, individuals may have the potential for resilience (i.e., the psychological trait of resiliency), but not the *outcome* of resilience (Luthar, et al., 2000). Second, although it is possible to develop resilience through the experience of any type of significant adversity, research suggests that the majority of events that serve as the catalyst for the development of resilience occur in the family of origin. Specifically, nearly 75% of adults aged 18-54 experienced some form of significant adversity (Anda et al., 2006). Of those adults, 64% reported that the adversity occurred in their family of origin when they were under the age of 18 (Anda et al., 2006), indicating that the experience of family adversity has significant and long-term effects. Therefore, to consider resilience as a response to the experience of family adversity, the focus of the present study will be exclusively on those individuals who have experienced stress or adversity in their family of origin prior to the age of 18.

Although research supports the important links between family adversity and resilience, the current study adds to assumptions of a direct connection between the experience of family adversity and individual resilience by also considering the ways in which the family provides a context for understanding and making sense of adverse experiences. In other words, to fully understand the impact of families on resilience, it may be important to consider both the nature of family adversity as well as family functioning. Therefore, this study considers two potentially related but distinct aspects of family life: The actual experience of family adversity, and the overall functioning of the family.

Childhood adversity in the family of origin. To fully understand the link between family adversity and resilience, it is first salient to consider the nature of family adversity. Categorically, existing studies identifying adversity occurring within childhood have divided adverse family experiences into abuse (i.e., physical, emotional, sexual) and other forms of household dysfunction (e.g., divorce, poverty, parental substance abuse). For example, the Adverse Childhood Experiences study (ACE; Felitti et al., 1998) is a large-scale, ongoing project that links experiences of family childhood trauma such as abuse, divorce, neglect, and poverty with detrimental health and behavioral outcomes later in life. Results of the ACE study indicate that individuals who experienced notable childhood adversity were at significantly greater risk for alcoholism, drug abuse, depression, and suicide attempts, poor self-rated health, physical inactivity, and severe obesity (Felitti et al., 1998). Additionally, this study reflected a positive linear relationship between the number of categories of adverse childhood exposures and a variety of adult diseases, including heart disease, cancer, chronic lung disease, skeletal fractures, and liver disease, even after controlling for a variety of genetic and personal risk factors. Thus, the ACE study serves as an empirically-supported foundation for understanding the long-term effects of these specific forms of adversity and the established link with adult functioning in the current study. In other words, when family adversity is considered in isolation, research suggests that individuals who have experienced more adverse events during their childhood tend to be less resilient. In the present study, considering the degree of adversity experienced in the family of origin provides an important baseline for

anticipated resilience as adults. Thus, in the current study and consistent with previous research, it is hypothesized that:

H1: Childhood family adversity will be negatively related to resilience.

In addition to the importance of examining the effect of family adversity on resilience, the way that individuals are able to manage the stressful events in their family is likely affected by the way that families communicate about those events. From a very early age, families provide a lens through which individuals view their social worlds. Families communicate to teach children how to regulate their own emotions, how to cope with stress, and how to adapt to adversity (Afifi & Nussbaum, 2006; Reiss, 1981; Reiss & Oliveri, 1980). Therefore, it is also likely useful to consider family communication and its relationship to family functioning to better understand the ways in which the family helps to explain the development of resilience.

Family functioning: The circumplex model. In the previous section, the link between family adversity and individual outcomes is highlighted as both significant and important. However, rather than assuming that all families cope with adverse experiences in a similar manner, it is salient to examine the overall functioning of the family as an influence on resilience as in the current study. One established theoretical model for understanding the family and family communication is the *circumplex model of family functioning*. According to the most recent version of the circumplex model (i.e., Olson, 2011), there are three primary dimensions useful in understanding family functioning. Specifically, families function along the dimensions of cohesion, flexibility, and communication. *Cohesion* describes the emotional bonding that family members have toward one another and focuses on how families balance togetherness

versus separateness. *Flexibility* (previously called *adaptability*) indicates the quality and expression of leadership, role relationships, and relationship rules within the family (Olson, 2011), as well as the degree to which these roles and rules remain stable and consistent over time. Families are then categorized based on these dimensions, with flexibility in families ranging from *rigid* (very low flexibility) to *chaotic* (very high flexibility), and cohesion ranging from *disengaged* (very low cohesion) to *enmeshed* (very high cohesion). Family *communication* refers to the positive communication employed within the family system and functions as a dynamic component that aids or hinders movement along the other two dimensions (Olson, Russell, & Sprenkle, 1983; Perosa & Perosa, 2001). Theoretically, the circumplex model assumes that optimal family functioning is associated with a balance between cohesion and flexibility; families falling on the extremes of one or both dimensions are viewed as problematic (Thomas & Olson, 1993, 1994).

Although most of the empirical evidence focuses on cohesion and adaptability, the circumplex model also considers the role of family communication and family members' satisfaction with the family. First, family communication facilitates changes in the other dimensions of family functioning (i.e., cohesion & flexibility; Olson, 2000, 2011). When families are able to communicate empathy, clarity, and effective problem solving as a means of adaptation and change, they are likely best suited to employ communication as a functional means of coping with adversity (Olson, 2000; Olson et al., 1983). Through the promotion of an open exchange of information, ideas and feelings, family members foster emotional bonds as well as the ability to adapt and accommodate changes experienced in the family system (Schrodt, 2005). In contrast,

when families avoid discussing issues on which they disagree and expect family members to conform to a specific set of beliefs, they tend to exhibit less emotional bonding and cohesion (Schrodt, 2005). A lack of bonding among family members has the potential to negatively effect the functioning of the family as a unit, but also of the individual family members. Therefore, because communication constitutes adaptation to change and adversity, it is an integral component to understanding family functioning.

Second, and as the final component associated with family functioning in the circumplex model, family satisfaction refers specifically to the level of satisfaction family members have with their families' functioning (Olson, 1995, 2011). Although families that are balanced in cohesion and flexibility are generally *most* functional, and families that are unbalanced across these same factors are frequently *less* functional, there may be families that fall in a mid-range on one or more dimensions that lack a clear connection to family functioning. The degree to which these family members enjoy positive outcomes (such as resilience after an experience of adversity) may be largely dependent on how satisfied they are with their own family. For example, individuals from families that are slightly higher in flexibility and have also experienced a number of changes in family structure (e.g., as a result of divorce) may report that this level of imbalance in their flexibility is satisfying in their unique family context. Therefore, assessing family satisfaction in this way both acknowledges and accounts for variation in family members' optimal level of cohesion, flexibility, and communication. In the current study, family functioning is comprised of the circumplex ratio score (i.e., a family's balance between cohesion and flexibility), family communication, and family satisfaction.

Summary. When families experience significant adversity, it may be that the adverse experiences strain the overall family system such that its functioning is diminished. During times of significant or prolonged stress, family coping resources may be focused primarily on managing the adverse or non-normative event, such that other aspects of family functioning (e.g., maintaining an emotionally cohesive environment) may be diminished. Alternately, families that are characterized by reduced overall functioning, communication, and satisfaction may be more likely to experience negative events such as a lack of emotional support. Therefore, the following hypothesis is presented:

H2: Childhood family adversity will be negatively related to family functioning as indicated by the circumplex ratio score, family communication, and family satisfaction.

Broadly speaking, there is significant evidence that balanced levels of cohesion and flexibility facilitate optimal family functioning, which leads to optimal psychological functioning and resilience for individuals (Olson, 2000). For example, a lack of parental bonding (i.e., low levels of cohesion) has been linked to adult depression (Parker, 1983), but a moderately cohesive family can serve as a protective factor in times of stress (Garmezy, 1985). The ability to adapt to change (i.e., flexibility) can result in active coping strategies that are related to the capacity to handle stress and trauma (Southwick, Vythilingam, & Charney, 2005). Families that function with a balance of cohesion and flexibility are more likely to provide a base for the individual development of resilience to negative family events, and thus, the following hypothesis is presented.

H3: Family functioning as indicated by the circumplex ratio score, functional family communication, and family satisfaction will be positively related to resilience.

Family Adversity, Functioning, and Resilience

Despite the hypothesized positive relationship between family functioning and resilience, there is a small body of research that suggests that some exposure to “manageable” amount of stress during the developmental years may actually promote an adaptive response to stress later in life (Lyons & Parker, 2007). Based on these findings, it seems possible that individuals who have had these manageable (i.e., low to moderate) experiences of family adversity may be more resilient when they report a balanced family environment. When family members are able to successfully cope with adversity on a small scale in a supportive family, it may be that they gain confidence in their ability to manage stress effectively and are able to be more resilient as a result.

In families that have experienced a high degree of adversity, however, the relationship between family cohesion, flexibility, and resilience may change. Specifically, the ACE study has linked the number of different types of family adversity experienced during childhood with increasingly detrimental mental and physical health outcomes. In fact, individuals who experienced four or more different forms of family adversity (e.g., parental divorce, poverty, abuse, and neglect) were at the highest risk of depression and suicide attempts as adults, in addition to being prone to a host of other negative health and behavioral outcomes (Felitti et al., 1998). Experiences of family adversity have long-ranging and significantly harmful effects on all family members, even when they are not directly affected by the event. For example, children whose

parents were divorced, incarcerated, or unemployed suffered similarly detrimental consequences as those children who were victims of abuse (Felitti et al., 1998).

Therefore, when individuals report that they experienced a variety of different types of childhood stress, it may be that a *disengaged* family will be most closely related to resilience. Disengaged families are characterized by low cohesion, little involvement among family members, and a high degree of emotional independence (Olson, 2000).

When individuals come from families that experienced a significant degree of adversity, it may be that the most salient protective factor is an environment that separates individuals from the larger family system in which adversity occurs. In contrast, it is also possible that individuals from families who have experienced significant adversity may fare better when they are characterized by a high degree of cohesion (i.e., characterized as *enmeshed*) because they are able to support one another through the trauma. To examine these two varying lines of reasoning, the following research question is presented:

RQ1: How, if at all, does family adversity moderate the relationship between family functioning and resilience?

Overall, the experience of stressful events as well as the nature of communication in the family of origin likely creates an environment in which resilience may be either supported or hindered. However, as established by previous waves of resilience research, we are shaped by a variety of factors, including individual personality characteristics, traits, and predispositions throughout the course of our lives. Therefore, in the current study, the influence of the individual in developing resilience

to adversity is also considered, and hypotheses related to how individual factors predict resilience are proposed.

The Role of the Individual in the Resilience Process

As highlighted by the first wave of resilience inquiry that focused on traits associated with resilience, there is a strong foundation for the association between the individual and resilience (Richardson, 2002). Thus, the current study also examines the importance of individual characteristics in understanding the development of resilience. Emerging primarily from the discipline of psychology, the traits and characteristics associated with resilience to adversity can be broadly categorized into two types of individual differences: Factors associated with *personality*, and those linked to *coping* (Skodol, 2010). Personality factors refer to “constellations of traits or attributes that determine how people perceive, think about, and relate to themselves and their environment” that are relatively enduring and consistent across a variety of situations (Skodol, 2010, p. 113). In contrast, coping factors refer to those processes that are only employed during times of stress, and may not be consistent or stable depending on the circumstances (Folkman & Moskowitz, 2004). Although the distinction between personality and coping factors is important, it should also be noted that certain personality traits are closely related to coping processes, in that the way individuals cope with stress is generally consistent with their overall personality, and their personality can predict how well we cope.

Rather than conceptualizing resilience as having a one to one correspondence with certain personality characteristics, however, it may be more useful to view traits and characteristics as building blocks in the development of resilience (Ong, Bergeman,

& Chow, 2010). Thus, personality traits associated with resilience may be most useful for understanding how individuals are able to adapt to adverse experiences. Indeed, empirical support for this perspective suggests that the traits often associated with resilience support a strong sense of self, promote flexibility in thinking (Isen, Dauman, & Nowicki, 1987), counteract the effects of negative emotions (Fredrickson & Levenson, 1998), build psychological and social resources (Keltner & Bonanno, 1997), and facilitate an enduring sense of well-being (Fredrickson & Joiner, 2002). Although there are a variety of qualities that affect one's sense of self, two of the most salient qualities/building blocks related to resilience—and therefore the two examined in the current study—are individuals' optimism and self-efficacy.

Optimism. In the context of resilience, embodying a sense of *optimism* requires more than just positive thinking. Resiliently optimistic people tend to be goal-directed and motivated (Clausen, 1991) across multiple areas of their lives, and show determination and persistence toward achieving those goals (Skodol, 2010). More importantly, optimistic individuals are flexible in their approach to problem solving, and thus are better able to manage challenges (Southwick, et al., 2005), perhaps because they view misfortunes as temporary setbacks rather than permanent defeats (Seligman, 1990). In their meta analysis of optimism and pessimism research, Scheier and Carver (1992) concluded that optimists tend to make the best out of their lives regardless of the circumstances, whereas pessimists “experience life as harder and less manageable” (p. 224).

Although the concepts of optimism and resilience are closely linked, they function as two separate variables. The distinction between optimism and resilience is

that optimism refers to one's expectations about the future, whereas resilience refers to individuals' actual responses to adverse events. Thus, individuals may be optimistic without being resilient, either because they have not experienced adversity or because their actual response to stressful events varied from their own expected behavior.

Although occurring less frequently, it is also possible that one could be resilient without being optimistic. For some individuals, the experience of adversity that lead to a resilient response may actually lead them to expect more stressful situations in the future, although they may have confidence in their own ability to manage and adjust to them accordingly.

Conceptually, optimism has played a prevalent role in the discipline of psychology for several decades (see Bailey, 1988; Peale, 1956). In recent years, however, scholars have started to examine the communicative manifestations of optimism (e.g., Punyanunt-Carter, 2010). Specifically, Punyanunt-Carter (2010) reported that when responding to others' statements, optimists tended to use significantly more positive words, fewer curse words, and tended to "respond with more rapport," even when a statement was potentially hurtful (p. 48). Overall, then, optimists tend to cope more effectively with stressful experiences through their use of social support (Scheier, Weintraub & Carver, 1986), and these variations in coping are evidenced in the way they communicate (Punyanunt-Carter, 2010). Individuals who are more optimistic may be better able to rely on the support of others during adversity, and may talk about their experiences in a more optimistic way, thus offering a potential mechanism for the link between optimism and resilience.

Self-efficacy. The second characteristic of resilient personalities, *self-efficacy* refers to individuals' belief in their ability to successfully perform a behavior or produce an outcome (Bandura, 1997). Because resilient individuals believe that the events in their lives are most strongly influenced by their own actions and decisions, they also tend to believe that any problems that arise can be solved by their own efforts (Skodol, 2010). Having agency and responding functionally to challenges in one's life necessitates a sense of efficacy, in that the process of solving one's problems is often motivated by a belief in one's own ability to do so. For example, self-efficacy can serve as a buffer against ambiguous loss after parental divorce (Afifi & Keith, 2004) as well as personal and work-related stress (Parkes, 1984), and has been strongly linked to the development of resilience (Lin et al, 2004; Peterson, 2000; Seligman, 2002; Rutter, 1987), as well as overall health (Bandura, 2004).

Much like the concept of optimism, self-efficacy also has a communicative component. Afifi and Weiner (2004) outline several aspects of efficacy that are related to the ability to cope with stress and discuss difficult topics with relational partners. First, *coping efficacy* refers to the extent to which individuals believe they have the emotional and social resources to manage the outcomes of communicating about stressful or adverse situations (Afifi & Weiner, 2004). Individuals who believe that they have the skills and resources necessary to cope with the consequences of talking about their problems are more willing to use communication as a means to begin the process of recovery (See Bandura, 1997). Perhaps more importantly, efficacious individuals tend to enjoy tangible health outcomes as a result of their beliefs about their own

abilities, such as reduced blood pressure after a behavior challenge (Bandura, Reese, & Adams, 1982).

The second efficacy component, *communication efficacy*, is defined as individuals' perception that they possess the necessary skills to communicate in a way that allows them to achieve a conversational goal or outcome (Afifi & Weiner, 2004). This may be particularly important to examine in the current study because individuals may be more likely to seek emotional support from others after the experience of adversity, which has the potential to support the development of their own resilience. Efficacious individuals also tend to have positive orientations toward the future (Masten et al., 1999) and are able to infuse stressful events with positive meaning (Folkman & Moskowitz, 2000), thus linking efficacy after the experience of adversity to the outcome of resilience.

Collectively, optimism and efficacy are two individual characteristics that have been closely linked with the development of resilience in existing literature. Because these two characteristics also have the potential to impact the way that individuals communicate about their adverse experiences as described in the previous sections, they are included and hypothesized in the present study as the two most salient personal characteristics in understanding the development of resilience from a communicative perspective.

H4: Individuals' characteristics as indicated by optimism and efficacy will be positively related to resilience.

Overall, individuals' characteristics such as optimism and efficacy are likely important in understanding how resilience is developed after the experience of family

adversity. However, to gain a more complete picture of resilience, it may also be salient to consider the significance of close relationships, specifically between marital partners, in understanding resilience.

The Role of Marital Relationships in the Resilience Process

From the sections above, it is clear that both family influences and individual characteristics play important roles in predicting resilience from negative events. Neither of these perspectives, however, captures the impact of other close adult relationships on resilience. Individual characteristics and family schemata are enduring but not necessarily permanent, and their influences may wane over time as other close relationships, such as those between marital partners, become more prominent. For example, marriage has been known to affect the heritability of various personality traits in adulthood, in that the nature of the marital relationship can actually alter individuals' genetic predispositions (Boomsma, deGeus, van Baal, & Koopmans, 1999; Health, Jardine, & Martin, 1989). In other cases, life transitions such as marriage may be necessary to activate resilience developed early in life (Rutter, 2006), and the protective factors related to resilience are likely to accumulate over time (Werner, 2005). The degree to which marital relationships are instrumental in the process of developing individuals' resilience to early family adversity, however, is likely to depend on the nature of the relationship, which can be thought of as the marital environment. Therefore, it is crucial to examine the way that resilience can develop through close relationships such as marriage, rather than as simply an individual trait or an effect of family functioning. Although it is both useful and necessary to examine resilience from a trait and family perspective, the characteristics of individuals and their family

experience should be viewed as two pieces of a much larger puzzle comprising the outcome of resilience. In this way, individuals' development of resilience is not limited to a specific timeframe, but rather is influenced by the nature of the interaction and communication in other close relationships throughout their lives.

Examining the influence of the marital environment on resilience may be particularly salient in understanding individuals' responses to family adversity because marriage often represents the beginning of another family relationship. The communicative patterns learned from individuals' families of origin often resurface when they begin a family of their own, and thus, it seems likely that individual will also experience some of the same challenges from their family of origin as well. Many of the issues experienced in that family of origin may emerge in individuals' marital environment, in that individuals' communication patterns are strongly influenced by that of their families. Therefore, understanding the impact of marital partners on individuals' resilience may be particularly important in the context of family of origin adversity, as in the current study.

Finally, existing research examining the influence of close relationships (such as marriage) on resilience has largely focused on the personality traits and characteristics of marital partners. Although developing an understanding of marital partners' traits is useful, examining resilience as a combination of characteristics does not explain the mechanism through which resilience is developed. Therefore, to supplement the existing body of knowledge associated with marriage and resilience, this study considers the *communicative* influence of significant others as an integral part of developing resilience.

The significance of marital partners' support and closeness in the development of resilience. The way that individuals gain meaning from adversity is often a social process. In the context of close relationships, relational partners frequently discuss stressful experiences as a way of making sense of them (Koenig Kellas & Trees, 2006). At the same time, this sense-making process can have very real benefits for individuals, in that sharing negative experiences with others may promote a sense of catharsis and healing (Keeley & Koenig Kellas, 2005), and interactions with important others may sustain individual change (Koenig Kellas & Trees, 2006). To understand the connection between this sense-making process and resilience, it is useful to first highlight how individuals perception of, and reaction to, adversity is shaped by their relationships with important others.

When sharing negative events with close relational partners, individuals' often adapt their communication about life experiences to their partners, who then contribute their own insight and reactions and become part of these stories of adversity themselves. The memory of the negative experience then becomes a co-constructed product of the interaction, and in turn influences the way individuals remember it, and often supports the coping and sense-making process (Conway & Pleydell-Pearce, 2000; Davies & Harre, 1990; Schacter, 1996).

By communicatively depicting the experience of negative events in a more positive way during interactions with others, individuals create a "public commitment" to be consistent with that depiction, while also receiving immediate social support for that portrayal (Tetlock, 1991; Tice, 1992). Thus, once a particularly negative event has been reconstructed by discussing it with others, individuals may reframe other negative

events in similarly resilient ways, resulting in a consistent reinvention of themselves. In this way, individuals may be able to socially construct resilience through their conversations about negative events, which influences the way that they will react to distressing events in the future.

Presently, specific knowledge of how communication about distressing family events might vary as a function of the nature of close relationships later in life is limited. What we do know, however, is that social shaping of the past both affects and reflects individuals' perception of their future (Tetlock, 1991). As interactive approaches to resilience increase in popularity, there have been several theoretical perspectives about how resilience and relationships influence each other. Janoff-Bulman (1992), for example, proposed an early explanation about how social relationships can affect the development of resilience. In essence, the experience of traumatic or stressful events threatens individuals' assumptions about themselves and the nature of the world around them (Janoff-Bulman, 1992). Resilience, then, is descriptive of those individuals who are able restore their general faith in the "goodness" of the world.

According to this perspective, individuals' assumptions about the world take place in an interpersonal context, whereby other influential individuals play a role in the reconstruction of the self. However, this process of co-construction is not linear, in that it is influenced by the qualities of each relational partner as well as the nature of the relationship (Pasupathi, 2001). Therefore, two processes that may have a particularly lasting impact on the development of resilience in marriage are social support and relational closeness, which are discussed below.

Marital social support as a predictor of resilience. The concept of social support is defined as “the type of communicative behavior having the intended function of alleviating, moderating, or salving the distressed emotional states of others” (Burleson, 1994, p. 64). Often investigated in married couples, support from close relational partners after the experience of adversity can provide significant benefit to individuals’ well-being and mental health (Cohen & Willis, 1985). Although the mechanism through which others support a functional response to adversity was initially unclear, Tedeschi and Calhoun (1995, 2004) expanded on the social aspect of resilience by asserting that the act of disclosing the trauma to another individual may promote cognitive processing that can facilitate growth because disclosure itself provides the opportunity for reflection and contemplation. However, this process does not explicitly account for the communicative nature of social support, as mere disclosure can occur without other people as in the case of expressive writing (see Pennebaker, 2002). Yet, other individuals play a significant role in determining individuals’ response to trauma through their responses (Lepore & Revenson, 2007), and these responses can ultimately affect their resilience (Cordova, Cunningham, Carlson, & Andrykowski, 2001). When others change the subject, criticize, or minimize the stressful experience of another, that person’s ability to cognitively process the trauma is reduced (Lepore & Revenson, 2007). In contrast, when others offer support and empathy for their experiences, individuals are able to understand or reconceptualize their experience of trauma in new and more resilient ways (Tedeschi & Calhoun, 1995, 2004; Weber, Harvey, & Stanley, 1987).

In some cases, social support is beneficial because it provides a way of coping with specific life stressors such as illness, divorce, or the death of a loved one (Cohen & Wills, 1985; Pierce, Sarason, Sarason, Joseph, & Henderson, 1996). In other cases, the role of social support in adapting to adversity can be less specific. For example, according to McMillen (1999, 2004), significant adversity or trauma has the potential to alter individuals' general trust in human kind. Receiving social support from others after a negative event helps to restore their faith that people are good, helpful, and can be counted on when needed. As a result, they are more likely to appreciate their social relationships and generate a more positive view of others, both of which are instrumental in developing resilience (McMillen, 2004).

Schaefer and Moos (1992) offered a more cognitive approach to describe the link between the social environment and resilience. After a stressful experience, a significant amount of individuals' cognitive capacity is devoted to making sense of that event on a number of levels. Even when adversity occurred years prior, individuals may ruminate on events that are in some way unresolved as a negative form of sense-making (Miller, Roloff, & Malis, 2007). Social support provides resources, whether emotional or instrumental, which enable the individual to perceive the adversity as less stressful. Therefore, the cognitive resources previously consumed by minimizing the stress of the event can be redirected to focus on opportunities for growth.

Taken as a whole, these perspectives on the role of the close relationships and the process of developing resilience have been integrated into a theoretical model of the social environment and growth (Helgeson & Lopez, 2010). In this model, the process of resilience is activated by the experience of a significantly stressful event. Self-

disclosing about this event then provides opportunities for growth through personal reflection, contemplation, or freeing resources for cognitive processing. Importantly, this process often begins shortly after the occurrence of a stressful event, but may also continue for months and even years after the experience (Helgeson & Lopez, 2010; Richardson, 2002), likely depending on its severity and importance. According to this model, because adversity experienced during childhood may have long-term effects lasting into adulthood (Werner & Smith, 1992), the process of making sense of and developing resilience to family adversity may unfold over the lifespan. The process is mostly likely to result in resilience when individuals' within the social network express understanding, caring, and concern through social support (Helgeson & Lopez, 2010).

Although social support and interpersonal sense-making are needed and often provided at the time of and/or immediately following a stressor, individuals may still need to process traumatic events over the course of a lifetime. Indeed, most psychotherapy is dedicated to the need to process difficulty and make sense of it over time. For example, narrative therapy suggests that we have the opportunity to “re-story” personal narratives that are distressing or troubling (McAdams, Reynolds, Lewis, Patten, & Bowman, 2001). One of the primary ways in which we have the opportunity to reframe our dispreferred storylines is in communication with significant others (Lock, Epston, & Maisel, 2004; McAdams, 1997; White, 2007).

The degree to which this interpersonal reframing process is successful, however, likely depends not only on the quality of the social support, but also on the nature of the relationship between the individual who experienced the stressful event and the person providing support. In marital relationships, for example, individuals are more likely to

be positively affected by social support when they have a close relationship with their partner (Clark, Pierce, Finn, Hsu, Toosley, & Williams, 1998).

Marital closeness as a predictor of resilience. The degree of relational closeness between marital partners may be particularly salient when examining the role of social support after experiences of adversity. The traditional perspective on relational closeness originated from Kelley and colleagues' (1983) model of interconnected activities between significant others. From this viewpoint, closeness is measured as the frequency of interaction and time spent between relational partners, the variety of their shared activities, and the degree of influence that one relational partner has on another. According to this perspective, closeness is seen as a tool used primarily to distinguish between "strangers" and "close others" based on relational characteristics (Aron et al., 1992). There are instances when conceptualizing closeness primarily in terms of interconnected activities is both valid and useful, perhaps when the goal is to clearly differentiate between close and non-close relationships. However, examining relational closeness primarily from the lens of shared activities may minimize many of the cognitive and affective qualities that are also associated with close relationships (Aron et al., 1992). For example, in marital relationship, most partners tend to spend a significant amount of time together (as a function of shared living space), and likely interact with one another frequently. Yet the degree to which these everyday interactions translate into a sense of interpersonal connectedness is unclear when measured in this way. Thus, in the present study, relational closeness will be measured as the extent to which relational partners perceive each other as part of themselves, and their sense of interconnectedness with another (Aron & Aron, 1986).

In the context of resilience inquiry, Mayer and Faber (2010) have highlighted the importance of maintaining personal and social connections after stressful or adverse experiences to support the development of resilience. They conceptualize connectedness as a continuum ranging from *disconnection* to *full connection*. Disconnection is characterized by “isolation and a general lack of human involvement,” whereas full connection suggests “direct, present, intimate relations” to dependable others (Mayer & Faber, 2010, p. 108). When individuals are able to maintain full connection to others, they help to create accurate mental representations of themselves and others. This may be particularly salient in the context of family adversity because some form of separation or loss often accompanies this type of stress. For example, a serious illness, death, or even parental divorce of a family member may leave that family members’ role unfulfilled. By maintaining strong connections with others, those other relationships may serve a compensatory function through the provision of support and care that may be missing as a result of family adversity (Mayer & Faber, 2010).

In sum, individuals are more likely to develop resilience through their relationships (e.g., a marital partner) when they feel interpersonally connected to their partners, who in turn communicate their emotional support. Although there are a multitude of close relationships with the potential to fulfill this supportive role, it seems likely that the marital relationship is a particularly important context from which to investigate sense-making about family adversity. It may be that one’s relationship with a marital partner marks the shift from one family (i.e., the family of origin) to another, and provides a unique perspective and frame for adversity that was experienced in the family of origin. Thus, the following hypothesis is presented:

H5: Individuals' marital environment as indicated by their marital partners' communication-based emotional support and marital closeness will be positively related to resilience.

Although the nature of individuals' marital relationships is hypothesized to positively predict resilience, this connection has the potential to change as a function of their family of origin environment and their personal characteristics. Thus, the ways in which the marital environment may moderate the link between the family functioning and individual characteristics is discussed in the following section.

Marital relationships as a moderating influence. As discussed in the preceding section, the degree to which individual characteristics and family functioning predict resilience has the potential to be altered by individuals' marital relationships. To date, the vast majority of research on resilience has considered individual and family characteristics as consistently predictive of resilience from adolescence through adulthood (e.g., Werner & Smith, 1992). For some individuals, the influence of their own characteristics as well as their families' may play a significant role in determining whether or not they are able to respond resiliently to negative family events. For other individuals, however, the influence of a close, emotionally supportive marital relationship may be more salient than the characteristics of themselves or their families in terms of resilience. Specifically, the way that individuals talk about their negative family experiences with their marital partners has the potential to help them reframe these experiences in a way that support the development of their own resilience. The degree to which this is true is likely contingent upon aspects of the marital relationship. If individuals are able to talk about negative family experiences with a close relational

partner who communicates their emotional support, it seems likely that this marital environment will be one in which they are better able to reframe adversity, thus fostering resilience. In some cases, a marital partner's communicated emotional support for their partner's experience of family adversity may have the potential to alter the way that individual perceives his/her experiences, and may even overcome an unbalanced family environment replete with stressful circumstances.

H6: Individuals' marital environment will moderate the influence of family functioning on resilience such that a close and supportive marital environment will increase resilience in individuals from less functional families.

H7: Individuals' marital environment will moderate the influence of their individual characteristics on resilience such that a close and supportive marital environment will increase resilience in individuals lower in optimism and efficacy.

Summary. In sum, the purpose of the current study was to first examine individual characteristics (i.e. optimism, and communication and coping efficacy), and aspects of the family and family functioning (i.e., adverse childhood experiences and cohesion, adaptability, and family communication satisfaction) as they relate to individuals' resilience, but also to position the influence of the marital environment (i.e., communication-based emotional support and closeness) as a moderator of the relationship between individual characteristics, family of origin environment and resilience. All previously stated hypotheses and the research question are summarized in Table 1, and the hypothesized model is depicted in Figure 1.

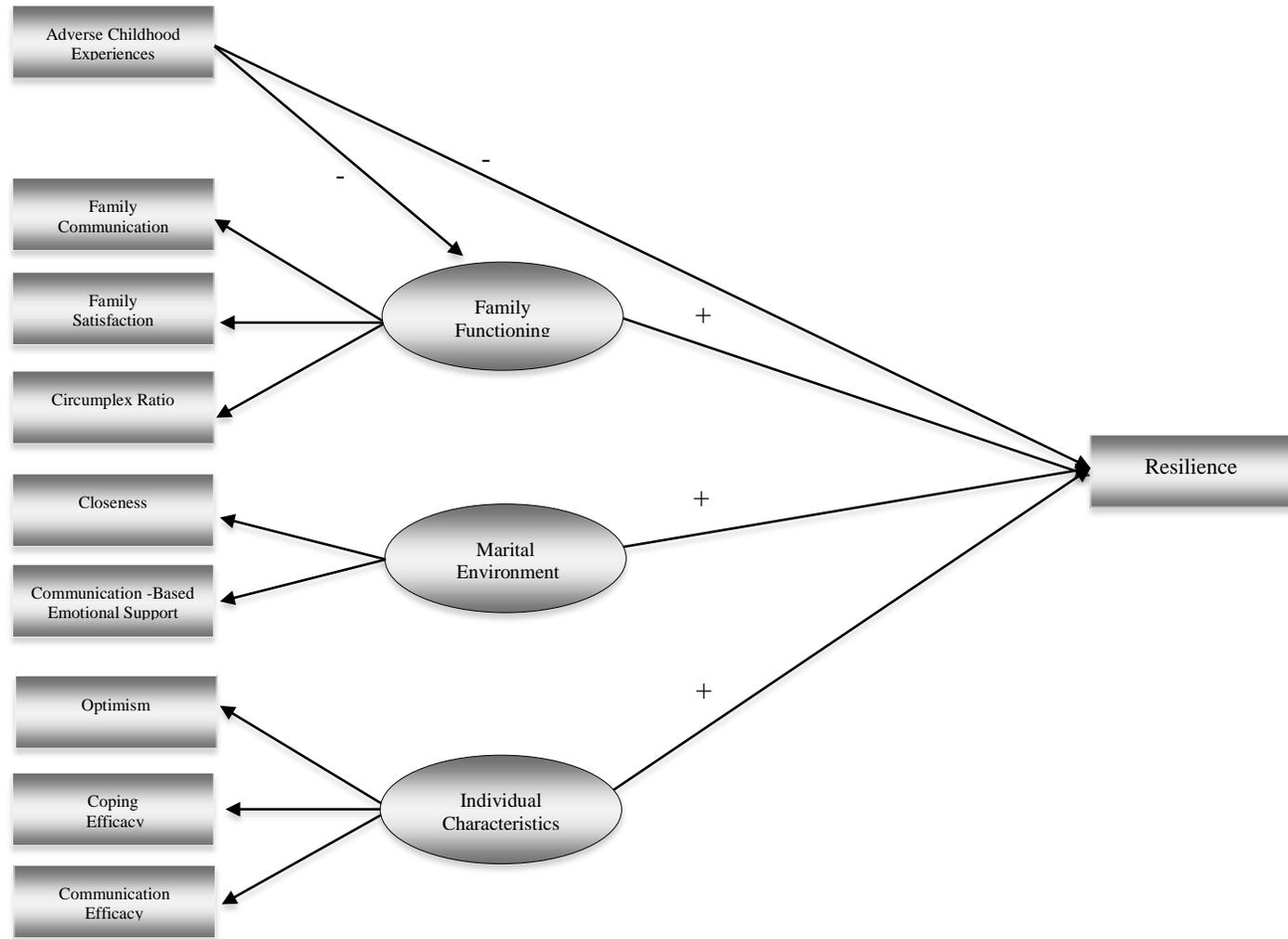


Figure 1. Hypothesized Model Depicting the Communicative and Relational Development of Resilience from Family Functioning, the Marital Environment, and Individual Characteristics.

Summary of Hypothesized Model

As depicted in Figure 1, the hypothesized model examines the relationship between three related but distinct factors, each with the potential to impact individuals' resilience to family adversity. Because the majority of existing research on resilience has primarily focused on individual factors, this hypothesized model is designed to extend the existing line of inquiry by including individual influences, but also considered the role of family functioning and the quality of the marital environment in understanding resilience.

Because individuals' optimism and efficacy have emerged as important in predicting resilience from previous research, they will be included as two indicators comprising the latent construct of individual characteristics which theoretically are related to resilience. To capture the impact of family functioning, individuals' perception of their family of origins' cohesion and flexibility, as well as their communication and overall family satisfaction will also be considered. Finally, to investigate the potential impact of marital partners, their communication-based emotional support as well as closeness will also be considered in regard to resilience.

By including these aspects of individual, familial, and marital life as potentially important in understanding resilience after family adversity, this model will illuminate how, if at all, these factors impact individuals' resilience, but also emphasize the role of communication in each of these three areas. Testing the hypotheses and research question guiding this project will support the goals of the present study by helping to explicate how resilience is related to relational and communicative qualities, in addition to individual ones.

Table 1

Summary of Hypotheses and Research Questions

-
- H1: Childhood family adversity will be negatively related to resilience.
- H2: Childhood family adversity will be negatively related to family functioning as indicated by the circumplex ratio score, family communication, and family satisfaction.
- H3: Family functioning as indicated by the circumplex ratio score, functional family communication, and family satisfaction will be positively related to resilience.
- RQ1: How, if at all, does family adversity moderate the relationship between family functioning and resilience?
- H4: Individuals' personality and coping characteristics as indicated by optimism and efficacy will be positively related to resilience
- H5: Individuals' marital environment as indicated by their marital partners' communication-based emotional support and marital closeness will be positively related to resilience.
- H6: Individuals' marital environment will moderate the influence of family functioning on resilience such that a close and supportive marital environment will increase resilience in individuals from less functional families.
- H7: Individuals' marital environment will moderate the influence of their individual characteristics on resilience such that a close and supportive marital environment will increase resilience in individuals lower in optimism and efficacy.
-

CHAPTER TWO METHOD

To test the hypotheses posited in Chapter One, quantitative data were collected through an online survey from a sample of married individuals who reportedly experienced significant adversity in their family of origin, and was analyzed via structural equation modeling (SEM). In this chapter, the method is outlined through a description of participants and recruitment, procedures, and measures.

Participants and Recruitment

After obtaining human subjects' approval, 201 participants were recruited in two primary ways. First, participants were recruited through the Department of Communication Studies. Students were offered extra credit, at the discretion of their instructors, and solicited through (a) the departmental website's list of research participation opportunities, (b) face-to-face announcements in Communication Studies classrooms, and (c) instructor e-mails. Second, participants were recruited through network and snowball sampling. This included contacting members of social networks via email as well as posting on Facebook to request that they pass along the recruitment information to those who may be interested in participating. All participants were given the opportunity to enter their information, either to (a) earn course research participation credit or (b) be entered in a drawing for an Amazon gift card. Participants were also given the option to remain completely anonymous. The recruitment script used to solicit participation in this study is available in Appendix A.

To qualify for this study, participants were required to (a) be age 19 or older, (b) have experienced significant adversity in their family of origin, and (c) currently be in a marital relationship. Because eight (8) participants indicated that they had no

experiences of adversity in their childhood, they were excluded from further analysis, for a total of 193 valid participants. The participants in this study included 115 (59.6%) females and 74 (38.3%) males (four participants, 2%, did not indicate their sex) ranging in age from 19 to 92 ($M = 39.73$, $SD = 14.93$). The majority of participants (86.0%, $n = 166$) identified as White/Caucasian, with 3.6% ($n = 7$) identifying as African American/Black, 3.1% ($n = 6$) identifying as Asian, 3.1% ($n = 6$) identifying as Hispanic, and 1.0% ($n = 2$) identifying as other. Approximately 3% ($n = 6$) did not specify their race/ethnicity. Most participants were in their first marriages (80.3%, $n = 155$), although 14.0% ($n = 27$) reported that they were previously divorced or widowed. The average overall length of participants' relationship (including dating) was 17.01 years ($SD = 14.53$), and ranged from one year to 58 years. The average number of years of marriage was 14.53 years ($SD = 14.41$) and ranged from one year to 54 years.

When asked about their childhood family adversity, participants reported an average of approximately three types of adversity ($M = 2.76$, $SD = 2.02$). Although the ACE measure was treated as a continuous measure for analysis in the current study, it is also useful to examine the variations in type of adverse experiences reported by participants to provide a more complete picture. Specifically, 52.3% reported parental divorce, 40.7% reported diagnosed parental mental illness or suicide, 39.5% reported parental substance abuse, 34.9% reported a form of verbal abuse or intimidation in their family, 33.7% reported a significant lack of emotional support, 25% reported physical abuse, 14% reported poverty or lack of parental care, 12.3% reported parent-to-parent

abuse, 10.5% reported sexual abuse, 9.9% reported that a parent was incarcerated, and 8.1% reported the death of a parent.¹

Procedures

After providing informed consent (See Appendix B) and confirming that they were over the age of 19, currently married, and had experienced family adversity, participants completed online measures via Qualtrics survey software designed to assess the familial, individual, and relational factors potentially related to the development of resilience. Prior to completing any other measure, all participants were asked to identify their specific type of family adversity using the Adverse Childhood Experiences scale (ACE) and a score was calculated for each participant. When participants received a score of one (1) or greater on the ACE measure, they were directed to the next page, in which they completed the remainder of the survey. If a participant did not receive an ACE score of at least one (1), they were given the opportunity to provide an open-ended response regarding the type of adversity they experienced, but were excluded from further analysis for the present study. Additionally, participants provided basic demographic information about themselves and their current marital relationship, including their sex, age, and number of years married. Upon completion of the online survey, participants were then directed to a page where they had the opportunity (although not the obligation) to enter their information to be included in a drawing for a \$10 Amazon gift card, or to receive extra credit for research participation. The informed consent form and all measures for this study are available in Appendices B-D.

¹ Percentages total more than 100% because participants were able to indicate that they had experienced more than one type of family adversity.

Demographic Variables

Participants were asked to report their age, sex, ethnicity, marital status (i.e., first marriage, divorced and remarried, or widowed and remarried), total number of years in current relationship and number of years legally married to their current partner.

Family Variables

To assess the family variables hypothesized to predict resilience, participants completed several measures associated with their family of origin environment. As described below, all participants first completed the ACE scale, which was used in the current study to measure the extent of family adversity, as well as all measures associated with the most recent version of Olson's (2011) circumplex model using FACES IV. Details on each of these measures of family variables are provided below. Evidence of acceptable alpha reliabilities from previous studies are provided for each measure as a point of references, but are not included from the current study due to the item-level psychometric analysis described in Chapter Three. Similarly, details on how participants' scores were created for each measure are also specified in the psychometric analysis section in the following chapter.

Adverse Childhood Experiences. To both determine participant eligibility and to measure the degree of family adversity as an independent variable, participants first completed the ACE measure. The measure was developed through the ACE study, which is a large-scale ongoing collaboration between the Centers for Disease Control and Prevention and Kaiser Permanente designed to analyze the relationship between the experience of childhood trauma, and health and behavioral outcomes later in life.

Initially, data were collected from more than 17,000 Health Maintenance Organization (HMO) members undergoing comprehensive physical examinations about their family-related childhood experience of abuse, neglect, and family dysfunction (Felitti et al., 1998). From these data, a measure was developed in which respondents indicated whether or not they have experienced the most frequently reported forms of family-related childhood adversity (e.g., parental divorce, parental mental illness, see Appendix C, and Felitti et al., 1998). To date, more than 50 peer-reviewed articles have validated the ACE scale by examining the link between adverse childhood family experiences and a variety of physical and mental health outcomes, including chronic disease, obesity, health risk behavior, victimization and perpetration, depressive disorders, and suicide (see Felitti et al., 1998). Additionally, the ACE survey instrument reflects good test-retest reliability, indicating that adults' self-reports of childhood adversity are relatively stable over time (Dube, Williamson, Thompson, Felitti, & Andra, 2004).

In the current study, all participants were asked to complete the ACE scale prior to any other measures, and a score was calculated for each participant. Scores for the ACE measure ranged from zero to 10, with 10 indicating that they have experienced more types of childhood adversity (i.e., physical, sexual, and emotional abuse, in addition to household dysfunction such as parental substance abuse, divorce, mental illness). Although experiencing a greater number of these adverse events may be linked with increasingly detrimental outcomes, research suggests that the experience of even one type of significant adversity such as those included in this measure is enough to cause distress (Felitti et al., 1998). Therefore, when participants received a score of one or greater on the ACE measure, they were directed to the next page, in which they

completed the remainder of the survey. If a participant did not receive an ACE score of at least one, they were given the opportunity to provide an open-ended response regarding the type of adversity they experienced, but were excluded from further analysis for the present study.

Circumplex model. In order to measure family cohesion, flexibility, satisfaction, and communication, the Family Adaptability and Cohesion Evaluation Scale (FACES) was administered to participants. Originating from an observational assessment tool also based on the circumplex model (i.e., Clinical Rating Scale; Olson, 2000; Thomas & Lewis, 1999), the FACES measure is now in its fourth version. FACES IV is designed as a self-report measure tapping into the three dimensions of cohesion, flexibility, and communication that comprise the model, in addition to a measure of overall family satisfaction.

FACES IV has several clear advantages over previous iterations of this measure. Early versions of FACES (i.e., FACES II and III) struggled to connect the theoretical perspective of the circumplex model with the way dimensions of the model were measured. Specifically, the circumplex model on which FACES was based theorizes a curvilinear relationship between both cohesion and flexibility and family functioning, in that families falling within the optimal mid-range of both dimensions were healthiest, whereas families on the extremes of the two dimensions were problematic. This hypothesized connection between cohesion, flexibility, and family functioning was supported when families were observed in a clinical setting, but there was initial difficulty in translating into a self-report measure. One plausible reason for flexibility and cohesion to appear to be linearly related (as opposed to curvilinearly related) to

family functioning may be because the earlier version of FACES did not adequately measure the extremes of these two dimensions. Therefore, in the most recent iteration of the measure (i.e., FACES IV; Olson, 2011) four unbalanced scales were added to the existing balanced scales to measure the high and low extremes of cohesion and flexibility. Specifically, flexibility in families ranges from *rigid* (very low flexibility) to *chaotic* (very high flexibility), whereas cohesion ranges from *disengaged* (very low cohesion) to *enmeshed* (very high cohesion). Items measuring flexibility included statements such as, “Our family tries new ways of dealing with problems” (balanced), and “It is unclear who is responsible for things (chores, activities) in our family” (unbalanced). Statements assessing cohesion included “Family members are involved in each others lives” (balanced), and “Family members seem to avoid contact with each other when at home” (unbalanced). Responses are recorded on a 1 to 5 Likert-type scale ranging from 1 = *strongly agree* to 5 = *strongly disagree*.

In addition to cohesion and flexibility, FACES IV also measures perceptions of family communication. Earlier versions of the measure (i.e., FACES II & III) were often criticized for dichotomizing family communication as “good” or “bad” without examining family members’ unique perception of their communicative behavior (Perosa & Perosa, 2001; Schrodt, 2005). To address these concerns, the FACES IV package includes two additional 10-item scales designed to measure family communication and family satisfaction respectively (Olson, 2011). Specifically, these scales ask family members to report on the nature of the communication in their family, but also the degree to which they are satisfied with the cohesion, flexibility, and communication within their family. Statements measuring family communication

included “Family members can calmly discuss problems with each other,” and “Family members express their true feelings to each other.” To assess family satisfaction, participants were asked to report on their level of satisfaction with various aspects of their family, including “the degree of closeness between family members” and “the quality of communication between family members” on a 1 to 5 Likert-type scale ranging from 1 = *very dissatisfied* to 5 = *extremely satisfied*.

In sum, the full version of FACES IV was used in the current study, which includes two balanced scales, four unbalanced scales, and measures of family communication and family satisfaction. The full measure therefore includes 62 total items assessing cohesion (7 balanced items, 14 unbalanced items), adaptability (7 balanced items, 14 unbalanced items), family communication (10 items), and family satisfaction (10 items). In the validation study (see Olson, 2011), FACES IV reflected very good alpha reliability for all six scales (.77 - .89), as well as high levels of concurrent, construct, and discriminant validity.

Based on scoring guidelines for FACES IV, a circumplex ratio score was computed for each individual that summarizes the “level of functional versus dysfunctional behavior perceived in the family system” (FACES IV, 2010, p. 17). To do so, the two scores from each of the unbalanced measures were individually summed and divided by two to obtain an average unbalanced score for each dimension of cohesion and flexibility. Participants’ balanced scores for cohesion and flexibility were then divided by their calculated average unbalanced score for the corresponding dimension, resulting in one ratio score for cohesion, and one ratio score for flexibility. To obtain each participant’s total circumplex ratio, the cohesion ratio was added to the flexibility

ratio and the sum was divided by two. Ratio scores falling below one indicate increasingly unbalanced families, whereas ratio scores above one indicate increasingly balanced families. Means and standard deviations for all measures are provided in the following chapter (see Table 7). Participants' ratio scores, family satisfaction scores, and family communication scores were then included in the creation of the latent construct for overall family functioning as outlined in Chapter Three.

Individual Variables

To assess the individual characteristics most closely associated with resilience, participants completed measures of optimism and efficacy as described below. As with the previous section regarding family variables, alpha reliabilities from previous studies are provided for each measure but are not included from the current study due to the item-level psychometric analysis described in Chapter Three. Details on the creation of participants' scores are also specified in the psychometric analysis section in the following chapter.

Optimism. Participants' optimism was measured using the revised Life Orientation Test (LOT-R; Scheier, Carver, & Bridges, 1994), which consists of a 10-item measure that assesses individuals' general optimism about life. The revised version of this scale is designed to isolate optimism from related measures of self-mastery and self-esteem and focus explicitly on individuals' expectations for the future. The LOT-R includes items such as: "I'm always optimistic about my future" and "In uncertain times, I usually expect the best." Of the ten items, only six (items 1, 3, 4, 7, 9, and 10) are used to calculate individuals' optimism score, and four (items 2, 5, 6, and 8) are considered filler items that are not used in scoring. Respondents are asked to indicate

the extent of their agreement with each of the items on a 5-point Likert-style scale. Negatively worded items (i.e., items three, seven, and nine) were reverse-coded. Alpha reliability estimates for the revised version of this measure was .78 (Scheier et al., 1994).

Efficacy. Participants' communication and coping efficacy regarding adversity in their family of origin were assessed via Afifi and Weiner's (2004) efficacy subscales adapted to reference participants' marital partners. The 7-item, Likert-type measure (1 = *strongly agree*, 7 = *strongly disagree*) asked participants to respond to statements such as "I know how to talk to my marital partner about the stressful events that occurred in my family of origin," and "I am certain that I could handle whatever my marital partner thought about the stressful events in my family of origin, whether positive or negative." Estimates of the scale's alpha reliability coefficients ranged from .82 to .90 (Afifi & Afifi, 2009).

Relational Variables

The final group of variables included in the present study assessed the nature of participants' marital environment by examining their communication-based emotional support and interpersonal closeness. As with the other variables in the current study, alpha reliabilities from previous studies are provided but are not included from the current study due to the item-level psychometric analysis described in Chapter Three. Details on the creation of participants' scores are again specified in the psychometric analysis section in the following chapter.

Communication-based emotional support. The quality of support provided by each participant's marital partner was assessed via Weber and Patterson's (1996)

Communication Based Emotional Support Scale. Items on the scale are designed to capture the nature of the communication through which social support is provided, and participants were asked to think specifically about interactions with their current marital partner about the stressful event(s) or adversity that occurred in their family of origin. Consisting of 13 items scored on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), the scale has been used reliably in previous research ($\alpha = .93$, Weber & Patterson, 1996). Items measuring communication-based emotional support included “My marital partner helped me work through my thoughts and feelings about decisions concerning the stressful event(s) in my family of origin,” and “My marital partner said and did supportive things for me when I was feeling down about my family problem(s).” Items three, five, and eight were reverse coded.

Interpersonal Closeness. Aron et al.’s (1992) single-item pictorial measure of the Inclusion of the Other in the Self (IOS) scale was used to assess the degree of closeness between marital partners. This scale has demonstrated excellent reliability with other closeness scales, as well as test-retest reliability and predictive validity for the continuation of romantic relationships (Aron, et al., 1992). However, in contrast to other measures of closeness, the IOS assesses relational partners’ sense of connectedness as well as the degree to which participants see their marital partner as an integral part of themselves, which may be particularly important in understanding resilience. This measure uses 7 pairs of overlapping circles representing self and other, positioned in a way that depicts varying degrees of closeness between individuals in an interval-level scale.

Resilience

The Brief Resilience Scale (BRS, Smith, Dalen, Wiggin, Tooley, Christopher, & Bernard, 2008) was used to evaluate each participant's resilience. Unlike other scales that measure the resources available to cope with adversity (e.g., CD-RISC, 2003), the BRS is designed to measure resilience as an outcome. The scale is comprised of 6 statements which participants are asked to indicate the extent to which they agree on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items two, four, and six were reverse coded so that higher scores reflect greater resilience. The scale includes statements such as "I usually come through difficult times with little trouble" and "I tend to take a long time to get over set-backs in my life" (reverse coded). In previous studies, Cronbach's alpha reliability ranged from .80 to .91 (Smith et al., 2003).

Summary

This chapter outlines the participants, procedures, and method used to assess the role of marital, family, and individual factors in the communicative development of resilience. Demographic information for all participants and a description of all measures used in this survey is also provided. In the next chapter, the process and results of the analysis are described.

CHAPTER THREE

RESULTS

Overview of Data Analysis

Prior to testing the specific hypotheses and research question posed in the previous chapter, item-level psychometric analyses were conducted to examine the reliability of each measure used in the current study. Upon determining the most reliable set of items for each measure, corresponding composite scores for each measure were created using only the items deemed reliable as discussed below. Then, confirmatory factor analysis (CFA) was conducted on the structural model as a whole, including the latent constructs of (a) family functioning (comprised of the family functioning ratio score from FACES IV, family satisfaction, and family communication); (b) individual characteristics (comprised of communication efficacy, coping efficacy, and optimism), and (c) marital environment (comprised of closeness and communication-based emotional support). Once acceptable model fit was achieved at the measurement level, all hypothesized relationships among the study variables were tested via structural equation modeling (SEM). Following these analyses in SEM, OLS regression via SPSS 20.0 was used to address the research question and decompose the interaction effects. Therefore, results from the SEM analyses for each hypothesis are presented first, followed by results from the research question analyzed via regression in SPSS.

Item-level psychometric analyses, confirmatory factor analyses, and hypothesis testing were conducted using SEM via Muthen and Muthen's Mplus 6.1. The use of SEM provides several advantages over traditional ordinary least squares (OLS)

regression techniques, including the removal of error variance from the latent constructs of interest (Kline, 2005) and the ability to test the overall fit of a holistic model as well as specific hypotheses (Byrne, 2012). To assess overall model fit, four common fit indices were used, including (a) model chi-square, (b) root mean square error of approximation (RMSEA), (c) the comparative fit index (CFI), and (d) the standardized root mean square residual (SRMR). Acceptable model fit is indicated by low (and ideally, nonsignificant) model chi-square, RMSEA values below .08, CFI values above .90, and SRMR values of .05 or less (Kline, 2005). Because different model fit statistics provide unique information about the fit of the data to the hypothesized model, the benefits and challenges associated with each fit statistic are discussed below.

First, the chi-square test of model fit (χ^2) is a goodness-of-fit statistic designed to assess the discrepancy between the unrestricted sample covariance matrix and the restricted covariance matrix by testing the extent to which the residuals between these two matrices are zero. As the probability of this test increases, the closer the fit between the hypothesized model and perfect fit of the data (Bollen, 1989). However, because the likelihood ratio statistic is sensitive to sample size, even relatively small variations between sample data and hypothesized model can result in significant (i.e., not perfect) chi-square values in larger samples.

In addition to the chi-square test, two absolute indices were used to assess model fit: RMSEA and SRMR. Rather than relying on a comparison between a nested baseline reference model (as is the case with incremental fit indices as discussed below), each absolute fit index provides a test statistic that indicates how well the hypothesized model fits the sample data (Byrne, 2012), with lower values indicating increasingly

good model fit. However, results of the RMSEA should be interpreted with caution as they tend to over reject models when the sample size is relatively small (Hu & Bentler, 1995).

Finally, in combination with the chi-square test and absolute fit indices previously discussed, incremental model fit was also assessed. In contrast to absolute fit indices, incremental indices measure improvement in model fit by comparing the hypothesized model to the less restrictive baseline model (Byrne, 2012). Acceptable values for the incremental fit index used in this study, the CFI, are ideally greater than .90, which indicates good model fit.

Preliminary Item-Level Psychometric Analysis of Measures

To examine the reliability of each measure used in the current study, an item-level analysis was conducted on each of the measures described below. Item-level analyses provide evidence of the reliability of each measure used in the current study by examining the degree to which each item is internally consistent in its contribution to the overall measure. For each analysis described below, modification indices of 10.0 or above were examined to determine the source of statistical misfit, but decisions to remove items for each measure were made based on a combination of these suggested modifications and theoretical support as described below.

Four measures were excluded from the psychometric analysis. First, the ACE scale was excluded from the item-level analysis because it asked participants to indicate whether or not they had experienced various forms of family adversity and thus variations in participants' responses did not indicate a lack of reliability. Second, the circumplex ratio score was excluded from the item-level analysis because each

participant's family functioning score was calculated using the method provided with the FACES IV measure in accordance with the procedures outlined by Olson (2011). Third, the IOS measure was excluded from item analysis because it consists of a single item. Finally, the overall measure of efficacy (consisting of communication and coping efficacy) was excluded from item-analysis because of its lack of unidimensionality, which is a prerequisite for item-level CFA analysis.

The reliability and dimensionality of all other measures was assessed via confirmatory factor analysis (CFA). According to Levine (2005), CFA is acceptable to use for item-level analyses because each measure has established theoretical assumptions of its validity in measuring the intended constructs (Levine, 2005). As discussed above, model fit for each measure was examined using several criteria; model χ^2 , RMSEA with 90% confidence intervals, CFI, and SRMR fit statistics are reported for each measure. If initial model fit for a measure was not adequate, suggested modifications were examined to improve model fit beginning with those above 10.0 through the MODINDICES (ALL) command in Mplus. The process of item analysis and final model fit statistics for each measure are described below.

Family Satisfaction. As part of the FACES IV measure (Olson, 2011), the family satisfaction scale consists of ten items designed to measure family member's overall satisfaction with their family. An initial analysis of all ten items indicated relatively poor model fit: $\chi^2 (n = 188, 35) = 142.05, p < .001, RMSEA = .148, (CI = .12 - .18); CFI = .92, SRMR = .04$. An examination of model fit indices suggested several possible modifications with the possibility of improving model fit. Specifically, item ten ("How satisfied are you with family members' concern for each other?") had a large

positive covariance with item four (“How satisfied are you with your family’s ability to share positive experiences?”) and suggested modifications indicated that item ten was the primary source of misfit. Because the content of these two statements are similar to each other in that both ask participants to characterize their satisfaction with shared emotions and experiences among family members, item ten was removed from the model.

After removing item ten from the measure, model fit was marginally improved: $\chi^2(n = 188, 34) = 116.33, p < .001, RMSEA = .132, (CI = .11 - .16); CFI = .94, SRMR = .04$; but an examination of the modification indices indicated that item seven (“How satisfied are you with the amount of time you spend together as a family”) was an additional source of misfit. Fit indices were again improved after removal of this item, resulting in good fit of the overall model: $\chi^2(n = 188, 33) = 44.13, p < .001, RMSEA = .09, (CI = .09 - .15); CFI = .97, SRMR = .02$. Therefore, items ten and seven were removed from all further analyses, and participants scores were created by averaging the remaining eight items. Table 2 provides the means, standard deviations, standardized item estimates, and standard errors for all remaining items in the scale.

Family Communication. As the second subscale of FACES IV (Olson, 2011), the ten-item family communication measure was designed to assess the nature of family members’ communication with each other. Initial model fit indices suggested unacceptable fit: $\chi^2(n = 187, 35) = 129.76, p < .001, RMSEA = .14 (CI = .11 - .17); CFI = .89, SRMR = .06$. An examination of modification indices suggested two sources of misfit: item four (“Family members were able to ask each other for what they want,”) and item ten (“Family members expressed their true feelings to each other”). Because

both items relate to the expression of emotion, the large positive covariance between these two items is unsurprising. Thus, items four and ten were removed from the measure which significantly improved model fit: $\chi^2 (n = 173, 34) = 54.69, p < .01$, RMSEA = .07 ($CI = .04 - .11$); CFI = .97, SRMR = .03. These items were removed from the scale for all subsequent analyses and participants' scores were created by averaging the remaining eight items. Table 3 provides the means, standard deviations, standardized item estimates, and standard errors for all remaining items.

Optimism. The scale used to measure optimism (Scheier et al., 1994) consisted of ten items, of which four are considered to be filler items (items 2, 5, 6, and 8), and thus were dropped from analysis. The remaining six items (items 1, 3, 4, 7, 9 and 10) were used in the item analysis after reverse coding items three, seven, and nine. Initial fit indices suggested excellent model fit: $\chi^2 (n = 173, 9) = 7.73, p > .05$, RMSEA = .00 ($CI = .06 - .15$); CFI = .99, SRMR = .04 with no suggested modifications above the minimum value. Participants' scores were created by averaging the remaining six items. Table 4 provides means, standard deviations, standardized item estimates, and standard errors for all six items.

Communication-Based Emotional Support. The support provided by participants' marital partners was measured by Weber and Patterson's (1996) unidimensional 13-item measure. After items three, five, and eight were reverse coded, the initial model indicated unacceptable fit: $\chi^2 (n = 154, 65) = 301.34, p < .001$, RMSEA = .16 ($CI = .14 - .18$); CFI = .86, SRMR = .08. Modification indices suggested significant misfit with items three, five, and eight, which were the three reverse coded items. To isolate the source of misfit, item five ("My marital partner avoided me when

I was depressed about my family problems,") was identified as the least contributing item, which resulted in slightly better model fit: $\chi^2 (n = 154, 64) = 196.72, p < .001$, RMSEA = .12 ($CI = .10 - .14$); CFI = .92, SRMR = .06. Further examination of modification indices suggest that item eight ("When I wanted to talk to my marital partner about what was bothering me about my family, he/she seemed to have something else to do,") was still a source of local model strain, and was also removed, resulting in good model fit: $\chi^2 (n = 173, 27) = 56.33, p > .05$, RMSEA = .09 ($CI = .06 - .11$); CFI = .97, SRMR = .02. Therefore, items five and eight were removed from all further analysis, and participants' scores were created by averaging the remaining items. Means, standard deviations, standardized item estimates, and standard errors are presented in Table 5.

Resilience. Resilience was measured by a six-item scale designed to measure the unidimensional construct of personal resilience to adversity (Smith et al., 2008). Model fit statistics indicated excellent fit: $\chi^2 (n = 164, 8) = 13.40, p > .05$, RMSEA = .06 ($CI = .00 - .12$); CFI = .99, SRMR = .03, and an examination of local fit via the modification indices supported the conclusion as no modifications above the standard minimum value of 10.0 were available. Therefore, all six items in the original measure were retained for use in the current study and participants' scores were created by averaging all items. A summary of the item statistics and standardized estimates is presented in Table 6.

Table 2

Family Satisfaction CFA Item Statistics and Standardized Estimates

Item	<i>M</i> (<i>SD</i>)	Factor Loading (<i>SE</i>)	Intercept (<i>SE</i>)	Residual Variance (<i>SE</i>)	Factor R^2 (<i>SE</i>)
<i>How satisfied are you with:</i>					
1. The degree of closeness between family members	2.92 (1.16)	.80 (.03)	2.53 (.17)	.36 (.05)	.64 (.05)
2. Your family's ability to cope with stress	2.66 (1.16)	.85 (.02)	2.26 (.16)	.27 (.04)	.73 (.04)
3. Your family's ability to be flexible.	2.87 (1.15)	.86 (.02)	2.53 (.15)	.35 (.04)	.63 (.06)
4. Your family's ability to share positive experiences.	3.17 (1.22)	.79 (.03)	2.55 (.17)	.38 (.05)	.62 (.05)
5. The quality of communication between family members.	2.68 (1.24)	.93 (.01)	2.17 (.16)	.14 (.03)	.85 (.03)
6. Your family's ability to resolve conflicts.	2.49 (1.15)	.93 (.01)	2.10 (.15)	.13 (.03)	.86 (.03)
8. The way problems are discussed.	2.55 (1.19)	.91 (.02)	2.15 (.15)	.17 (.03)	.83 (.03)
9. Family members concern for each other.	3.39 (1.22)	.89 (.02)	2.13 (.15)	.20 (.03)	.80 (.03)

Note. All factor loadings, intercepts, residual variances, and R^2 were significant at $p < .001$.

Table 3

Family Communication CFA Item Statistics and Standardized Estimates

Item	<i>M</i> (<i>SD</i>)	Factor Loading (<i>SE</i>)	Intercept (<i>SE</i>)	Residual Variance (<i>SE</i>)	Factor R^2 (<i>SE</i>)
1. Family members are satisfied with how they communicate with each other.	2.68 (1.21)	.75 (.04)	2.24 (.16)	.44 (.06)	.56 (.06)
2. Family members are very good listeners.	2.64 (1.23)	.83 (.03)	2.10 (.15)	.31 (.05)	.69 (.05)
3. Family members express affection to each other.	3.47 (1.27)	.86 (.02)	2.75 (.18)	.55 (.06)	.45 (.06)
5. Family members can calmly discuss problems with each other.	2.67 (1.27)	.87 (.03)	2.35 (.15)	.34 (.04)	.75 (.04)
6. Family members discuss their ideas and beliefs with each other.	3.05 (1.26)	.76 (.04)	2.41 (.17)	.43 (.06)	.60 (.06)
7. When family members ask questions of each other, they get honest answers.	3.48 (1.06)	.75 (.03)	2.35 (.13)	.47 (.06)	.53 (.06)
8. Family members try to understand each other's feelings	2.42 (1.22)	.82 (.03)	2.51 (.17)	.33 (.05)	.67 (.05)
9. When angry, family members seldom say negative things about each other.	3.21 (1.16)	.92 (.07)	2.77 (.17)	.41 (.06)	.58 (.06)

Note. All factor loadings, intercepts, residual variances, and R^2 were significant at $p < .001$.

Table 4

Optimism CFA Item Statistics and Standardized Estimates

Item	<i>M</i> (<i>SD</i>)	Factor Loading (<i>SE</i>)	Intercept (<i>SE</i>)	Residual Variance (<i>SE</i>)	Factor R^2 (<i>SE</i>)
1. In uncertain times, I usually expect the best.	3.29 (1.24)	.59 (.08)	5.17 (.35)	.64 (.10)	.35 (.10)
3. If something can go wrong for me, it will.	3.41 (1.03)	.37 (.09)	4.72 (.32)	.62 (.06)	.37 (.05)
4. I'm always optimistic about my future.	3.42 (1.05)	.60 (.08)	4.31 (.27)	.64 (.10)	.36 (.10)
7. I hardly ever expect things to go my way.	4.15 (0.82)	.73 (.08)	5.47 (.43)	.47 (.12)	.35 (.13)
9. I rarely count on good things happening to me.	3.55 (1.11)	.63 (.04)	5.37 (.39)	.86 (.08)	.33 (.08)
10. Overall, I expect more good things to happen to me than bad.	3.82 (1.02)	.37 (.09)	5.18 (.39)	.78 (.03)	.37 (.03)

Note. All factor loadings, intercepts, residual variances, and R^2 were significant at $p < .001$.

Table 5

Communication-Based Emotional Support CFA Item Statistics and Standardized Estimates

Item	<i>M</i> (<i>SD</i>)	Factor Loading (<i>SE</i>)	Intercept (<i>SE</i>)	Residual Variance (<i>SE</i>)	Factor <i>R</i> ² (<i>SE</i>)
1. My marital partner helped me work through my thoughts and feelings about decisions concerning the stressful event(s) in my family of origin.	3.92 (1.09)	.77 (.04)	3.63 (.23)	.40 (.05)	.60 (.05)
2. My marital partner patiently and sensitively listened to me talk about the problem(s) that I had in my family of origin.	4.07 (1.03)	.86 (.02)	4.10 (.26)	.26 (.04)	.73 (.04)
3. When I discussed the family problem(s) I had with my marital partner, he/she didn't seem to pay attention.	4.09 (1.10)	.86 (.02)	3.74 (.23)	.36 (.05)	.61 (.05)
4. My marital partner helped me cope with my family problem(s) by offering help if I needed it and suggesting possible options.	3.86 (1.00)	.87 (.03)	4.10 (.23)	.24 (.02)	.63 (.05)
6. My marital partner listened to me talk about my family problem(s) without judging me.	4.10 (1.04)	.79 (.03)	4.09 (.26)	.33 (.06)	.64 (.06)
7. My marital partner said and did supportive things for me when I was feeling down about my family problem(s).	4.10 (1.01)	.92 (.02)	4.24 (.27)	.27 (.02)	.84 (.03)
9. My marital partner showed genuine concern for my family problem(s).	4.15 (1.06)	.91 (.02)	3.96 (.25)	.17 (.03)	.83 (.03)
10. My marital partner gave me good advice about my family problem(s).	3.89 (1.06)	.88 (.02)	3.83 (.26)	.22 (.03)	.78 (.03)
11. My marital partner made it very easy to discuss my personal feelings about my family of origin.	4.10 (1.05)	.90 (.02)	4.00 (.26)	.27 (.03)	.83 (.03)
12. My spouse listened to my side of the story about my family problem(s), even if he/she thought I was wrong.	4.08 (1.01)	.88 (.02)	4.58 (.26)	.21 (.04)	.79 (.04)
13. My spouse made an effort to make me feel better when I was depressed.	4.13 (1.00)	.76 (.03)	4.57 (.28)	.44 (.06)	.65 (.05)

Note. All factor loadings, intercepts, residual variances, and *R*² were significant at *p* < .001.

Table 6

Resilience CFA Item Statistics and Standardized Estimates

Item	<i>M</i> (<i>SD</i>)	Factor Loading (<i>SE</i>)	Intercept (<i>SE</i>)	Residual Variance (<i>SE</i>)	Factor R^2 (<i>SE</i>)
1. I tend to bounce back quickly after hard times.	3.80 (1.00)	.90 (.03)	2.34 (.15)	.26 (.05)	.74 (.05)
2. I have a hard time making it through stressful events.	3.44 (1.00)	.74 (.04)	2.41 (.16)	.45 (.06)	.55 (.06)
3. It does not take me long to recover from a stressful event.	3.49 (1.06)	.77 (.04)	2.36 (.15)	.41 (.06)	.60 (.06)
4. It is hard for me to snap back when something bad happens.	3.51 (1.05)	.82 (.03)	2.44 (.16)	.32 (.05)	.68 (.05)
5. I usually come through difficult times with little trouble.	3.45 (1.01)	.70 (.04)	2.66 (.17)	.50 (.06)	.50 (.06)
6. I tend to take a long time to get over set-backs in my life.	3.65 (1.02)	.76 (.04)	2.30 (.15)	.42 (.06)	.58 (.06)

Note. All factor loadings, intercepts, residual variances, and R^2 were significant at $p < .001$.

Primary Data Analysis

The previous sections outlined the procedures for ensuring reliability of each measure in the current study by conducting an item-level analysis and removing items that were a source of local model strain. A summary of the means and standard deviations for all variables is presented in Table 7; correlations among all variables are presented in Table 8.

After completing the item-level psychometric analyses on the measures used in the current study, the measurement model was tested prior to the hypothesized structural model consistent with Bollen's (1989) two-step approach. First, a confirmatory factor analysis was conducted to examine the relationship among the latent variables and their respective indicators. Upon achieving good fit for the measurement model, the hypothesized structural model was tested. The following sections detail the results of all hypothesis testing using SEM, and then move to the analysis of the research question which was conducted via OLS regression in SPSS.

Table 7

Means and Standard Deviations for Family, Individual, and Marital Variables

Variable	<i>M (SD)</i>
<i>Family Predictors</i>	
Adverse Childhood Experiences	2.76 (1.96)
Family Communication	2.86 (1.00)
Family Satisfaction	2.72 (1.05)
Circumplex Ratio	1.49 (1.04)
<i>Individual Predictors</i>	
Optimism	3.50 (0.78)
Coping Efficacy	3.80 (1.04)
Communication Efficacy	4.09 (0.91)
<i>Marital Predictors</i>	
Communication-Based Emotional Support	4.07 (0.92)
Inclusion of the Other in the Self	4.76 (1.69)
Resilience	3.56 (0.85)

Note. Coping efficacy and communication efficacy were measured on a 7-point Likert-type scale. All other variables were measured on a 5-point Likert type scale. Higher numbers reflect higher levels of all variables.

Table 8

Correlations among Family, Individual, and Marital Predictors of Resilience

	1	2	3	4	5	6	7	8	9	10
<i>Family Predictors</i>										
1. Adverse Childhood Experiences	-	-.54**	-.47**	-.39**	-.10	-.08	-.09	-.02	-.10	-.04
2. Family Communication		-	.83**	.77**	.30**	.23**	.17*	.09	.13	.25**
3. Family Satisfaction			-	.72**	.29*	.33**	.25**	.17*	.12	.23**
4. Circumplex Ratio				-	.19*	.24**	.21**	.09	.10	.25**
<i>Individual Predictors</i>										
5. Optimism					-	.25**	.20*	.26**	.16	.53**
6. Coping Efficacy						-	.61**	.53**	.21**	.18*
7. Communication Efficacy							-	.50**	.26**	.21**
<i>Marital Predictors</i>										
8. Communication-Based Support								-	.48**	.20**
9. Inclusion of the Other in the Self									-	.11
10. Resilience										-

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

Confirmatory Factor Analysis

As depicted in Figure 2, the measurement model was comprised of three latent exogenous constructs (i.e., family functioning, marital environment, individual characteristics), and one endogenous variable (i.e., resilience). The first latent construct, family functioning, was comprised of three indicators: family communication, family satisfaction, and the overall circumplex ratio score of family functioning (cohesion and flexibility) as calculated by the FACES IV scoring system. The second latent construct, marital environment, included a measure of closeness (i.e., IOS), and communication-based emotional support. The final latent construct, individual characteristics, was comprised of communication efficacy, coping efficacy, and optimism. Standardized loadings and estimates for residual parameters for all latent indicators are provided in Table 9.

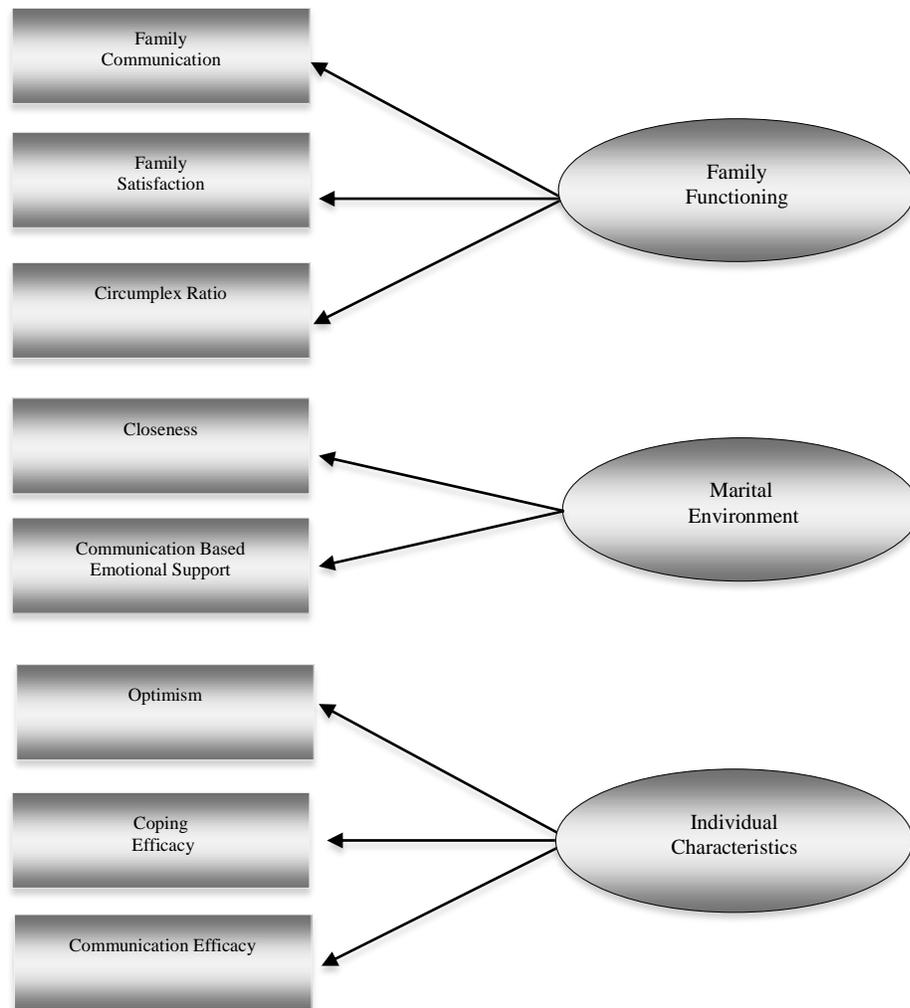


Figure 2. Measurement Model Depicting the Latent Constructs of Family Functioning, the Marital Environment, and Individual Characteristics.

Table 9

Standardized Loadings for Latent Indicators and Standardized Estimates for Residual Parameters

Indicator	Standardized Loadings	Standardized Estimate for Residuals
<i>Family Functioning</i>		
Family Communication	.94	.02
Family Satisfaction	.91	.02
Circumplex Ratio	.83	.03
<i>Individual Characteristics</i>		
Optimism	.83	.02
Coping Efficacy	.81	.05
Communication Efficacy	.76	.05
<i>Marital Environment</i>		
Communication-Based Emotional Support	.97	.05
Inclusion of the Other in the Self	.52	.03
<i>Resilience*</i>	.97	.00

Note. * indicates a single indicator of the same name as the latent construct it represents.

Consistent with the item-level psychometric analysis, model fit was assessed via (a) overall model chi-square, (b) RMSEA, (c) CFI, and (d) SRMR. Estimation of both the measurement and structural model were conducted using robust maximum likelihood (MLM) to maximize the available data while adjusting model fit assessment to account for multivariate non-normality (Muthen & Asparouhov, 2002). Results of the CFA for the measurement model indicated excellent model fit: $\chi^2 (n = 157, 16) = 20.51$, $p > .05$, χ^2 scaling factor = 1.09; RMSEA = .01 ($CI = .00 - .07$); CFI = .99, SRMR = .03. An examination of the modification indices resulted in no modifications that would significantly improve model fit, and thus, the measurement model was retained in its current form.

Hypothesized Model

After assessing the measurement model via CFA, structural regression with robust maximum likelihood (MLM) was again used to estimate the hypothesized model parameters to manage non-normally distributed data (Byrne, 2012). Fit statistics of the structural model were consistent with results of the CFA reported in the previous section, indicating excellent model fit and accounting for 49% of the variance in resilience ($R^2 = .49$). Standardized covariance estimates and residual variance estimates are presented in Tables 10 and 11, respectively.

Table 10

Standardized Estimates for Latent Structural Parameter Covariances

	Estimate	Est/S.E.
Family Functioning ↔ Individual Characteristics	.35	4.01
Family Functioning ↔ Marital Environment	.12	1.56
Marital Environment ↔ Individual Characteristics	.60	8.39

Table 11

Standardized Estimates for Residual Variances

Indicator	Estimate
<i>Family Functioning</i>	
Family Communication	.14
Family Satisfaction	.20
Circumplex Ratio	.37
<i>Individual Characteristics</i>	
Optimism	.33
Coping Efficacy	.37
Communication Efficacy	.36
<i>Marital Environment</i>	
Communication-Based Emotional Support	.04
Inclusion of the Other in the Self	.14
<i>Resilience</i>	.57

The first three hypotheses assessed the relationship between the family of origin and the outcome of resilience. Specifically, H1 predicted that individuals who have experienced greater family adversity in their childhood would be less resilient. H1 was unsupported, ($\beta = .03, p = .76$). The second hypothesis posited that individuals' experience of family of origin adversity would be negatively related to family functioning. This hypothesis was supported ($\beta = -.58, p < .001$), such that individuals who experienced greater family adversity during their childhood reported lower levels of overall family functioning. The third hypothesis concerned the relationship between the latent construct of family functioning and individual resilience, such that individuals from families with a greater balance of cohesion and flexibility, more effective communication, and greater overall family satisfaction would be more likely to be resilient. H3 was supported, such that overall family functioning was a significant positive predictor of resilience, ($\beta = .23, p < .01$).

The next hypothesis addressed the relationship between individual characteristics and resilience. Specifically, hypothesis four concerned the relationship between individuals' optimism, efficacy, and resilience. This hypothesis predicted that individuals who were more optimistic and efficacious would also be more resilient. Results did not support this hypothesis, ($\beta = .09, p = .53$).

Hypothesis five addressed the relationship between individuals' perception of their marital environment (i.e., emotional support and closeness) on resilience. Specifically, H5 predicted that individuals in a marital environment characterized by a greater sense of closeness (i.e., more inclusion of the other in the self) and greater

communication-based emotional support would also be more resilient. This hypothesis was not supported ($\beta = .11, p = .41$).

The final two hypotheses positioned the quality of individuals' marital environment (i.e., closeness and communication-based emotional support) as a moderator of family functioning and individuals characteristics on resilience. To test moderation in SEM, orthogonalized interaction terms were created in a series of steps (Little, Bovaird, & Widaman, 2006). Using orthogonalized interaction terms created by residual centering as described below has several clear benefits to other ways of creating latent interaction terms in SEM. First, the latent interaction term includes all possible combinations of indicators for each latent, thus accounting for the covariance pattern among variables and reducing issues with multicollinearity (Little et al., 2006). Additionally, in contrast to other techniques for creating latent interaction terms, maximum likelihood (ML) estimation provides an accurate depiction of the standard errors and their corresponding significance tests because the residuals used to estimate the latent interactions are generally normally distributed (Little et al., 2006).

As the first step in this process, all variables were mean-centered by subtracting the overall mean of each variable from each participant's score (Kromrey & Foster-Johnson, 1998). Mean-centering has several significant benefits, including minimizing the collinearity between the interaction term and its original first-order indicators (Aiken & West, 1991; Cohen, 1978, Little et al., 2006), as well as rescaling all variables to provide a meaningful zero point from which to interpret beta weights (Aiken & West, 1991). After all variables were mean-centered, interaction terms were created for each possible combination of variables relevant to the hypothesis. The resulting interaction

terms were then regressed onto the untransformed first-order variables and the unstandardized residuals were saved as a new variable and included as part of the data file. Finally, latent orthogonal interaction terms were created by including only the residual values for each combination of indicators comprising the latent. Specifically, the first interaction term of Marital x Individual was created by including the unstandardized residual values for each indicator of the two latent constructs of Marital Environment and Individual Characteristics, which resulted in interaction terms for Marital Support x Communication Efficacy, Marital Support x Coping Efficacy, Marital Support x Optimism, IOS x Communication Efficacy, IOS x Coping Efficacy, and IOS x Optimism. The second interaction term of Marital x Family was created by including the unstandardized residuals for each indicator of the latent constructs of Marital Environment and Family Functioning, which included Marital Support x Family Communication, Marital Support x Family Satisfaction, Marital Support x Circumplex Ratio Score, IOS x Family Communication, IOS x Family Satisfaction, and IOS x Circumplex Ratio Score. For each interaction term, the corresponding residuals were allowed to correlate with each other.

To test the significance of these interaction terms with regards to the hypothesized relationships, resilience was first regressed on the latent orthogonalized interaction term of Marital x Family to address H6. Hypothesis six posited that the quality of individuals' marital environment would moderate the influence of their family of origin functioning on resilience. Results indicated that this interaction was not significant, ($\beta = .08, p = .36$).

Similar to the previous hypothesis, H7 suggested that the quality of the marital environment would moderate the influence of individual characteristics on resilience. To test this line of reasoning, resilience was regressed on the latent orthogonalized interaction term of Marital x Individual. Results suggest that there was a significant interaction between the marital environment and individual characteristics as predictive of resilience, ($\beta = -.16, p < .05$). Consistent with Aiken and West (1991), the interaction effect was decomposed by analyzing the interaction's simple slopes at low (-1.5 SD), mean, and high (+1.5 SD) levels of the first-order variable. Specifically, variation in the predictive power of individual characteristics varied across levels of the marital environment was examined. Figure 3 presents this decomposition graphically, and Table 12 includes the regression coefficients and significance tests for the simple slopes. The pattern of decomposition suggested that individuals who were lower in optimism and efficacy were more likely to be resilient when they were in a close and highly supportive marital environment ($\beta = -.53, p < .05$).

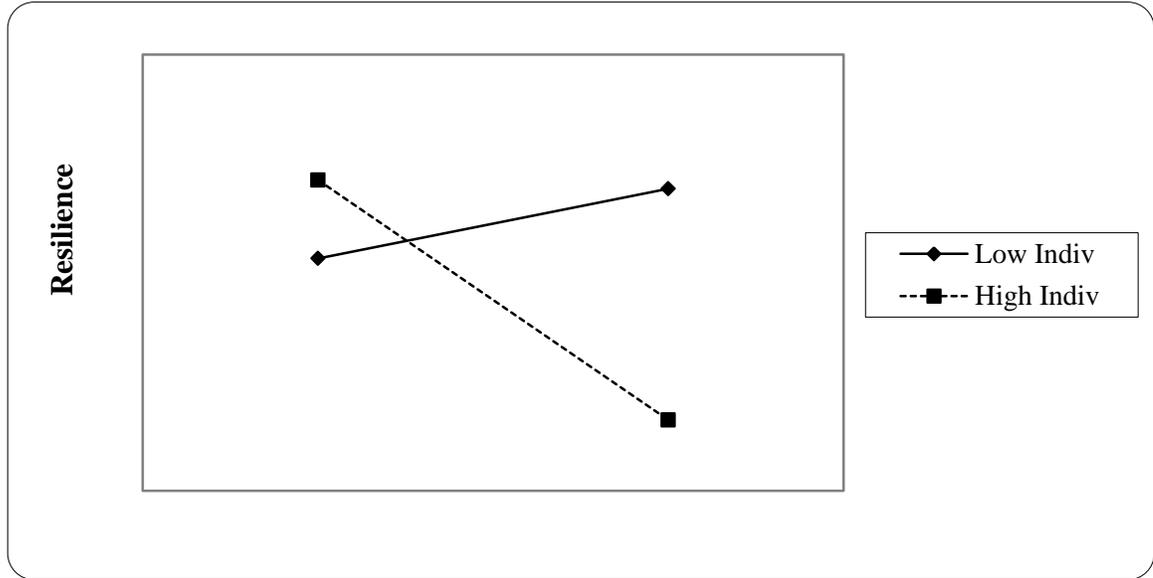


Figure 3. Decomposition of Two-Way Interaction between Marital Support and Individual Characteristics on Resilience.

Table 12

Regression Parameters for Individual and Marital Variables Predicting Resilience

Predictors	Resilience ($R^2 = .25$)		
	<i>B</i>	β	<i>z</i>
1. Marital	-.39*	-.27*	-1.7
2. Individual	-.05	-.07	-.77
3. Marital x Individual	-.71**	-.53**	-2.48

Note. $p < .05$. ** $p < .01$.

In the present study, the research question asked about the moderating influence of childhood adversity on the relationship between family functioning and resilience. One possible relationship discussed in Chapter One suggested that the link between family functioning and resilience may be moderated by amount of adversity experienced in the family. With regard to cohesion, for example, individuals from less cohesive families may be more resilient when their family is characterized by higher levels of adversity because a sense of separation from their family may create a buffer between them and the adversity experienced by the rest of the family. Alternately, it may be that individuals from *more* cohesive families are more resilient because they are able to provide communal support to cope with adversity together. A similar pattern may also hold true for flexibility; individuals from families that are more flexible may be more resilient to higher levels of family adversity because they are used to changes in rules and roles within the family. In the current model, however, family functioning was measured partially by the circumplex ratio score, which provides an overall measure of the balance between family cohesion and flexibility. Therefore, to test this line of reasoning that independently isolates family cohesion and family flexibility as unique aspects of functioning with the potential to affect resilience, interaction terms were created for each of the four unbalanced scales using SPSS. Specifically, the high and low extremes of cohesion and flexibility were isolated for this portion of the analyses, such that the disengaged scale was used to isolate the extreme low end of cohesion, the enmeshed scale was used to isolate the extreme high end of cohesion, the rigid scale was used to isolate the extreme low end of flexibility, and the chaotic scale was used to isolate the extreme high end of flexibility. Combining each of these scales

with adversity resulted in four interaction terms (i.e., Adversity x Disengaged, Adversity x Enmeshed, Adversity x Rigid, and Adversity x Chaotic). Then, four separate regression analyses were conducted via SPSS 20.0 by first entering in the adversity composite score (i.e., ACE) and the unbalanced scale composite score at step one, and then the interaction term at step two. Although results of the regression analyses indicated no significant interaction between the amount of family adversity and any of the four unbalanced forms of family functioning on resilience, there were several significant main effects. Specifically, individuals from families who were on the low extreme of cohesion (i.e., highly disengaged) were significantly less resilient ($\beta = -.26, p < .01$), as were individuals from families who were on the high extreme of flexibility (i.e., highly chaotic) ($\beta = -.20, p < .05$).

Conclusion

Overall, results from the analyses described above indicated that when taken in isolation, individuals' family of origin functioning was strongest predictor of their resilience such that individuals from families characterized by a balance of cohesion and flexibility with increased satisfaction and more positive communication were most resilient. At the multivariate level, the interaction between the marital environment and individuals' characteristics was also predictive of resilience, such that individuals were more likely to be resilient when they were lower in the individual characteristics of optimism and efficacy, but were in a close marital relationship that provided communication-based emotional support for their experience of adversity. A summary of all findings is included in Table 13.

The following chapter provides a detailed interpretation of these results, including a discussion of the importance of the family of origin functioning in the development of resilience as well as the ways in which the marital environment may compensate for a lack of individual characteristics often associated with resilience.

Table 13

Summary of Findings from Hypotheses and Research Questions

H1:	Childhood family adversity will be negatively related to resilience.	Not supported
H2:	Childhood family adversity will be negatively related to family functioning as indicated by the circumplex ratio score, family communication, and family satisfaction.	Supported
H3:	Family functioning as indicated by the circumplex ratio score, functional family communication, and family satisfaction will be positively related to resilience.	Supported
RQ1:	How, if at all, does family adversity moderate the relationship between family functioning and resilience?	No interaction with family adversity; Individuals from families low in cohesion (disengaged) and/or high in flexibility (chaotic) were significantly less resilient.
H4:	Individuals' characteristics as indicated by optimism and efficacy will be positively related to resilience	Not supported
H5:	Individuals' marital environment as indicated by their marital partners' communication-based emotional support and marital closeness will be positively related to resilience.	Not supported
H6:	Individuals' marital environment will moderate the influence of family functioning on resilience such that a close and supportive marital environment will increase resilience in individuals from less functional families.	Not supported
H7:	Individuals' marital environment will moderate the influence of their individual characteristics on resilience such that a close and supportive marital environment will increase resilience in individuals lower in optimism and efficacy.	Supported

CHAPTER FOUR

DISCUSSION

The purpose of the current study was to examine individuals' family of origin, their personal characteristics, and the nature of their marital environment as unique and combined predictors of resilience to childhood family adversity. Assessing the factors that may influence individuals' responses to adversity from these three perspectives provides support for examining resilience as more than just a psychological construct. Indeed, results from the current study indicate that the individual development of resilience is a process that is linked to one's family functioning, but may also be shaped by marital relationships later in life. Collectively, the findings from this dissertation study provide a greater understanding of the role of relationships and communication in developing resilience, both in the context of family and marriage.

Overall, the findings from the current study suggest that the individual characteristics of optimism and efficacy were unrelated to resilience, as were marital closeness and support when both were considered at the bivariate level. However, results indicated a significant interaction effect between the individual and marital environment, such that individuals who were lower in optimism and efficacy were more likely to be resilient when they were in a close and highly supportive marital environment. The nature of the family was also related to functioning and resilience, such that individuals from families that experienced a great deal of adversity were significantly less functional than individuals from families with fewer adverse experiences. Additionally, individuals from families that were less functional overall tended to be less resilient, regardless of the amount of adversity present in the family,

when compared to individuals from more functional families. In this final chapter, the role of familial, individual, and marital factors associated with resilience are discussed, as well as the interdisciplinary implications of these results, the limitations of the current study, and suggestions for future resilience research.

The Significance of Familial, Individual, and Marital Factors on Resilience

The hypotheses and research question guiding the current study were designed to investigate three related but distinct predictors of resilience after the experience of family adversity. Specifically, the purpose of this dissertation study was to investigate the unique and combined impact of the family of origin functioning, individual characteristics, and the marital environment to gain a more holistic understanding of resilience after adverse family experiences. Therefore, the significance and implications of the family of origin environment as a primary influence on resilience after family adversity are discussed first, followed by the hypotheses about the role of individual characteristics, and concluding with a discussion of the influence of the marital environment in understanding resilience.

The Impact of Family on Resilience

Of significant interest in the current study was gaining a greater understanding the role that family plays in individual resilience after the experience of childhood family adversity. Because existing research has linked the experience of family adversity to a variety of negative physical and mental health outcomes later in life, it was expected that individuals from families that experienced greater family adversity would tend to be less resilient (e.g., Felitti et al., 1998). In contrast to this hypothesis, however, family adversity was unrelated to the resilience of its members (H1).

Although the lack of a significant relationship between adversity and resilience was initially unexpected, the existing resilience literature offers some insight and possible explanations into this finding. Specifically, the majority of research that connects family of origin adversity with adult outcomes tends to focus on the potentially negative results of these early family experiences. For example, family of origin adversity increases individuals' risk of depression (Parker, 1983), physiological stress (Heim & Nemeroff, 2001) as well as other kinds of psychopathology (Benson, 1997) and even instances of early death (Felitti et al., 1998). However, the nature of resilience suggests that individuals' higher in resilience are less susceptible to the negative consequences commonly associated with the experience of family adversity. With this in mind, the lack of a significant inverse relationship between family adversity and resilience is less surprising because those individuals who experience the expected negative outcomes as a result of family adversity are also likely to be less resilient. In other words, when individuals' experiences of family adversity result in detrimental outcomes, they are unlikely to be resilient. However, those same adverse family experiences can also serve as the catalyst for individuals to develop resilience as part of the process of disruption and reintegration (Flach, 1988, 1997; Richardson, 2002). Because resilience can emerge from a variety of sources ranging from individual propensity to specific personal or family events, the lack of direct association between family adversity and resilience is reasonable. Therefore, it may be that resilience emerges less as a function of the nature of family adversity, and more so from the nature of family functioning, as discussed in the following section.

Indeed, adversity was inversely related to family functioning. Specifically, families with more adversity tend to be less functional, have less effective family-wide communication among its members, and tended to be less satisfied in their family relationships (H2). Although these results should not be interpreted causally in that adversity results in reduced family functioning, these correlational findings still have important implications for families. One interpretation suggests that the experience of family adversity reduces family functioning in significant and negative ways; another line of reasoning suggests that families that are less functional also tend to have increased family adversity. From either perspective, the significant positive link between family functioning and resilience (H3) indicates that, independent of the experience of family adversity, the degree to which family members are able to maintain an optimal balance between cohesion and flexibility, use effective communication, and maintain satisfying relationships is more importantly related to resilience than the amount of adversity experienced by the family. Therefore, adverse family circumstances appear to be secondary to the way that the family functions to manage and deal with them.

Results related to the research question (RQ1) provide additional insight regarding the link between adversity, family functioning, and resilience. Although findings in the current study did not indicate a significant interaction between family adversity and family functioning, they do highlight interesting patterns regarding the nature of families that support individuals' resilience, regardless of the amount of family adversity experienced. There were two types of families whose functioning was significantly and inversely related to resilience. Specifically, individuals from families

who were on the low extreme of cohesion (i.e., highly disengaged) or who were on the high extreme of flexibility (i.e., highly chaotic) were less likely to be resilient, regardless of the amount of adversity they experienced as a family. In other words, individuals who reported their families operate with little family structure, including few supportive bonds and/or poorly defined roles and rules also reported lower levels of resilience.

Taken in the context of existing resilience research, the results associated with the first three hypotheses and research question provide an interesting perspective on how family adversity influences individuals. Beginning with Werner and Smith's (1992) 30-year longitudinal study, researchers have pointed to the link between adverse family events such as abuse, poverty, and divorce as predictive of a variety of detrimental outcomes for those family members in adulthood. Although results from the current study do not dispute this connection, they do suggest that family functioning may be more important in understanding resilience than the actual events that occurred. Specifically, these findings uncovered no direct link between the amount or severity of family adversity and resilience, but suggest instead that more functional families had more resilient members, even when they experienced varying levels of adversity. When families were characterized by a balance of cohesion and flexibility among its members, with effective communication and an overall sense of satisfaction with the family as a whole, individuals were significantly more likely to be resilient. Perhaps more important than the explicit connection between family functioning and resilience is that family functioning is malleable in a way that family adversity may not be. Families can move along the dimensions of cohesion and flexibility through their communication

(Olson, 2000, 2011), even when they are not able to control the circumstances that affect their family life. Thus, families that have experienced a significant amount of adversity may still be able to support the resilience of their members by focusing on creating a balance of cohesion and flexibility through their communication.

The importance and salience of family communication to resilience is also supported by an examination of the bivariate correlations among family communication and numerous other variables in the current study. As highlighted in Table 8, family communication is positively related to both individual and family variables, suggesting that communication within the family context is an important component in understanding resilience, particularly in the context of family adversity. Existing research examining the influence of families on resilience has primarily focused on the sociological components of the family (e.g., socioeconomic status, race/ethnicity, see Zimmerman & Brenner, 2010). Results from the current study indicate that examining the nature of family communication, perhaps in conjunction with sociological markers, may provide a more complete picture of the significance of families in understanding resilience in future research.

Overall, results from the current study associated with family functioning support existing literature suggesting that the family acts as a filter for the way that individuals experience adversity (Zautra et al., 2010). Research from the early waves of resilience inquiry have investigated the influence of the family from a primarily sociological perspective, examining how factors such as socio-economic status, parental employment, or the instability of family life have the potential to affect individuals' resilience and overall adult outcomes (Richardson, 2002; Werner & Smith, 1992). The

current study offers a significant extension of this line of reasoning by examining the communicative factors associated with family relationships as impactful on resilience. As suggested by the circumplex model, families are best able to cope with and adapt to change and adversity when they maintain a balance between cohesion and flexibility in a way that supports family communication and increases family members' satisfaction (Olson, 2000; Olson et al., 1983; Thomas & Olson, 1993, 1994).

The Impact of the Individual on Resilience

In contrast with the first wave of resilience research, individual characteristics did not predict resilience as hypothesized in the current study. (H4). Specifically, individuals' optimism, communication efficacy, and coping efficacy were unrelated to their resilience at the latent level. Although this finding is relatively unexpected given existing resilience literature that linked resilience with characteristics such as efficacy and a sense of optimism (e.g., Lin et al, 2004; Skodol, 2010), there are several possible explanations.

First, it may be that the amount of variance in individuals' resilience scores that is explained solely by their personality characteristics is too small to be detected in the current sample. A common challenge when using personality traits and characteristics as predictors is that it is relatively rare for one or two traits to account for a significant portion of the overall outcome in small samples. To be clear, this does not necessarily indicate that individual characteristics such as optimism and efficacy are unimportant or unrelated to resilience; in fact, both were significantly and positively correlated with resilience at the bivariate level. Rather, it suggests that the connection between personality characteristics and resilience may be best viewed as a constellation of traits,

and even then, may still account for a relatively small portion of resilience when considered in the context of other influences.

A second possible explanation lies in the way that optimism and efficacy were measured in current study. With regard to the influence of optimism on resilience, an examination of participants' average scores on both optimism ($M = 3.50$, $SD = .78$) and resilience ($M = 3.56$, $SD = .85$) and their covariance ($r = .53$, $p < .001$) suggests that these two constructs were strongly related as expected, in that individuals have responded resiliently to adversity in the past (as measured by the BRS) and expect to continue this pattern in the future (as measured by the LOT-R). However, the factor loadings for communication and coping efficacy (see Table 9) as two characteristics that comprise the latent construct suggest that individuals' belief in their specific ability to communicate about and cope with adversity is less salient than their optimism. Therefore, it may be that the characteristic of optimism is closely related to resilience as part of individuals' overall orientation toward adversity, but that their confidence in their ability to communicate in a way that allows them to cope with stress is less important in terms of their resilience.

The distinction between factors related to individuals' personalities (i.e., optimism), and those linked more directly to coping (i.e., communication efficacy) supports the perspective that some characteristics are employed during times of stress, whereas others are more enduring and stable across a variety of circumstances (Folkman & Moskowitz, 2004; Skodol, 2010). Although stable personality characteristics such as optimism are often closely related to the way that individuals cope with adversity, the present study asked more general questions about their

perception of their ability to cope (i.e., efficacy). Therefore, the way that efficacy was measured in the current study may not fully capture the coping processes that emerge in times of stress. In other words, without the presence of an imminently stressful or adverse event (as in the current study), individuals' perception of their communication and coping efficacy may vary when compared to their perception of their efficacy during times of stress. Thus, future researchers examining individual characteristics associated with resilience should do so in both the presence and absence of adverse experiences.

Overall, that the individual characteristics of optimism and efficacy were not significant predictors of resilience at the latent level likely indicates that these personal characteristics function in different ways to affect resilience, and perhaps vary among resilient individuals as well. It may be that having a sense of efficacy toward adverse family experiences is most important when the adverse circumstances have the potential to be ameliorated. For example, if individuals experience financial hardship in their family of origin, a sense of efficacy may be particularly salient in the development of resilience because it supports their belief in their own ability to seek help from others or change their family circumstances in a way that may benefit their family. In contrast, if individuals' adverse family experience involves the divorce of their parents, a sense of efficacy may be less important because their ability to alter those circumstances was likely rather limited.

The results of the current study associated with individual characteristics and resilience have interesting implications when considered in the context of the first wave of resilience inquiry. Specifically, this wave of resilience research focused on the

describing those individuals who thrived despite significant hardship or adversity (Werner & Smith, 1992), and included characteristics such as efficacy (Rutter, 1985) and optimism (Peterson, 2000). As a way to understand and explain the lack of significant results between individual characteristics and resilience in the current study, it may be important to note that the sample of participants in these first-wave studies often focused exclusively on resilient individuals. For those individuals who are highly resilient, characteristics such as efficacy and optimism may be both salient and present. However, the current study included individuals who have all experienced family adversity, but reported varying degrees of resilience. Thus, the pattern of association between these characteristics and resilience may vary as a function of the nature of the sample. To better understand the role of individual characteristics and resilience, it may be useful to examine a greater variety of traits and characteristics between individuals with varying resilience in future research.

The Impact of Marital Partners on Resilience

In the current study, individuals' perception of their marital partners' communication-based emotional support as well as the degree of closeness between them were examined at the latent level as predictors of resilience. As indicated in the previous chapter, the nature of the marital environment (H5) and the interaction between the marital environment and family functioning were both unrelated to resilience (H6). However, when the nature of the marital environment was considered in conjunction with one's individual characteristics (H7), there was a significant two-way interaction such that when individuals who were lower in optimism and efficacy were

more likely to be resilient when they were in a close and highly supportive marital environment.

There are several interesting conclusions and implications that emerge from these results. First, simply having a close and supportive marriage is not predictive of resilience as evidenced by the lack of statistical support for H5. One possible explanation for this finding in the current study may be linked with the length of time that had elapsed between family adversity and completing the online survey for this study. With an average participant age of nearly 40 years ($M = 39.73$, $SD = 14.93$), most participants were responding on an adverse family experience that occurred nearly 20 years prior. Although there is evidence to suggest that resilience is best viewed as a process that develops overtime, this process may be so effective that it may also be difficult for individuals to differentiate between their own feelings and insights surrounding a stressful event and those of a close relational partner (Conway & Pleydell-Pearce, 2000). When individuals' recount and share adverse experiences with others, their memories of the event often become intermingled with their partner's responses, insights, and opinions. Thus, individuals' own perceptions of adversity becomes a co-constructed product of their communication and interaction with important others in their lives (Pasupathi, 2001). Because a significant amount of time had passed since individuals' adverse family experiences in the current study, it may be that participants find it difficult to quantify their partners' support that was provided some time ago, despite (or perhaps because of) its effectiveness. Therefore, it may be useful for future researchers to control more tightly the length of time that has elapsed since the experience of adversity.

A second implication important in understanding the relationship between marriage and resilience emerges from the results associated with H6, which positioned the marital environment as a moderator of family influence on resilience. As discussed in Chapter One, one purpose of the current study was to examine how, if at all, the nature of one's marriage has the potential to reshape the influence of their family of origin on their resilience. Overall, results of the current study suggest that the significance of individuals' current marital environment is subordinate to the significance of their family of origin environment. In other words, individuals who are from less functional families are less likely to be resilient, regardless of the nature of their marriage.

Much like the results associated with family functioning discussed in the previous section, these findings highlight the lasting impact of one's family of origin as a primary sense-making and coping context for dealing with adversity in that families provide the first and seemingly most influential lens through which individuals see the world. As suggested by Olson's (1995, 2000, 2011) circumplex model, the degree to which families create a balance between cohesion and flexibility through communication clearly impacts its members functioning later in life. Because family functioning is significant in the coping process, especially in the context of family adversity, family intervention programs such as The Iowa Strengthening Families Program (ISFP) hold great promise for supporting resilience (Zimmerman & Brenner, 2010). The purpose of the ISFP program and others like it is to increase families' protective factors in dealing with adverse experiences by focusing on various aspects of family functioning such as conflict resolution, effective family communication, and

increasing the emotional bonds among family members (Spoth, Redmond, & Shin, 1998). Given the results of the current study, these types of programs are likely to have significant and enduring impact for both families and the individuals within them with regard to resilience.

Although the marital environment, including perceptions of communication-based emotional support and closeness, did not moderate the relationship between family functioning and resilience, it did moderate the relationship between individual characteristics and resilience. Specifically, when individuals report low levels of optimism and efficacy, having a close and supportive marriage becomes particularly salient in predicting resilience. Consistent with Mayer and Faber's (2010) assertion of the importance of connection in developing resilience, when marital partners are close and communicate their emotional support, they may serve in a compensatory role for individuals with lower levels of optimism and efficacy by supporting their ability to manage and cope with stress, thus increasing their personal resilience. In other words, when individuals lack the personal characteristics such as optimism and efficacy that may help them to cope with adversity, having a close marital partner who provides emotional support for the adverse experience may help those individuals to respond in a more resilient manner. When marital relationships are particularly close and partners perceive little distinction between their partner and themselves (as measured by the IOS in the current study), it may be that the emotional support provided by their marital partner functions as an extension of their own ability to cope. The combination of marital support and closeness, in turn, helps individuals respond to adversity more resiliently when they may not otherwise be able to do so.

Importantly, the primary mechanism through which closeness is maintained and support is provided between marital partners is through communication. In contrast to other influences on resilience, (such as individual characteristics) which may be more stable and less malleable, communicating emotional support for a marital partner's adverse family experiences offers a readily accessible way of supporting resilience, even when an individual's characteristics would not. It is difficult to make significant changes in one's traits and characteristics such as optimism or efficacy, but it is much easier to communicate support to one's marital partner as a way to help him/her cope with an adverse experience. By focusing on the nature of communication between marital partners, results from this study support the assertion that resilience is best viewed as the outcome of a process, rather than simply a trait (Luthar et al., 2000; Richardson, 2002). As evidence for this perspective from the current study, the nature of the marital environment supported the development of resilience, *especially* when individuals lacked the characteristics of optimism and efficacy. Therefore, it seems that resilience has the potential to be shaped by the marital environment, regardless of the traits and characteristics of the individual.

Taken collectively, the results of the current study suggest that the nature of the marital environment may not be the most salient influence on individuals' resilience. However, nurturing this relationship may have important benefits for the larger family unit in that family functioning was the most significant predictor of individuals' resilience. Therefore, although the marital environment may be less important in supporting the resilience of marital partners, it may provide the foundation for those same marital partners to foster resilience in their children by creating a more functional

family environment. This intergenerational transmission of resilience is an area of inquiry ripe for future research.

Understanding the role of relational communication in the development of resilience was a primary goal of the current study, and thus, the following sections highlights how these findings integrate into the existing resilience literature while also offering an interdisciplinary perspective.

Interdisciplinary Implications of Examining Multiple Influences on Resilience

Although this study cannot establish causality due to the inherent limitations of its design, the correlational implications are compelling from an interdisciplinary perspective. In the first three waves of resilience inquiry, research examining resilience from a psychological perspective has focused on identifying the traits and characteristics of resilient individuals, their motivation for enacting resilience through these traits, and on understanding resilience as a process (Richardson, 2002). Although these lines of inquiry are both important and interesting in providing a foundation for resilience research, they limit individuals' sense of agency because the three waves presume that individuals either embody certain characteristics, or they do not.

Understanding the role of communication in developing resilience from both an individual and relational perspective provides insight into its ongoing development. In other words, through their communication, individuals may be able to actively change their perspective on family adversity, and perhaps become more resilience as a result.

Shifting the focus of resilience research from a process that occurs within people to one that also occurs *between* them highlights the uniquely advantage offered by a taking a communicative perspective and an interactive approach. In other words, the

advantage provided by examining the connection between communication and resilience is that it offers a variety of ways for resilience to be developed through relationships, rather than positioning it as a trait that individuals either do or do not have. Across multiple disciplines, researchers would likely agree that individuals tend to experience and interpret adversity through their interactions with other people (e.g., Koenig Kellas & Trees, 2006; Lucken & Gress, 2010; Luthar, 2006). The responses of those who communicate support for another's adverse experience then have a distinct influence on the way that adversity is viewed (Janoff-Bulman, 1992; Pasupathi, 2001; Tetlock, 1991; Tice, 1992). With this in mind, focusing on resilience as a primarily psychological trait or characteristic as in the first wave of resilience inquiry eliminates the possibility of understanding the social and relational development of resilience as a key component. Therefore, as in the current study, research that highlights the relational and communicative component of resilience to adversity in a more general sense may provide a foundation for future waves of resilience inquiry.

Despite the contributions of the current study in expanding knowledge of the communicative and relational development of resilience to family adversity, this study should be viewed as the first piece of a much larger puzzle. The results discussed in the current study should be interpreted within its limitations, and there is a multitude of questions that remain unanswered with regard to resilience. In the following section, several key limitations will be discussed, as well as several suggestions for continuing resilience inquiry through future investigations.

Limitations and Suggestions for Future Research

As with any study, there are several limitations that should be considered to provide context for interpreting the results discussed above. Specifically, limitations in the current study originate from the homogeneity of the sample, the type and severity of family adversity experienced by participants, as well as the correlational nature of the research design. First, with regard to the sample, the majority of participants in the current study were Caucasian and predominantly female, which limits the extent to which these results can be generalized as representative of a larger population. Variations in culture and gender norms may be particularly salient in understanding how individuals respond to adversity. Individuals from different cultures vary on the degree to which communicating about adverse experiences is a useful and socially acceptable coping mechanism. For example, Singh (2007) highlighted how women of South Asia value silence as a way to distance themselves from childhood sexual abuse, which contrasts Arata's (1998) findings that suggest that women from the United States find disclosure to be a useful coping mechanism. Thus, the degree to which relational communication aids in the development of resilience in South Asian women is likely to be very different than in cultures which value communicative sense-making. With examples such as this one in mind, I plan to address this limitation by purposefully recruiting from a more diverse sample and then examining/controlling for these differences.

A second limitation of the current study originates from the way that family adversity was measured. Specifically, participants were asked to indicate whether or not they had experienced one or more of a variety of different types of family adversity,

ranging from parental divorce, to a lack of emotional support, to parental incarceration, to physical or sexual abuse. Clearly, the experiences of individuals are more unique than can be accounted for by asking them to respond “yes” or “no” to this series of questions. For example, individuals within families may value these events differently, in that a lack of family resources may be ameliorated by significant community support, or parental divorce may be viewed as a welcome end to years of parental conflict or abuse. Therefore, I plan to ask more detailed questions about the nature of the adverse experiences to better account for variations among individuals. Specifically, individuals should be asked to indicate the perceived severity of each adverse experience, as well as the extent to which that event positively or negatively affected them. It may also be salient to account for the number of years that have passed since the adverse event, in that individuals’ perception of the severity of the event may diminish as a function of time, or of their own sense-making process. Additionally, I plan to examine variations in the factors that influence resilience while accounting for different types of adversity by collecting data from a larger group of participants whose experiences are even more varied than in the current sample. Given that the focus of the current study centered on one specific type of adverse experiences (i.e., family adversity), researchers interested in resilience more broadly may find it useful to consider how, if at all, the factors that are influential in developing resilience change as a function of an adverse event. It may be that adversity experienced within a family of origin context (as in the current study) is affected most strongly by support provided in another close relationship. Similarly, resilience after other adverse experiences may be best supported and developed in other ways.

A third, and perhaps the most significant, limitation of the present study involves its temporal and retrospective nature. All participants in the study were required to be married and to have experienced some form of adversity their family of origin prior to the age of 18. Given that the mean age of participants in the current study was nearly 40 years old ($M = 39.73$, $SD = 14.93$), the average minimum amount of time that had passed since their adverse family of origin experience was over 20 years. Although every participant in the current study still identified their experience as significant enough to be considered family adversity, their perspective on its impact on their lives likely changed in the time since its occurrence. Additionally, participants were married for an average of nearly 15 years, with a range of 53 years. When asked about the role of their marital partner in communicating support for their adverse family experiences, it seems likely that the majority of conversations surrounding the adversity would have occurred early in the marital relationship. Therefore, future researchers should consider the span of time since the experience of family adversity to account for possible variations in the sense-making process.

In addition to considering how resilience changes within the individual over time, there is also a need for analysis of how resilience changes as a function of the quality of close relationships. Results of the current study suggest that the nature of communication in one's marital relationship has a compensatory effect with the potential to affect the development of resilience when an individual's propensity for resilience is low. Given this connection between the marital environment and the development of resilience, I plan to examine the individual and communicative characteristics of both marital partners through dyadic analysis in my future research. It

may be that specific combinations of communicative and relational behavior between marital partners can support the resilience of one or both partners in unexpected ways. For example, the theoretical construct of vicarious resilience, primarily investigated in therapeutic applications, suggests that the *provision* of emotional support to others can serve as a mechanism to support one's own ability to cope with adverse events (Hernandez, Gangsei, & Engstrom, 2007). Examining this in a marital context may be important for future research because marital partners are often the most accessible and important form of support across adult relationships (Aron et al., 1992).

In combination with future research directed toward understanding the role of marital partners in supporting resilience, it may be interesting to consider the influence of other close relationships. Pasupathi and Hoyt (2009) suggested that when individuals discuss past events, especially ones that are significant and negative, the reaction of the conversational partner becomes integrated into their recollection. Taken in the context of an adverse experience, the response of close relational partners such as friends or family may serve as an external sense-making mechanism, which may then become part of that individuals' response toward the original event. Thus, investigating the ways in which resilience can be co-constructed through dyadic analysis such as multi-level modeling (MLM) offers an additional avenue for my future research because it would answer important questions about the unique and combined influence of close others in developing resilience after adverse experiences.

Conclusion

Overall, the current study extends the existing waves of resilience inquiry by focusing on the individual, familial and marital influences on resilience after the

experience of family adversity. Results of this study suggest that the quality of family functioning is particularly important in resilience. An increase in family adversity, however, relates to reduced family functioning. Therefore, teaching family members ways to communicatively cope and support each other in times of adversity may have enduring benefits in terms of resilience. Additionally, findings indicate that although neither individual characteristics nor the marital environment are uniquely predictive of resilience, the marital environment supports the development of resilience for those individuals who lack optimism and efficacy.

Despite nearly five decades of research dedicated to gaining a greater understanding of resilience and individuals' responses to adversity, there is much that remains unknown. The vast majority of research on resilience has originated from the investigation of personal characteristics and traits in the field of psychology. Although this line of research is foundational in researchers' understanding of resilience today, this perspective is both narrow and limiting. As demonstrated in the current study, examining resilience as a communicative, interactional, relational construct impacted by a variety of sources presents a tremendous opportunity for researchers outside of psychology to offer insight into this interdisciplinary area and to provide a more complete picture of resilience.

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APPENDIX A

RECRUITMENT SCRIPT

Family Adversity & Marital Communication

My name is Kristen Carr and I am a doctoral candidate in the Department of Communication Studies at the University of Nebraska-Lincoln. I am conducting research to learn more about how communication in marital relationships affects individuals' responses to family adversity.

To participate in this study you must meet the following criteria:

- 1) You must be at least 19 years old,
- 2) You must be currently married and must have been in a relationship with your current marital partner for at least one (1) year, and
- 3) You must have experienced some form of adversity in your family of origin (the family you were born into or grew up in) prior to the age of 18.

If you meet these three criteria and agree to participate you can access the survey online via Qualtrics at the following address:

https://ssp.qualtrics.com/SE/?SID=SV_2uFCZfL8oei2Iss

All responses will be anonymous unless you choose to list your name to receive research credit for a course requirement as a UNL student.

If you are not completing the survey for research credit, you may also choose to list your information to be entered into a drawing to receive a \$10 Amazon gift card. One person per every 10 participants will win a \$10 gift card. Drawings will occur every three months until data collection for this study is complete. Winners will be notified within 24 hours of the drawing, and will have the option of either having a gift card mailed to you or an e-gift card emailed to you. Gift cards will be sent within 2 days of contact. Your information will not be shared with anyone, it will be deleted at the conclusion of the drawing, and you will not be contacted for follow up research. Should you choose to enter your information for either research credit or the gift card drawing, it will be kept completely confidential.

Participation in this study will require approximately 45 minutes of your time. Your participation is completely voluntary. If at any time during the survey completion you do not feel comfortable, you may choose not to answer any question(s) and/or you are free to exit the survey.

If you have any questions, please contact me at kristencarr@huskers.unl.edu or 858-337-4315. Thank you for considering participation in this study!

Kristen Carr
Doctoral Candidate
Department of Communication Studies
University of Nebraska-Lincoln
433 Oldfather Hall
Lincoln, NE 68588-0329



APPENDIX B

INFORMED CONSENT

Informed Consent: **Family Adversity & Marital Communication**

Many of us have experienced some type of adversity in the families that we were born into or grew up in. Adversity takes many forms, and may include household dysfunction (such as divorce, parental illness or death, poverty/unemployment or other similar experiences) or abuse (physical, emotional, or sexual). To better understand the long-term influence of these family experiences, I am conducting research to learn more about communication in marital relationships and family adversity. The following information is provided to help you make an informed decision about whether or not to participate in this study.

To participate in this study you must meet the following criteria:

- (1) You must be at least 19 years old,
- (2) You must be currently married and in a relationship with your marital partner for at least one year, and
- (3) You must have experienced some form of adversity (e.g., household dysfunction such as divorce, illness, or poverty, abuse, etc.) in your family of origin (the family you were born into or grew up in) prior to the age of 18.

If you do not meet the above criteria, you do not qualify for this particular study and should not proceed. If you do meet the participation criteria, you may take part in this study by providing your consent on the bottom of this page and then completing a survey online which will ask you questions about communication in you family and marital relationship, as well as some demographic information. Participation will take approximately 45 minutes.

All of your responses will be kept completely confidential, and you will have the option to remain anonymous. The only individuals with access to your responses will be the researchers in this study. Results will be used for data in a research presentation at an academic conference and possible publication in a refereed academic journal, but will not personally identify you in any way.

If you are a UNL student, you may elect to provide your name after completing the survey as one option to earn research course credit. This option is dependent on a prior agreement with your course instructor. For students whose instructors have chosen to offer this as one option to earn research credit, you will be asked to indicate your instructor's name. Your instructor will be informed that you participated in a study in

the Communication Studies department, but not which study you participated in. You will not be penalized in any way in your class for not participating in this study, and a variety of other options are available to earn research credit. Your course instructor will provide alternative options for research credit that will not be evaluated if you do not wish to participate in this study but would still like to receive credit.

If you are not completing the survey for research credit, you may also choose to list your information to be entered into a drawing to receive a \$10 Amazon gift card. One person per every 10 participants will win a gift card. Drawings will occur every three months until data collection for this study is complete. Winners will be notified within 24 hours of the drawing, and will have the option of either having a gift card mailed to you or an e-gift card emailed to you. Gift cards will be sent within 2 days of contact. Your information will not be shared with anyone, it will be deleted at the conclusion of the drawing, and you will not be contacted for follow up research. Should you choose to enter your information for either research credit or the gift card drawing, it will be kept completely confidential.

You should also know that at any time throughout the survey you may decide not to answer any of the questions. You are also free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators or the University of Nebraska-Lincoln. There are no direct benefits to you as a result of participating in this study except potentially gaining a greater understanding of the influence of marital communication on your family experiences.

In the event that you would like to seek professional guidance to discuss family or marital issues, please contact the UNL Psychological Consultation Center at (402) 472-2351 or Nebraska Department of Health & Human Services, Mental Health Services at (402) 471-3121. Treatment is available on a sliding fee scale. It is the responsibility of each participant to pay for treatment if they choose to seek it, and researchers will not be held liable for treatment expenses incurred.

You may ask any questions concerning this research and have those questions answered before agreeing to participate or after the study is complete. If you have any questions about this research project, please feel free to contact the principal investigator at (858) 337-4315 or via email at kristencarr@huskers.unl.edu. If you have any questions about your rights as a research participant that have not been answered by the investigator or would like to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965.

If you meet the criteria and choose to continue participation, you must read this entire informed consent form and verify that you agree to participate and fulfill the participant criteria by electronically signing the form. Please feel free to print this page for your records. If you would like a copy of this form, please contact the principal investigator at (858) 337-4315.

You are voluntarily making a decision whether or not to participate in this study. By checking the box below, you are certifying that you meet the criteria specified above,

and that you have decided to participate and have read and understood the information presented. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators or the University of Nebraska-Lincoln

I meet the criteria specified above, I have decided to participate, and I have read and understood the information presented. I realize that I am free to decide not to participate in this study or to withdraw at any time without adversely affecting my relationship with the investigators or the University of Nebraska-Lincoln

Should you have any questions regarding your participation in this study, please feel free to contact:

Kristen Carr
Department of Communication Studies
433 Oldfather Hall
University of Nebraska-Lincoln
Lincoln, NE 68506-0329
Phone: (858) 337-4315
Email: kristencarr@huskers.unl.edu

APPENDIX C

SURVEY MEASURES

Adverse Childhood Experiences (ACE)

While you were growing up, during your first 18 years of life:

- | | |
|---|--------|
| 1. Did a parent or other adult in the household often or very often... | Yes/No |
| a) Swear at you, insult you, put you down, or humiliate you? | |
| OR | |
| b) Act in a way that made you afraid that you might be physically hurt? | |
| 2. Did a parent or other adult in the household often or very often... | Yes/No |
| a) Push, grab, slap, or throw something at you? | |
| OR | |
| b) Ever hit you so hard that you had marks or were injured? | |
| 3. Did a parent or other adult in your household ever... | Yes/No |
| a) Touch or fondle you or have you touch their body in a sexual way? | |
| OR | |
| b) Attempt or actually have oral, anal, or vaginal intercourse with you? | |
| 4. Did you often or very often feel that ... | Yes/No |
| a) No one in your family loved you or thought you were important or special? | |
| OR | |
| b) Your family didn't look out for each other, feel close to each other, or support each other? | |
| 5. Did you often or very often feel that ... | Yes/No |
| a) You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? | |
| OR | |
| b) Your parents were too drunk or high to take care of you or take | |

- you to the doctor if you needed it? Yes/No
6. Were your parents ever separated or divorced? Yes/No
7. Was your mother or stepmother: Yes/No
- a) Often or very often pushed, grabbed, slapped, or had something thrown at her?
- OR
- b) Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?
- OR
- c) Ever repeatedly hit or threatened with a gun or knife? Yes/No
8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs? Yes/No
9. Was a household member depressed or mentally ill, or did a household member attempt suicide? Yes/No
10. Did a household member go to prison? Yes/No

(Note: If participants do not earn a score of one (1) or greater on the ACE measure, they will receive the following prompt before being directed to complete the remainder of the survey.)

In the box below, please briefly indicate the type of adversity that you experienced in your family of origin:

[Text box]

Resilience

For this section, please indicate the extent to which you agree or disagree with the following statements.

Note: Items 2, 4, and 6 will be reverse coded.

1	2	3	4	5
Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree

1. I tend to bounce back quickly after hard times
2. I have a hard time making it through stressful events (R)
3. It does not take me long to recover from a stressful event
4. It is hard for me to snap back when something bad happens (R)
5. I usually come through difficult times with little trouble
6. I tend to take a long time to get over set-backs in my life (R)

Revised Life Orientation Test (LOT-R) - Optimism

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree

1. In uncertain times, I usually expect the best.
- [2. It's easy for me to relax.]
3. If something can go wrong for me, it will.
4. I'm always optimistic about my future.
- [5. I enjoy my friends a lot.]
- [6. It's important for me to keep busy.]
7. I hardly ever expect things to go my way.
- [8. I don't get upset too easily.]
9. I rarely count on good things happening to me.
10. Overall, I expect more good things to happen to me than bad.

Note: Items 2, 5, 6, & 8 are filler items and will be removed prior to data analysis.

FACES IV – Cohesion, Adaptability, & Communication

For this section, please indicate the extent to which you disagree or agree with the following statements about your family of origin.

1	2	3	4	5
Strongly disagree	Generally disagree	Undecided	Generally agree	Strongly agree

1. Family members are involved in each other's lives.
2. Our family tries new ways of dealing with problems.
3. We get along better with people outside our family than inside.
4. We spend too much time together.
5. There are strict consequences for breaking the rules in our family.
6. We never seem to get organized in our family.
7. Family members feel very close to each other.
8. Parents equally share leadership in our family.
9. Family members seem to avoid contact with each other when at home.
10. Family members feel pressured to spend most free time together.
11. There are clear consequences when a family member does something wrong.
12. It is hard to know who the leader is in our family.
13. Family members are supportive of each other during difficult times.
14. Discipline is fair in our family.
15. Family members know very little about the friends of other family members.
16. Family members are too dependent on each other.
17. Our family has a rule for almost every possible situation.
18. Things do not get done in our family.
19. Family members consult other family members on important decisions.
20. My family is able to adjust to change when necessary.
21. Family members are on their own when there is a problem to be solved.
22. Family members have little need for friends outside the family.
23. Our family is highly organized.
24. It is unclear who is responsible for things (chores, activities) in our family.
25. Family members like to spend some of their free time with each other.
26. We shift household responsibilities from person to person.
27. Our family seldom does things together.
28. We feel too connected to each other.
29. Our family becomes frustrated when there is a change in our plans or routines.
30. There is no leadership in our family.
31. Although family members have individual interests, they still participate in family activities.

32. We have clear rules and roles in our family.
33. Family members seldom depend on each other.
34. We resent family members doing things outside the family.
35. It is important to follow the rules in our family.
36. Our family has a hard time keeping track of who does various household tasks.
37. Our family has a good balance of separateness and closeness.
38. When problems arise, we compromise.
39. Family members mainly operate independently.
40. Family members feel guilty if they want to spend time away from the family.
41. Once a decision is made, it is very difficult to modify that decision.
42. Our family feels hectic and disorganized.
43. Family members are satisfied with how they communicate with each other.
44. Family members are very good listeners.
45. Family members express affection to each other.
46. Family members are able to ask each other for what they want.
47. Family members can calmly discuss problems with each other.
48. Family members discuss their ideas and beliefs with each other.
49. When family members ask questions of each other, they get honest answers.
50. Family members try to understand each other's feelings
51. When angry, family members seldom say negative things about each other.
52. Family members express their true feelings to each other.

FACES IV – Family Satisfaction

Instructions: For this section, please indicate the extent to which you are satisfied with the aspects of your family of origin listed below.

1	2	3	4	5
Very dissatisfied	Somewhat dissatisfied	Generally satisfied	Very satisfied	Extremely satisfied

How satisfied are you with:

53. The degree of closeness between family members.
54. Your family's ability to cope with stress.
55. Your family's ability to be flexible.
56. Your family's ability to share positive experiences.
57. The quality of communication between family members.
58. Your family's ability to resolve conflicts.
59. The amount of time you spend together as a family.
60. The way problems are discussed.
61. The fairness of criticism in your family.
62. Family members concern for each other.

Communication & Coping Efficacy

Thinking about your **current marital partner**, please indicate the extent to which you agree or disagree with the following statements.

1	2	3	4	5	6	7
Strongly disagree			Neither agree nor disagree			Strongly agree

1. I know how to talk to my marital partner about stressful events that occurred in my family of origin.
2. I know what I need to say to successfully discuss stressful events in my family of origin with my marital partner.
3. I would have no problem coping with my marital partner's attitudes about the stressful events in my family of origin, whatever they may be.
4. I am certain that I could handle whatever my marital partner thought about the stressful events in my family of origin, whether it is positive or negative.
5. I'd be able to fully cope with my marital partner's opinions about the stressful events in my family of origin, whatever they may be.

Communication-Based Emotional Support

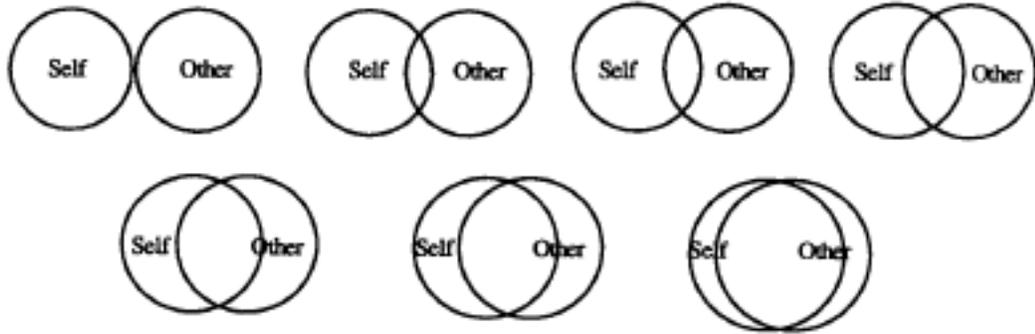
For the following questions, keep in mind the interactions that have occurred with your current marital partner about the stressful events or adversity that occurred in your family of origin.

1	2	3	4	5
Strongly disagree	Generally disagree	Undecided	Generally agree	Strongly agree

1. My marital partner helped me work through my thoughts and feelings about decisions concerning the stressful event(s) in my family of origin.
2. My marital partner patiently and sensitively listened to me talk about the problem(s) that I had in my family of origin.
3. When I discussed the family problem(s) I had with my marital partner, he/she didn't seem to pay attention. (R)
4. My marital partner helped me cope with my family problem(s) by offering help if I needed it and suggesting possible options.
5. My marital partner avoided me when I was depressed about my family problem(s). (R)
6. My marital partner listened to me talk about my family problem(s) without judging me.
7. My marital partner said and did supportive things for me when I was feeling down about my family problem(s).
8. When I wanted to talk to my marital partner about what was bothering me about my family, he/she seemed to have something else to do.
9. My marital partner showed genuine concern for my family problem(s).
10. My marital partner gave me good advice about my family problem(s) when I asked for it.
11. My marital partner made it very easy to discuss my personal feelings about my family of origin.
12. My spouse listened to my side of the story about my family problem(s), even if he/she thought I was wrong.
13. My spouse made an effort to make me feel better when I was depressed.

Inclusion of Other in Self

Instructions: Please select the picture below which best describes your relationship with **your current marital partner**.



Demographics

1. What is your sex?
 - a. Male
 - b. Female

2. What is your current age in years? _____

3. Please select the race(s)/ethnicity with which you identify:
 - a. African American/Black
 - b. American Indian
 - c. Asian
 - d. Caucasian/White
 - e. Hispanic
 - f. Other (please specify)_____

4. What is your current marital status?
 - a. Married (first marriage)
 - b. Remarried

5. Including the time you were dating, how long (in years) have you been in a relationship with your current marital partner? _____

6. How long have you been married to your current marital partner in years?_____

Research Credit/Gift Card

Thank you for taking the time to complete this survey!

The following questions are optional, and are only necessary if (a) you are a UNL student completing the survey for research credit, or (b) you are completing the survey to be entered into the drawing for an Amazon gift card.

1. If you are a UNL student completing the survey for research credit, please enter your name, your instructor's name, and the course for which you would like the extra credit.
 - a. Name
 - b. Instructor Name
 - c. Course

2. If you are completing the survey to be entered into the drawing for a \$10 Amazon gift card, please enter your name and email address.
 - a. Name
 - b. Email address: