

EXPERIENTIAL AVOIDANCE AND ITS EFFECT ON POSTDEPLOYMENT MARITAL
COMMUNICATION AND ADJUSTMENT

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The following faculty members have examined the final copy of this dissertation for form and content, and recommend that it be accepted in partial fulfillment of the requirement for the degree of Doctor of Philosophy with a major in Psychology.

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DEDICATION

This dissertation is dedicated to my family, whose unwavering love, support, and encouragement have made it possible for this dream to become a reality. You have been my biggest cheerleaders, and this degree is a reflection of the amazing support system you have provided as well as the values of dedication and hard work you have instilled in me.

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ABSTRACT

Research on the adjustment of over 2 million Americans deployed to Middle Eastern conflicts since 2001 has indicated high rates of mental illness in returning veterans, although the adjustment of family members – particularly nondeployed spouses – is less understood. Extant research has documented lower satisfaction in marital relationships after deployment, but less is known about specific postdeployment spousal communication patterns and how levels of experiential avoidance affect this communication as well as marital satisfaction more broadly.

Eight different models were tested in the present study to expand this area of research by examining the role of each partner's experiential avoidance on marital communication during a postdeployment problem-solving task, as well as investigating the effect of different communication patterns on postdeployment marital satisfaction. The sample included 160 families participating in a larger longitudinal, randomized control trial of a parenting intervention. Baseline data were used for cross-sectional analyses in the present study.

Significant associations were found between each partner's experiential avoidance and his/her own marital satisfaction, as well as their partner's satisfaction, suggesting reduced ability to tolerate intense emotions has a deleterious effect on both partners' satisfaction. Results also suggest that validation in response to reactive-coercive behavior from the other partner is more effective at increasing marital satisfaction. Marital interventions may be better-served to focus on methods to increase validation in the face of reactivity. Partners' high experiential avoidance was also associated with lower levels of positive engagement. Increasing both partners' psychological flexibility and ability to tolerate distressing emotions may lead to increased positive engagement, subsequent marital satisfaction, and more positive postdeployment adjustment.

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CHAPTER 1

INTRODUCTION

Over 2 million Americans have been deployed to Middle East conflicts as part of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) since September 11, 2001, with nearly 800,000 individuals serving multiple deployments (Tan, 2009). In addition to multiple deployments, military members serving in Iraq and Afghanistan report high rates of exposure to roadside bombs, handling human remains, injuring or killing an enemy, and witnessing the death or injury of fellow comrades (JMHAAT-7, 2011; Seal, Bertenthal, Miner, Sen, & Marmar, 2007). Rates of mental illness in returning veterans range from 18.5% - 42.7% (Milliken, Auchterlonie, & Hoge, 2007; Seal et al., 2009), with higher rates of mental illness associated with combat exposure. Prominent diagnoses include posttraumatic stress disorder (PTSD), depression, and substance abuse/dependence, (Kessler, Sonuga-Barke, Bromet, Hughes, & Nelson, 1995). In fact, it is estimated that 14-28% of OEF /OIF service members either currently meet or have met criteria for PTSD in the past year, while 13-14% meet criteria for depression (Seal et al., 2009; Thomas et al., 2010). Milliken et al. (2007) reported an even higher percentage – 42.4% – of National Guard/reservists required mental health treatment for PTSD or depression. The National Comorbidity Study (Kessler, Chiu, Demler, & Walters, 2005) revealed national civilian rates of PTSD to be 3% and rates of major depressive disorder to be 7%, indicating rates of PTSD are five to seven times higher and rates of depression are nearly doubled in the deployed veteran sample.

In addition to higher *individual* rates of psychopathology in service members, depression, PTSD, and other forms of mental illness reach far beyond the returning veteran. The invisible wounds of service members also impact nondeployed spouses and their children, and disruptions in relationships among family members can be yet another struggle characterizing postdeployment adjustment. While a small body of research indicates that nondeployed spouses report stronger marriages after their spouses' deployment (e.g., Segal & Harris, 1993), most of the extant research has linked service members' postdeployment return with decreased marital satisfaction and greater marital maladjustment. For instance, during the first 6 months following a return from deployment, both veterans and their partners are at an increased risk for the development of depression, anxiety, PTSD, and relationship distress (McNulty, 2005; Nelson Goff, Crow, Reisbig, & Hamilton, 2007; Renshaw, Rodrigues, & Jones, 2008). Research has established the profound association between psychological and marital distress in the general population (e.g., Jacobson, Holtzworth-Munroe, & Schmaling, 1989; Whisman, Uebelacker, & Bruce, 2006). The multiple transitions associated with one or more deployments, as well as deployment-related mental illness, present unique challenges for marital relationships (Lester et al., 2010).

To compound the negative effects of increased mental illness for both returning service members and spouses, an additional challenge is reintegrating the service member into the swing of family routines and roles. Following deployment, veterans and their partners are forced to reconstruct a relationship that has inevitably been altered as a result of the stress, uncertainty, and changes in the family unit during deployment (Erbes, Polusny, MacDermid, & Compton, 2008). The methods of communication, decision-making, division of roles and responsibilities, and parenting that were altered in preparation for and during deployment must once again be

adjusted with military service members' return and reintegration into the family. While the general effects of marital distress after deployment have been well-documented, the research on postdeployment marital relationships has been limited to a few longitudinal studies monitoring change in marital satisfaction upon service members' return from deployment (Allen, Rhoades, Stanley, & Markman, 2010) and only a few studies have included data concerning both deployed service members and their spouses.

In civilian marital research, much attention has been placed on the role of communication in relationship satisfaction and as a key component of couples' therapy. Marital intervention programs typically focus on spousal interaction as a malleable target for change. Communication researchers have identified the following four marital communication patterns: (a) avoidant, (b) volatile, (c) hostile, and (d) validating (e.g., Cartensen, Gottman, & Levenson, 1995; Gottman, 1993; Gottman & Notarius, 2000; Holman & Jarvis, 2003). While these patterns of communication have been widely studied in civilian marital research, and specifically in the research on marital interventions, research on communication patterns in military families after deployment remains limited to discussions of communication in the context of psychopathology. For instance, research has clearly demonstrated the connection between PTSD symptoms and avoidant and/or reactive communication patterns (e.g., Heavey, Layne, & Christensen, 1993; Sherman, Zanotti, & Jones, 2005). Similarly, depressive symptoms tend to produce withdrawn communication in the face of demands by spouses (e.g., Jacob & Leonard, 1992; Johnson & Jacob, 1997).

While communication patterns stemming from external or behavioral symptoms associated with depression and PTSD are relatively well-studied, much less is known about the impact of individual psychological processes on marital communication. One of the

psychological processes that has gained recent attention is experiential avoidance, or the effort to alter or avoid uncomfortable internal experiences, painful memories, and sensations related to wartime experiences, as well as avoidance of contexts that occasion such experiences (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Erbes et al. (2008) concluded that experiential avoidance was linked to lower disclosure and spousal intimacy, which may impede postdeployment reintegration to the family unit. Experiential avoidance is thought to be a process associated with psychopathology and, in fact, experiential avoidance has been strongly linked to the development and maintenance of PTSD (e.g., Thompson, Arnkoff, & Glass, 2011). However, the effect of experiential avoidance on marital communication appears to be an understudied area and a potentially valuable addition to understanding marital communication and adjustment in postdeployment military families.

The increasing number of veterans returning from OIF/OEF conflicts with significant exposure to deployment trauma sheds light on the importance of understanding how veterans carry this trauma with them. While military research has focused predominantly on the external, behavioral symptoms of trauma exposure through exploring the impact of PTSD and depressive symptoms on marital communication and satisfaction, little attention has been devoted to the role of experiential avoidance in the adjustment difficulties of returning service members and their families.

In an effort to address the aforementioned gaps in research on military families, the purpose of the present study was to more fully understand the psychological and social processes associated with marital adjustment after deployment to conflict zones. More specifically, this study aimed to expand research on marital communication in military families to examine how both partners' levels of experiential avoidance are associated with marital communication

patterns and overall satisfaction. Using baseline data from a larger randomized control trial of a behavioral parenting intervention (After Deployment Adaptive Parenting Tools; ADAPT; Gewirtz & Davis, 2014), the present study aimed to examine whether service members' and their nondeployed spouses' levels of experiential avoidance were associated with observed communication patterns and postdeployment marital satisfaction. The following chapter examines the current literature on postdeployment marital adjustment, communication patterns, and the associations of experiential avoidance with both postdeployment marital adjustment and communication.

CHAPTER 2

LITERATURE REVIEW

Several areas of research are relevant to addressing the association of experiential avoidance with marital communication and subsequent satisfaction. Postdeployment marital adjustment research provides the foundation for understanding some of the challenges facing the families of military service members during reintegration after deployment. Not surprisingly, service members' long periods of absence from the family unit and subsequent re-establishing and redefining parenting and spousal roles, rules, and responsibilities challenge the adjustment of the service member, the spouse, and the family unit. Service members' emotional and sometimes physical "baggage" resulting from exposure to trauma during deployment exacerbates the challenge of re-establishing their place in the family unit.

Researchers have used several theories to explain postdeployment familial adjustment difficulties, including Family Stress Theory (Boss, 1980; Hill, 1949) and the Couple Adaptation to Traumatic Stress (CATS; Nelson Goff & Smith, 2005) model. While research supports Family Stress Theory and Couple Adaptation to Traumatic Stress models as explanations for military families' postdeployment adjustment difficulties, much of the research on marital satisfaction of nonmilitary couples has focused on partner communication. Gottman and colleagues (Cartensen et al., 1995; Gottman, 1993; Gottman & Notarius, 2000; Holman & Jarvis, 2003) have described four main communication patterns in civilian couples, including avoidant, hostile, volatile, and validating styles. Research has clearly established the linkage of individual psychopathology (specifically depression and PTSD) to both decreased relationship satisfaction and ineffective communication styles (e.g., Johnson & Jacob, 1997; Sherman et al., 2005). More recently,

researchers have suggested that experiential avoidance is a basic psychological process contributing to the development and maintenance of disorders such as PTSD (e.g., Thompson et al., 2011), but relatively little is known about the role of experiential avoidance in patterns of communication between military service members and their intimate partners, and specifically, the degree to which experiential avoidance impacts partner communication and marital satisfaction during postdeployment reintegration. To understand these linkages, the first section of the following literature review examines extant research on postdeployment marital adjustment and how postdeployment declines in marital satisfaction can be explained by Family Stress Theory and the Couples Adaptation to Traumatic Stress model. Next, theory and research on couple communication styles and the effects of individual psychopathology on marital communication is examined. Finally, the potential association of experiential avoidance to ineffective communication is discussed.

Postdeployment Marital Adjustment

Research has documented significant negative effects of deployment to combat zones on marital relationships, including decreased marital satisfaction as well as increased rates of divorce and intimate partner violence (e.g., Galovski & Lyons, 2004; Nelson Goff et al., 2007). For instance, a survey of postdeployment adjustment by the Department of Veterans' Affairs (VA) concluded that 42% of military service veterans experienced difficulties getting along with their partner after deployment and 35% reported a postdeployment separation or divorce (Sayer et al., 2010). Furthermore, a cross-sectional study of nearly 6,000 married U.S. soldiers deployed to Iraq or Afghanistan between 2003 and 2009 concluded that rates of marital quality decreased over time, while rates of infidelity and separation/divorce intent increased (Riviere, Merrill, Thomas, Wilk, & Bliese, 2012). In addition to overall rates of marital dissolution and dissatisfaction, deployment has also been associated with increased risk of intimate partner

aggression and domestic violence (Teten et al., 2010). Two perspectives have been used to explain postdeployment marital adjustment difficulties: (a) service members' exposure to trauma and subsequent mental health concerns; and (b) the stress placed on the family unit through role-reversals, changes in each spouses' responsibility, and other adaptations encountered during the periods of deployment.

The first perspective has been most extensively examined, and in fact, research is quite clear regarding the negative impact of service members' trauma exposure and ensuing mental health issues on marital relationships (e.g., Galovski & Lyons, 2004; Riviere et al., 2012). High rates of psychopathology in returning service members, including depression, PTSD, and drug/alcohol addiction, create challenges that extend beyond the service member and affect both personal and couples' adjustment. In fact, Galovski and Lyons (2004) found that veterans diagnosed with chronic PTSD and their spouses report more frequent and severe relationship problems and overall poorer adjustment than veterans exposed to military-related trauma without a diagnosis of PTSD. In addition to poorer marital adjustment, Riviere et al. (2012) concluded that PTSD symptoms are associated with poorer marital *quality*, as reported by service members on the Quality of Marriage Index (Norton, 1983).

Service members with PTSD diagnoses were also more likely to consider divorce or be divorced, engage in intimate partner violence, and report difficulties in parenting. Teten et al. (2010) recruited three groups of military veterans: (a) those deployed to OEF/OIF conflicts who had been diagnosed with PTSD, (b) OEF/OIF veterans without PTSD, and (c) Vietnam veterans with PTSD. Their findings indicate that OEF/OIF veterans with PTSD were 1.9-3.1 times more likely than the non-PTSD group and the Vietnam veteran group to engage in aggression toward their female partners, suggesting that PTSD symptoms, particularly in veterans returning from

recent combat deployments, increase veterans' risk for violence and impede postdeployment marital adjustment.

Depression is another mental health concern linked to postdeployment marital adjustment. Depressive symptoms are associated with decreased marital quality as well as increased infidelity and separation/divorce intent (Riviere et al., 2012). Although the cross-sectional study of nearly 6,000 service members by Riviere et al. (2012) did not find a direct association of combat exposure with infidelity and separation/divorce intent, exposure to combat trauma has been found to indirectly affect marital quality through service members' postdeployment mental health problems (e.g., Gimbel & Booth, 1994; Renshaw, Rodrigues, & Jones, 2009). Thus, it is evident from research that military service members' personal mental health adjustment has an effect on spousal relationships upon return from deployment.

Despite evidence of the role of psychopathology in decreased postdeployment marital adjustment, it is important to note that deployment was still associated with decreased marital quality, increased infidelity, and increased separation/divorce intent even after adjusting for combat exposure, mental health disorders, and physical health symptoms (Riviere et al., 2012). This finding suggests that, regardless of exposure to trauma and other mental and/or physical health issues associated with deployment, the actual process of deployment itself takes its toll on marital relationships. Herein lies the second branch of research that attempts to explain how marital adjustment is affected after deployment – deployment is a *process* that places stress on service members as well as the family unit. The distance and time that separate military members from their families during deployment create a series of changes and adaptations within the family.

While deployment is sometimes viewed as a distinct period of time during which the service member is absent from the home, research suggests that deployment may be more accurately described as a process beginning long before the service member leaves and continuing long after he or she returns home. Pincus, House, Christenson, and Adler (2001) describe military deployment as composed of five stages: (a) predeployment, (b) deployment, (c) sustainment, (d) redeployment, and (e) postdeployment. The predeployment stage begins as soon as the service member receives notification of an upcoming deployment. This stage is characterized by both service members' and families' preparation for upcoming changes in responsibility and reactions to the upcoming stress of service members' departure. The deployment stage of this model is thought to span from the date of service members' departure through the end of the first month of absence. Pincus et al. (2001) describe the initial adjustments to routines and family responsibilities that family members endure during this stage, including nondeployed spouses' more active parenting role and the sheer stress of a family member's absence. The deployment stage also takes recognizes the stress of establishing patterns of communication with the deployed service member. For instance, adjusting from daily, in-person communication to inconsistent phone, written, or audiovisual methods of communication can be an additional source of stress during this stage.

The sustainment stage spans from the end of the first month of deployment through the beginning of the final month of deployment (Pincus et al., 2001). During this time, the new routines established within the family unit and role changes are in full-swing. Nondeployed spouses are often forced to carry out unfamiliar roles, including increased caregiving and discipline of children, and changing the family's routine to adapt to the absence of the deployed family member. For instance, if the deployed spouse was the primary disciplinarian,

nondeployed spouses may now find themselves adapting to fulfill that role within the family. In addition to changing roles and responsibilities, the nondeployed spouse's persistent worries about the safety and wellbeing of the deployed service member continue. The redeployment stage spans from the month preceding the service member's homecoming until the service member returns home (Pincus et al., 2001). This stage is characterized by a shift in family activities to prepare for the service member's return. For instance, families may begin the process of adapting back to predeployment roles and preparing for the reintegration of the service member.

The postdeployment stage, according to Pincus et al. (2001), begins when the service member returns home and may last for 3-6 months after his or her homecoming. However, some research argues that postdeployment readjustment in this stage persists for several years (e.g., Allen, Rhoades, Stanley, & Markman, 2011). Families engage in the task of renegotiating roles and areas of responsibility, as well as establishing new routines to accompany the return of the service member. Family members either revert back to predeployment roles or integrate the deployed service member into the current roles and routines. Either way, spouses find themselves becoming more interdependent after having operated fairly independently during the deployment. While this series of stages may not describe every military family who has endured deployment, Pincus et al. (2001) conceptualize these stages as relevant to understanding the series of dynamic shifts and subsequent adjustment difficulties of military families. Given the stressors encompassed by each stage of the model described by Pincus et al. (2001), it is important to examine two theories that attempt to explain the postdeployment marital adjustment of military service families: (a) Family Stress Theory and (b) the Couple Adaptation to Traumatic Stress (CATS) model.

Family Stress Theory

Family Stress Theory (Boss, 1980; Hill, 1949) focuses on how families react to stressful life events to maintain a sense of equilibrium or balance. This theory asserts that major life events, such as the separation and also reunion created by deployment, result in familial stress that can then lead to reorganization within the family. Family Stress Theory argues the family is greater than the sum of the individuals it comprises, and this theory asserts that a family's response to stress or crisis depends on four factors as explained by the ABC-X Model (Hill, 1958).

“A” (the provoking, stressor event) interacts with “B” (the family's strengths and/or resources to cope with the stressor), which interacts with “C” (the family's perception of the stressor), to produce “X” (crisis or stress) (Hill, 1958). “A” – the stressor event – can be any event that provokes change in the family unit. For example, deployment certainly provokes change within a family, and the absence of the deployed family member can result in financial changes, reliance on other family members and sources of social support, and increased parenting roles by the nondeployed parent. “B” – the family's stressor-response resources – interact with the initial stressful event to either keep a family from a crisis, or move them closer to a crisis in the absence of resources (Hill, 1958). A family's preparation for the deployment, such as accessing the support of other family members or friends and establishing a new routine, can serve as family resources. “C” – the family's perception of the stressor – is influenced by the stressful event and the family's resources (Hill, 1958). Families who have undergone multiple deployments, have strong social support systems, and are characterized by other resilience factors, will most likely have a more positive perception of the resulting crisis – “X.” For instance, the Family Stress Model would argue that deployment is a crisis resulting in new and

different roles and responsibilities. Alterations in family dynamics as a result of deployment can be viewed as additional crises in the Family Stress Model.

To clarify further, the “X” component of the Family Stress Model can be exemplified by nondeployed spouses’ sudden need to take on additional roles (e.g., assuming complete control of the family’s finances, acting as the sole disciplinarian of the family’s children, etc.) when the service member is deployed. While transitioning into new roles before and during deployment is an adjustment, transitioning out of these roles or into another new set of roles when the service member returns from deployment serves as yet another adjustment for family members. During the deployment, the family adjusts to the rules and expectations of the nondeployed parent. Upon the service member’s return, the presence of another disciplinarian and caregiver “upsets the balance” of the family’s deployment-adjusted roles, and once again, the family must adjust by redefining and renegotiating roles and responsibilities.

The renegotiation and redefinition of roles and responsibilities is particularly complicated when service members return with mental health problems. In fact, spouses of veterans with PTSD are at greater risk for developing their own psychological problems and experiencing marital distress (e.g., Dekel, Solomon, & Bleich, 2005; Evans, McHugh, Hopwood, & Watt, 2003). A review of over 250,000 Army wives’ medical records indicated service members’ deployment to OEF/OIF was associated with nondeployed spouses’ increased diagnosis of and treatment for medical and psychological problems, including depression, sleep problems, anxiety disorders, acute stress reactions, and adjustment disorders (Mansfield et al., 2010). In fact, in a study of PTSD-diagnosed veterans and their nondeployed spouses, Dekel et al. (2005) found that female spouses of service members with PTSD suffer from a higher level of emotional distress and lower marital satisfaction than the general population. However, female spouses’ levels of

distress were more closely related to their perceived caregiver burden than to an objective measure of the veterans' impairment (Dekel et al., 2005). Factors associated with the caregiving burden placed upon military spouses include increased stress, depression, loneliness, anxiety, fear for their partner's safety, and poor familial adjustment during deployment (Renshaw et al., 2008; Steelfisher, Zaslavsky, & Blendon, 2008; Warner, Appenzeller, Warner, & Grieger, 2009; Wheeler & Stone, 2010). To explain this from the perspective of Family Stress Theory, nondeployed spouses' stress and mental health problems stemming from their caregiving burden may serve as a family crisis – "X" – which may potentially upset the family role homeostasis and result in subsequent role reversals. For example, if the nondeployed spouse is spending more time as a caregiver to the returning service member, older children may find themselves taking on more chores to restore the family balance.

Nondeployed spouses appear to be greatly affected by service members' military experience in several ways. During deployment, spouses worry about the deployed service member's wellbeing, maintain a household, and functionally serve as a single parent while the service member is deployed. These stressors, as well as the physical and/or emotional burden of caring for the service member after deployment, take a significant toll on military spouses. Family Stress Theory (Boss, 1980; Hill, 1949) explains how a stressor interacts with the family's resources and the family's interpretation of the stressor to determine the nature and severity of the crisis. The negative effects of service members' deployment on service members, their nondeployed spouses, and marital satisfaction have been established. Additionally, the maladjustment of service members and their nondeployed spouses appear to be linked to the inherent stressors associated with deployment.

These processes are congruent with Family Stress Theory, but the ABC-X formula of Family Stress Theory has been criticized for being relatively linear in nature (Weber, 2011). A more recent theory, the Couple Adaptation to Traumatic Stress (CATS) model, has received more attention because it hypothesizes more transactional processes among service members' and nondeployed spouses' marital satisfaction and adjustment. Consideration of the CATS model, and research on Gottman's communication styles, set the stage for examining how service members' and their nondeployed spouses' experiential avoidance influence couples' communication styles and relationship satisfaction.

Couple Adaptation to Traumatic Stress (CATS) Model

The Couple Adaptation to Traumatic Stress (CATS; Nelson Goff & Smith, 2005) model attempts to more thoroughly describe how partners are affected by service members' exposure to deployment trauma. The CATS model suggests that higher levels of psychological and interpersonal distress reported by military veterans' partners are a result of reciprocal interaction between partners. The CATS model purports that each partner's distress has a reciprocal influence on the other partner and affects the overall quality of their relationship. Maintaining a committed relationship with a service member who is experiencing chronic trauma-related symptoms can become a chronic stressor for nondeployed spouses, resulting in adjustment issues related to depression, anxiety, and isolation (Nelson Goff & Smith, 2005). Nelson Goff and Smith (2005) have identified several mechanisms in the CATS model by which spouses of service members with PTSD develop increased distress. These mechanisms include: (a) individual level of functioning, (b) predisposing factors and resources, and (c) couple functioning (Nelson Goff & Smith, 2005). Figure A visually summarizes the interaction of these three mechanisms in the CATS model.

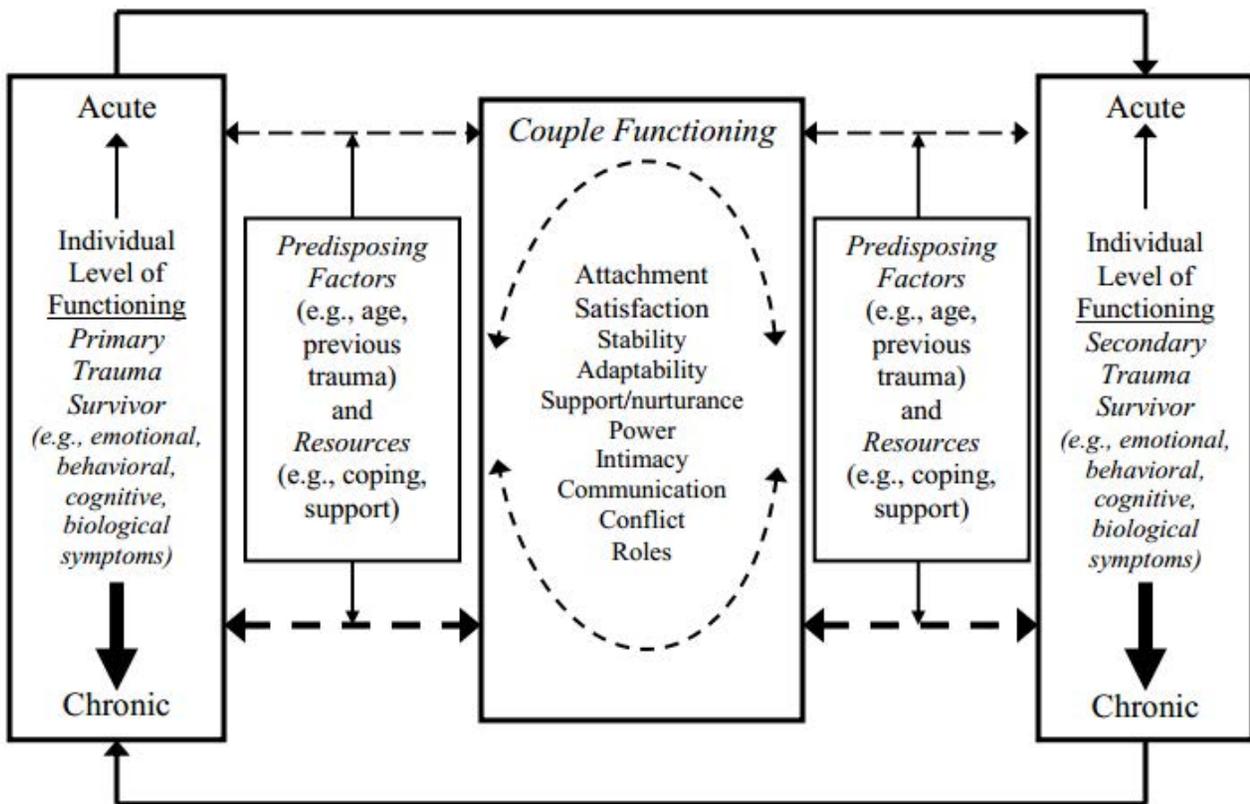


Figure A. The Couple Adaptation to Traumatic Stress (CATS) Model (reproduced from Nelson Goff & Smith, 2005)

The CATS model suggests that each partner's individual symptoms have a reciprocal effect on the other partner's adjustment. For instance, a service member's emotional (e.g., anger or flashbacks) or biological (e.g., fatigue) symptoms affect the distress and functioning of the nondeployed partner through what has been termed secondary trauma symptoms (Nelson Goff & Smith, 2005). When nondeployed partners exhibit their own individual symptoms (e.g., sadness, withdrawal, anger) in response to the service members' primary symptoms (e.g., angry outbursts, flashbacks), the presentation and intensity of service members' symptoms are affected (Wick, 2010). The symptoms each partner brings to the relationship interfere with the couple's behavioral and emotional interaction. For example, in response to a deployed service member's

escalation and agitation over minor household noise or the nondeployed spouse's attempt to hold a conversation, the nondeployed spouse may avoid talking with the service member, creating the effect of "walking on eggshells." In response to the nondeployed spouse's disengagement, however, the service member may become further withdrawn or more reactive, creating a negative feedback loop for both spouses' individual symptoms.

In addition to individual partners' symptoms, predisposing factors, including pre-existing mental illness, previous stress or trauma, and individual coping skills, create an important second mechanism in the CATS model. The cumulative effect of predisposing factors is thought to contribute to role disruption and interpersonal conflict, as well as decreased relationship functioning (Nelson Goff & Smith, 2005). However, these predisposing factors can be offset by positive individual and family system resources. Individual resources include adequate finances, higher education, positive coping skills, and other psychological resources. Family system resources on a more global level include cohesion, adaptability, mutuality, and high levels of social support. Building on the previous example, the CATS model suggests that each partner's prior mental health problems, as well as low family cohesion, can sustain or amplify each partner's negative individual symptoms over time.

The final step of the CATS model, couple functioning, is based on specific mutual-influence components of the dyad system. These components include the couple's attachment, relationship satisfaction, level of support, balance of power, intimacy, conflict, and communication (Nelson Goff & Smith, 2005). While the first two steps involve individual factors (i.e., each partner's level of functioning and their predisposing factors and resources), the couple-functioning step reflects dyadic relationship processes. The transactional nature of the CATS model suggests that not only do partners' individual factors contribute to dyadic processes

such as the couple's attachment, satisfaction, and communication, but these dyadic processes also influence the adjustment of each spouse after deployment. One of the dyadic processes gaining the most attention in the marital intervention research is partners' communication styles. A recent qualitative study by Wick (2010) utilized a systematic coding of interviews with military couples to explore the couple process variables proposed by the CATS model, particularly patterns of communication between spouses.

Wick's (2010) study revealed five major themes of couple functioning: (a) communication styles, (b) conflict management, (c) roles, (d) support/nurturance, and (e) posttraumatic growth. Couples with high relationship satisfaction and low levels of PTSD symptoms tended to have open communication marked by higher levels of information/emotion reciprocity, and attempted to resolve conflict rather than avoid it. Furthermore, couples with high relationship satisfaction and low PTSD symptoms perceived each spouse to have equal roles, as well as reported high levels of empathy, resiliency, and cohesion after deployment. Conversely, couples with low relationship satisfaction and high levels of post-traumatic symptoms tended to have closed communication characterized by minimal reciprocity and variable levels of role equality. Unsatisfied couples with high levels of posttraumatic symptoms also tended to engage in conflict avoidance when managing disagreements; they addressed conflicts with ineffective and critical communication, with at least one spouse often covertly or overtly refusing to discuss an issue. Furthermore, couples who were less satisfied and displayed high levels of PTSD symptoms tended to report varying levels of empathy and cohesion (Wick, 2010). The results of Wick's (2010) study support the CATS model; both individual factors (PTSD symptoms) and dyadic factors (relationship satisfaction) influence couples' closeness, perceptions of equality within the relationship, and communication styles.

To summarize, both Family Stress Theory (Boss, 1980; Hill, 1949) and the CATS model (Nelson Goff & Smith, 2005) have been used as theoretical lenses through which researchers have attempted to understand the effects of military deployment. While Family Stress Theory explains deployment as a stressful family event after which family members are forced to alter roles, responsibilities, and routines in preparation for, during, and after deployment, the CATS model explains couples' adjustment difficulties through transactional individual characteristics and dyadic relationship processes. Although the two models differ in their explanation of couples' postdeployment adjustment, both models propose that deployment evokes a complex set of family-wide adjustment processes during deployment and reintegration that importantly involve dyadic communication, problem solving, and negotiation.

Communication Styles

The research on couples' interaction and communication styles complements and extends the theme of reciprocal communication emphasized in the CATS model. While the present study is unique to military members and their nondeployed spouses, research by Gottman and colleagues on couples' communication in nonmilitary population has identified four different conflict styles used by couples: (a) avoidant, (b) hostile, (c) volatile, and (d) validating (Cartensen et al., 1995; Gottman, 1993; Gottman & Levenson, 2000).

The avoidant style is distinguished by couples who "agree to disagree" (Gottman, 1999). Behaviorally, couples utilizing this style evade or avoid conversations that are distressing or likely to cause conflict. Rather than "hashing out" differences of opinion or working together to problem-solve, these couples simply avoid broaching uncomfortable topics that may spark an argument in an effort to "keep the peace."

The hostile style is characterized by destructive and contemptuous conflicts, during which partners often use sarcasm or criticism to make their point (Gottman, 1999). For example, couples utilizing the hostile pattern of communication might approach a discussion on child discipline by sarcastically and disdainfully pointing out ways in which their partner has fallen short when disciplining their children in the past. By pointing fingers and placing blame, this form of communication entails reciprocal aggression and arguing with very little positive affect or empathy.

Volatile couples tend to be more passionate and energetic as well as confrontational in resolving conflict (Gottman, 1993). While the hostile pattern tends to be characterized by sarcasm, couples who are volatile are more direct and avoid “beating around the bush.” These couples are direct and “tell it like it is” with little regard for the other partner’s feelings or input. In the preceding example of disciplining children, volatile partners would discuss the issue directly and matter-of-factly, but without considering the other partner’s perspective.

The validating style is very different from the preceding three patterns. It is used when couples ensure each person’s views are respected and understood (Gottman, 1993). Validating couples address their conflicts openly and cooperatively, incorporating high levels of positive affect and empathy for the other partner’s opinions and feelings. In a problem-solving conversation, partners may not agree with the other spouse’s viewpoint, but each listens respectfully and expresses concerns in a positive and supportive manner. Of the avoidant, hostile, volatile, and validating conflict styles, the validating style is most strongly linked with fewer instances of stonewalling (i.e., shutting the other partner out, thereby avoiding both positive and negative aspects of the relationship) and higher relationship satisfaction (Busby & Holman, 2009; Holman & Jarvis, 2003).

The avoidant, hostile, and volatile patterns of communication involve what Gottman (Gottman, 1994) has called the “Four Horsemen of the Apocalypse.” These negative behavioral processes are: (a) criticism, (b) contempt, (c) defensiveness, and (d) withdrawal. Gottman’s research indicated that hostile couples display the highest frequency and greatest intensity of these four behavioral processes during their attempts to address conflict. Furthermore, they tend to rely on personal attacks on their partners and have lower relationship satisfaction. In addition to the inability of partners to soothe their partners’ escalated emotions, partners who use the hostile pattern of communication are also less effective at regulating their own emotions (Gottman, 1994).

Extant research provides a clear description of these four categorical descriptions of couples’ communication styles in terms of observable social behavioral processes. More recent research continues to support the classification of couples into the avoidant, hostile, volatile, and validating patterns, as well as Gottman’s contention that hostile couples have the worse adjustment (e.g., Holman & Jarvis, 2003). While the early research by Gottman classified overall dyadic communication into one of the four patterns, researchers have also examined the effects of the individual style each partner brings to the relationship. In other words, synchrony between individual styles of communication (e.g., both partners are validating) or discrepancy between individual styles of communication (e.g., one partner is hostile while the other is validating) may exist.

A study by Busby and Holman (2009), in which seriously-dating, engaged, or married couples rated their own and their partner’s communication style as well as relationship satisfaction, found that nearly one-third of the couples had a dyadic discrepancy in the four Gottman styles. Furthermore, there were notable differences in relationship adjustment

depending on the types of discrepancies. For instance, when one partner was rated as validating, the couple rated their relationship satisfaction significantly higher than the avoidant and volatile matched styles (Busby & Holman, 2009). Although couples who were both rated as validating had the highest relationship satisfaction, these results suggest that having at least one partner who is validating may, in essence, buffer the couple from lower relationship quality. On the other hand, a mismatched pattern in which one partner has been rated hostile was associated with lower relationship satisfaction than any other couple style combination (Busby & Holman, 2009). With the knowledge that one partner's validating style can serve as a buffer against reduced relationship quality, research indicates that targeting couples' communication strategies may be a promising and malleable target for intervention.

While the majority of communication research has focused on civilian couples, Gottman's four communication patterns and behavioral processes may be particularly important in understanding how military couples communicate about issues related to deployment and the negotiation of roles and responsibilities that ensue following deployment. The individual mental health problems of each partner following deployment are also pertinent to understanding military families' communication and relationship satisfaction. PTSD and depression are two of the most common psychological diagnoses in service members, and the interrelationship of PTSD and depression symptoms on spousal communication is now described.

Effects of PTSD Symptoms on Spousal Communication

As our understanding of couples' communication strategies increases, researchers have attempted to more completely understand how family stressors and individuals' psychopathology affect couples' communication, particularly in military families. Sherman et al. (2005) conclude that PTSD symptoms often lead veterans to withdraw from intimate relationships, and result in

decreased positive engagement and intimacy, as well as avoidance of opportunities for effective and validating communication. Furthermore, reactive symptoms of PTSD can increase the frequency of angry outbursts, adversely affecting communication, problem solving, and partners' social support.

The reactive and withdrawal symptoms of PTSD have been closely tied to the demand-withdrawal pattern of communication described in research on intimate partners. This pattern involves one partner's attempt to discuss a topic, while the other partner either avoids or ends the discussion (Christensen, 1988). While this pattern is most often linked to problem-solving discussions and disagreements (Sevier, Simpson, & Christensen, 2004), it is also one of the most destructive and least effective patterns of communication of couples (Heavey et al., 1993). In fact, Eldridge, Jones, Sevier, Atkins, and Christensen (2007) found that rates of demand-withdrawal patterns of communication were particularly high in distressed couples, typically involving high rates of women emitting demands and husbands' withdrawal from the conversation. Papp, Kouros, and Cummings (2009) coded couples' journal entries about conflicts and found husband demand-wife withdrawal and wife demand-husband withdrawal occurred at similar rates. This demand-withdrawal pattern was linked to the use of negative tactics, such as threat, verbal hostility, and aggression, and to a lower likelihood of constructive tactics such as affection, support, and compromise (Papp et al., 2009).

While many direct relationships between PTSD and negative communication have been documented, research by Allen and colleagues (2010) suggests an indirect relationship between the two. Allen et al. (2010) surveyed U.S. Army members and their spouses, measuring PTSD symptoms and marital satisfaction (measured by marital stability, positive bonding between partners, dedication to the spouse and the relationship, and parenting alliance). While PTSD

symptoms were negatively associated with all measures of marital satisfaction except dedication, the processes of negative communication, positive bonding, and parenting alliance each partially mediated the association between PTSD symptoms and marital satisfaction. The mediating effects of effective communication, bonding, and collaboration in parenting suggest that marital communication – not necessarily individual psychopathology – may be an effective and malleable proximal target for intervention.

Given the avoidant and aversive patterns of communication associated with PTSD, it is not surprising that as PTSD symptoms worsen, social support tends to decline. A nondeployed spouse may attempt to broach a conversation with a service member multiple times, but if the nondeployed spouse's efforts are thwarted by the service member's continued avoidance of important conversations, intimacy and closeness will begin to decline. Unfortunately, the decline of social support creates a negative feedback loop, exacerbating the severity of PTSD symptoms (Benotsch et al., 2000). Patterns of communication appear to be significantly affected by veterans' PTSD symptoms, and in turn, the resulting demand-withdrawal pattern appears to have negative implications for marital satisfaction and mutual social support in military families.

Effects of Depression on Spousal Communication

In addition to PTSD symptoms, research suggests that depression also plays a role in couples' demand-withdrawal patterns of communication. Research has consistently shown discrepancies in communication styles between partners and higher levels of passivity-withdrawal, negative statements, and negative reciprocity in couples in which at least one partner is depressed (e.g., Jacob & Leonard, 1992; Johnson & Jacob, 1997).

Communication patterns associated with depressive symptoms include demand-withdrawal and demand-submit. The demand-withdrawal pattern, as described above, defines an

interpersonal communication pattern characterized by a demand as one partner blames, accuses, criticizes, or requests change from his or her partner, and subsequent withdrawal by the partner who is the target of the demand (e.g., Christensen, 1987; Sullaway & Christensen, 1983).

Demand-withdrawal communication in the context of depressive symptoms includes avoidance, failing to respond, becoming silent or defensive, or refusing to discuss the issue. This communication pattern has been associated with negative emotion (Papp et al., 2009), intrusive thoughts and hyperarousal (Malis & Roloff, 2006), partner hostility and aggression (Holtzworth-Munroe, Smutzler, & Stuart, 1998; Sagrestano, Heavey, & Christensen, 1999), relationship dissatisfaction (Baucom, McFarland, & Christensen, 2010; Christensen, Eldridge, Catta-Preta, Lim, & Santagata, 2006; Eldridge, Jones, et al., 2007), and divorce (Christensen & Shenk, 1991). Another communication style associated with depression is the demand-submit style, where one partner blames, criticizes or demands change from his or her partner, and in response the other partner defers, surrenders, or complies. The demand-submit style is particularly important when studying depression in marital relationships as depressed individuals tend to experience others as assuming a dominant role (Constantino et al., 2008; McCullough, 2000) and tend to see themselves as submissive (Barrett & Barber, 2007; Constantino et al., 2008). Knobloch-Fedders et al. (2014) observed and coded 10-minute conflict interactions between couples using the demand-withdrawal and demand-submit styles. They found that the occurrence of demanding behavior by one partner followed by submissive behavior from the other partner was negatively associated with relationship satisfaction. While withdrawal from conversation can be negatively reinforcing for the person withdrawing from conversation, withdrawal tends to be aversive to the partner demanding change, as it constricts conflict resolution (Papp et al., 2009). Knobloch-Fedders et al. (2014) also reported gender differences in communication patterns. Sequential

analyses indicated that men generally tend to initiate higher frequencies of demands than women in both demand-withdrawal and demand-submit sequences. However, men with depressive symptoms were more likely to experience the female demand-male withdrawal sequence. In other words, depressed men tend to withdraw from conversations when they perceive their spouse to be demanding. This finding indicates that both gender and psychopathology influence couples' communication patterns.

While the effects of PTSD and depression on communication are important, it is also vital to explore how within-individual psychological processes associated with symptoms of PTSD and depression affect the social communication between intimate partners. PTSD and depression are thought, in part, to be behavioral manifestations of responses to internal sensations, thoughts, and feelings. In other words, the basic, underlying process resulting in depression and PTSD symptoms entails an effort to avoid, control, manage, or alter negative cognition, affect, and memories – what is referred to as experiential avoidance (e.g., Thompson et al., 2011). Thus, to gain a richer understanding of how partners' reactions to stress influence their interactions with spouses, the following section explores experiential avoidance and its potential effects on marital communication and satisfaction in more detail.

Experiential Avoidance

Experiential avoidance is defined as the efforts of an individual to alter the experience of distressing internal events, including thoughts, feelings, memories, and bodily sensations (Hayes et al., 1996). Experiential avoidance occurs when an individual is unwilling or unable to experience unwanted private experiences, and therefore takes steps to avoid, escape, or alter the form, frequency, or context of the unwanted experience (Hayes et al., 1996). Distress may be attenuated by complete avoidance or suppression of thoughts, memories, and feelings associated

with the event, as well as hypervigilance as an effort to avoid the reoccurrence of uncomfortable emotional experiences (Hayes et al., 2004). Service members may demonstrate experiential avoidance when they attempt to avoid or suppress cues associated with deployment or combat. Behaviorally, this may be exhibited by an unwillingness to discuss deployment-related experiences due to emotional discomfort, social withdrawal, dissociation, and substance use (Erbes et al., 2008).

Experiential avoidance may be an important variable that influences spousal communication and relationship satisfaction, as it is postulated as a core psychological process in many mental health problems, including depression, anger/aggression, and PTSD (e.g., Hayes et al., 2004). For example, experiential avoidance encompasses one facet of the core symptoms of PTSD defined by the *Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5;* American Psychiatric Association, 2013), including avoiding stimuli associated with the traumatic events through efforts to avoid distressing internal and external reminders of the trauma.

Experiential avoidance has often been measured by self-report responses on the Acceptance and Action Questionnaire – II (AAQ-II; Bond et al., 2011). The AAQ-II has been utilized in an attempt to examine experiential avoidance and psychological inflexibility, or “rigid dominance of psychological reactions, over chosen values and contingencies, in guiding action” (Bond et al., 2011, p. 681). Meyer, Morissette, Kimbrel, Kruse, and Gulliver (2013) administered the AAQ-II (Bond et al., 2011), along with several other self-report measures of psychopathology and combat exposure, to recently-deployed OEF/OIF veterans. They reported that higher levels of experiential avoidance were associated with increased PTSD symptom severity on all three PTSD symptom clusters, which is consistent with prior research (e.g.,

Kashdan, Morina, & Priebe, 2009; Kumpula, Orcutt, Bardeen, & Varkovitzky, 2011; Marx & Sloan, 2005). The Meyer et al. (2013) study expanded on prior research by demonstrating that when predicting PTSD symptoms, AAQ-II scores held incremental predictive validity of experiential avoidance over and above the avoidance symptoms of PTSD. They also reported that experiential avoidance was related to, but a separate construct from, negative emotionality/neuroticism. Meyer et al. (2013) suggest that negative emotionality reflects one's level of perceived distress, while experiential avoidance reflects how one reacts to the experience of having distress (e.g., attempting to alter trauma cues). In essence, experiential avoidance, or active attempts to alter one's distressing feelings, cognitions, or memories, may contribute to the development and maintenance of PTSD and serve as a malleable target for intervention (Meyer et al., 2013).

Despite the seemingly exacerbating effects of experiential avoidance on PTSD symptoms, experiential avoidance can also be an adaptive short-term coping mechanism during deployment. For instance, suppressing immediate emotional arousal and being highly vigilant and reactive to threats on the battlefield may actually be advantageous to survival. Experiential avoidance can also be adaptive after deployment, such that avoiding sleep can be used as an attempt to reduce nightmares, hypervigilance can help minimize fear, and substance use may dull veterans' negative emotional arousal. However, continued avoidance over time may be related to the maintenance or increased frequency of symptoms of PTSD and depression (Hayes et al., 1996; Kumpula et al., 2011). From an exposure perspective, experiential avoidance also interferes with extinction of the signature affective and arousal responses to trauma exposure, as well as prevents alternative responding (Ehlers & Clark, 2000). Actively avoiding distressing thoughts, feelings, and memories associated with the trauma actually prevents the reappraisal of

the traumatic event, contributing to the sense of impending doom and overgeneralized fear present with PTSD.

As well as its association with individual adjustment, it is also important to consider the potential negative effects of experiential avoidance on social relationships. For instance, avoidance and numbing symptoms linked to trauma exposure and apparent in experiential avoidance may interfere with problem solving, self-disclosure, positive involvement, expressions of warmth, and constructive communication styles with family members (Palmer, 2008; Solomon, Dekel, & Mikulincer, 2008). Thus, experiential avoidance may be much more than an individual's attempt to manage internal thoughts, feelings, and memories; it may also interfere with social processes needed to develop and maintain close social relationships. The effects of experiential avoidance on spousal communication are discussed in the next section, followed by a discussion of experiential avoidance as a malleable target for marital interventions.

Effects of Experiential Avoidance on Communication

In addition to causing increased distress and impairment in veterans' individual functioning over time (Marx & Sloan, 2005), experiential avoidance may also negatively impact interpersonal relationships, including marital satisfaction and intimacy (Leonard, Follette, & Compton, 2006). Emotion-arousing events, bids for attention and affection, demanding family routines, co-parenting challenges, and marital disagreements are all examples of external social environmental challenges that may evoke or exacerbate postdeployment experiential avoidance.

Service members may react to postdeployment challenges during marital and family interaction by becoming emotionally unavailable, behaviorally withdrawing, or becoming overtly reactive (Riggs, Byrne, Weather, & Litz, 1998; Ruscio, Weather, King, & King, 2002). These negative reactions of service members may evoke reciprocal reactions from family

members. Family members may find themselves “walking on eggshells” around the service member, hesitant to provoke negative emotional responses, and rapidly soothing service members’ distress. As an alternative response, family members may respond to service members’ withdrawal with frequent and insistent bids for attention or reciprocal aversive emotional and behavioral displays. This mutually-entrained pattern of reactive-coercive and withdrawal-avoidant interaction between service members and their families ultimately interferes with constructive parenting practices, partner communication, and perception of social support (Gewirtz & Davis, 2014; Gewirtz, Erbes, Polusny, & Forgatch, 2011). Given the established role of experiential avoidance on service members’ individual adjustment and the reciprocal nature of spousal communication, it may be useful to examine how individual partners’ experiential avoidance is associated with communication between spouses.

Erbes et al. (2008) found that service members’ avoidance of uncomfortable yet necessary discussions with their nondeployed spouses can lead to increased tension and conflict, and to reduced intimacy. In terms of the Gottman’s communication patterns, experiential avoidance appears to result in the avoidant style, whereby service members evade distressing conversations rather than actively problem-solve. The demand-withdrawal pattern of communication may also be associated with experiential avoidance. As a result of service members’ avoidance of potential conflict, nondeployed spouses may natter at or challenge service members to engage in discussions. In response to these demands, the service member may perceive conflict and further withdraw from interaction. Thus, experiential avoidance may play an important role in negative communication patterns.

Experiential avoidance may also impact levels of social aggression. Using self-report measures and interviews from recently-deployed National Guard members and their spouses,

Reddy, Meis, Erbes, Polusny, and Compton (2011) reported that both veterans' and their nondeployed spouses' experiential avoidance was correlated with decreased relationship adjustment after deployment. Furthermore, veterans' experiential avoidance was associated with increased rates of physical aggression and greater exposure to their nondeployed spouses' physical aggression, suggesting that experiential avoidance may serve a reciprocal and escalating role in postdeployment communication (Reddy et al., 2011). This finding also suggests an association of experiential avoidance with poor emotional expression and communication skills, leading to aggressive outbursts. While much of the postdeployment adjustment research has focused on the association of PTSD and depression with marital adjustment and communication, only modest empirical attention has been given to the specific ways in which experiential avoidance affects observed marital communication and adjustment.

Interventions Addressing Experiential Avoidance

Given the central role experiential avoidance appears to play in the development and maintenance of psychopathology and in the quality of marital relationships, it is important to explore research on interventions aiming to reduce experiential avoidance. Two important components of experiential avoidance interventions are mindfulness and acceptance.

Mindfulness, or the awareness of bodily sensations, emotions, or activities through contact with the present moment (Baer, Smith, & Allen, 2004) consists of two main mechanisms: (a) self-regulation of attention, and (b) an accepting orientation toward experience (Bishop et al., 2004).

Acceptance, a similar and overlapping construct, has been conceptualized as involving three processes: (a) observing psychological events, (b) letting go of the desire to alter these events, and (c) the ability to differentiate actual events from psychological experiences (Follette, Palm, & Hall, 2004).

Both mindfulness and acceptance involve attending to internal and external events while withholding negative evaluation of these events. This is an alternative to experiential avoidance, which entails efforts to alter – rather than attend to – negative internal sensations, thoughts, and feelings. Low mindfulness and acceptance are believed to contribute to experiential avoidance (Baer et al., 2004). Given the role of experiential avoidance in the development and maintenance of PTSD, it follows that mindfulness and acceptance principles have been utilized in interventions for PTSD, with the goal of focusing on the present as a way to prevent rumination on previous trauma (Follette, Palm, & Pearson, 2006). The effectiveness of mindfulness-based components to PTSD treatments has further supported the contributing role of experiential avoidance in the development and maintenance of psychopathology (Thompson et al., 2011).

Mindfulness- and acceptance-based interventions have been proposed to serve four functions in alleviating PTSD symptoms. First, practicing mindfulness regularly can enhance person-centered awareness and acceptance of distressing internal experiences, allowing veterans to approach rather than avoid distressing experiences, and attend to thoughts and emotions as they arise (Walser & Westrup, 2007). Secondly, increased awareness of one's present experience may increase engagement in other forms of treatment, perhaps due to nonjudgmental acceptance of internal experiences (Henning & Freueh, 1997). A third function of mindfulness-based interventions is the reduction of physiological arousal and stress reactivity, which are often characteristic of the PTSD symptom of hyperarousal (Delizonna, Williams, & Langer, 2009). Finally, mindfulness training has led to increases in psychological flexibility, which includes learning when it is appropriate to sit with distressing internal experiences or shift attention away, as well as an increased ability to inhibit secondary elaborative processing of sensations, thoughts, and feelings (Jha, Krompinger, & Baime, 2007).

While the effectiveness of mindfulness- and acceptance-based interventions has been largely studied on an individual level, there has also been a recent shift in the intervention literature to embed mindfulness and acceptance training into marital interventions. For instance, integrative behavioral couple's therapy (IBCT; Christensen & Jacobson, 2000; Christensen, Jacobson, & Babcock, 1995; Jacobson & Christensen, 1998) focuses on emotional acceptance, rather than targeting specific interpersonal behaviors. In contrast to traditional behavioral marital therapy, the primary goal of IBCT is to foster each partner's acceptance of the other and their differences in an attempt to promote intimacy, empathy, and compassion for one another. To achieve this acceptance, IBCT encourages attention to the emotional reaction of both partners, rather than focusing specifically on (and trying to alter) one partner's "problem" behavior. By fostering a new appreciation for the other's experience, the goal is that partners will "let go" of the struggle to change the other partner (Christensen, Wheeler, & Jacobson, 2008). Thus, mindfulness and acceptance training appears to be beneficial on an individual level and in social-interactive dyadic relationships.

Another specific intervention utilizing mindfulness, communication, and exposure principles to target avoidance and numbing symptoms within the context of social relationships is Structured Approach Therapy (SAT; Sautter, Glynn, Thompson, & Franklin, 2009). An important aspect of SAT includes empathic (or expressive) communication training (Guerney, 2005) that teaches couples to communicate about traumatic experiences by providing empathy and greater understanding of the traumatized person's perspective. SAT also teaches couples how to effectively approach emotionally-charged topics related to deployment and to engage in validating perspective-taking. In a pilot study of Vietnam combat veterans with PTSD and their

nondeployed spouses, SAT significantly reduced self-, clinician-, and partner-rated PTSD symptoms as well as reductions in emotional numbing and avoidance (Sautter et al., 2009).

The mindfulness-based portion of the SAT treatment protocol teaches couples to increase awareness to physiological sensations, thoughts, and behaviors during their emotional experiences. Couples are then encouraged to share their emotional experiences with each other to foster empathy and comfort in talking about emotional experiences. Later in SAT, couples engage in a dyadic exposure exercise, during which the veteran is encouraged to discuss aspects of avoided internal stimuli with his or her partner (Sautter, Armelie, Glynn, & Wielt, 2011). While this is beneficial from an exposure standpoint, it also provides service members with the opportunity to more fully develop mindfulness skills that foster the ability to discuss uncomfortable topics and to be more accepting of the negative thoughts and emotions that arise. Perhaps a critical component of SAT is the opportunity to develop and enhance positive social interactions between partners, including the use of empathic, validating communication, as well as increased intimacy and perceived support (Sautter et al., 2011). By reducing service members' experiential avoidance, couples are able to engender social support and return to valued roles and responsibilities.

In sum, experiential avoidance has been linked to the development and persistence of individual mental health problems as well as to interpersonal conflict and communication. Mindfulness- and acceptance-based interventions have been successfully utilized in both individual and dyadic interventions to reduce levels of experiential avoidance and to increase positive, validating communication between romantic partners. These data suggest that experiential avoidance may be viewed as a malleable target for marital communication intervention. By examining the effect of experiential avoidance on observed couples'

communication patterns and subsequent marital satisfaction, the present study aims to more fully inform and detail the targets of mindfulness- and acceptance-based interventions in reducing experiential avoidance and increasing positive interpersonal communication.

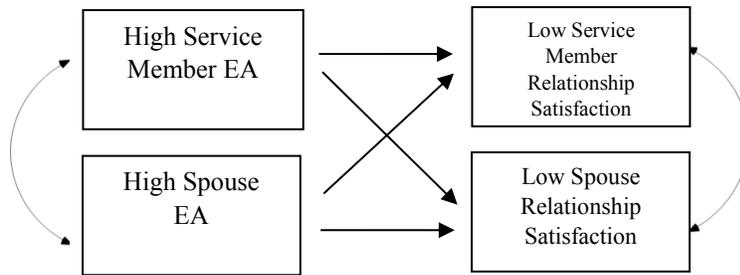
The Present Study

Research clearly demonstrates that experiential avoidance is central to the development and maintenance of psychological problems, including PTSD and depression, that are common in service members and their nondeployed spouses after military deployment. Research on postdeployment marital adjustment suggests that increased mindfulness, lower experiential avoidance, and validating communication all are positively associated with marital satisfaction after service members' reintegration into the family. However, the degree to which marital communication mediates the association of experiential avoidance with marital satisfaction remains understudied. The purpose of the present study was to examine whether couples' interaction is influenced by each partner's level of experiential avoidance and, subsequently, whether the quality of these interactions is associated with the diminished marital satisfaction documented following military deployment to conflict zones. To do this, cross-sectional analyses were used to examine how experiential avoidance affects couples' observed interaction during a spouse problem-solving task. Couples' interaction was assessed in terms of communication patterns described in previous research on marital satisfaction. The degree to which these communication patterns were associated with concurrent marital satisfaction were assessed. Consistent with Family Stress Theory and the Couple Adaptation to Traumatic Stress (CATS) model, it is proposed that couples' reciprocal interaction is a key component in explaining relationship satisfaction. While research on communication patterns in the civilian population has revealed four main communication styles (validating, hostile, avoidant, and volatile),

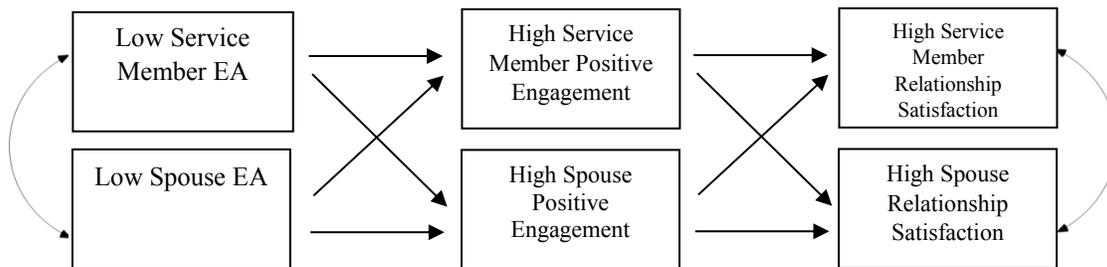
research on the communication of service members and their spouses has been mainly focused on the demand-withdrawal pattern. Although this pattern is congruent with the research on PTSD symptoms, extant research has inadequately examined other communication styles that may impact relationship satisfaction. The present study explored the associations of experiential avoidance with several different communication patterns and marital satisfaction. While research indicates that high levels of experiential avoidance in service members is associated with reduced intimacy and closeness with nondeployed partners, less is known about specific communication patterns that mediate the association of experiential avoidance with relationship satisfaction. Furthermore, most research has utilized partners' self-report of communication patterns, with resulting method overlap with their reports of relationship satisfaction and personal adjustment. This study codes observed partner interaction to operationalize communication patterns.

Given previous literature on experiential avoidance, marital communication, and relationship satisfaction, there are fundamentally two parts to the following hypotheses: (a) an interactional approach, where each partner's experiential avoidance is associated with one's own communication style, as well as behaviorally experienced by the other spouse, and is further associated with each spouse's relationship satisfaction; and (b) a mediational model, whereby dyadic communication patterns mediate the relationship between each spouse's level of experiential avoidance and relationship satisfaction. Given these two frames of reference, the following hypotheses were tested:

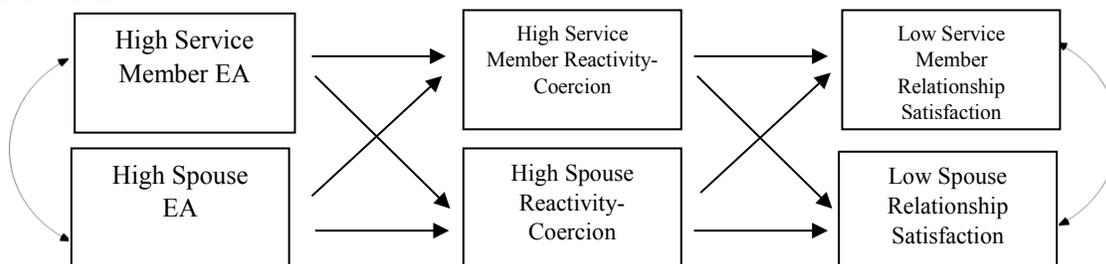
H1: High experiential avoidance in service members and their nondeployed spouses will be associated with lower levels of each spouse’s marital satisfaction.



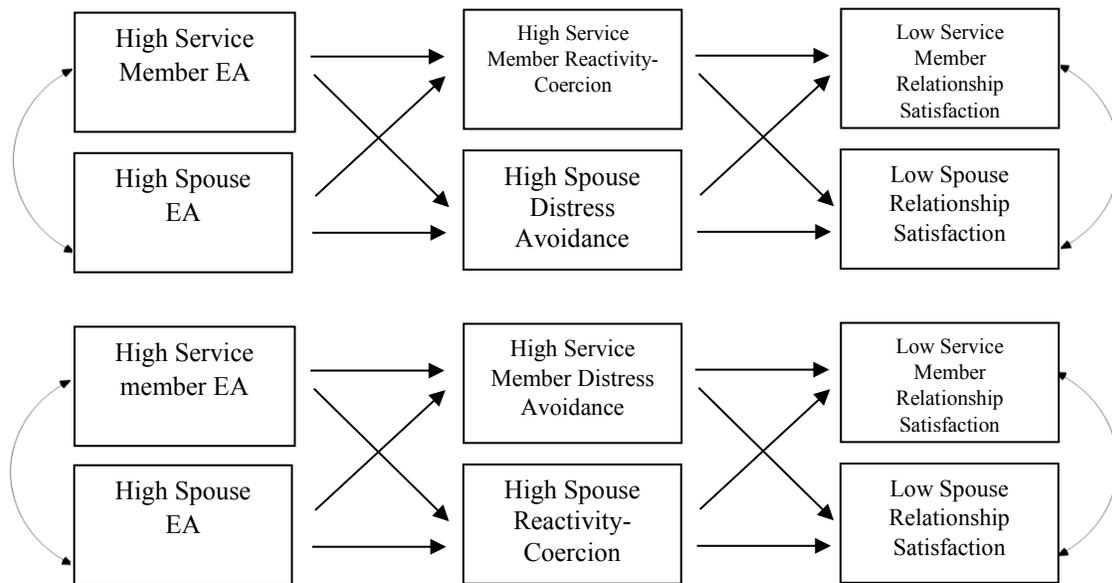
H2 – Mutual Validation Model: Research on Gottman’s communication styles indicates that relationship satisfaction is highest when both partners display validating (positive engagement) communication (Busby & Holman, 2009). Based on extant research, it is hypothesized that lower experiential avoidance in both partners will be associated with higher positive engagement, which will subsequently be associated with higher relationship satisfaction.



H3 – Mutual Hostility Model: Extant research also suggests that relationship satisfaction is lowest when both partners display hostile (reactive-coercive) communication (Busby & Holman, 2009). Thus, it is hypothesized that high experiential avoidance will be associated with both partners’ reactive-coercive communication, which is associated with low relationship satisfaction.

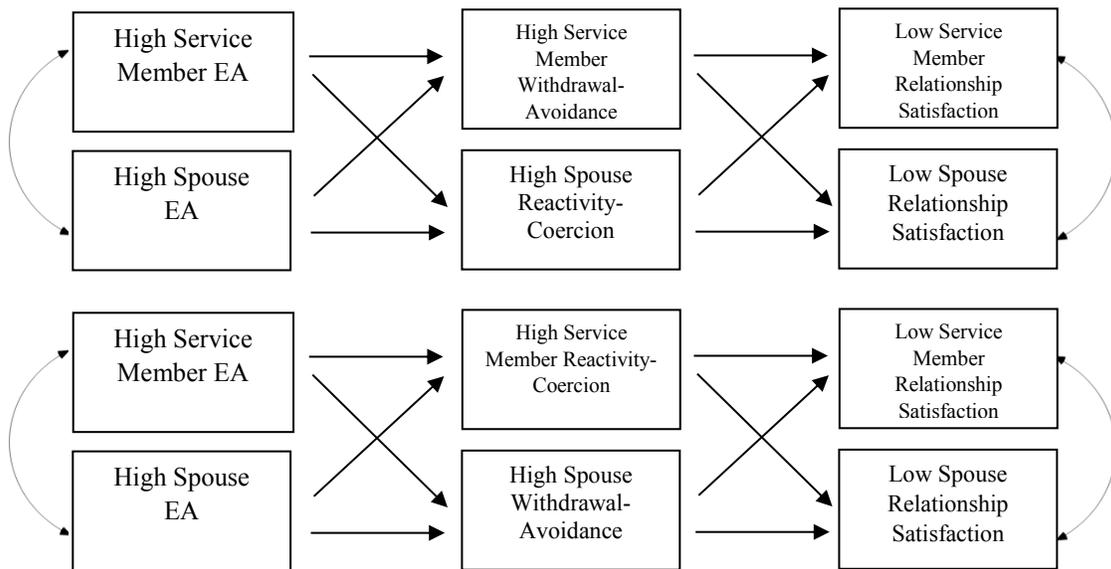


H4 – Demand-Submit Models: Research has identified the demand-submit communication pattern to be prevalent in individuals with psychopathology and to significantly decrease relationship satisfaction (Knobloch-Fedders et al., 2014). This pattern in the research parallels the reactivity-coercion/distress avoidance pattern in the macro coding utilized in the present study. Thus, couples’ reactive-coercive/distress avoidant communication pattern is predicted to mediate the relationship between each partner’s experiential avoidance and relationship satisfaction, as well as the other partner’s experiential avoidance and relationship satisfaction. Given that research is unclear as to gender effects of the demand-submit pattern, this model will assess both partners’ levels of reactivity-coercion/distress avoidance.



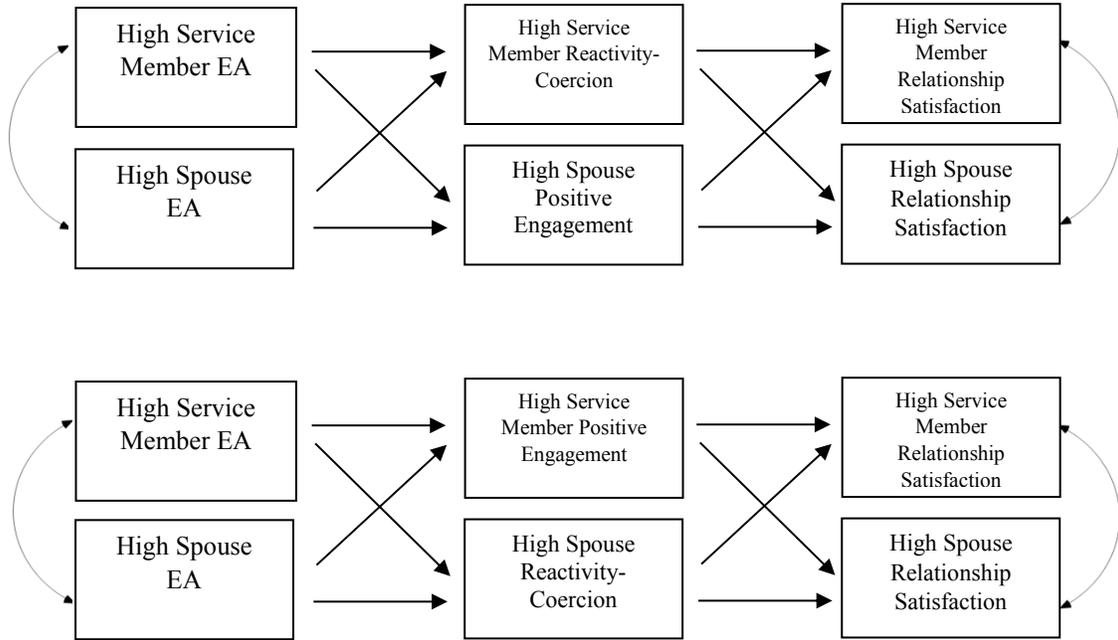
H5 – Demand-Withdrawal Models: Previous research has also suggested the demand-withdrawal pattern of communication to be implicated in lower relationship satisfaction, particularly for individuals with PTSD symptoms (Knobloch-Fedders et al., 2014). The demand-withdrawal pattern in the research parallels the reactive-coercive/withdrawal-avoidance pattern in the macro coding utilized for the present study. Thus, couples’ reactive-coercive/withdrawal-

avoidance communication pattern is predicted to mediate the relationship between one partner's experiential avoidance and relationship satisfaction, as well as the other partner's experiential avoidance and relationship satisfaction. Specifically, it is hypothesized that one partner's high reactivity-coercion or withdrawal-avoidance will lower their own level of relationship satisfaction as well as their partners' satisfaction when both partners are high in experiential avoidance.



H6 – Demand-Validate Models: Previous research has also suggested the possibility of a compensatory model, in which one partner's high validation and empathy can mitigate the negative effects of hostility on each partners' relationship satisfaction (Busby & Holman, 2009). This communication pattern in the research parallels the reactive-coercive/positive engagement pattern in the macro coding utilized in the present study. Thus, couples' reactive-coercive/positive engagement communication pattern is predicted to mediate the relationship between one partner's experiential avoidance and relationship satisfaction, as well as their spouse's experiential avoidance and relationship satisfaction. Specifically, it is hypothesized that

one partner's high positive engagement can mitigate the deleterious effects of reactivity-coercion on both partners' satisfaction when both partners are high in experiential avoidance.



CHAPTER 3

METHODOLOGY

Participants

This study used baseline data from 160 families participating in a longitudinal, randomized control trial of Parent Management Training – Oregon, After Deployment Parenting Tools (PMTO-ADAPT) and services as usual (SAU) for service members from the National Guard and Reserves. The PMTO-ADAPT study was funded by the National Institute on Drug Abuse (NIDA) and Dr. Abigail Gewirtz at the University of Minnesota is the Principal Investigator. The 160 male National Guard or Reserve military service members selected from the NIDA sample had served in OIF/OEF conflicts, had an intimate partner or spouse participate in the research, and had a target child between 4 and 13 years of age at baseline. These selection criteria were used to reduce variance due to child age, family composition, and service member gender.

The male service members were primarily Caucasian, non-Hispanic (85%), an average of 37.2 years old ($SD = 6.5$ years, range = 23-58), and relatively well-educated, with 41.7% having some college education and 52.2% having a four-year or advanced college degree. The families were mostly in the middle to upper-middle socioeconomic class, with 6.8% reporting annual family incomes below \$30,000, 25.8% reporting incomes between \$30,000 and \$60,000, and the remaining 67.4% reporting family incomes greater than \$60,000. The men had been deployed an average of two times at the time of data collection ($SD = 1.1$, range = 1-8) and the mean length of total deployments was 24 months ($SD = 11$ months, range = 6 months – 37 months), comparable to deployment patterns of National Guard and Reservists' OIF/OEF more generally (Department of Defense Task Force on Mental Health, 2007). At baseline, the mean length of

time since the last deployment was 27.6 months ($SD = 31.7$, range = 1- 245) .While the majority of the men in this sample were Army Reservists or National Guard members (72.6%), the remainder served in the Air Force or Navy National Guard or Reserves, or other military branches. Self-reported military rank indicated that 75.8% were enlisted men or warrant officers, while the remaining held ranks of second lieutenant or above.

Nondeployed spouses were an average of 35.6 years of age ($SD = 6$, range = 23-51). Most partners had some college education (39.3%), while 37.2% had completed college and 14.1% of partners had advanced degrees. Most of the couples in the larger NIDA study from the University of Minnesota were currently married (94%), although 1.9% had never been married, and 3.8% were separated or divorced at the time of the baseline assessment. Participants who were separated or divorced at baseline were removed from the sample for the present study. Participants had been married an average of 9.6 years at the time of assessment. The mean age of the target children was 8.3 years ($SD = 2.4$, range = 4.1 to 13.1 years), and a small majority of the children were female (53.3%). The mean number of children per family was 2.4 ($SD = .9$, range = 1 to 5).

While this sample was representative of larger military samples in many ways (e.g., length of deployment, number of deployments, etc.), there were some significant demographic differences that make this sample unique. The National Guard members and Reservists in the present study were older and tended to be engaged in more established marriages than their Army counterparts in other studies. Because the present study's sample did not consist of career military members, these service members held jobs outside of the military and tended to be more highly educated and report higher socioeconomic status than most career military samples.

Procedures

A subset of military service members and their families were selected from a larger randomized control trial of a behavioral parenting skills training intervention (After Deployment Adaptive Parenting Tools; ADAPT). ADAPT was specifically designed to meet the postdeployment needs of National Guard and Reserve service members deployed to OIF/OEF conflicts and their families (Gewirtz, Pinna, Hanson, & Brockberg, 2014). Participants were recruited through presentations at mandatory National Guard and Reserve predeployment and reintegration events in Minnesota, mailings from the Minneapolis Veterans Affairs Medical Center to all OIF/OEF veterans, family picnics for individual units or services, general military community events, announcements in fliers and media, social media, and word of mouth. Key administrative military officers and Veteran Affairs staff played a significant role in active recruitment of service members.

Families recruited through these methods could go directly online to complete their participation consent, or do so after requested contact with program staff. Consenting service members and their partners were directed to a HIPAA-compliant website to complete separate online assessments. After the initial assessments were completed, project staff scheduled an in-home assessment, during which additional self-report data were obtained and video observations of interactions among male service members, their intimate partners, and children were collected. Parents were compensated \$25 for the online assessment and the family received \$50 for completion of the in-home assessment. After completing the in-home assessment, families were randomly assigned to a services-as-usual condition (e.g., family “tip sheets” and online parenting resources utilized by the military) or to the ADAPT treatment group. This report utilizes cross-sectional baseline data, which were collected prior to the assignment of families to intervention groups.

Measures

Acceptance and Action Questionnaire – II (AAQ-II)

The AAQ-II (Bond et al., 2011; see Appendix A) is a seven-item, self-report questionnaire that utilizes a 7-point Likert scale (1 = never true, 7 = always true) to assess psychological inflexibility and experiential avoidance. Higher scores on this measure indicate higher experiential avoidance, or more significant attempts to avoid or alter distressing emotions. Representative items include: “I am afraid of my feelings” and “Emotions cause problems in my life.” The AAQ-II has a single factor structure, good internal consistency and test-retest reliability, and demonstrates reliable associations with thought suppression, depression, anxiety, and global distress (Bond et al., 2011). The AAQ-II predicts symptoms of PTSD in OIF/OEF veterans who experienced combat-related trauma (Meyer et al., 2013). The internal reliability alpha in the current sample was .93. Table 1 provides descriptive statistics for this measure. The mean baseline AAQ-II score of service members in the current sample was 15.7 (SD = 7.3), which is slightly lower than the average score reported by OEF/OIF veterans in a recent study by Meyer et al. (2013). The mean baseline AAQ-II score for nondeployed spouses was 18.1 (SD = 7.5).

Dyadic Adjustment Scale – 7 (DAS-7)

The DAS-7 (Spanier, 1976; see Appendix B) is a seven-item, self-report questionnaire assessing relationship adjustment. Six items address specific domains of relationship functioning and are rated on a 6-point Likert scale, while one item addresses overall happiness. On all seven items, higher ratings indicate better relationship adjustment. The DAS-7 has demonstrated good internal consistency (Hunsley, Pinsent, Lefebvre, James-Tanner, & Vito, 1995; Sharpley & Rogers, 1984). Criterion validity for the DAS-7 has been supported by research showing

correlations with other measures of marital functioning (Hunsley et al., 1995) and the DAS-7 discriminates between distressed and adjusted couples. The internal reliability alpha in the current sample was .87 for deployed spouses and .91 for nondeployed spouses. Table 1 provides the descriptive statistics for this measure. The mean DAS-7 score in the current sample at baseline was 23.5 for service members (SD = 5.0) and 23.9 for their nondeployed spouses (SD = 5.3). Service members' and nondeployed spouses' DAS-7 scores at baseline were positively correlated at a moderate level ($r = .583$).

Family interaction tasks

Video samples of interactions between service members and their nondeployed partners were coded using the macro-level coding system described below. The specific task used in this research was 5 minutes long, videotaped during baseline data collection at the University of Minnesota. This task entailed couples' problem-solving, usually on a co-parenting issue. Examples of issues or concerns discussed in this task include being on the same page in regards to disciplining children, changes in routines since the service member returned home, and spending enough time with the children. Couples were instructed to discuss the identified issue and develop a solution during the 5 minute task.

Family Interaction Macro Code (FIMC)

Video observations of interactions were coded using the FIMC system (Snyder, 2013; see Appendix C). The macro-level coding system provides descriptions of each partner's behavior and affect. Behavior/affect codes are designed to ascertain spouses' behavior that contribute to two key maladaptive family interaction patterns: (a) reactivity-coercion and (b) withdrawal-avoidance. Positive engagement, a third, more adaptive pattern of interaction, was measured to capture positive interpersonal functioning.

After observing the family interaction task, observers independently rated each family member's behavior on these three family interaction patterns using 55 Likert scale items (on measures of reactivity-coercion and withdrawal-avoidance, 1 = did not occur, 5 = frequently occurred, NA = may not be observed; on the measure of positive engagement, 1 = not at all descriptive, 5 = very descriptive, NA = may not be observed). Positive engagement (PE) is defined by 20 Likert items, withdrawal-avoidance (WA) is defined by 18 Likert items, and reactivity-coercion (RC) is defined by 17 Likert items. Four observers were trained until each reached a reliability kappa of $>.70$ on 35-minute samples of interaction for four consecutive families. After initial training, bi-weekly calibration meetings were held to minimize observer drift. One-fourth of the video samples were assessed for reliability of observer ratings. Observers were unaware of which samples were utilized for reliability assessment. The average kappa for the positive engagement items was .82 (86% observer agreement), .89 (94% agreement) for the withdrawal-avoidance items, and .91 (95% agreement) for the reactivity-coercion items.

Exploratory factor analyses were used to assess the loading and convergence of each set of items on their respective a priori positive engagement, withdrawal-avoidance, and reactivity-coercion social behavior constructs for each family member. Four factors emerged: (a) positive engagement (PE), (b) withdrawal-avoidance (WA), (c) reactivity-coercion (RC), and (d) distress avoidance (DA). Fourteen of the 20 items describing positive engagement loaded reliably on a single factor on each family interaction task for service members ($>.32$) and spouses ($>.59$). The items on this positive engagement factor reflect responsiveness, active involvement, interest, and cooperation. Nine of the 17 items describing withdrawal-avoidance loaded reliably on a single factor on each task for service members ($>.47$) and nondeployed spouses ($>.59$). The withdrawal-avoidance factor is characterized by a lack of engagement and energy, disinterest and

nonresponsiveness, as well as dysphoric affect. All 17 items describing reactivity-coercion loaded reliably on a single factor on each task for service members ($>.65$) and spouses ($>.65$). The reactivity-coercion factor reflects nattering, verbal aggression, invalidation of others' behavior and affect, and verbal or behavioral escalation. The fourth factor, distress avoidance, was comprised of four remaining items characterizing rapid soothing and validating responses to others' distress (e.g., engages in soothing and problem solving) and five items characterizing wariness (e.g., is tentative, wary) and a lack of empathy (e.g., shows little interest in others' feelings) in response to distress. The nine items loaded reliably onto the single factor named distress avoidance for service members ($>.46$) and nondeployed spouses ($>.56$). Distress avoidance involves the tendency to rapidly respond to displays of emotional distress or the negative behavior of other family members accompanied by a general wariness and without genuine empathy. Rather than a willingness to face others' displays of emotional distress or negative behavior, distress avoidance appears to reflect discomfort with one's own affective response to others' distress. The distress avoidance factor is consistent with research indicating a correlation between fearfulness, discomfort, low empathy, and social behavioral avoidance when faced with others' distress (Davis, 1983; Palladino et al., 2013).

Table 2 provides the intercorrelations for service members' and nondeployed spouses' observed behavior and self-report measures. Service members' withdrawal-avoidance was correlated with their reactivity-coercion (mean $r = .15$), distress avoidance (mean $r = .24$), and positive engagement (mean $r = -.61$). Service members' reactivity-coercion was negatively correlated with their positive engagement ($r = -.57$), but positively correlated with distress avoidance ($r = .55$). Service members' distress avoidance was negatively correlated with positive engagement ($r = -.34$). Nondeployed spouses' withdrawal-avoidance was negatively correlated

with their positive engagement ($r = -.44$), but not correlated with their reactivity-coercion ($r = -.05$) and distress avoidance (mean $r = -.05$). Nondeployed spouses' reactivity-coercion was moderately positively correlated with their distress avoidance ($r = .59$) and moderately negatively correlated with their positive engagement ($r = -.56$). Nondeployed spouses' distress avoidance was moderately negatively correlated with their positive engagement ($r = -.34$). There was a good deal of reciprocity, with large correlations between partners' reactivity-coercion ($r = .78$), distress avoidance ($r = .73$) and positive engagement ($r = .78$). Positive engagement of one spouse was negatively correlated with the reactivity-coercion ($r = -.50$ and $-.49$) and distress avoidance ($r = -.46$ and $-.45$) of the other. The reactivity-coercion of one spouse was negatively correlated with the distress avoidance ($r = .73$ and $.67$) of the other.

Analytic Approach

Structural Equation Modeling (SEM) was used to test the fit of the data to the path models described in the hypotheses as expanded versions of the Actor-Partner Interdependence Model (APIM; Kashy & Kenny, 1999; Kenny, 1996). SEM is a collection of statistical techniques allowing for the examination of a set of relationships between one or more independent variables and one or more dependent variables. The APIM is a model of dyadic relationships designed to reflect the concept of interdependence within interpersonal relationships. Relationships are mutually interdependent in that one partner's emotion, cognition, and/or behavior affects that of the other partner (Kelley et al., 2003; Kelley & Thibaut, 1978). This interdependence is not accurately reflected in traditional statistical methods (e.g., ANOVA and multiple regression), which classify the scores of two partners as independent observations. APIM retains individuals' unit measures, but treats them as being nested within the dyad. There are four main variables in the standard APIM model consisting of two dependent variables (Y

and Y') and two predictor variables (X and X'). Each dependent and predictor variable takes into account each member of the dyad. The APIM also consists of actor and partner effects, two central components used to investigate the relationship between dependent and predictor variables. Actor effects measure the relationship between each partner's predictor and dependent variable on an individual level. Partner effects, on the other hand, measure interdependence, or how much one person is influenced by the other partner. Given these components, APIM was used in the present study to more fully understand the interdependent relationship between service members' and their spouses' experiential avoidance, communication patterns, and marital satisfaction. The APIM was tested using SEM with the following basic model:

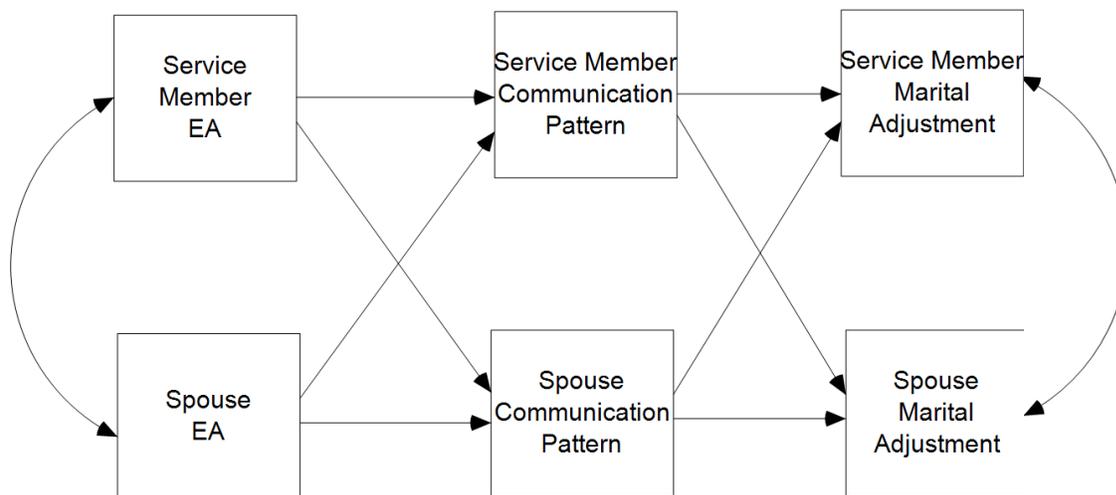


Figure B. Basic APIM model through which relationships among service members' and nondeployed spouses' experiential avoidance, communication patterns, and marital adjustment/satisfaction are explored. The table of communication patterns (listed below) will provide the combinations of service members' and spouses' patterns of communication to be tested in this APIM model.

While experiential avoidance (as measured by each partner's score on the AAQ-II) and marital adjustment (as measured by the DAS-7) were retained in each model, different dyadic communication patterns were examined. The following table lists dyadic communication combinations used to test the hypotheses.

	Model	Service Member Communication	Nondeployed Spouse Communication	Hypothesis
Reciprocal Models	Mutual Validation	Positive Engagement	Positive Engagement	H2
	Mutual Hostility	Reactivity-Coercion	Reactivity-Coercion	H3
Avoidance Models	Demand-Submit	Reactivity-Coercion	Distress Avoidance	H4
		Distress Avoidance	Reactivity-Coercion	
	Demand-Withdrawal	Reactivity-Coercion	Withdrawal-Avoidance	H5
		Withdrawal-Avoidance	Reactivity-Coercion	
Compensatory Models	Demand-Validate	Reactivity-Coercion	Positive Engagement	H6
		Positive Engagement	Reactivity-Coercion	

These dyadic combinations were chosen based on examination of a priori factors from the macro-level coding (reactivity-coercion, withdrawal-avoidance, positive engagement, distress avoidance) and Gottman’s communication patterns (avoidant, volatile, hostile, and validating). Gottman’s volatile and hostile patterns fit best with the description of the reactivity-coercion macro-level coding factor, in that negative reactivity, criticism, and demands are key components of communication. Gottman’s avoidant pattern fits the description of the withdrawal-avoidance macro-level coding factor, which is characterized by passivity, nonresponsiveness, and overall disengagement. Gottman’s validating pattern is consistent with the description of the positive engagement macro-level factor, which reflects partners’ warmth, attentiveness, and support during communication. The distress avoidance factor produced from the factor analyses appears to be a unique factor, as it does not clearly fit any of Gottman’s four communication patterns. However, given the macro-level coding items that comprise the distress avoidance factor (e.g., validates/accepts others’ distress/negative affect, engages in soothing and problem solving to others’ distress), it appears that distress avoidance offers a unique

combination of validating/positive engagement (comforting others) and avoidant/withdrawn-avoidance communication. In other words, family members who utilize the distress avoidance communication style appear to comfort others, insofar as it allows for the avoidance of *their own* feelings of discomfort or distress.

Given the similarity between the four a priori factors (reactivity-coercion, withdrawal-avoidance, positive engagement, distress avoidance) from macro-level coding items and Gottman's communication patterns from the literature, as well as research demonstrating the demand-withdrawal and demand-submit patterns of postdeployment communication associated with PTSD and depression (e.g., Johnson & Jacob, 1997; Papp et al., 2009), it was important that separate models be constructed to more fully understand how each partner's level of experiential avoidance is associated with different combinations of these communication patterns and subsequent relationship satisfaction.

Postdeployment relationship adjustment was measured by partners' scores on the DAS-7. Given the moderate correlation between service members' and nondeployed spouses' ratings of marital satisfaction ($r = .584$), an argument could be made for the use of a single, combined factor to reflect marital satisfaction. However, a strong argument could also be made for keeping service members' and spouses' ratings of marital satisfaction separate to more fully understand the effects of experiential avoidance and different communication patterns on *each* partner's level of relationship satisfaction. Several covariates of experiential avoidance, communication patterns, and relationship satisfaction were explored. Service members' total length of deployment, total number of deployments, exposure to trauma, and length of marriage were not significantly correlated with any of the communication patterns, experiential avoidance, or self-report of marital satisfaction, and thus, were not included in the current analyses.

CHAPTER 4

RESULTS

General Results

All hypothesized models were comprised of each partner's level of experiential avoidance as well as their individual ratings of marital satisfaction. Because these factors were consistent across each model, regardless of the communication pattern being considered, their inter-relationships are described here and are omitted from each individual model to prevent redundancy. Figure 1 depicts the basic model, including experiential avoidance and marital satisfaction self-report ratings of each partner, from which all other models in this study build. Service members' and nondeployed spouses' levels of experiential avoidance were positively and significantly correlated ($r = .17, p < .05$), although to a lesser degree than the partners' individual ratings of marital satisfaction ($r = .54, p < .001$). There were moderate correlations between service members' experiential avoidance and their own ratings of marital satisfaction ($r = -.27, p < .001$) and nondeployed spouses' experiential avoidance and their own ratings of marital satisfaction ($r = -.20, p < .01$). As each partner's level of experiential avoidance increases, his/her own level of marital satisfaction tends to decrease.

Negative correlations were also seen across partners as well. There was a significant negative correlation between service members' self-reported experiential avoidance and their nondeployed spouses' rating of marital satisfaction ($r = -.19, p < .01$), and between nondeployed spouses' self-reported experiential avoidance and service members' ratings of marital satisfaction ($r = -.21, p < .01$). As one partner reported increasing experiential avoidance, the other partner rated his/her level of marital satisfaction as being lower.

Reciprocal Models

The reciprocal models were based on research examining each spouse displaying the same communication patterns. The two reciprocal models examined in this study include the mutual validation model, where both partners' levels of positive engagement were considered, as well as the mutual hostility model, where both partners' levels of reactivity-coercion were considered. Both of these models build from the basic model to examine how each partner's level of experiential avoidance is associated with their level of the specific communication style as well as how both of these factors are associated with each partner's marital satisfaction, and how communication styles may mediate the relationship between experiential avoidance and marital satisfaction.

Hypothesized Model #2: Mutual Validation Model. The hypothesized model in Figure 2 assessed the relationships among service members' and nondeployed spouses' experiential avoidance, individual ratings of marital satisfaction, and partners' levels of positive engagement. The model fit the data well: $X^2_{(2)} = .902, p = .64$, CFI = 1.000, CMIN/DF = .451, RMSEA = .000. Direct associations were observed between experiential avoidance and marital satisfaction for service members ($r = -.21, p < .01$) and for nondeployed spouses ($r = -.19, p < .01$). In other words, each partner's high self-reported experiential avoidance was associated with his/her own lower individual ratings of marital satisfaction. There was also an indirect association of service members' experiential avoidance and marital satisfaction through nondeployed spouses' positive engagement. Service members' experiential avoidance was negatively correlated with their own positive engagement ($r = -.33, p < .001$) as well as nondeployed spouses' level of positive engagement ($r = -.20, p < .01$). There was a significant positive association between nondeployed spouses' positive engagement and service members' marital satisfaction ($r = .22, p$

< .05). Although service members' high experiential avoidance was associated with nondeployed spouses' lower positive engagement, service members' marital satisfaction was higher when nondeployed spouses' positive engagement was higher. Nondeployed spouses' experiential avoidance was negatively related to service members' marital satisfaction ($r = -.14, p < .05$). In other words, service members tended to have higher marital satisfaction when their nondeployed spouse had low experiential avoidance, or was more psychologically flexible. Partners' levels of positive engagement were highly correlated ($r = .78, p < .001$), suggesting that as one partner's level of validation and empathy increased, so did that of his/her partner. The inclusion of communication patterns did not significantly reduce the association of each partners' experiential avoidance with his/her own marital satisfaction ($r = -.27$ compared to $r = -.21$ for service members, and $r = -.20$ compared to $r = -.19$ in nondeployed spouses), obviating a potential mediating function of positive engagement as the link between experiential avoidance and marital satisfaction.

Hypothesized Model #3: Mutual Hostility Model. The hypothesized model shown in Figure 3 assessed the relationships among partners' experiential avoidance, marital satisfaction, and observed reactivity-coercion. The model fit the data well: $\chi^2_{(2)} = .154, p = .93, CFI = 1.000, CMIN/DF = .077, RMSEA = .000$. There was a significant direct association between each partner's experiential avoidance and their individual ratings of marital satisfaction ($r = -.27, p < .001$, for service members, and $r = -.20, p < .01$ for spouses). Only nondeployed spouses' experiential avoidance was directly associated with service members' marital satisfaction ($r = -.16, p < .05$); service members rated their marital satisfaction higher when their nondeployed spouses rated themselves as more psychologically flexible. Significant though modest associations were found between service members' experiential avoidance and their own

reactivity-coercion ($r = .16, p < .05$) and nondeployed spouses' reactivity-coercion ($r = .13, p < .05$). As service members reported more experiential avoidance, both they and their nondeployed spouses were observed to behave with more hostility during the parent problem-solving task. Nondeployed spouses' experiential avoidance was not reliably correlated with service members' reactivity-coercion or their own reactivity-coercion. Although partners' levels of reactivity-coercion were highly correlated ($r = .77$), neither partner's individual level of reactivity-coercion was significantly associated with his or her own marital satisfaction nor the satisfaction of their partner. In other words, service members' high experiential avoidance was associated with more hostile communication by both partners, but this communication style was not directly associated with either partner's marital satisfaction. These patterns of correlations were inconsistent with hostile marital communication as a mediator between partners' experiential avoidance and marital satisfaction.

Avoidance Models

Hypothesized Model #4: Demand-Submit Models. The hypothesized model in Figure 4a examined whether each partner's level of experiential avoidance, service members' levels of reactivity-coercion, and nondeployed spouses' levels of distress avoidance were associated with their own marital satisfaction and that of their partner. The model fit the data well: $\chi^2_{(1)} = .114, p = .74$, CFI = 1.000, CMIN/DF = .114, RMSEA = .000. There was a direct negative association between service members' experiential avoidance and their own marital satisfaction ($r = -.27, p < .001$), as well as an indirect association with their marital satisfaction through service members' levels of reactivity coercion ($r = .15, p < .05$; and $-.27, p < .01$, respectively). Nondeployed spouses' marital satisfaction was not associated with service members' levels of reactivity-coercion or experiential avoidance. There was a significant negative association

between nondeployed spouses' levels of experiential avoidance and service members' marital satisfaction ($r = -.16, p < .05$). The linked associations of service members' experiential avoidance, reactivity-coercion, and marital satisfaction suggest an indirect but not mediational function for service members' reactivity coercion.

The hypothesized model in Figure 4b assessed the associations of each partner's level of experiential avoidance, service members' distress avoidance, and nondeployed spouses' reactivity-coercion with their own marital satisfaction and their female partner's marital satisfaction. The model fit the data well: $\chi^2_{(1)} = .351, p = .55, CFI = 1.000, CMIN/DF = .351, RMSEA = .000$. While each partner's level of experiential avoidance was associated with his/her own level of marital satisfaction ($r = -.25, p < .001$ for service members; and $r = -.20, p < .01$ for nondeployed spouses), only nondeployed spouses' experiential avoidance was significantly associated with service members' marital satisfaction ($r = -.16, p < .05$). Service members who reported higher experiential avoidance were also observed to display more distress-avoidant behavior ($r = .18, p < .05$). Nondeployed spouses' level of experiential avoidance did not significantly correlate with their own reactivity-coercion or service members' distress avoidance. Neither service members' distress avoidance nor nondeployed spouses' reactivity-coercion were associated with their own or their partners' marital satisfaction. Although higher service members' self-reported experiential avoidance was significantly associated with more distress avoidance by service members and nondeployed spouses' experiential avoidance was negatively associated with their own and their partner's marital satisfaction, this demand-submit dyadic communication pattern was not associated with reduced marital satisfaction.

Hypothesized Model #5: Demand-Withdrawal Models. The hypothesized model in Figure 5a assessed the relationships among each partner's experiential avoidance, service

members' reactivity-coercion, nondeployed spouses' withdrawal-avoidance, and partners' individual marital satisfaction. The model fit the data well: $X^2_{(2)} = .148, p = .93, CFI = 1.000, CMIN/DF = .074, RMSEA = .000$. Both service members' and nondeployed spouses' experiential avoidance were negatively and significantly associated with their own level of marital satisfaction ($r = -.27, p < .001$ for service members; $r = -.20, p < .001$ for nondeployed spouses). While there was a direct, significant association between nondeployed spouses' experiential avoidance and service members' marital satisfaction ($r = -.15, p < .05$), the reverse was not true in this model. Service members reported higher marital satisfaction when their nondeployed spouses reported less experiential avoidance, but nondeployed spouses' marital satisfaction was not significantly associated with service members' experiential avoidance. There was no significant correlation between service members' reactivity-coercion and nondeployed spouses' marital satisfaction. Service members' reactivity-coercion was negatively associated with their own marital satisfaction ($r = -.25, p < .001$). Nondeployed spouses' withdrawal-avoidance was not significantly related to their own marital satisfaction or the marital satisfaction of the service member. The indirect linkage of service members' reactivity coercion with their experiential avoidance and marital satisfaction was the same as described in the mutual hostility model.

The hypothesized model in Figure 5b assessed the associations among of each partner's experiential avoidance, service members' withdrawal-avoidance, nondeployed spouses' reactivity-coercion, and each partner's marital satisfaction. The model fit the data well: $X^2_{(2)} = .148, p = .93, CFI = 1.000, CMIN/DF = .074, RMSEA = .000$. Nondeployed spouses' observed reactivity-coercion was reliably associated with increased withdrawal-avoidance by service members ($r = -.24, p < .001$). Service members' experiential avoidance was significantly related

to their own withdrawal-avoidance ($r = .24, p < .01$) and marital satisfaction ($r = -.25, p < .001$). Neither service members' experiential avoidance nor withdrawal-avoidance was significantly associated with their nondeployed spouses' marital satisfaction. There was a significant, direct association of nondeployed spouses' experiential avoidance and reactivity-coercion with service members' ratings of marital satisfaction ($r = -.15, p < .01$; and $r = -.24, p < .001$, respectively). Nondeployed spouses who rated themselves as experientially avoidant or who were observed to demonstrate more reactive-coercive behavior had service member partners who reported less marital satisfaction.

Compensatory Models

Hypothesized Model #6: Demand-Validate Models. The hypothesized model depicted in Figure 6a assessed the relationships among partners' experiential avoidance, marital satisfaction, service members' reactivity-coercion, and nondeployed spouses' positive engagement. The model fit the data modestly: $X^2_{(2)} = 4.521, p = .10$, CFI = .983, CMIN/DF = 2.260, RMSEA = .087. There was no significant relationship between nondeployed spouses' experiential avoidance and observed positive engagement nor service members' level of observed reactivity-coercion. However, there was a positive association between service members' experiential avoidance and their own observed reactivity-coercion ($r = .16, p < .05$). There was a significant negative correlation between service members' experiential avoidance and nondeployed spouses' positive engagement ($r = -.20, p < .01$). These results were consistent with those in previous models. There were two indirect relationships between service members' experiential avoidance and their own marital satisfaction. One of these indirect relationships involved service members' reactivity coercion; their experiential avoidance was associated with more reactivity-coercion ($r = -.16, p < .05$), which in turn was associated with their reduced lower marital satisfaction ($r = -$

.17, $p < .05$). The other indirect path went through nondeployed spouses' observed positive engagement. This path suggests that high service member experiential avoidance was associated with lower positive engagement or validation from their nondeployed spouse ($r = -.20$, $p < .01$), which in turn was associated with lower marital satisfaction by service members ($r = .19$, $p < .01$). However, there was no evidence to support the notion that these communication patterns serve as mediators between service members' experiential avoidance and their marital satisfaction.

The hypothesized model depicted in Figure 6b assessed the relationships among partners' experiential avoidance and marital satisfaction, service members' observed positive engagement, and nondeployed spouses' observed reactivity-coercion. The model fit the data well: $X^2_{(3)} = .792$, $p = .85$, CFI = 1.000, CMIN/DF = .264, RMSEA = .000. There was a significant correlation between service members' positive engagement and nondeployed spouses' reactivity-coercion ($r = -.49$, $p < .001$). There were both direct and indirect relationships between service members' experiential avoidance and self-reported marital satisfaction ($r = -.20$). The indirect association was apparent in the negative correlation of service members' experiential avoidance and positive engagement ($r = -.33$, $p < .001$) and the positive correlation of service members' positive engagement with their marital satisfaction ($r = .27$, $p < .001$). Service members reporting more experiential avoidance displayed less positive engagement, and lower levels of positive engagement were associated with reduced marital satisfaction. Nondeployed spouses' experiential avoidance was directly and significantly correlated with service members' marital satisfaction. Service members' experiential avoidance was not correlated with nondeployed spouses' reactivity-coercion, as reported in previous models. There was, however, an indirect path between service members' experiential avoidance and nondeployed spouses' marital

satisfaction through service members' positive engagement. Service members reporting more experiential avoidance were observed to engage in less positive engagement ($r = -.33, p < .001$), which in turn was associated with reduced marital satisfaction of their nondeployed spouses ($r = .22, p < .01$). However, this indirect set of relationships was not consistent with a mediational function for service members' positive engagement.

CHAPTER 5

DISCUSSION

Eight hypothesized models were nested under four major categories: (a) the basic model, (b) the reciprocal models, (c) the avoidance models, and (d) the compensatory models. The results of each of these groups of models are discussed in turn, followed by a general summary discussion, which includes strengths and limitations of the present study. Finally, implications of the findings for further research and intervention are discussed.

Basic Model

The basic APIM model assessed the relationship between each partner's level of self-reported experiential avoidance and ratings of marital satisfaction. This model suggested that one's experiential avoidance was associated with diminished marital satisfaction of both service members and spouses. Another explanation, given the correlational nature of the data, is that low marital satisfaction was associated with experiential avoidance insofar as dissatisfying or conflictual relationships may amplify the existing negative thoughts and affect of each partner or create a lower desire to tolerate their partner's intense emotions.

This connection between experiential avoidance and low marital satisfaction is consistent with extant literature, which suggests that higher levels of experiential avoidance impede individuals' ability to fully engage their partner, as well as their ability to appreciate their partner's relationship efforts (e.g., Leonard et al., 2006; Reddy et al., 2011). Individuals who are highly experientially avoidant often take steps to avoid or escape unwanted internal experiences, which reduces their ability to remain present in the moment and in social interactions (Hayes et al., 1996).

This association between experiential avoidance and marital satisfaction was characteristic of both service members and their nondeployed partners, although the degree to which they engage in experiential avoidance was only very modestly related. This suggests that each partner struggles with their own challenging private events and their struggle or efforts to control these events were not readily apparent to the other partner, except through their overt behavior and interaction with one another. These findings parallel extant research indicating that experiential avoidance interferes with problem solving, self-disclosure, positive involvement, expressions of warmth, emotional availability, and overall communication with family members (Palmer, 2008; Solomon et al., 2008). The relationship between increased experiential avoidance and lower marital satisfaction of each partner may also be explained by increased behavioral withdrawal and overt reactivity (Riggs et al., 1998; Ruscio et al., 2002).

This finding also provided support for newer mindfulness- and acceptance-based interventions, which serve to increase nonjudgmental acceptance of distressing internal experiences (Henning & Freueh, 1997; Walser & Westrup, 2007), reduce physiological arousal in response to these experiences (Delizonna et al., 2009), and increase psychological flexibility (Jha et al., 2007). Furthermore, this finding lends support for the effectiveness of Integrative Behavioral Couple's Therapy (IBCT; Christensen & Jacobson, 2000; Christensen et al., 1995; Jacobson & Christensen, 1998), which encourages attention to the emotional reactions of both partners, rather than trying to change "problem" behaviors. The association between experiential avoidance and diminished marital satisfaction also provides support for the use of Structured Approach Therapy (SAT; Sautter et al., 2009) with couples after deployment. Like IBCT, SAT includes mindfulness training to more effectively approach emotionally-charged topics. An additional component that SAT incorporates is empathic communication training (Guerney,

2005), which teaches couples to communicate about traumatic experiences by providing support and understanding, rather than avoiding distressing topics.

The relationship between each partner's experiential avoidance and his/her own marital satisfaction may also reflect shared source variance in the self-report measures completed by each partner. However, shared source variance does not account for the significant association of each partner's experiential avoidance with the other partner's marital satisfaction. The significant associations of each partner's experiential avoidance with his/her own marital satisfaction and their partner's satisfaction provide the conditions, at a correlational level, to assess the potential role of spouses' observable behavior as mediators accounting for the association of experiential avoidance with marital satisfaction. It is consistent with the notion that experiential avoidance is apparent in overt behavior and it is that behavior which is, in turn, associated with variation in relationship satisfaction. Thus, the association between experiential avoidance and relationship satisfaction in this basic APIM model laid the groundwork for the remaining models, which include different patterns of observed communication between partners as links between experiential avoidance and marital satisfaction.

Reciprocal Models

Two models of reciprocal communication styles between spouses were examined: (a) mutual validation and (b) mutual hostility. Both models stem from Gottman's (1993) traditional behavioral research on reciprocity in communication, in which the positive communication and behavior from one spouse evoke positive communication and behavior from the other spouse. This is also thought to be true when considering negative, or hostile, communication and behavior between partners; consistent hostility from one partner is thought to evoke similar responses from the other partner.

Mutual Validation Model

The mutual validation model examined dyadic positive engagement. From Gottman's (1993) research, it was expected that support, positive engagement, and empathy evoke similar behaviors from one's partner. There was some support for Gottman's (1993) research in this mutual validation model, as partners' levels of observed positive engagement are highly correlated. However, there was little evidence that positive engagement was associated with increased marital satisfaction, which is inconsistent with the literature (e.g., Busby & Holman, 2009; Holman & Jarvis, 2003). The only support for the hypothesized relationship was that nondeployed spouses' positive engagement was associated with service members' increased marital satisfaction. Even though this association was statistically reliable, it only accounted for a small amount of variance in service members' satisfaction. Furthermore, nondeployed spouses' marital satisfaction was unrelated to service members' positive engagement and each partners' marital satisfaction was unrelated to their own observed positive engagement during interaction. These findings suggest that partners' marital satisfaction does not necessarily increase when both partners demonstrate supportive, validating behavior, as Gottman's (1993) theory suggests.

However, significant relationships emerged when examining the association of each partner's level of experiential avoidance with his/her mutually validating communication pattern. Service members' experiential avoidance was associated with less observed positive engagement, both for themselves and their partner. This is consistent with extant research demonstrating that increased experiential avoidance can lead to reduced intimacy and less positive communication patterns (e.g., Erbes et al., 2008; Reddy et al., 2011), and suggests that service members' efforts to control their own private events diminish constructive behavior in relation to external environmental opportunities. It is unclear why this was not also true for

nondeployed spouses with comparable levels of experiential avoidance and positive engagement, and suggests possible differences due to gender or military experience.

The data from the mutual validation model provided some evidence that service members' experiential avoidance may be associated with their own marital satisfaction indirectly via their nondeployed spouses' reduced positive engagement and via the association of their own diminished positive engagement with that of their nondeployed spouses. Service members' self-focused efforts to control private events was associated with diminished support from their nondeployed spouse as well as their own lower positive engagement, and nondeployed spouses' lower positive engagement was associated with lower levels of service members' relationship satisfaction. This is consistent with findings from Erbes et al. (2008), who found that avoidance of uncomfortable topics and emotions can lead to reduced supportiveness from others. However, this finding was only characteristic of service members, and the association was quite modest, indicating that simply increasing positive communication between partners may not be the most effective way to increase marital satisfaction, as previous research suggested (e.g., Busby & Holman, 2009; Gottman, 1993).

Mutual Hostility Model

The second reciprocal model, the mutual hostility model, examined the associations among reciprocal aversive exchanges, experiential avoidance and marital satisfaction. Its roots derive from Gottman's (1993) traditional behavioral model which asserts that frequent and sustained dyadic conflict undermines the marital relationship. Inconsistent with research suggesting a mutually hostile communication pattern breeds the worst relationship satisfaction compared to all other patterns of communication (e.g., Holman & Jarvis, 2003), there was very little support for this mutual hostility model in the current analyses. Each partners' reactivity-

coercion was unrelated to their own or their partner's marital satisfaction, even though the aversive behavior of partners was highly correlated. This was consistent with previous findings that aversive communication evokes aversive communication (Gottman, 1993), although the key difference from previous literature is the lack of association between aversive communication and partners' reports of poor marital satisfaction. This may reflect unique characteristics of this sample, insofar as service members and spouses were being observed after postdeployment reintegration. It may be that reciprocal reactivity-coercion, as observed in this coparenting problem solving task, represents efforts at re-engagement and reintegration of roles, especially related to co-parenting, and may reflect partner difficulties or more re-engagement effort associated with marital and coparenting commitment, and thus are variously related to marital satisfaction. Given the low mean levels of coded reactivity-coercion in this sample, it may also be that reactivity-coercion occurred too infrequently in this 5-minute observation sample to reliably estimate its association with marital satisfaction.

In the mutual hostility model, only service members' experiential avoidance was modestly associated with increased reactivity-coercion. In the context of the strong correlation with nondeployed spouses' reactivity-coercion, this suggests that service members' struggle with unwanted private events and emotions may be associated with a negative sensitivity or hyper-responsiveness to environmental demands and challenges. This is consistent with research by Reddy and colleagues (2011) who found that service members' experiential avoidance was associated with increased rates of reciprocal aggression and escalation by partners during postdeployment communication. The lack of association between nondeployed spouses' experiential avoidance and their own level of reactivity-coercion in this mutual hostility model suggested nondeployed spouses' escalation may be related to their partners' reactivity-coercion,

rather than their own experiential avoidance. Despite the high correlation between both partners' observed reactivity-coercion, however, reactivity-coercion did not meet the conditions needed to serve as a mediator of the relationship between partners' experiential avoidance and ratings of marital satisfaction.

Avoidance Models

So far, the basic model, which examined the association between each partner's level of experiential avoidance and his/her self-reported marital satisfaction, and the reciprocal models, which explored the association between experiential avoidance, mutually validating and mutually hostile communication between partners, and each partner's rating of marital satisfaction, have been discussed. There are three remaining sets of models: (a) demand-submit, (b) demand-withdrawal, and (c) compensatory. Each set was comprised of two separate models that explored gender differences in communication patterns. The remaining sets of models focus on complementary, rather than reciprocal, communication in partners' interactions, insofar as each partner demonstrates a different communication style. The demand-submit and demand – withdrawal models examined avoidance behaviors in response to partners' negative behavior and affect. These communication patterns were hypothesized to be associated with diminished marital satisfaction in which one partner “pushes” issues in a demanding, aversive manner and the other partner responds with avoidance or escape (e.g., Baucom et al., 2010; Knobloch-Fedders et al., 2014). These complementary patterns are thought to undermine problem-solving and effective communication (e.g., Papp et al., 2009), as well as partners' ability to positively relate to each other (Baucom et al., 2010; Holtzworth-Munroe et al., 1998; Knobloch-Fedders et al., 2014).

Demand-Submit Models

In the demand-submit dyadic pattern, the submitting partner engages in distress avoidance, reflecting a tactic that rapidly acknowledges the other partner's demands but in a way that really does not lead to resolution (Knobloch-Fedders et al., 2014). The behavior of the submitting partner involves wariness and fear, and when accompanied by an acknowledging response, may be motivated by avoidance of one's own, as well as the demanding partner's distress. Distress avoidance may thus have a dual negative reinforcement function – avoidance or escape from one's own distress as well as the other partner's aversive behavior.

The demand-submit model examining service members' reactivity-coercion and nondeployed spouses' distress avoidance indicated these two variables were highly correlated. This association suggests that distress avoidance occurs in response to others' distress. Nondeployed spouses' distress avoidance was also associated with service members' experiential avoidance. This association indicated service members' attempts to control their private events, both through service members' reactivity-coercion and other, unspecified processes, may evoke nondeployed spouses' distress avoidance. This is consistent with previous research indicating that service members' experiential avoidance often results in family members "walking on eggshells" and rapid soothing to prevent or mitigate negative emotional responses by service members (Riggs et al., 1998; Ruscio et al., 2002). It is also possible, given these correlational data, that nondeployed spouses' distress avoidance shapes service members' reactivity-coercion, insofar as nondeployed spouses' active acquiescence to a service member's distress may actually result in more demanding or aggressive behavior by the service member. In other words, these are congruent, intra-individual and social processes.

However, the complementary pattern of service members' reactivity-coercion and nondeployed spouses' distress avoidance did not contribute to the satisfaction of either partner, with the exception of the association between service members' reactivity-coercion and their lower self-rated relationship satisfaction. The lack of association between this demand-submit pattern of communication and marital satisfaction was inconsistent with previous research, which documents poorer relationship quality when partners display a demand-submit style of communication (Knobloch-Fedders et al., 2014; Papp et al., 2009). One possible explanation for the present study's unique findings is the nature of the couples' interaction task. While this communication pattern is typically studied in tasks that elicit conflict between couples or discuss former conflicts, the present study observed couples' interactions during a co-parenting discussion. Thus, it is possible that the demand-submit pattern of communication is not necessarily detrimental to couples' satisfaction in the context of discussions that are not directly addressing partner relationship issues, but rather focus on co-parenting. These discrepant findings may also reflect the unique characteristics of military families, and more specifically, military families who are experiencing postdeployment reintegration. It is likely that military couples experience a readjustment period during which a number of salient issues about co-parenting arise with accompanying reciprocal reactivity-coercion that may represent active attempts to realign parenting roles and to engender service members' re-investment in co-parenting. As such, this conflict may represent a "normative" struggle that has minimal impact on service members' and nondeployed spouses' marital satisfaction, unlike the negative effects of coercive patterns commonly observed in civilian samples.

The demand-submit model examining service members' distress avoidance and nondeployed spouses' reactivity-coercion showed that, once again, this communication pattern

was not associated with lower marital satisfaction for either spouse. However, service members' experiential avoidance was associated with more use of distress-avoidant behavior in response to nondeployed spouses' reactivity-coercion. This finding suggests the demand-submit pattern of communication is similar across gender, insofar as one partner's reactivity-coercion often elicited distress-avoidant behavior in the other partner. Although service members' experiential avoidance was significantly associated with higher rates of nondeployed spouses' distress avoidance, nondeployed spouses' experiential avoidance was not significantly associated with service members' distress avoidance. This suggests possible gender differences in the way males and females respond to their partners' efforts to ameliorate uncomfortable and painful memories or affect insofar as female spouses tend to quickly respond to service members' intense emotions as a way to avoid their own discomfort. An alternative explanation could be that a partner's military service is a unique factor that creates discomfort for the service member (in the form of experiential avoidance) and discomfort for the nondeployed spouse in the form of attempts to assuage discomfort by rapidly comforting or "skirting" the topic, perhaps because it is emotionally difficult to respond to discussions of military/combat exposure and associated negative reactions by the service member.

In sum, the two demand-submit models indicate a significant association between service members' experiential avoidance and their nondeployed spouses' distress avoidance. There was no significant association between female spouses' experiential avoidance and their own level of distress avoidance, although this association was apparent for service members. This finding suggests that as a service member becomes more highly experientially avoidant, his nondeployed spouse tends to actively manage his demanding behavior in a manner that avoids conflict and diminishes the service member's distress. While this finding parallels the established association

between experiential avoidance and withdrawal from spousal interaction in previous research (e.g., Erbes et al., 2008), there was no support in the present study for an association between the demand-submit communication pattern and either partner's marital satisfaction, which is inconsistent with previous research (Knobloch-Fedders et al., 2014; Papp et al., 2009).

Demand-Withdrawal Models

In contrast to the active tactics comprising distress avoidance, the withdrawal-avoidance behaviors in the demand-withdrawal communication pattern were comprised of more passive tactics, including a lack of responsivity or simply ignoring the aversive behavior of the other partner. The demand-withdrawal model examining service members' reactivity-coercion and nondeployed spouses' withdrawal-avoidance provided little support for demand-withdrawal behavior, as classically described by Christensen (1988). In fact, service members' reactivity-coercion and nondeployed spouses' withdrawal-avoidance were not correlated in this model. While this is somewhat surprising, extant research has been more heavily focused on wife demand-husband withdrawal patterns (Eldridge, Sevier, Jones, Atkins, & Christensen, 2007), suggesting possible gender differences that make this model less applicable to understanding how couples' communication patterns affect spousal communication.

The second model in the demand-withdrawal set demonstrated the "classic" demand-withdrawal pattern that is often seen in service members with PTSD, insofar as spouses "natter" in an attempt to discuss a topic while the other partner passively avoids or ignores the discussion (Christensen, 1988). This model showed modest support for demand-withdrawal when nondeployed spouses exhibited reactivity-coercion and service members engaged in withdrawal-avoidance, which was congruent with the gender differences described by Eldridge and colleagues (2007).

While service members' withdrawal-avoidance and nondeployed spouses' reactivity-coercion were significantly correlated in the second demand-withdrawal model, only female spouses' level of reactivity-coercion was significantly related to service members' marital satisfaction. This is incongruent with extant research that has demonstrated the detrimental effects of the demand-withdrawal pattern on both partners' relationship satisfaction (e.g., Heavy et al., 1993; Papp et al., 2009; Sevier, Simpson, & Christensen, 2007). Across both demand-withdrawal models, the association between each partner's reactivity-coercion and service members' lower marital satisfaction suggests service members may be more sensitive to both internal and external cues of irritability.

There was also a significant association between service members' experiential avoidance and their own withdrawal-avoidant behavior. In essence, as service members attempted to alter or avoid distressing *internal* events, their *external* behavior was congruent. This is consistent with previous research on the association of experiential avoidance on withdrawn behavior (Erbes et al., 2008), although the lack of association between nondeployed spouses' experiential avoidance and her own withdrawal-avoidance suggests gender differences or unique characteristics of military experience may affect the ability to sustain conversations that become heated or uncomfortable.

While service members' withdrawal-avoidant behavior was not associated with reduced marital satisfaction for either partner, there was an interesting relationship involving nondeployed spouses' reactivity-coercion in the context of service members' efforts to avoid conflict. In addition to the direct association between service members' experiential avoidance and lower marital satisfaction, there was a multi-step indirect path between service members' experiential avoidance and their own marital satisfaction through nondeployed spouses'

reactivity-coercion, in the context of service members' withdrawn behavior. In other words, when service members engaged in efforts to alter uncomfortable thoughts and feelings and their nondeployed spouses "nattered" or demanded to engage in conversation, service members' marital satisfaction suffered. However, this association was not characteristic of nondeployed spouses' marital satisfaction, again suggesting gender differences or specific characteristics about deployed military families relative to civilian families that make intolerance of distressing emotions and conversations less detrimental to marital satisfaction.

This model also indicated that service members' attempts to alter uncomfortable experiences are reliably linked to their heightened sensitivity and anger in response to challenging family situations (Reddy et al., 2011). It is interesting that although experiential avoidance had a direct negative association with each partner's individual report of marital satisfaction, there were also two indirect relationships between service members' experiential avoidance and their self-reported marital satisfaction. The first indirect association was through service members' reactivity-coercion, while the second indirect association was through nondeployed spouses' reactivity-coercion. This suggests that, in addition to internal strategies of managing uncomfortable emotions and memories, service members' external strategies (e.g., nattering, exhibiting a "hot temper," irritability) as well as reaction to partners' irritability, are also associated with their relationship satisfaction. Nondeployed spouses' satisfaction, however, did not seem to be as strongly related to experiential avoidance or either spouse's level of reactivity-coercion.

Extant research suggests that avoidant patterns of communication can create a negative feedback loop, insofar as aversive communication from one partner tends to result in avoidance from the other partner, which then creates reduced social support and exacerbates PTSD

symptoms (Benotsch et al., 2000). However, the withdrawal-avoidance models in this study suggested that withdrawal-avoidant behavior does not, on its own, significantly impact marital satisfaction of either partner. Rather, demanding and irritable communication in the context of partner withdrawal appeared to diminish relationship satisfaction, but only for service members.

Compensatory Models

The compensatory models in this study were labelled demand-validate models, which represent continuing efforts by one partner to connect in constructive ways despite the other partner's persisting demands and negativity. This is a difficult communication pattern to achieve, as demonstrated by the negative correlation between service members' reactivity-coercion and nondeployed spouses' positive engagement, as well as nondeployed spouses' reactivity-coercion and service members' positive engagement; it is difficult to contribute a positive, validating demeanor while receiving hostile and "nattering" behavior from one's partner. And yet, a positive, validating and constructive response to a spouse's negative behavior and distress, even though difficult to achieve, may be associated with increased marital satisfaction insofar as it may indicate a genuine effort to work through disagreements and a supportive response to others' distress.

In the model examining service members' demands and nondeployed spouses' validation, it may be that female spouses' validation or positive engagement is suppressed by service members' experiential avoidance. Service members' self-focus on control of their negative private events likely provides little reinforcement for nondeployed spouses' efforts to engage the service member. This is consistent with extant research suggesting that experiential avoidance is associated with reduced intimacy and less positive support (Erbes et al., 2008). Such diminished

nondeployed spousal engagement comes at a cost to the service members, as reflected in their lower marital satisfaction, which also parallels previous research (Busby & Holman, 2009).

This model also reflected double indirect effects between service members' experiential avoidance and their own level of marital satisfaction. In the first leg of the first path, there was a positive correlation between service members' experiential avoidance and their observed level of reactivity-coercion. In the second leg of this path, higher reactivity by the service member was associated with his reduced marital satisfaction. In the second path, service members' high experiential avoidance was associated with their nondeployed spouses' lower positive engagement, which was also associated with deterioration in service members' ratings of marital satisfaction. Thus, there may be multiple ways in which difficulty tolerating distressing internal emotions is related to marital satisfaction; the experiential avoidance of service members was apparent in observed interactions (through their own reactivity-coercion and nondeployed spouses' lowered positive engagement) and was directly associated with service members' diminished marital satisfaction due to factors other than this communication pattern. However, this demand-validate pattern did not meet the conditions to serve as a mediator, as it did not diminish the direct association of service members' experiential avoidance and their own level of marital satisfaction.

Perhaps most notable in this model is nondeployed spouses' observed positive engagement in the context of service members' aversive behavior and affect. Nondeployed spouses' ability to engage their deployed partner constructively despite his own experiential avoidance and reactivity-coercion may reflect an openness and willingness to communicate, problem-solve and provide empathy during difficult interactions. Nondeployed spouses' support was associated with increased relationship satisfaction by the service member. This model

partially supported previous research, suggesting that having at least one partner who is supportive and validating can, in essence, buffer the couple from lower relationship quality in the face of hostility (Busby & Holman, 2009).

The demand-validate model examining nondeployed spouses' reactivity-coercion and service members' positive engagement provided even more support for the importance of positive engagement. This model indicated that a service member's willingness to positively engage in the context of nondeployed spouses' demands and complaints – despite his own level of experiential avoidance – was associated with increased marital satisfaction for both partners. As in the first demand-validate model, it was difficult for the service member to remain positively engaged when his spouse was distressed, as indicated by the negative correlation between nondeployed spouses' reactivity-coercion and service members' positive engagement, but the capacity to do so reflects an openness by a service member to communicate, problem-solve, and provide constructive support in the face of the nondeployed spouse's distress. Again, this is consistent with extant research demonstrating the importance of validating communication on couples' perception of relationship satisfaction (e.g., Busby & Holman, 2009)

Interestingly, this was the only model that predicted nondeployed spouses' marital satisfaction. In both the demand-validate models, one partner's positive engagement in the context of the other partner's reactivity-coercion predicts satisfaction of the partner making the demands. In other words, maintaining openness to working on problems, despite distressing internal demands (experiential avoidance) and external demands (partners' reactivity), appears to be relationship-enhancing. There was an indirect association between service members' experiential avoidance and nondeployed spouses' satisfaction through service members' positive engagement, but this indirect association did not meet the conditions to serve as a mediator.

There were also two indirect relationships between experiential avoidance and marital satisfaction in the second model (which examines the nondeployed spouse demand/service member validate pattern); the first indirect path was apparent in the association of service members' high experiential avoidance with his lower positive engagement, which in turn was associated with his lower marital satisfaction. Phrased another way, low experiential avoidance on the part of the service member may actually facilitate his positive engagement and increased marital satisfaction. The second indirect path in this model was apparent in the association between service members' experiential avoidance and nondeployed spouses' marital satisfaction through service members' observed positive engagement.

In sum, the seemingly ameliorative effects inferred from data on the compensatory model depend upon two factors: (a) service members' level of experiential avoidance and (b) which partner is demonstrating positive engagement. Service members with lower experiential avoidance tend to be more positively engaged and tend to have more positively engaged spouses, which are associated with higher rates of marital satisfaction in both partners. This is a novel and important finding, as the majority of extant research on experiential avoidance has focused on the association of PTSD and depression. The present study adds to extant research by suggesting that experiential avoidance – even outside of the context of mental health diagnoses – has important implications for observed marital communication and postdeployment adjustment. Higher levels of service members' psychological flexibility, or their ability to more effectively tolerate distressing internal events, may be related to higher rates of observed positive engagement from both partners in the face of the other partner's distress and negative behavior, as well as increased marital satisfaction of both partners. In essence, this model indicates that service members' psychological flexibility may be at the core of a couple's ability to

communicate and problem solve in a way that promotes marital satisfaction. In fact, this model was more powerful in terms of marital satisfaction than the hypothesized mutual validation model, insofar as positive engagement or validation was more closely related to marital satisfaction when it is exhibited in the face of distress and hostility rather than positivity from the other spouse.

Putting it all Together: A Broader Perspective.

Six more general inferences may be drawn from the basic model, the reciprocal models (mutually validating and mutually hostile), the avoidance models (demand-submit and demand-withdrawal), and the compensatory models (demand-validate), each of which is discussed in detail below:

- (a) experiential avoidance is relevant to marital satisfaction for both partners;
- (b) the association between experiential avoidance and marital satisfaction was not mediated by spouses' observed behavior during a 5-minute sample of problem solving;
- (c) experiential avoidance appears to be more relevant to the observed behavior and marital satisfaction of service members than those of nondeployed spouses;
- (d) support for models was less apparent for nondeployed spouses than service members;
- (e) the compensatory communication pattern of positive engagement in the context of reactivity-coercion is an important component of marital satisfaction;
- (f) contrary to extant research, relationship satisfaction is not as dependent on mutual coercion or mutual constructive engagement, nor on withdrawal and avoidance in the context of demands and conflict. Rather, relationship satisfaction appears to be more related to partners' efforts to

stay positive, communicate, support, and problem-solve in the context of conflict and disagreement.

These general inferences are now discussed in more detail. The first three inferences refer to the role of experiential avoidance in marital communication and satisfaction. The models indicated that experiential avoidance of service members was associated with less service member positive engagement, more service member distress avoidance, and more service member withdrawal-avoidance. Thus, experiential avoidance interferes with constructive engagement in opportunities in the social environment. This is congruent with extant literature (e.g., Erbes et al., 2008; Leonard et al., 2006; Riggs et al., 1998; Ruscio et al., 2002), which has linked an individual's tendency to alter or avoid distressing internal emotions and experiences to his or her decreased ability to interact constructively with family members.

Although direct relationships between experiential avoidance and communication styles has been established in extant research, the current study contributes a better understanding of how each partner's individual level of experiential avoidance is associated with their problem-solving, and how the quality of their problem solving is related to marital satisfaction. Service members' marital satisfaction was linked to their own reactivity-coercion in the context of nondeployed spouses' display of distress avoidance and spouses' withdrawal-avoidance, and both spouses' satisfaction was positively linked to their partner's ability to remain positively engaged in heated or uncomfortable conversations. While extant research tends to describe marital satisfaction as dependent upon the absence of hostile or avoidant communication, the present study indicates marital satisfaction may be better explained by strategies that allow each partner to remain constructively engaged even as problem-solving becomes heated and difficult.

The models also suggest several differences between service members and their nondeployed spouses. Nondeployed spouses appear to be less affected by their own experiential avoidance, as measured by the AAQ-II, and very few of the observed variables in this study appear to be associated with nondeployed spouses' reports of marital satisfaction. Nondeployed spouses' behavior tends to be more heavily impacted by service members' experiential avoidance than by their own level of experiential avoidance. This suggests that aspects of psychological flexibility other than experiential avoidance may be relevant to communication and satisfaction for nondeployed spouses. This may also reflect the different roles played by service members and nondeployed spouses during efforts to re-establish the marital and co-parenting relationships during the postdeployment period. Service members may more affected by the physical and emotional "baggage" they carry home from combat – the unique experiences of military life, trauma exposure, and PTSD – whereas nondeployed spouses may place more focus on relationships – how the service member is doing after deployment and reintegration into family roles – rather than focusing on her own thoughts and feelings.

Although withdrawal-avoidance has been the most common focus of research on couples' communication in the context of one partner's PTSD symptoms, this study indicates that distress avoidance is an important tactic that has not been adequately examined in previous research. Distress avoidance of service members and of nondeployed spouses is reliably associated with service members' experiential avoidance, creating a mutually-reinforcing communication pattern. As service members are more experientially avoidant, both service members and spouses engage in behavior that attempts to quickly acquiesce the service member's distress without fully addressing the issue. Thus, distress avoidance creates the potential for multiple sources of self- and social reinforcement, insofar as it allows for the escape

of one's own and others' distress. As this study shows, however, this escape comes with a cost – diminished relationship satisfaction.

Positive engagement of service members is a more important predictor of nondeployed spouses' marital satisfaction when she is making demands than when she is positively engaged in the relationship. Thus, positive engagement was more important for nondeployed spouses when “the rubber meets the road,” or when conflictual issues need to be addressed, rather than when both partners engaged in mutual positive engagement. While extant research has suggested that both partners' positive and validating demeanor is the most influential dyadic communication pattern for high marital satisfaction (e.g., Holman & Jarvis, 2003), this study, consistent with previous research, suggests that postdeployment marital adjustment may be facilitated insofar as one partner's validating style buffers the deleterious effects of hostile communication and expressions of distress by the other partner (Busby & Holman, 2009). This may be particularly important in the context of postdeployment, as service members are typically returning with higher levels of negative reactivity (e.g., Sherman et al., 2005). If each partner is able to actively validate the other's emotions and remain positive in the face of negative reactivity, the reactive partner tends to experience higher marital satisfaction. This is true across gender and military status, indicating that despite one's role in postdeployment adjustment or the emotional baggage that follows-involvement in war-time conflicts, the ability to positively engage one's spouse and to provide validation to a spouse who is distressed and upset is important for promoting marital satisfaction.

Given positive engagement is a key ingredient in marital satisfaction, the next question concerns the conditions that make positive engagement more likely. The present study suggests that both service members and nondeployed spouses tend to be more positively engaged when

the service member reports lower experiential avoidance. While nondeployed spouses' experiential avoidance was not associated with her own positive engagement nor that of service members, this finding suggests that increasing service members' psychological flexibility may be key to increasing marital satisfaction in that it is associated with maintaining positive engagement in the face of reactivity.

Strengths

The present study has several strengths. First, both self-report and independent coder observations were used as measures. The majority of extant research in this area has relied solely on self-report measures, including assessment of marital communication. Observational data provide a potentially less biased description of partners' interactions than self-report. Obtaining the data from multiple methods and multiple sources also minimizes shared method variance as an explanation for the results in the present study.

Second, the study involves novel elements. Many of the models have been examined in the civilian samples more extensively than in military samples. Furthermore, previous research has infrequently examined the inter-relationships among experiential avoidance, dyadic communication patterns, and marital satisfaction in the military samples; the relationship of experiential avoidance and marital adjustment has not examined potential behavioral mediators. Extant research has considered the compensatory models of marital satisfaction as reflected in the demand-validate communication pattern, but the inclusion of experiential avoidance as a variable within the compensatory models is novel. A third strength is the use of sophisticated SEM and APIM statistical models to assess potential indirect effects and mediators. This analytic approach emphasizes the concept of interdependence in interpersonal relationships, even when examining individual variables within a dyadic framework.

Limitations

Despite these strengths, there are also important limitations. The first and most prominent limitation is the cross-sectional nature of the data, which limits causal interpretation or even interpretation of the direction of the associations. For example, given the correlational nature of the data, it cannot be determined whether high experiential avoidance limits partners' ability to positively engage their spouses, or whether a lack of positive engagement results in more experiential avoidance. It is also likely that other variables not included in the models are at play.

A second limitation is the homogeneous nature of the sample. Reflecting the Minnesota origins of this sample of National Guard and Reserve military service members, the participants were primarily White, non-Hispanic and involved heterosexual, male service members and their female partners. Given the gender differences that were found, it would be interesting to examine whether the same models hold when applied to female service members or to households in which both partners have been deployed. Reflecting the aim of the original ADAPT study to obtain a sample of families with children between the ages of 4 and 13 years of age, the participants were also older than most military service members deployed to the Middle East conflicts, and thus were relatively well educated, more advantaged economically, and were more likely to have established social support and work opportunities.

A third limitation involves the self-report nature of both experiential avoidance and marital satisfaction. Self-report measures are often prone to underreporting, especially when they consist of face-valid questions referring to negative states and experiences. Participants may also experience embarrassment or may not be willing to truthfully answer questions related to their experiential avoidance and marital satisfaction, which limits the validity of these measurement tools. This may be relevant to the relatively modest levels of experiential avoidance self-reported

by this sample. While this low endorsement may reflect a hesitance to disclose the occurrence of adjustment problems, it is also possible these modest levels of experiential avoidance reflect the relatively long amount of time since the last deployment in this sample; the mean length of time since the last deployment was approximately 2 years. The relative socioeconomic advantages and resources available to the participating families may also mitigate the impact of deployment-related trauma experiences on experiential avoidance.

These factors likely contributed to the limited variance found in this sample's responses to the AAQ-II as well as the DAS-7. The limited variance in two of the self-report measures makes it difficult to find significant mediating effects, as proposed in the models, and thus, serves as another limitation of the present study. A recent study of trauma-exposed veterans cited a mean AAQ-II score of 24.6 (SD = 11.3 (Meyer et al., 2013). Although this is significantly higher than the AAQ-II average for service members in the present study, this study considered service members from OEF/OIF conflicts as a whole and did not select trauma-exposed service members as a prerequisite for this sample. Thus, the limited variance in AAQ-II scores is likely a reflection of the homogeneous nature of the present study's sample.

The use of videotapes to capture marital problem solving may have affected partners' natural behavior. Observer effects, or reactivity, may have resulted in the reduced frequency of socially undesirable interactions (reactivity-coercion, withdrawal-avoidance, distress avoidance) and the increased frequency of desirable interactions (positive engagement) simply due to being observed by researchers. A 5 minute observational sample of partners' interactions may also provide a less than optimal time period with which to accurately capture the communication patterns explored in the current study.

Summary and Implications

In summary, results of the present study provide support for a compensatory communication pattern; positive, supportive communication was associated with increased marital satisfaction – both for service members and for spouses – but primarily in the face of hostile, or reactive, communication from one spouse. Service members' lower experiential avoidance was associated with higher levels of positive engagement from both spouses, suggesting that as individuals' ability to tolerate distressing internal events and memories increases, their ability to remain positively engaged with their spouse also increases. There was also a significant relationship between service members' experiential avoidance and each partner's level of distress avoidance in the demand-submit models, suggesting that as service members' experiential avoidance increases, both the service member and their nondeployed spouse tend to actively and rapidly acquiesce to the other partner's demands in an effort to avoid conflict or distress. While there are significant direct and indirect associations between experiential avoidance, communication patterns, and marital satisfaction in the models, there was only weak, preliminary support for the notion that communication patterns may play a mediation function linking experiential avoidance with marital satisfaction.

These findings have implications for both individual and couples interventions. Given service members' experiential avoidance appears to be a key ingredient to both partners' positive engagement in the face of conflict, individual therapy focusing on increasing psychological flexibility and tolerating distressing internal events may be a step toward increasing both partners' ability to validate and support each other during problem solving. Furthermore, data in this study are consistent with couple's therapy using an IBCT or SAT theoretical framework that involves efforts to promote mindfulness and acceptance of the other partner's experiences as a

means of reducing hostility, withdrawal, or submission and of increasing validation during marital interaction.

Extant research is clear that service members and their spouses often struggle after deployment. The present study indicates that reducing experiential avoidance – particularly for service members – may be one way to help facilitate successful postdeployment transition. However, more research is warranted to fully understand the relationships between each partner’s experiential avoidance, various communication patterns, and each partner’s marital satisfaction. Future research examining these relationships in active duty military populations would provide information about the generalizability of these relationships, and about whether National Guard and Reserve service members and their families experience unique reintegration challenges after deployment. To explore these relationships in future research, it would be beneficial to use a longitudinal design to more thoroughly understand how these individual and dyadic processes influence one another over time during the postdeployment period. Sequential analyses using micro-level observational data would also provide more information regarding temporal sequencing of couples’ actions and reactions during ongoing interaction. Data from studies such as these may provide important information about effective intervention targets and timing for prevention and intervention efforts.

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TABLE 1
DESCRIPTIVE STATISTICS FOR EACH MEASURE BY PARTNER

Measure	Partner	n	M(SD)	Skewness	Kurtosis
Acceptance and Action Questionnaire-II (AAQ-II)	Service Members	160	15.71 (7.30)	1.04	.51
	Spouses	157	18.11 (7.49)	.66	-.45
Dyadic Adjustment Scale – 7 (DAS-7)	Service Members	159	23.52 (4.99)	-.20	-.50
	Spouses	158	23.87 (5.31)	-.29	-.49
Positive Engagement (PE)	Service Members	160	3.30 (.72)	.031	-.539
	Spouses	159	3.46 (.66)	.114	-.384
Withdrawal Avoidance (WA)	Service Members	160	1.41 (.49)	2.09	5.94
	Spouses	160	1.23 (.38)	3.39	18.12
Reactivity-Coercion(RC)	Service Members	159	1.22 (.45)	1.76	3.34
	Spouses	159	1.31 (.50)	1.96	4.14
Distress Avoidance (DA)	Service Members	160	.78 (.47)	1.04	-.05
	Spouses	159	.77 (.44)	.114	-.384

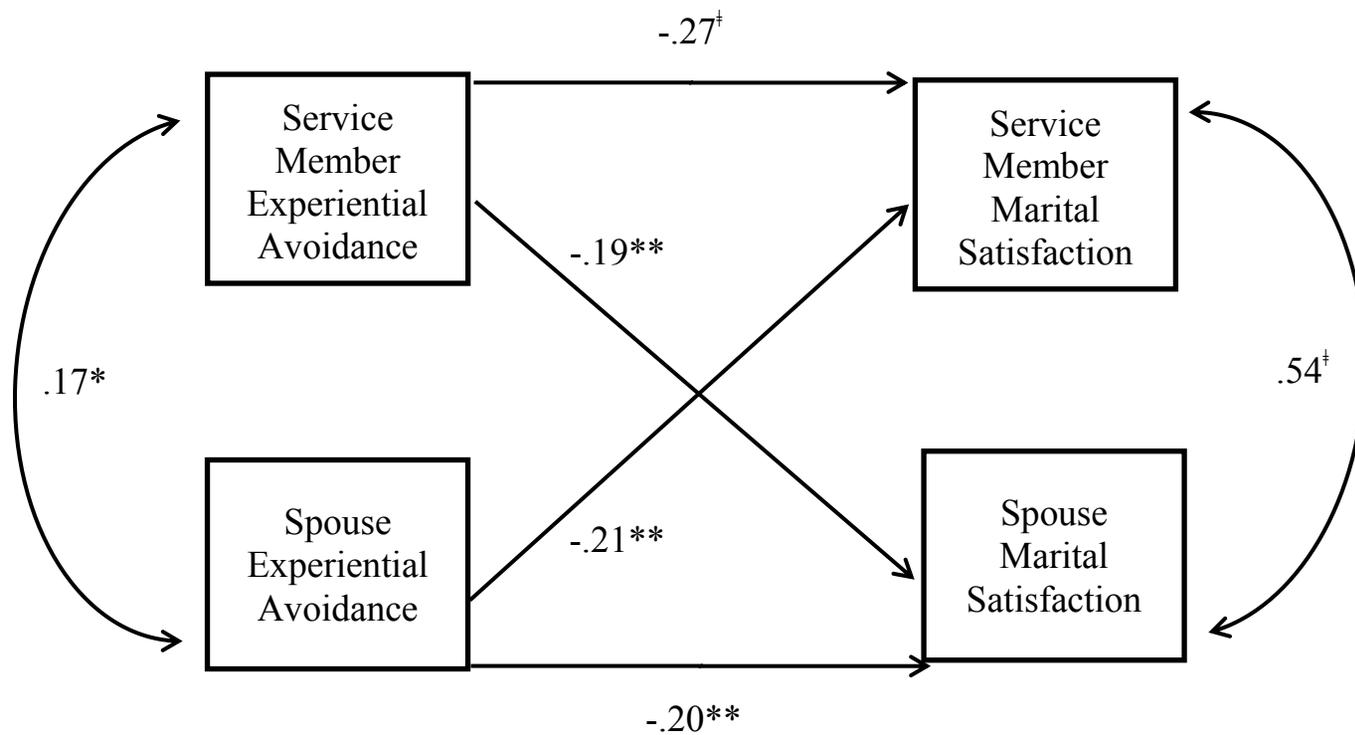
TABLE 2

INTERCORRELATIONS AMONG SERVICE MEMBERS' AND NONDEPLOYED SPOUSES' OBSERVED BEHAVIOR AND SELF-REPORT MEASURES

		Service Member						Spouse					
		RC	WA	DA	PE	AAQ-II	DAS-7	RC	WA	DA	PE	AAQ-II	DAS-7
Service Member	RC	1	.154	.550**	-.573**	.157	-.299**	.776**	.076	.729**	-.492**	.059	-.173*
	WA		1	.244**	-.612**	.242**	-.259**	.266**	.178*	.182*	-.406**	.063	-.170*
	DA			1	-.407**	.186*	-.299**	.671**	-.094	.730**	-.445**	-.016	-.122
	PE				1	-.334**	.416**	-.502**	-.215**	-.457**	.784**	-.109	.280*
	AAQ-II					1	-.334**	.133	.019	.186*	.165*	-.165**	-.187*
	DAS-7						1	-.307**	-.159*	-.214**	.400**	-.209**	.583**
Spouse	RC							1	-.053	.594**	-.560**	.044	-.167*
	WA								1	-.047	-.438**	.121	-.078
	DA									1	-.339**	-.014	-.115
	PE										1	-.113	.257**
	AAQ-II											1	-.224**
	DAS-7												1

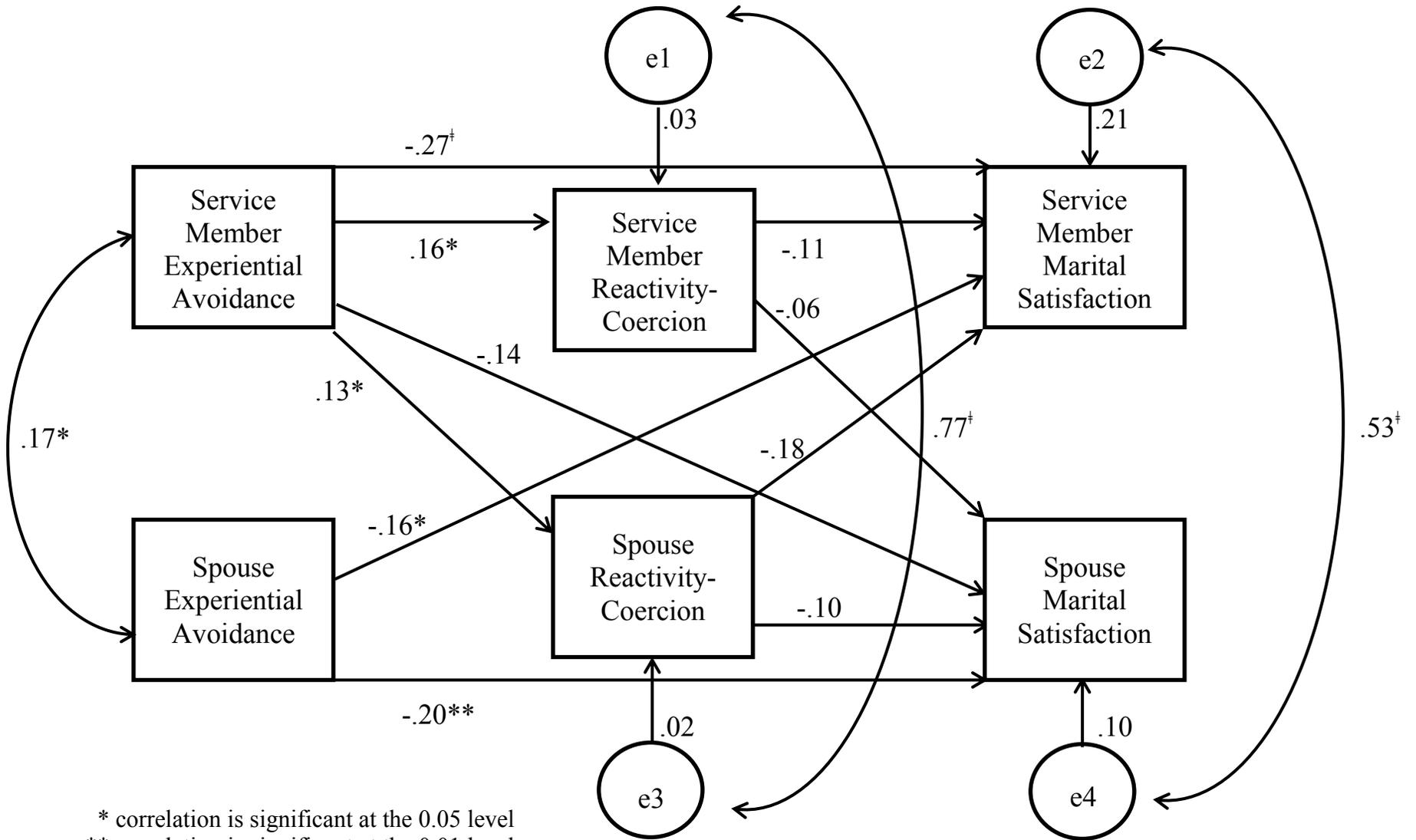
* correlation is significant at the 0.05 level

** correlation is significant at the 0.01 level



* correlation is significant at the 0.05 level
 ** correlation is significant at the 0.01 level
 † correlation is significant at the 0.001 level

Figure 1. Basic APIM model examining experiential avoidance and marital satisfaction.



* correlation is significant at the 0.05 level
 ** correlation is significant at the 0.01 level
 † correlation is significant at the 0.001 level

Figure 3. Mutual hostility model.

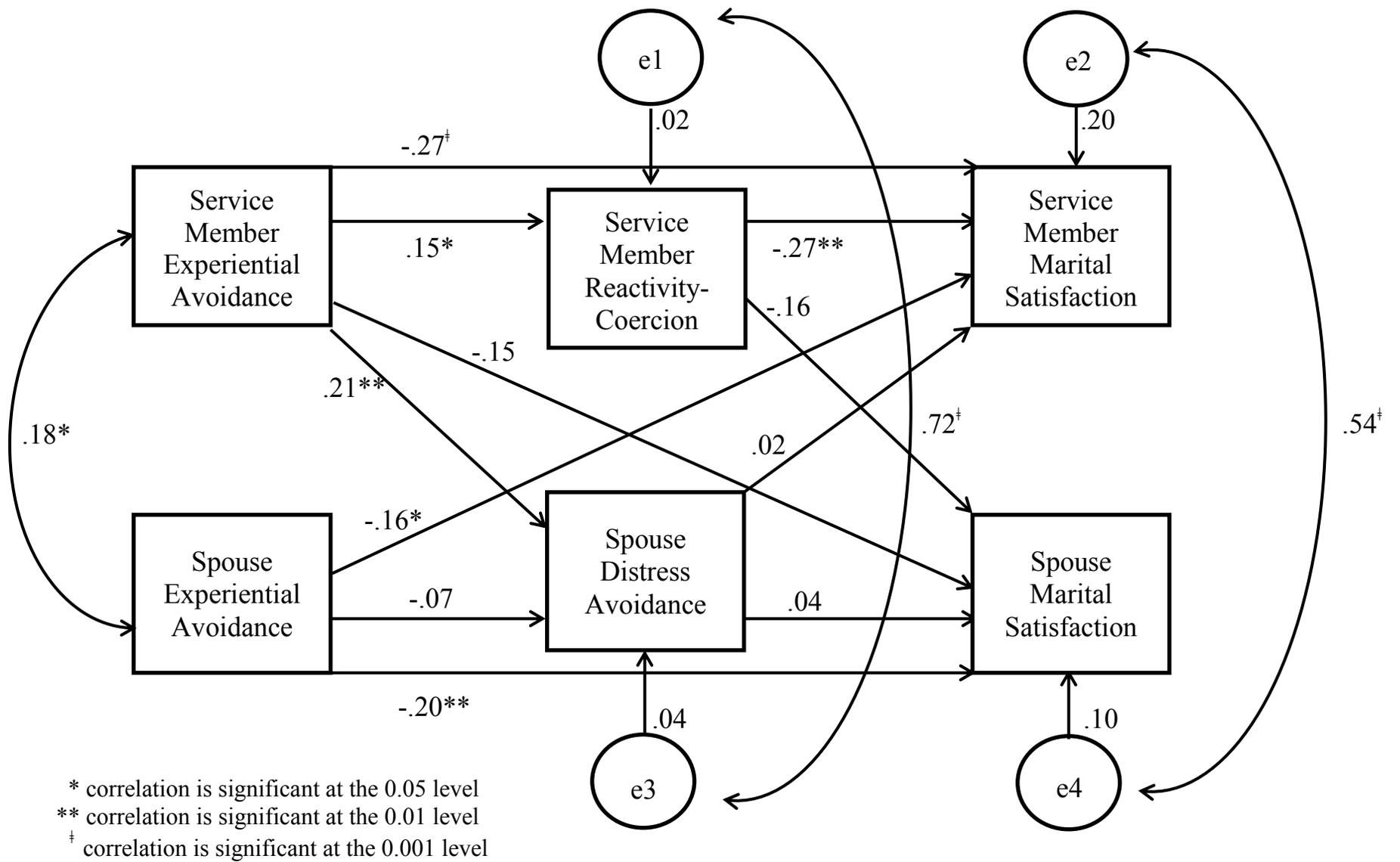


Figure 4A. Demand-submit model examining service members' RC and nondeployed spouses' DA.

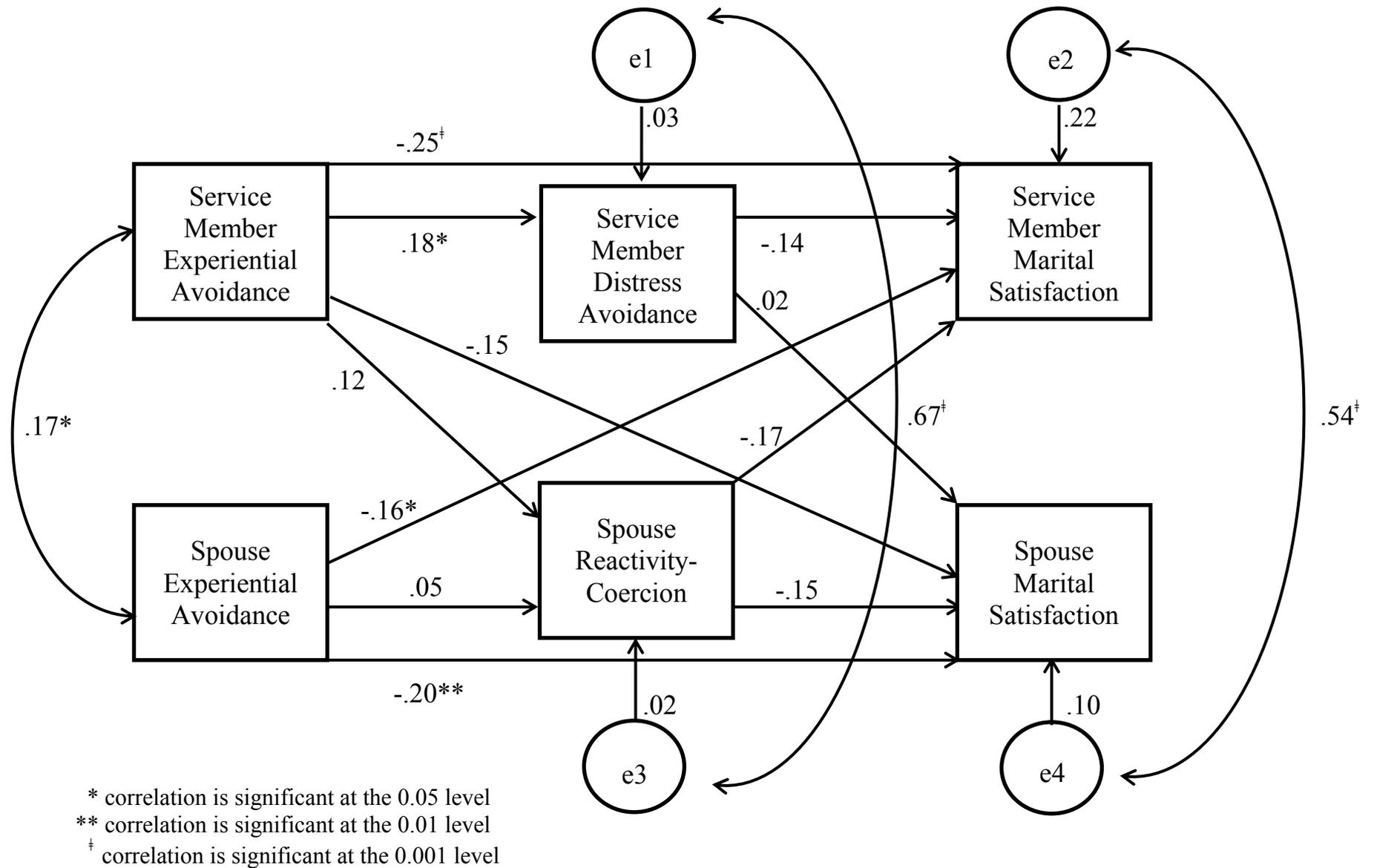


Figure 4B. Demand-submit model examining service members' DA and nondeployed spouses' RC.

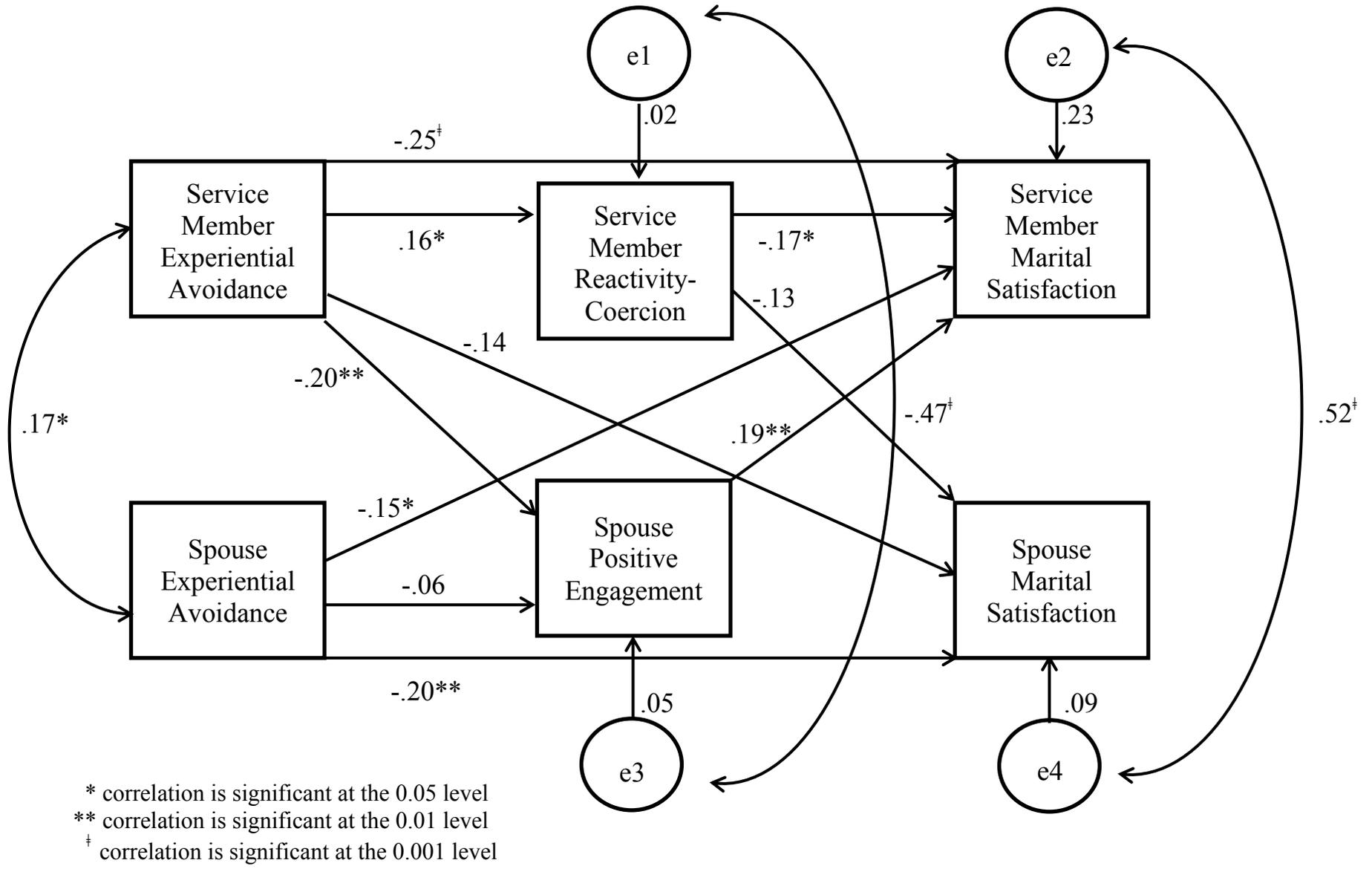


Figure 6A. Demand-validate model examining service members' RC and nondeployed spouses' PE.

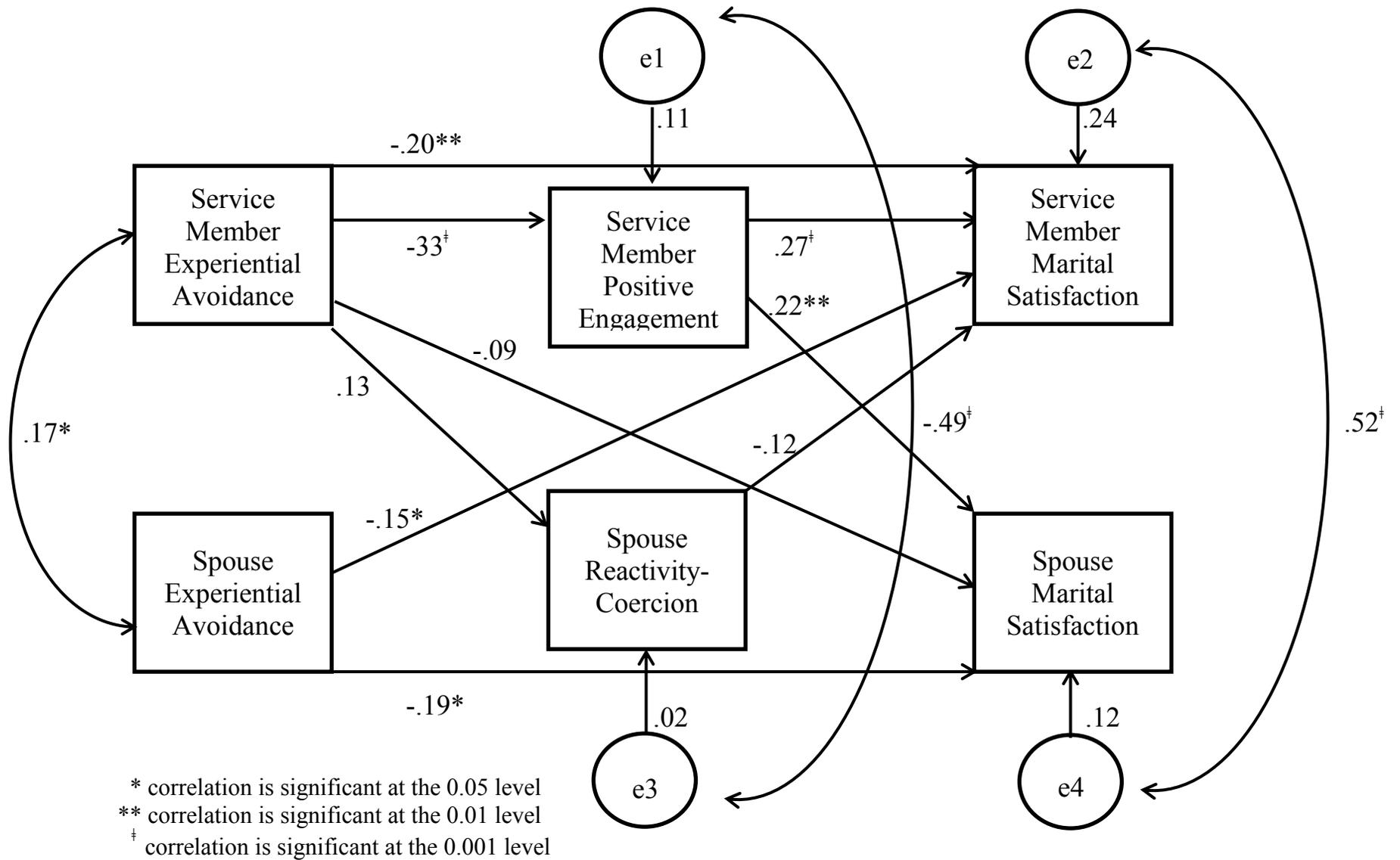


Figure 6B. Demand-validate model examining service members' PE and nondeployed spouses' RC.

APPENDICES

APPENDIX A

Acceptance and Action Questionnaire – II (AAQ-II)

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

1	2	3	4	5	6	7
never true	very seldom	seldom true	sometimes true	frequently true	almost always true	always true

1. My painful experiences and memories make it difficult for me to live a life that I would value.	1	2	3	4	5	6	7
2. I'm afraid of my feelings.	1	2	3	4	5	6	7
3. I worry about not being able to control my worries and feelings.	1	2	3	4	5	6	7
4. My painful memories prevent me from having a fulfilling life.	1	2	3	4	5	6	7
5. Emotions cause problems in my life.	1	2	3	4	5	6	7
6. It seems like most people are handling their lives better than I am.	1	2	3	4	5	6	7
7. Worries get in the way of my success.	1	2	3	4	5	6	7

APPENDIX B

Dyadic Adjustment Scale (DAS-7)

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

1. Philosophy of life ____
2. Aims, goals, and things believed important ____
3. Amount of time spent together ____

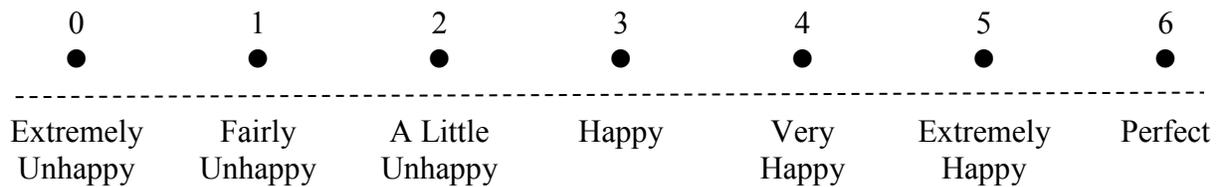
5	4	3	2	1	0
Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree

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

4. Have a stimulating exchange of ideas ____
5. Calmly discuss something together ____
6. Work together on a project ____

0	1	2	3	4	5
Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often

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



APPENDIX C

Family Interaction Macro Code (FIMC)

Reactivity-Coercion:

There are three facets to this category. (1) Reactivity refers to a heightened sensitivity to routine, non-aversive as well as aversive social events and demands. This is indicated by irritability and touchiness – a “hot temper” or “short fuse.” (2) Coercion is characterized by nattering, threats, aversive physical actions, by verbal criticism, denigration and demands, and by nonverbal displays of displeasure and rejection - a use of “force” to control others or to “get one’s way.” (3) Reactivity and coercion are often characterized by angry, contemptuous and disdainful affect.

NA – no opportunity to observe the behavior

1 – not at all, did not occur, not true at all

2 – 1 or 2 weak occurrences, a little descriptive

3 – 1-2 clear occurrences, somewhat descriptive

4 – 3-5 clear occurrences, fairly descriptive

5 – clearly evident, >5 occurrences, very descriptive

Reactivity-Coercion Individual Items:

- 1.) Is volatile and reactive – easily “set off,” “has a “short fuse.”
- 2.) Is irritable and grumpy.
- 3.) Is bossy.
- 4.) Doesn’t “let things go” without reacting.
- 5.) Reciprocates aversive actions of others. (NA)
- 6.) “Takes over” tasks or interrupts others, is impatient.
- 7.) Is critical of and negative toward others.
- 8.) Is demanding and threatening.
- 9.) Natters, wangles, manipulates.
- 10.) Engages in physical threats or actions.
- 11.) Refuses to back down, stays at it until (s)he gets his/her way.
- 12.) Anger and negative behavior escalate, “blows up.” (NA)
- 13.) Takes a stand against but then capitulates to others’ demands. (NA)
- 14.) Actively dismisses, invalidates or denies the emotion displays of others. (NA)
- 15.) Actively dismisses, invalidates or overrides the ideas, actions and opinions of others.
- 16.) Is angry, belligerent.
- 17.) Treats other family members with contempt or disdain.

Items 1-17 are rated separately to reflect the observable behavior of service member and spouse.

Reactivity-Coercion Global Items:

- 18.) There is back and forth nattering and disagreement
- 19.) The family mood is “tense” and “on edge.”
- 20.) The family mood is sullen and angry.
- 21.) Family members are irritable.
- 22.) Family members reciprocate the negative behavior of each other. (NA)
- 23.) Conflicts are long and protracted. (NA)
- 24.) Conflicts escalate and get “hot.” (NA)

Items 18-24 are rated on a 1 (not at all descriptive) to 5 (very descriptive) Likert scale, applied to the observable interaction of the dyad as a whole. (NA = may not be observed)

Withdrawal-Avoidance is comprised of two subcategories, distress-avoidance and withdrawal-disengagement. These two subcategories may be combined depending on their empirical co-variation and functional equivalence.

Avoidance (of Distress)

Avoidance of distress entails verbal and non-verbal behaviors which actively avoid attending and responding to ongoing and direct social bids and opportunities. This non-responsiveness is apparent in two ways. (1) There is a non-responsiveness to explicit social events and normative opportunities directed at the target which may be positive or negative in tone – a kind of reactive avoidance. (2) There is an explicit communication of NOT wishing to be involved with the rationale of involvement would be too taxing or demanding – a kind of proactive avoidance.

- NA – no opportunity to observe the behavior
- 1 – not at all, did not occur, not true at all
- 2 – 1 or 2 weak occurrences, a little descriptive
- 3 – 1-2 clear occurrences, somewhat descriptive
- 4 – 3-5 clear occurrences, fairly descriptive
- 5 – clearly evident, >5 occurrences, very descriptive

Avoidance Individual Items:

- 1.) Is grudging in response to bids for attention and engagement.
- 2.) Is non-responsive to positive behavioral bids for engagement.
- 3.) Ignores other members’ negative affect displays. (NA)
- 4.) Ignores others members’ positive affect displays. (NA)
- 5.) Is non-responsive to negative behavior. (NA)
- 6.) Shows little interest or empathy in others’ ideas, feelings and activities.
- 7.) Passively lets other family members take over tasks and activities.
- 8.) Lacks energy and engagement in fun activities.

- 9.) Indicates verbally or non-verbally wanting to be “left alone.”
- 10.) Is wary and tentative, “walks on eggshells” to not upset other family members.
- 11.) Uses being “tired” or “in a bad mod” to avoid bids for involvement.
- 12.) Verbally indicate inability to respond to the needs of another.
- 13.) Acquiesces during conflicts and in response to demands. (NA)
- 14.) Shows fear or hurt in response to others’ criticism or complaints. (NA)

Items 1-14 are rated separately to reflect the observed behavior of the service member and spouse.

Avoidance Global Items:

- 15.) Repeated, persistent bids for engagement and attention are needed to get a response.
- 16.) Family members give up in face of non-responsiveness to bids for engagement. (NA)
- 17.) Negative behavior or affect are met with family members’ withdrawal from interaction. (NA)
- 18.) Family interaction is constrained or retrained to avoid distress.
- 19.) There is little shared joy and pleasure in the family.
- 20.) Family members are not “attuned” to one another.

Items 15-20 on a 1 (not at all descriptive) to 5 (very descriptive) Likert scale, applied to the observable interaction of the dyad as a whole. (NA = may not be observed)

Withdrawal (Disengagement)

Withdrawal and disengagement entails verbal and nonverbal behaviors (or lack of normatively expected behaviors) which can be observed in three ways. (1) There is a disinterest in the social environment and normative, routine tasks, and associated passivity, low energy, and lack of initiative. (2) There is a self-focus that involves expressions of hurt and sorrow, a palliative approach to coping. (3) There are bids to be excused or to receive care giving.

NA – no opportunity to observe the behavior

1 – not at all, did not occur, not true at all

2 – 1 or 2 weak occurrences, a little descriptive

3 – 1-2 clear occurrences, somewhat descriptive

4 – 3-5 clear occurrences, fairly descriptive

5 – clearly evident, >5 occurrences, very descriptive

Withdrawal Individual Items:

- 1.) Is distant, inattentive or disengaged in ongoing discourse and joint activity.
- 2.) Is emotionally unavailable, “not there.”
- 3.) Is reticent or slow to get involved in tasks and activities.
- 4.) Lacks energy and vitality.

- 5.) Displays a restricted range of emotions.
- 6.) Complains about own discomfort or lack of energy.
- 7.) Postural and facial expressions indicating disinterest and distance.
- 8.) Displays dysphoric mood.
- 9.) Makes self-critical statements.
- 10.) Uses a whiny tone of voice.
- 11.) Asks to be relieved of normative responsibilities and roles.
- 12.) Asks for assistance in simple tasks.
- 13.) Talks about own need for solitary activities.
- 14.) Is fearful, anxious.

Items 1-14 are rated separately to reflect the observable behavior of service member and spouse.

Withdrawal Global Items:

- 15.) The family is not behaviorally and emotionally connected.
- 16.) Normative and routine activities and tasks take a lot of effort by family members.
- 17.) There is little joint attention, reciprocal discourse and mutual contribution to ongoing tasks.
- 18.) The family interaction is somber in tone.
- 19.) Dysphoria and complaints are used to get attention.
- 20.) Dysphoria and complaints are used to avoid or escape normative roles, activities and responsibilities.

Items 15-20 on a 1 (not at all descriptive) to 5 (very descriptive) Likert scale, applied to the observable interaction of the dyad as a whole.

Positive Engagement

Positive engagement is characterized by a range and variety of verbal and nonverbal behaviors, affects that describe energy, attentiveness, sensitivity, support, warmth, and attachment during social interaction. There is openness to one's own and others' affect, interests, goals and experiences, communicated with a sense of respect, validation and the promotion of mutual wellbeing. Joy and happiness are frequently expressed and accompany shared activities and discourse. However, sadness, fear, distress and hurt are met with validation, support and empathy accompanied by constructive soothing and problem solving. Family members are free to constructively express themselves and show active interest in the experiences, activities and goals of one another. There is a sense of togetherness that is both kind and gentle, but also that can be energetic and vital.

- 1 – Not descriptive at all
- 2 – A little descriptive
- 3 – Somewhat descriptive
- 4 – Quite descriptive
- 5 – Very clearly descriptive
- NA – No clear opportunity to observe the behavior

Positive Engagement Individual Items:

- 1.) Actively initiates behavior in a constructive manner, tries to engage other family members.
- 2.) Is responsive to conversation, and to bids for attention and social engagement.
- 3.) Is attentive and psychologically “present.”
- 4.) Shows interest in what’s going on in other family members’ lives.
- 5.) Takes a cooperative approach to requests, and to tasks and activities.
- 6.) Takes a can-do, energetic approach to tasks and activities.
- 7.) Validates and “accepts” other members’ distress and negative affect. (NA)
- 8.) Engages in soothing and problem solving in response to others’ distress. (NA)
- 9.) Is comfortable with own emotion expression and appropriately regulates own emotions.
- 10.) Is clear, direct and non-coercive in requests, instructions and directions.
- 11.) Is responsive but non-coercive in reacting to negative behavior. (NA)
- 12.) Holds his/her own in disagreements and conflicts without being coercive. (NA)
- 13.) Is measured in responding to aversive events and negative emotions. (NA)
- 14.) Gives correction in a supportive, constructive manner. (NA)
- 15.) Accepts and builds on the opinions, inputs and ideas of other family members.
- 16.) Looks for the “good” in what’s happening or what’s reported by others.
- 17.) Shows respect and courtesy.
- 18.) Is attached and warm with other family members.
- 19.) Shows affection physically and verbally.
- 20.) Provides approval and positive feedback.

Items 1-20 are rated separately to reflect observable behavior of the service member and spouse. Think of a Likert rating of “3” – “4” as typical or normative.

Positive Engagement Global Items:

- 21.) The family members enjoy one another.
- 22.) The approach to tasks, activities and issues is cooperative.
- 23.) There is mutual attunement during family interaction.
- 24.) There is constructive spontaneity during family interaction.

- 25.) There is active recognition and positive feedback.
- 26.) The ideas and opinions of family members are actively encouraged.
- 27.) Family members' thoughts, needs and feelings are acknowledged and treated with respect.
- 28.) The family environment is supportive.
- 29.) Disagreements or challenges lead to constructive communication and problem solving.
- 30.) The family is resilient in the face of difficulties and challenges.

Items 21-30 on a 1 (not at all descriptive) to 5 (very descriptive) Likert scale, applied to the observable interaction of the dyad as a whole. Think of a Likert rating of a "3" – "4" as typical or normative.