BRINGING THE WAR HOME: MARITAL ADJUSTMENT AND DEPRESSION IN ARMY RESERVE COMPONENT SPOUSES

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By

Cynthia S. J’Anthony

Dissertation Committee:

Stephen Haynes, Chairperson
David Cicero
Janet Latner
Leslie Morland
Scott Sinnett
Jay Maddock

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This dissertation is dedicated

in loving memory of my daughter,

Ileiana

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ABSTRACT

Numerous studies have researched the impact of military combat on the behavioral health of military combat soldiers. However, there is a dearth of research on Army Reserve Component spouses after their husbands' return from military combat. This study evaluated the association between marital adjustment (marital satisfaction and aggression), and depressive symptoms in spouses of Army Reserve Component soldiers who have returned from military combat in Iraq or Afghanistan. This study also evaluated the degree to which the relation between marital adjustment and depression are moderated by self-reported perceived community and military social support satisfaction.

Self-report questionnaires that measure demographics and behavior problems were placed on an online survey service. 136 participants completed the survey and met inclusion criteria (e.g., female spouses of Army Reserve Component soldiers who returned after serving in military combat in Iraq or Afghanistan).

Data Analysis focused on associations between marital adjustment, depressive symptoms, and self-reported perceived community and military social support satisfaction. Participants' level of self-reported depressive symptoms were significantly correlated with a self-reported measure of marital satisfaction, with self reported measures of psychological aggression, physical aggression, and sexual coercion when the participant was the victim, and of psychological aggression when the participant was the perpetrator, as well as with self-reported perceived community and military social support satisfaction.

Step-wise regression analyses with self-reported depressive symptoms as the outcome variable indicated: (a) a significant main effect for a measure of self-reported

perceived community social support satisfaction when it was added to a model that included a measure of marital satisfaction as a predictor variable, (b) significant main effects for measures of self-reported perceived community and military social support satisfaction when they were added to models that included a measure of marital aggression when the participant was the victim as a predictor variable or when the participant was the perpetrator as a predictor variable, and (c) no significant moderating effects for measures of self-reported perceived community or military social support satisfaction on the associations with predictor variables marital satisfaction, marital aggression when the participant was the victim, or marital aggression when the participant was the perpetrator.

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CHAPTER 1

Introduction

Overview

Numerous studies have researched the impact of military combat on the behavioral health of military combat soldiers. However, there is a dearth of research evaluating the level of marital adjustment[1] after the soldier returns from military combat deployment and the degree to which the level of marital adjustment is associated with the spouse's level of depressive symptoms. Additionally, there is a dearth of research evaluating the main or moderating effects of either perceived community or military social support satisfaction on the spouse's level of depressive symptoms. There is also insufficient research on Army Reserve Component soldiers and their families. Such data could be helpful in enhancing services to Army Reserve Component[2] soldiers or veterans and their families.

The Reserve Component is composed of the Army National Guard[3] and the United States Army Reserve[4]. There are differences between the Reserve Component and other military branches that make these populations unique. One important difference is that they live in civilian communities rather than on a military base. As such, military family support may be less accessible. On the other hand, support from community (family and friends) members may be more available to Reserve Component families than to Active Component families who live on base. This study evaluated the

[1] "Marital adjustment" will be used throughout this dissertation to refer to the combination of the terms marital satisfaction and aggression (psychological aggression, physical aggression, and sexual coercion). Otherwise, the terms "marital satisfaction" and "marital aggression" will be used separately when either is referred to as a separate variable.
[2] Throughout this paper, the Army Reserve Component will be referred to as the "Reserve Component."
[3] Throughout this paper, the word "Guard" will refer to Army National Guard.
[4] Throughout this paper, the word "Reserve" will refer to the United States Army Reserve.

association between marital adjustment and depression in Guard and Reserve female spouses and the degree to which that association is affected by perceived social support satisfaction through the community and through military social support services.

The initial sections of the Introduction present a literature review of the behavior problems Guard and Reserve soldiers may confront after military combat deployment, and the risk factors involved in the development and maintenance of these behavior problems. Following this review are literature reviews pertaining to marital satisfaction and marital aggression and their association with depressive symptoms, a description of the Reserve Component population, and literature reviews of perceived community and military social support satisfaction.

Behavior Problems of Combat Soldiers Associated with Military Combat

The effects of traumatic war experiences on combat soldiers have been studied extensively, especially since the Vietnam War. The prevalence of post-traumatic stress disorder (PTSD), depression, and other anxiety disorders have been found to be higher in combat veterans (14% to 31.1%; Gates, et al., 2012; Hoge & Castro, 2005; O'Toole, Catts, Outram, Pierse, & Cockburn, 2009; Seal et al., 2009; Thomas et al., 2010) than in non-combat veterans (8.7%; Hoge & Castro, 2005; O'Toole et al., 2009) and the general population (1% to 14%; American Psychiatric Association, 2000). Previous studies have found that soldiers diagnosed with PTSD and/or major depression were more likely than soldiers without a PTSD and/or depression diagnosis to engage in destructive behaviors such as substance abuse, aggression, violence, and suicide (Jakupcak et al., 2007; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Kotler, Iancu, Effroni, & Amir,

2001; Marshall, Panuzio, & Taft, 2005; Orcutt, King, & King, 2003; Seal et al., 2009; Stewart, Mitchell, Wright, & Loba, 2003).

Recent medical advances and new combat equipment enable a higher proportion of wounded soldiers to survive their injuries (Eastridge, Jenkins, Flaherty, Schiller, & Holcomb, 2006; Friedman, 2006; Holcomb, 2005; Warden, 2006). In the Iraq and Afghanistan wars, traumatic brain injury (TBI) has become one of the most common injuries (Okie, 2005; Warden, 2006), with estimates ranging from 11.0% to 23.0% (Brenner et al., 2010) of all injuries. In the Mental Health Advisory Team V (MHAT V) survey, 14.4% of soldiers surveyed were diagnosed with TBI and another 21.2% sustained injuries associated with TBI but were not evaluated for TBI (Walter Reed Army Institute of Research; US Army Medical Research Unit - Europe [Walter Reed], 2008). In the Joint-MHAT VII survey of Army combat Soldiers in Afghanistan 11.5 % reported that they had experienced a vehicle blast, 45.6% reported they had been within 50 meters of a blast, 11.2% reported they had experienced a head injury, and 3.8% reported they had experienced a loss of consciousness (Joint Mental Health Advisory Team VII (J-MHAT VII, 2011). The J-MHAT VII (2011) survey did not include data on TBI diagnoses.

Soldiers with TBI have a high risk of being diagnosed with PTSD (Friedman, 2006; Hoge, McGurk, Thomas, Cox, Engel, & Castro, 2008; Koren, Norman, Cohen, Berman, & Klein, 2005; Stein & McAllister, 2009). Hoge et.al (2008) found that 44% of soldiers who returned from Iraq with a TBI diagnosis and reported a “loss of consciousness" met criteria for PTSD (p. 453).

Behavior Problems of Military Combat Soldiers

Many behavior problems associated with PTSD, TBI, major depression, substance use disorders, and other anxiety disorders can be disruptive to a soldier's life, spouse, and family. Specifically, the soldier's life and his or her family's lives can be disrupted by behavior problems such as emotional withdrawal, psychological and physical aggression, and suicide threats or attempts.

Post-traumatic Stress Disorder and Traumatic Brain Injury

PTSD is one of the most frequently studied and discussed behavioral health issues that affect a soldier's life and family and, as a result of the high level of concussive injuries that soldiers have sustained in the two recent wars, TBI has also become a frequently studied and discussed health issue. TBI shares some symptoms and behavior problems with PTSD (Okie, 2005; Stein & McAllister, 2009). Behavior problems that are common to both include avoidance behaviors such as social and emotional withdrawal, (Okie, 2005; Stein & McAllister, 2009) physiological hyperarousal, (Stein & McAllister, 2009), impulsivity, (Friedman, 2006; Okie, 2005), irritability and anger management problems (Baguley, Cooper, & Felmingham, 2006; Kotler, Iancu, Effroni, & Amir, 2001; Marshall, Panuzio, & Taft, 2005; Novaco & Chemtob, 2002), insomnia, fatigue, and difficulty concentrating (Stein & McAllister, 2009). Kessler et al. (1995) observed that co-morbidity with another psychiatric diagnosis occurs in 80% of patients diagnosed with PTSD. PTSD and TBI are often co-morbid (16.2% to 43.9%; Hoge, et. al, 2008; Okie, 2005). Moreover, PTSD, TBI, and PTSD co-morbid with TBI are often co-morbid with depression (Hoge, et. al, 2008; Kehle et al., 2011; Lapierre, Schwegler, & LaBauve, 2007; Okie, 2005; Stein & McAllister, 2009).

Depression and Other Anxiety Disorders

Depressive mood disorders are also common to returning military combat soldiers. In their investigation of Veterans Affairs (VA) health care data, Seal et al. (2009) found that 17.4% of Iraq and Afghanistan war veterans who sought VA services from 2002-2008 were diagnosed with a depressive mood disorder (e.g. Major Depressive Disorder; Bi-Polar I disorder, depressed episode; Dysthymic Disorder; and Mood Disorder NOS). In a survey of 4,089 military combat soldiers returning from either Iraq or Afghanistan, 37% to 38% showed high levels of depressive symptoms as measured by the Center for Epidemiological Studies Depression Scale (Lapierre et al., 2007). Additionally, Lapierre et al. (2007) found significantly more depressive symptoms in soldiers who reported PTSD symptoms ($M = 1.19$, $SD = 0.50$ for soldiers returning from Iraq; $M = 1.26$, $SD = 0.52$ for soldiers returning from Afghanistan) compared to those who did not report PTSD symptoms ($M = 0.49$, $SD = 0.35$ for soldiers returning from Iraq; $M = 0.51$, $SD = 0.37$ for soldiers returning from Afghanistan) as measured by the Screen for Posttraumatic Stress Symptoms. They also found that the severity of reported depressive symptoms positively correlated with the severity of reported PTSD symptoms (Lapierre et al., 2007).

Thomas et al., (2010) studied prevalence rates for PTSD symptoms, measured by the PTSD Checklist, and depressive symptoms, measured by the Patient Health Questionnaire, in Active Component and Guard veterans at three months and 12 months post-deployment. They found that at three months post-deployment 8.5% and at 12 months post-deployment 14.0% of the Guard reported serious functional impairment associated with severity of PTSD or depressive symptoms. They also found that at three

months post-deployment 23.2% and at 12 months post-deployment 31.1% of the Guard reported some functional impairment associated with severity of PTSD or depressive symptoms. Furthermore, they also found that while prevalence rates of PTSD symptoms remained stable for the Active Component soldiers, they increased for Guard soldiers from the 3-month post-deployment time-point to the12-month post-deployment time-point.

Veterans with diagnoses of PTSD and/or MDD may withdraw from and avoid social situations (Kashdan, Frueh, Knapp, Hebert, & Magruder, 2006; Zayfert, DeViva, & Hofmann, 2005) but co-morbidity of PTSD and/or MDD with Social Phobia[5] adds additional, aversive social and behavioral health problems. The co-morbidity of PTSD, depressive mood disorders and Social Phobia, especially when PTSD is co-morbid with Social Phobia, is associated with an increased risk of unemployment, co-morbidity with other disorders, and suicidal behavior (Hofmann, Litz, & Weathers, 2003; Kashdan et al., 2006; Zayfert et al., 2005). Kashdan et al. (2006) found, in a veteran population from four different VA primary care clinics, an average of 4.04 co-morbid disorders in those who had a diagnosis of PTSD, measured by the Clinician Administered PTSD Scale and the PTSD Checklist who were also diagnosed with Social Phobia as measured by the Mini International Neuropsychiatric Interview. This was significantly higher than the average of .52 co-morbid disorders in those with a diagnosis of PTSD without a diagnosis of Social Phobia. Additionally, they found a significantly higher suicidal risk in those who had diagnoses of PTSD and Social Phobia (53.8%) compared to those who had a diagnosis of PTSD without a diagnosis of Social Phobia (8.1%).

[5] The term Social Phobia will be used to refer to "Social Anxiety Disorder" to maintain consistent terminology throughout this paper.

In a study of Guard soldiers who served in Iraq and Afghanistan, Kehle et al. (2011), found significant associations between the number of co-morbid disorders and overall impairment in social functioning [$F (2, 341) = 28.95, p < .001$] and quality of life [$F (2,341) = 25.49, p < .001$]. However, they also found that the number of co-morbid disorders in those diagnosed with PTSD (or subthreshold PTSD) was not significantly related to an increase in overall impairment in social functioning [$F (5, 37) = 1.66, p = .22$] or quality of life [$F (5, 37) = 0.24, p = 0.64$].

Alcohol and Drug Use Problems

Some of the most common behavior problems to accompany PTSD and TBI are alcohol and drug abuse and dependency (Jacobsen, Southwick, & Kosten, 2001; McFall, Mackay, & Donovan, 1992; Saladin, Brady, Dansky, & Kilpatrick, 1995). A literature review of studies on veteran and civilian populations found that 60% to 80% of veterans or civilians with a diagnosis of PTSD had co-morbid alcohol and/or drug use problems (Jacobsen et al., 2001). McFall et al. (1992) found significantly more alcohol ($p<.01$) and drug ($p<.001$) abuse in Vietnam veterans with a combat-related PTSD diagnosis than in those without a PTSD diagnosis. In Vietnam veteran and in civilian women populations, levels of alcohol and drug use problems were also found to be associated with significantly greater symptoms in the PTSD re-experiencing, avoidance and arousal clusters (McFall et al., 1992; Saladin et al., 1995).

Alcohol use problems without a co-morbid disorder are also a concern for those who experience military combat. In their study of alcohol use and abuse by active duty and Guard personnel before and after military combat deployment, Jacobson et al. (2008) found that, compared to non-deployed personnel, deployed Guard members demonstrated

increased odds of new onset heavy (14+ drinks per week) weekly drinking (OR=1.63) and new onset alcohol related problems (OR=1.63). Furthermore, Burnett-Zeigler et al. (2011) found that 36% of Iraq and Afghanistan war veteran participants from the Michigan Army National Guard met criteria for alcohol misuse. Thomas et al. (2010) found that for National Guard soldiers, measures of alcohol misuse and/or physical aggressive behaviors (i.e., fighting) significantly increased from 9.7% at three months to 14.7% at 12 months in soldiers who reported either PTSD or depressive symptoms.

Suicide, Aggression, and Violence

Suicide. Since 2004, the suicide rate has shown an alarming increase in the military. The U.S. Department of Defense (US DOD; 2013) reported there were 143 (with 26 under investigation) Guard and Reserve and 182 (with 52 under investigation) active duty soldier suicides in 2012. These numbers show a continuing increase in the rate of suicides in the Army over the years. In 2008, the Army experienced a twenty-eight year high in the number of confirmed suicides, with a rate of 20.2 per 100,000 for active duty Army personnel (Kuehn, 2009). In 2012, the rate increased to 32.4 per 100,000 for active duty Army personnel. Of the total Army suicides committed between 2005 and 2008, approximately one-third were soldiers who returned home from deployment and of those about one-half committed suicide after being home for more than one year (Kuehn, 2009). According to Army Vice Chief of Staff Gen. Peter W. Chiarelli, approximately 70% of the Army personnel suicides in 2008 involved relationship problems (Meinhardt, 2009).

*Aggression and Violen*ce. Verbal and physical aggression is often associated with diagnoses of PTSD. In a questionnaire study of aggressive behavior among Iraq and

Afghanistan war veterans, Jakupcak et al. (2007) found higher rates of self-reported aggression for those with a diagnosis of PTSD (53.2%) and those with sub-threshold PTSD (52.4%) compared to those in the non-PTSD (20.4%) group. Novaco and Chemtob (2002) also found a significant difference between combat veterans diagnosed with PTSD and combat veterans without a diagnosis of PTSD in each anger measure used in their study ($F(6, 89) = 15.09$, $p < .001$).

One concern about aggressive behavior in returning combat veterans is violence against intimate partners. In 2002, during a six-week period, three wives were murdered by their husbands at Fort Bragg in North Carolina after the husbands returned from serving in Afghanistan (Alvarez & Sontag, 2008). In their literature review, Marshall, Panuzio, and Taft (2005) found intimate partner violence prevalence rates from 13.5% to 58% in active duty servicemen and veterans. Their review also found higher rates of alcohol problems, depressive symptoms, and PTSD among the perpetrators of intimate partner violence than for those who did not perpetrate intimate partner violence. Taft et al. (2009) found that 33% of treatment seeking veterans with a diagnosis of PTSD reported that they perpetrated physical aggressive behaviors in their marriages and 91% reported perpetrating psychological aggressive behaviors.

Risk Factors for Behavioral Health Problems in Combat Soldiers

The MHAT V survey (Walter Reed, 2008) listed behavioral health risk factors that included combat exposure, multiple deployments, and length of deployment.

Combat Exposure

Combat exposure is a well-known risk to a soldier's behavioral health. Army surveys of soldiers during deployment indicated that the number of reported combat

experiences correlated positively with a self-reported measure of Acute Stress (Walter Reed, 2008). However, the survey report did not analyze for significance of the correlation.

Multiple Deployments

The J-MHAT VII (2011) survey included a study of the associations between behavioral health problems and deployment frequency. They found notable differences in behavioral health problem prevalence between first deployment (14.3%), second deployment (21.8%), and third/fourth deployment (32.5%) in non-commissioned officers who were tested while they were in theater nine months into their deployment (Walter Reed, 2008).

Length of Deployment

U.S. soldiers are currently deployed for up to 15 months (Lapierre, Schwegler, & LaBauve, 2007; Walter Reed, 2008). The MHAT V survey (Walter Reed, 2008) for E1-E4 Brigade Combat Team male soldiers showed that by month nine, behavioral health problems rose to 20%, up from 5% in the first month of deployment. In month twelve, behavioral health problems dropped to 19% and they dropped further to 15% in month fifteen. In addition, the duration of combat duty and combat exposure to severe traumatic event(s) have been found to be strong risk factors for the severity and duration of behavioral health disorders, especially PTSD (Hoge & Castro, 2005; Walter Reed, 2008). Furthermore, deployment length appears to be significantly associated with an increase in plans for divorce. The MHAT V survey reported that E1-E4 Soldier rates for divorce plans rose from 10% in the first month in theater to 30% in the fifteenth month of deployment (Walter Reed, 2008).

Marital Adjustment in Families of Military Combat Soldiers

Several studies have found that many of the soldiers returning home from military combat in Iraq or Afghanistan report marital dissatisfaction and engage in aggressive behavior towards their spouse, especially those soldiers diagnosed with PTSD, depression, and substance use disorders. The MHAT IV survey found that marital dissatisfaction was reported by 19% of soldiers who were deployed less than six months and by 31% of soldiers who were deployed more than six months (Conway, 2007). In addition, Riggs et al. (1998) found that veterans diagnosed with PTSD were more likely to report marital dissatisfaction (75%) than were veterans without a diagnosis of PTSD (32%). Similar results were found among the veterans' spouses – 71% of spouses of veterans diagnosed with PTSD scored in the dissatisfied range in their report of marital satisfaction, whereas 36% of spouses of veterans without a diagnosis of PTSD scored in the dissatisfied range in their report of marital satisfaction (Riggs et al.). In a study of 50 National Guard soldiers who had returned from deployment from Iraq, Renshaw, Rodrigues, and Jones (2009) found that participants reported less marital satisfaction when they reported a higher severity of PTSD or depressive symptoms. Furthermore, Allen, Rhoades, Stanley & Markman (2010) found significant correlations between the severity of soldiers' PTSD symptoms and their marital satisfaction ($r = -.39$) and between the severity of soldiers' PTSD symptoms and their wives' marital satisfaction ($r = -.27$). The significant associations between marital satisfaction and diagnoses of PTSD or a depressive mood disorder may be explained by emotional withdrawal, which is often associated with a diagnosis of PTSD or a depressive mood disorder (Gottman & Krokoff,

1989; Monson, Taft, & Fredman, 2009; Ray & Vanstone, 2009; Riggs et al., Sherman, et al., 2005; Solomon, Dekel, & Zerach, 2008;).

For those with a diagnosis of PTSD or high levels of depressive symptoms, aggressive behavior, in marital or cohabitating relationships, is also a concern. Teten et al. (2010) found that soldiers with a diagnosis of PTSD who served in either war in Iraq or Afghanistan were 1.9 to 3.1 times more likely to perpetrate psychological and/or physical aggression towards their partners and 1.6 to 6 times more likely to receive psychological and/or physical aggression from their partners than were soldiers without a diagnosis of PTSD. Among veterans at a Veterans Affairs Medical Center in the Midwest, 54% of those diagnosed with PTSD and 50% of those diagnosed with a depressive disorder reported the use of violence against their spouses, compared to 21% of veterans in the control group (Sherman et al., 2006). Furthermore, when the spouses were included in the analysis, 82% of veterans diagnosed with PTSD and 81% of veterans diagnosed with a depressive disorder reported violent behavior perpetrated by either the veterans or their spouses, compared to 46% of veterans in the control group (Sherman et al., 2006). Among a population of 50 Vietnam veterans with a diagnosis of PTSD, Byrne and Riggs (1996) found that 42% had engaged in physical domestic violence, 92% engaged in verbal aggression and 100% engaged in psychological abuse with their spouses. They also found that marital problems moderated the association between PTSD symptom severity and frequency of aggressive behavior (Byrne & Riggs, 1996).

Previous studies of intimate partner violence also found that other behavioral health problems, beyond those associated with PTSD, were risk factors for perpetrating

intimate partner violence. In a meta-analytic review of 85 studies on risk factors for intimate partner physical aggression perpetration, Stith et al. (2004) found significant correlations between the severity of physical abuse perpetration and several measures of the perpetrator's alcohol use (r = .24), depressive symptoms (r = .23), anger/hostility (r = .26), attitude of condoning violence (r = .30), emotional or verbal abuse of the partner (r = .49), and sexual coercion (r = .45).

Association of Marital Satisfaction to Spousal Depression

One goal of this study was to examine the association between marital satisfaction and depressive symptoms in Guard and Reserve spouses of soldiers who have returned from military combat in Iraq or Afghanistan. While there were many studies that focus on the associations between marital satisfaction and depression, we could not locate studies that focused on this high-risk population.

Whether it is unidirectional, bi-directional, causal, or non-causal, levels of marital satisfaction and depressive symptoms have been shown in many studies to be strongly correlated, especially in women. Whisman's (2001) meta-analysis of 26 studies that examined the correlation between levels of depressive symptoms and marital satisfaction found a weighted mean effect size of -.42 for women and -.37 for men. More recent studies have also found significant associations between severity of depressive symptoms and levels of marital satisfaction (Bulloch, Williams, Lavorato & Patten, 2009; Davila, Karney, Hall, & Bradbury, 2003; Kronmuller et al., 2011; Pruchno, Wilson-Genderson & Cartwright, 2009; Uebelacker, Bourtnage & Whisman, 2003; Whisman, Davila, & Goodman, 2011; Whisman, & Uebelacker, 2009).

Association of Aggression in Marital Relationships to Spousal Depression

Another goal of this study was to examine the association between marital aggression and depressive symptoms in Guard and Reserve spouses of soldiers who returned from combat in Iraq or Afghanistan. In this study, aggression in marital relationships was separated into three forms: psychological aggression, physical aggression, and sexual coercion. Psychological aggression includes behaviors like shouting, insulting, threatening, destroying belongings, or stomping away from the partner during an argument. Physical aggression in a marital relationship includes behaviors like hitting, shoving, choking, kicking, or using weapons against the partner. Sexual coercion in a marital relationship includes behaviors like forcing intercourse or other sexual acts, or forcing sex without a condom through use of insistence, threats, or physical aggression.

Although, some research has focused on the association between aggression in marital relationships and the victim's psychopathology, we could not locate a study that examined the associations between marital aggressive behaviors (psychological aggression, physical aggression, and sexual coercion) and depressive symptoms in spouses of Guard and Reserve military combat soldiers.

Aggression in marital relationships has been found to be a risk factor for depressive mood disorders. In their meta-analysis of 85 studies, Stith et al. (2004) found that severity of depressive symptoms were significantly associated with (r=.28) severity of self-reported physical abuse (violent acts on the victim perpetrated by the victim's partner). Varma, Chandra, Thomas and Carey (2007), studied 203 pregnant women in India and found significant differences in women's reports of depressive symptoms,

measured by the Beck Depression Inventory, who reported that they were physically abused (e.g., hit, kicked, beaten) by their partners (M = 10.6, SD = 7.5) or sexually coerced (forced sexual acts) by their partners (M = 10.2, SD = 7.6), compared to those who reported that they had not been physically abused (M = 3.6, SD = 4.2) or sexually coerced by their partners (M = 3.9, SD = 4.8). A meta-analysis of 18 studies on intimate partner violence found a weighted mean prevalence rate of 47.6% for major depressive disorder in the female victims (Golding, 1999). Additionally, Lacey, McPherson, Samuel, Sears & Head (2013) found significant correlations between depressive symptoms measured by the SF-36 Health Survey and measures developed for the study that measured psychological aggression (.32, $p < .001$), physical aggression (.23, $p < .001$), and sexual coercion (.25, $p < .001$) in a community sample of ethnically diverse women.

In a multi-site treatment sample of 316 (220 females/ 96 males) chronically depressed patients who were currently in a relationship, Foran et al. (2012) used structural equation models to examine the associations among depressive symptoms measured by the Hamilton Rating Scale, marital dissatisfaction measured by the Dyadic Adjustment Scale, and psychological and physical aggression measured by the Revised Conflict Tactic Scale. Results for the female participants showed that the severity of chronic depressive symptoms was significantly associated with levels of marital dissatisfaction (.19, $p < .001$), which in turn, was associated with a measure of psychological aggression (.51, $p < .00$) followed by a measure of physical aggression (.46, $p < .001$; Foran et al., 2012).

Description of the Army National Guard and United States Army Reserve Population

This study focuses on the marital adjustment, depressive symptoms, and perceived social support of spouses of returning soldiers in the Reserve Component, which is composed of the Guard and Reserve. While there are some recent studies on Reserve Component spouses during deployment, to date, limited research has been completed on this population. Research is especially sparse regarding marital adjustment and depressive symptoms in Reserve Component spouses after soldiers return from deployment. This information could help guide military and community services provided to Guard and Reserve families.

The Guard and the Reserve members serve in a part-time capacity unless they are called to activate for deployment. Until Operations Desert Shield and Desert Storm in the early 1990's, the Reserve Component was seen as a strategic reserve force. However, during and since these wars, the Reserve Component has been viewed and used as an operational reserve (Gelinas, 2008; Army National Guard, 2006). This shift in perspective has greatly increased the use of the Reserve Component since the Global War on Terror began in 2001 (Gelinas, 2008; Army National Guard, 2006). During the first ten years (October 2001 through October 2011) of the wars in Afghanistan and Iraq, 379,736 National Guard and 285,718 Reserves were deployed (O'Neil, 2012). Furthermore, during the first Gulf War, 18% of Reserve Component soldiers were deployed, compared to the more than 40% of Reserve Component soldiers who have been deployed to either Iraq or Afghanistan (Vogt, Samper, D. King, L. King, & Martin, 2008).

There are both similarities and differences in how the Guard and Reserves operate. The Guard is composed of civilian soldiers who live in communities throughout the United States. As civilians, Guard soldiers are employed or own businesses in the community where they live. Reservists are also civilians who are employed or own business in their community. Typically, as soldiers in the Reserve Component, Guard and Reserve train one weekend each month and they have a two-week intensive training each year. However, soldiers in the Guard belong to a specific Army unit and they serve dual missions – a mission for the State and a mission for the Federal government (Army National Guard, 2006; Booth et al., 2007). The Reserve, on the other hand, is a Federal Army resource for specialized skills and they may not belong to a specific Army unit, they often mobilize individually to be assigned to units who need their specialization (Booth et al., 2007).

Guard and Reserve families differ in several ways from the Army's Active Component families. When asked about how long they have lived in their current community, 66% of Guard and Reserve stated four or more years compared to 15% of Army Active Component families (54% of active duty said 1 – 3 years; Booth et al., 2007). Fifty-six percent of Army Active Component soldiers and their families live on or near their base, whereas no Guard or Reserve soldiers and their families live on base (Booth et al., 2007) and only 12 to 14% live within a 10-minute drive to base. In addition, 48% of Guard and 50% of Reserve live more than 30 minutes from the nearest military installation and 26% of Guard and 28% of Reserve live more than one hour away (Booth et al., 2007).

The families of Army Reserve and Active Components differ in other ways as well. Marriages of six years or longer were more common in the Reserve (74%) and Guard (72%) than in Active Component members (60%; US DOD, 2007). In addition, there were age differences of the spouses between the populations – 53% of Active Component spouses and 29% of Reserve spouses were younger than 30 years (DOD, 2007). Finally, employment among Guard (78%) and Reserve spouses (79%) is higher than among Active Component spouses (53%; Booth et al., 2007).

Another important difference between Reserve Component and Active Component spouses is in their understanding of the possibility of their husband's deployment. In a survey of spouses in 2000, only 35% of Guard and 28% of Reserve spouses thought it would be likely or very likely that their husbands would deploy during the next five years (Booth et al., 2007). Between 48% and 69% of Guard spouses and between 46% and 61% of Reserve spouses were psychologically (e.g., belief they were able to solve problems on their own, trusting the soldier would be protected, supporting the mission, and reaching an understanding with the soldier about important family decisions to be made while he is deployed) and administratively (e.g., wills, power of attorney, health insurance, military badges, health insurance, etc.) unprepared when their husbands were called to deploy in 2001 and 2002 (Booth et al., 2007). Furthermore, 60% of Reserve Component spouses reported they were only given a two-week notice at the time to prepare emotionally and for deployment (Booth et al., 2007).

The post-deployment period of the deployment cycle is a time that distinguishes the Active Component from the Reserve Component. Table 1 describes the differences between the two components in regards to post-deployment activities and health care.

Table 1

Comparisons between Reserve and Active Components during Post-Deployment

Post-Deployment Phases:	Reserve Component	Active Component
Post-Deployment Phase	Return to demobilization station	Return to home installation
Demobilization Phase	Units prepare personnel and equipment for return to non-active duty status	Not applicable
Reintegration Phase	Reintegrate back into full-time civilian job Participate in required drills or battle assemblies	Reintegrate back into regular military duties
Health Care Coverage:		
Demobilization Phase	Reservists and family members received active duty health coverage during active duty status Once demobilized, health coverage ends.	Continue with TRICARE health coverage provided primarily through DOD [a] health care services

Table 1

(Continued) Comparisons between Reserve and Active Components during Post-Deployment

180 day period after end of active duty	TRICARE-TAMP[b] provides health coverage for 180 days following active duty for service members and their family members	
Day 181 after end of active duty Reservists have three options	1. Purchase TRICARE Reserve Select 2. Enroll in CHCBP [c] (a temporary transitional health coverage program that lasts 18 – 36 months) 3. Reinstate health care coverage with civilian employer	
Department of Veterans Affairs	Eligible with veteran status determined by release or discharge from active duty under conditions other than dishonorable.	Eligible with veteran status determined by release or discharge from active duty under conditions other than dishonorable.

Table 1

(Continued) Comparisons between Reserve and Active Components during Post-Deployment

(Continued) Department of Veterans Affairs	Reservists who were called for active duty and have served 24 continuous months as a Reservist are eligible (also eligible if received early discharge for injury incurred in line of duty) Family members are not covered by VA health care	Family members are not covered by VA health care

Notes:

[a] DOD = Department of Defense

[b] TRICARE TAMP = TRICARE – Transitional Assistance Management Program

[c] CHCBP = Continued Health Care Benefits Program

(Department of Defense, 2012; US Army, 2006)

When Active Component service members return from deployment, there is no change in their health care coverage. On the other hand, Reserve service members and their family members are no longer eligible for active duty health insurance the day their orders state they are no longer on active duty status (Department of Defense, 2012; US Army, 2006). At this point, they are eligible for temporary transitional health care coverage provided by TRICARE-TAMP (Transitional Assistance Management Program). This health care

coverage is available to the Reservist and family members for 180 days. On day 181 the Reservist may purchase TRICARE Reserve Select health care insurance, enroll in the Continued Health Care Benefits Program (CHCBP) or receive health care insurance coverage through their civilian employer (Department of Defense; US Army). CHCBP is another temporary transitional health insurance plan that is used to transition between military and civilian health insurance plans. Reservists may select this plan for up to an 18-month or a 36-month period depending on their eligibility status (Department of Defense; US Army). Reservists may also be eligible for health care coverage through the Department of Veteran Affairs (VA) if they have served for 24 months in the Reserves (or were injured in the line of duty), and were discharged under conditions other than dishonorable (Department of Defense; US Army). Family members are not covered under VA health care benefits.

The Army maintains family support services for both the Guard and Reserve through Family Assistance Centers (Army National Guard, 2006). In addition, because of the Guard's dual mission, States may also sponsor family support services for Guard families (Booth et al., 2007). Nevertheless, many spouses of soldiers who were in the Guard or Reserve were not aware of available military services – 72% of Guard spouses and 78% of Reserve spouses were not aware of military family support services in a 2002 survey (Booth et al., 2007).

Perceived Community and Military Social Support Satisfaction

This study examined the self-reported main and moderating effect of perceived community and military social support satisfaction on the spouse's report of depressive symptoms and marital adjustment.

Social Support

Social support is a multidimensional concept and has been defined in various ways (Williams, Barclay, & Schmied, 2004). Numerous attempts have been made to produce a comprehensive, conceptual definition (Hupcey, 1998; Langford, Bowsher, Maloney, & Lillis, 1997; McNally & Newman, 1999; Williams, Barclay, & Schmied, 2004). However, the concept of social support is complex and its multiple facets, which are difficult to measure in one study (Williams, Barclay, & Schmied, 2004). In their review of social support definitions, Williams, Barclay, & Schmied (2004) argued that in order to operationalize social support in the context of a particular research study, the study needs to use qualitative methods to explore the meaning of social support within the group being studied. While this qualitative approach was impractical for this study, we adopted the definition of social support recommended in their review: "Social support is an interpersonal transaction involving one or more of the following: (1) emotional concern (liking, love, empathy), (2) instrumental aid (goods or services), (3) information (about the environment), or (4) appraisal (information relevant to self-evaluation)" (House, 1981 p. 39).

Taylor (2007) defined "emotional concern" as support that provides warmth and nurturance and assures the recipient that he or she is cared for and valued by others. "Instrumental aid" is defined as support that provides tangible help (Langford, Bowsher, Maloney & Lillis, 1997; Taylor, 2007) such as financial aid, transportation, childcare, and food. "Informational aid" is support that offers information about a stressful situation so that a person can understand what it is he or she is facing. It also gives information about the resources and coping skills that may help the person to problem

solve and manage the situation (Langford, Bowsher, Maloney & Lillis, 1997; Taylor, 2007). Finally, "appraisal support" is support that provides information that helps the person evaluate how well he or she is performing or responding to the situation (Langford, Bowsher, Maloney & Lillis, 1997).

These aspects of social support may be interrelated. For example, someone who received food and shelter (instrumental aid) may have also felt cared for and valued (emotional support). In addition, information given to a person about how others have coped with a stressful situation may also indirectly provide information on how well the person is coping with the situation herself. Furthermore, information on available resources may also lead to instrumental aid.

Another consideration in the measurement of social support has been whether to measure the receipt of support or to measure the perception of support received and/or its perceived availability. Measuring the receipt of support provides an objective, quantitative measure of how much support has been received. On the other hand, it does not give information about its value to the recipient or if the recipient believes it was available if needed (Hupcey, 1998). In this study, perceived social support satisfaction was used to examine the association of community and military social support between levels of depressive symptoms and marital adjustment.

Social Support's Moderating Effect on Depression. The buffering hypothesis of social support states that social support moderates the association between stressors and symptoms of depression (Lin, Woeful, & Light, 1985). A number of studies have shown that social support can moderate the effect of various stressors on depressive symptoms (Abbey, Abramis, & Caplan, 1985; Beck, Grant, Clapp, & Palyo, 2008; Cranford, 2004;

Dean, Kolody & Wood, 1990; Haden & Scarpa, 2008; Ownsworth, Henderson, & Chambers, 2009; Pietrzak et al., 2010). However, other studies do not support the moderating effect of social support (Beeble, Bybee, Sullivan & Adams, 2009; Lakey, & Cronin, 2008).

Beeble et al. (2009) found significant main effects of perceived social support, measured with a 9-item scale, on depressive symptoms, measured by the Center for Epidemiologic Studies Depression Scale, and on quality of life in women who were victims of partner physical aggression, measured by the Conflict Tactics Scale, or psychological aggression (ridicule, harassment, criticism, and emotional withdrawal), measured by the Index of Psychological Abuse. In addition, they found that social support had a significant moderating effect on the victim's quality of life when psychological aggression was involved. However, they did not find a significant moderating effect of social support on depressive symptoms when either physical or psychological aggression was involved. Although some findings show no moderating effects of social support, there was sufficient evidence in the many other studies, listed above, to warrant studying its moderating effects in spouses of Guard and Reserve soldiers.

Military Social Support Services for Guard and Reserve Families

The Guard and Reserve offer services and resources for spouses of Guard and Reserve soldiers. The Family Readiness Group and Yellow Ribbon Events are prominent Army family support programs that provide information, education, and personal connections to help Guard and Reserve families through each aspect of deployment (pre-deployment, during deployment, and post-deployment). This study examined how much

the Reserve Component spouses perceived that support from Family Readiness Group and Yellow Ribbon Events helped them with their marital adjustment issues and depressive symptoms. These analyses offer information to help improve Army family support services.

Each Army unit (Active and Reserve Components) has the responsibility to set up its own Family Readiness Group for the families in their unit. The Family Readiness Group provides information, resources, and personal contacts to help spouses throughout the deployment cycle. The Family Readiness Group was set up to be the spouse's main link for information about her spouse's Army unit while he was deployed (United States Army, n.d.). It is where the spouse could go to contact the Army administration in charge of family issues within her husband's Army unit as well as where she could go to contact other spouses in the Army unit. Reserve Component spouses may also volunteer with the Family Readiness Group in various positions from assistant to leadership positions.

The Family Readiness Group provides the above mentioned support to Reserve Component spouses through various means: it hosts an interactive web site (each Army unit has its own private site for forums, announcements, a calendar listing meetings and events, and other information); it sends newsletters to keep spouses informed about her husband's Army unit; it holds meetings and social events for spouses throughout the deployment cycle; it hosts a telephone tree to get information to spouses quickly about her husband's unit; and, it helps with access to direct communication with her husband.

Orthner and Rose (2006) analyzed the 2004/2005 Survey of Army Families and found that 52% reported that there was an active Family Readiness Group in their spouse's Army unit. During deployment, of the 78% of officer spouses who received

support 59% rated the support "very helpful" and of the 75% of enlisted soldier spouses who received support 45% rated the support "very helpful." Post-deployment, 87% of officer spouses and 82% of enlisted soldier spouses received support, and they rated the support "very helpful" (60% and 44% respectively). Recently, according to the 2010 Survey of Army Families VI (Rayzor, 2011), a survey of 16,805 Active and Reserve Component Army spouses, 47% of the spouses of currently deployed and returned soldiers reported satisfaction with the support they received from Family Readiness Groups for preparing them for their husband's return home from military.

Yellow Ribbon Events are specific educational events that soldiers are required to attend and spouses are invited to attend. The programs offered are specific to the soldier's place in the deployment cycle – during pre-deployment, during deployment (for the spouse), and three events that occur post-deployment (Joint Service Support, n.d.). The spouses are invited to the pre-deployment, during deployment and the first two post-deployment events.

The pre-deployment Yellow Ribbon Event is a one-day event (Joint Service Support, n.d.). Information is given about how to cope with the difficulties of extended separation and deployment, available counseling and family services, as well as practical information about finances, health insurance, Veteran Administration benefits and entitlements, employment services for spouses and other benefits.

During deployment, spouses are invited to attend a one-day event to help them with deployment issues and to prepare for their husbands' return from combat. This Yellow Ribbon Event usually offers assistance to identify and help family members who may be at risk for behavioral health problems (Joint Service Support, n.d.). Spouses also

receive information and discussions are held on topics such as resilience, stress reduction, childcare issues, employment and financial issues, TBI and PTSD awareness, suicide prevention, and homecoming/reunion issues.

The first two post-deployment events are usually two-day events that the soldier is required to attend and the spouse is invited to attend (Joint Service Support, n.d.). These events provide assistance to help the family reconnect with the soldier during post-deployment and provide resources to help with issues that may have begun during deployment. Assistance is also given to those who need help with assessing their marriage and brief marriage counseling and referrals for further marriage counseling are provided to those who need it. Information is also provided on Veteran's Affairs benefits, domestic violence, substance abuse and suicide awareness and prevention.

Research Goals

This study focused on the level of self-reported marital satisfaction, and marital aggression in the spouses of Army Guard and Reserve combat soldiers and the degree to which those variables were associated with variance in self-reported depressive symptoms and moderated by self-reported perceived community and military social support satisfaction. One goal of this study was to understand the level of depressive symptoms and the level of marital adjustment in Reserve Component spouses of soldiers who had returned from military combat in Iraq or Afghanistan. Additionally, we wanted to understand what level of perceived community and military social support satisfaction the spouses had during the post-deployment period. Another goal of this study was to understand the relationships between depressive symptoms, marital adjustment and community and military social support within the Reserve Component spouse population.

Our final goal was to find out if community and/or military social support had any moderating effects between the Reserve Component spouse's level of depressive symptoms and her level of marital adjustment. To accomplish these goals this study:

1. Described the self-reported marital satisfaction, psychological and physical aggression, and sexual coercion within the marriage, perceived community social support satisfaction, perceived military social support satisfaction and depressive symptoms in spouses of Reserve Component military combat soldiers.

2. Examined bivariate (0-level) correlations among all variables, with particular attention to the bivariate correlations between self-reported marital satisfaction, psychological aggression, physical aggression, sexual coercion, perceived community and military social support satisfaction, and depressive symptoms in spouses of Reserve Component military combat soldiers.

3. Examined the degree to which: (a) a spouse's satisfaction with self-reported perceived community social support moderated the effects of self-reported: 1) marital satisfaction, and/or 2) marital aggression (a combination of psychological and physical aggression, and sexual coercion), on her self-reported depressive symptoms; and (b) a spouse's satisfaction with self-reported perceived military social support moderated the effects of self-reported: 1) marital satisfaction, and/or 2) marital aggression (a combination of psychological and physical aggression, and sexual coercion), on her self-reported depressive symptoms.

CHAPTER 2

Methods

Participants

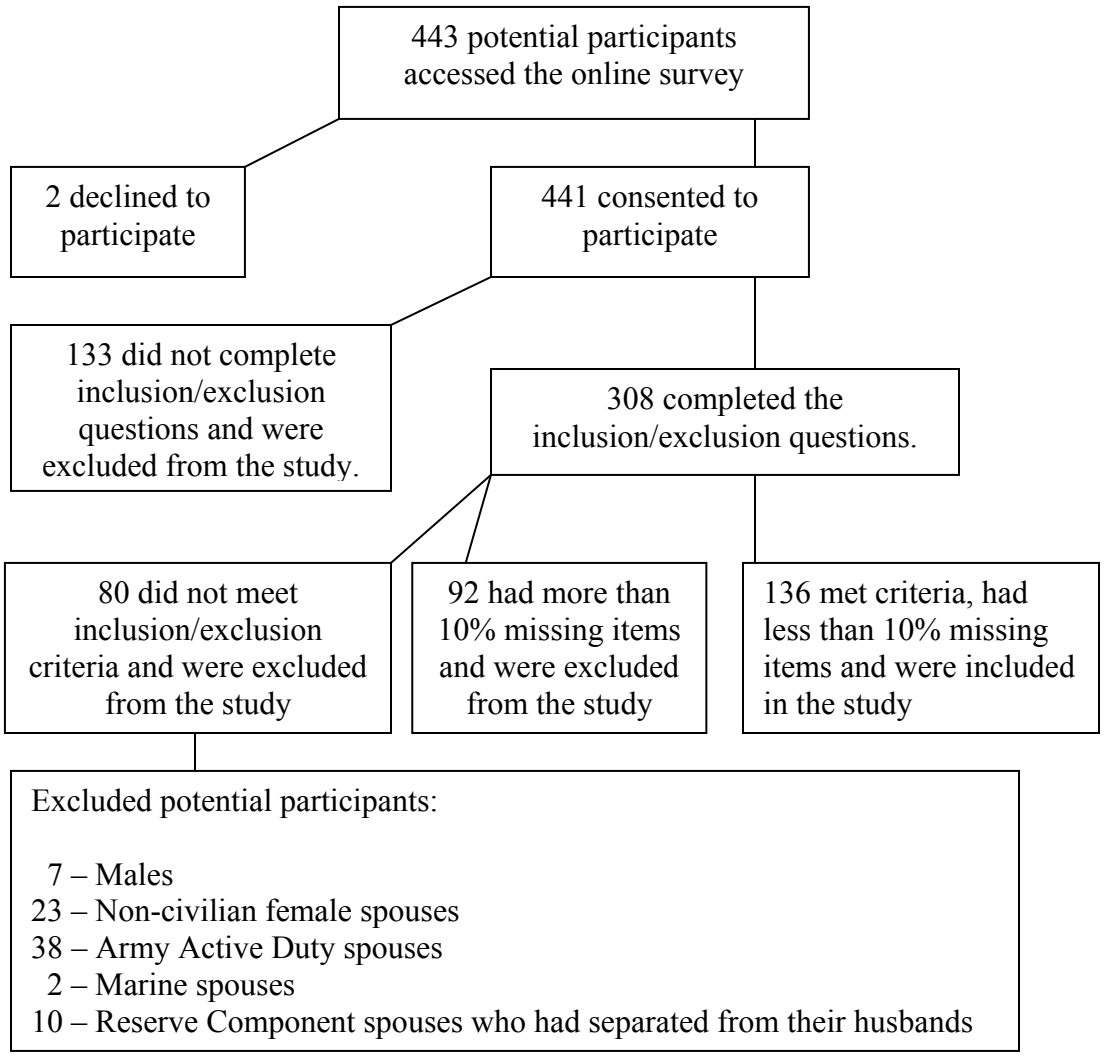
Participants for this study were 136 female spouses of Guard or Reserve soldiers who had returned from military combat in Iraq or Afghanistan. Data were collected over a one-year period. A total of 443 potential participants accessed the survey online. As shown in Figure 1, of the total potential participants, 441 consented to participate, 133 participants did not complete the inclusion/exclusion criteria questions, 92 had more than 10% missing data, 80 participants did not meet inclusion criteria and were excluded and 136 met inclusion criteria and completed the survey questions or had less than 10% missing data. Potential participants were excluded from the study if; 1) they were male, 2) they were not currently living with their spouse, 3) their spouse was in a branch of the military other than the Army (i.e., Navy, Marines, Air Force, and Coast Guard), 4) their spouse was an Active Component Army Soldier, 5) their spouse had not been deployed to a military combat mission in Iraq or Afghanistan and, 6) the participant was currently or had ever been a member of the armed services.

Demographic Variables of Participants

Out of the136 participants who were eligible to participate in the study, 90% (122) reported being non-Hispanic White, the average age was 34 years, ranging from19 to 55 years old, 52% (65) had attended some college and 36% (45) had either a Bachelor's or an advanced degree. All participants were living with their partner during study participation: 94% (127) were married and 6% (8) were not married but living together as a couple. Length of marriage (or length of time living together if not married)

Figure 1

Potential Participant Retention/Exclusion Chart



This figure provides information about this study's exclusion or inclusion of potential participants.

ranged from less than 1 year to 34 years with an average of 8.1 years. The average number of children was 1.6 (including stepchildren) with a range of 0 to 8 and 71% (96) reported having one child or more. The ages of children varied: 50 (38%) participants had 1 to 3 children who were 0 to 5 years old, 26% (37) had 1 to 3 children who were 6

to 10 years old, 29% (41) had 1 to 5 children who were 11 to 15 years old and 23% (33) had 1 to 3 children who were 16 years old or older. Seven percent of participants were currently pregnant. Annual household income varied among participants: 22% (29) earned less than $30,000; 29% (38) earned between $30,001 and $50,000; 20% (26) earned between $50,001 and $70,000; 12% (16) earned between $70,001 and $90,000; and 16% (21) earned more than $90,000. Employment status also varied among participants: 39% (52) were employed full-time; 22% (30) were employed part-time; 13% (18) were unemployed and looking for work; and 25% (34) were unemployed but not looking for work.

Demographic Variables of Partners Based on Participants' Report

Participants described their partners as 81% Guard (111) or 19% Reserve (25) with a rank of Sergeant 56% (75), Private or Specialist 29% (39), or Officer/Warrant Officer 16% (21). Most partners 71% (91) were reported as working full-time in civilian jobs, 11% (15) were unemployed and looking for work, 7% (10) were unemployed due to disability, and 10% (14) were either college students or working part-time. The number of deployments reported ranged from 1 to 4 with a mean of 1.4. Reported deployment length ranged from 1 to 22 months with a mean of 13 months. Participants reported that 18% (24) of partners were wounded in combat and 11% (15) were seriously wounded. Ten percent (13) of the partners were reported to be diagnosed with a TBI. Most partners were reported to have no psychiatric diagnosis 58% (78) followed by18% (24) diagnosed with either PTSD or MDD alone, 14% (19) diagnosed with PTSD co-morbid with MDD, 9% (12) diagnosed with PTSD co-morbid with MDD and Social Phobia, and 1% (1)

diagnosed with Social Phobia. In addition, 20% (27) of the partners were reported to have either threatened or attempted suicide.

Recruitment

This study used an online survey service, Surveymonkey.com to collect its data. To increase the generalizability of the findings, flyers provided the phone number of the principle investigator and a computer with Internet access was available for those who wished to participate but did not have Internet access. However, no participant requested the use of the computer.

Participants were recruited through several methods. Various local medical centers, churches and other agencies were contacted through email, mailings, and telephone calls to recruit Reserve Component spouses connected with these agencies. Emails describing the study and linking to the Surveymonkey.com survey site were sent to Reserve Component wives' organizations (e.g., Family Readiness Groups) along with a letter to the individual members, which was included as an attachment (Appendix A). Emails were also sent to Reserve Component spouse organizations located online (Appendix B) to request distribution of the survey to their members, and to Reserve Component spouse blogs located online (Appendix C) to request announcements of the survey to their readers. A website (armyspousesurvey.com; Appendix D) was created to give potential participants more information about the research. Potential participants were able to connect to the survey from a link provided on the website. Online recruitment efforts were made through social network sites such as Facebook, and My Space (Appendix E), and twitter messages (Appendix F) that targeted Reserve Component spouses and Reserve Component spouse organizations. Press releases

(Appendix G) were distributed to newspapers, online Reserve Component spouse blogs, Army spouse magazines, and Army spouse organizations as well as to community radio stations. Articles were submitted to interested sites online and local newspapers and an interview was conducted on Hawai‘i Public Radio’s Town Square with Beth-Ann Kozlovich. Flyers (Appendix H) were distributed at Yellow Ribbon events in Honolulu. Tables were set up at Hawai‘i Pacific University and the University of Hawai‘i at Mānoa to distribute flyers and speak with potential participants. Additionally, flyers were placed locally on university campuses, and in supermarkets, Laundromats, community centers, and churches. Furthermore, a presentation was given about the research and flyers were distributed at the University of Hawai‘i at Mānoa *Responding to Student Diversity: Understanding Service Members and Veterans* conference.

Procedure

The first part of the online survey was the informed consent form (Appendix I, p. 98). After reading the informed consent and consenting to participate in the study, the participant had the option to proceed to the demographic questions or to start with instructions on how to erase the survey from their computer’s history (Appendix I, p. 100). Questionnaires used to measure variables of interest followed the demographic questions. Information regarding safety measures (e.g., suicide prevention and domestic violence hotlines) was provided after related questions within the questionnaire. After they completed all the components of the survey, participants were given information about resources available to them as well as information for how to contact the researchers and institutional review board (Appendix I, p. 130). Beta testers of the

survey found that it took an average of 25 minutes to review the informed consent form and complete the survey.

Measurement Instruments

Several instruments were used to collect data on depressive symptoms, marital satisfaction, marital aggression and perceived community social support satisfaction. Additionally, separate items on the survey asked about the satisfaction with perceived military social support (Appendix I, p.115) and additional data was collected but not included as part of the dissertation.

Quick Inventory of Depressive Symptomatology Self-Report (QIDS; Rush et al., 2003)

The QIDS is a 16-item self-report instrument that measures depressive symptoms (Appendix I, p. 111). The items included in the instrument include DSM-IV criterion symptoms for depression (IDS/QIDS Instruments in English and Multiple Translations (IDS/QIDS), n.d.). Each question uses a likert scale ranging from 0 (non-symptomatic) to 3 (the most severe choice for the symptom). The QIDS includes one or more items for each of the DSM-IV domains: depressed mood, loss of interest or pleasure, concentration/decision making, self- outlook, suicidal ideation, energy/fatigability, sleep, weight/appetite change, and psychomotor changes. Although there were a total of 16 questions only one item with the highest score of each of the nine symptom domains was calculated to obtain the total score in accordance with the measure's protocol. The total scores for the QIDS range from 0 to 27 (IDS/QIDS, n.d.). Depressive symptom total scores for the QIDS range from no symptoms (0 – 5), to mild (6 – 10), to moderate (11 – 15), to severe (16 – 20), and finally to very severe (21 – 27) depressive symptoms (IDS/QIDS, n.d.). The instructions state the participant should consider the past 7 days as

the time-period for answering the questions. This study maintained the same time-period for the QIDS in the Surveymonkey questionnaire.

Previous research found an internal consistency of .86 in studies with outpatients (Rush et al., 2003; Trivedi et al., 2004) and .80 to .89 in a study of depressed primary care outpatients (Cameron et al, 2013). Previous research has supported convergent validity of the QIDS through significant correlations with the Hamilton Rating Scale for Depression in outpatients (.79 - .84; Cameron et al., 2013; Rush et al., 2003). In their review chapter of assessment instruments that measure depressive symptoms in *A Guide to Assessments that Work*, Persons & Fresco (2008) highly recommended The QIDS for use in research and noted its excellent norms, internal consistency and test-retest reliability, its content and construct validity and its generalizability.

Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977)

The CES-D is a 20-item self-report instrument that measures depressive symptoms (Appendix I, p. 125). Each question uses a likert scale ranging from 0 (rarely or none of the time) to 3 (most or all of the time). Scores range from 0 to 60 with higher scores indicating greater severity of depressive symptoms. A score of 16 or higher has been shown to be the best cut-off score that indicates clinical depression in community samples (Knight, Williams, McGee & Olaman, 1997; Radloff, 1977). The instructions for this measure stated that participants should consider the past 2 weeks as the time-period for answering the questions. This study maintained the same time-period in the Surveymonkey questionnaire.

The CES-D was designed for research in the general population, for this reason Joiner, Walker, Pettit, Perez, & Cukrowicz (2005) found it to be one of the best measures

for screening depressive symptoms in their review of evidence-based assessment scales. In previous research, the CES-D has shown internal consistency ranges from .84-.92 (Boisvert,, McCreary, Wright, & Asmundson, 2003; Hann, Winter, & Jacobsen, 1999; Orme, Reis & Herz, 1986; Proux, Buehler, & Helms, 2009; Radloff, 1977; Renshaw, K, Rodrigues, C., & Jones, D., 2008; Whitton & Whisman, 2010). Test-retest analyses have ranged between .49 at 12 months to .67 at four weeks (Radloff, 1977).

Convergent validity was analyzed by Radloff (1977) who found correlations between the CES-D and the Hamilton Clinician Rating Scale for Depression (.44 to .69), between the CES-D and the Raskins Rating Scale (.54 to .75), and between the CES-D and the SCL-90 (.83). Research by Hann et al., (1999) supported the discriminative validity of the CES-D: scores for patients were significantly higher than scores for healthy subjects. Fiske & O'Riley (2008) highly recommended the CES-D in their chapter in *A Guide to Assessments that Work* and noted its good internal consistency, test-retest reliability, construct validity, and generalizability. In their review of literature, Fiske & O'Riley (2008) found that the CES-D significantly correlated with the Beck Depression Inventory and the Hamilton Rating Scale for Depression and that it has shown measurement equivalence across the lifespan in numerous studies.

Dyadic Adjustment Scale (DAS; Spanier, 1976)

The DAS is a 32-item self-report instrument that measures relationship adjustment (the overall functioning, success and satisfaction of the relationship; Appendix I, p. 108). Scores for the DAS range from 0 to 151 with higher scores indicating more adjustment to the relationship and a cut-off score of 100 or less that indicates a low adjustment to the relationship (Spanier, 1976). It contains four subscales

(Dyadic Consensus, Dyadic Satisfaction, Dyadic Cohesion, and Affectional Expression). This study used the total DAS score in order to analyze marital satisfaction[6]. The time-period under consideration was the current period at the time when the participant participated in the Surveymonkey questionnaire.

In their factor analysis of women's data in the DAS, Kazak, Jarmas, & Snitzer (1988), found that one factor, the consensus subscale, accounted for 74.5% of the variance, which raised concerns about the discriminant validity of the four subscales. However, a more recent study by South, Krueger & Iocano (2009) applied confirmatory factor analysis to examine the invariance of the measures between men and women who participated in the Minnesota Twin Family Study. Their results point to the DAS as a measure of marital adjustment, in this sample population, with four distinct subscales -- Dyadic Consensus, Dyadic Satisfaction, Dyadic Cohesion, and Affectional Expression.

In their meta-analysis of the reliability of the DAS, Graham, Liu, and Jeziorski (2006) found tests of internal consistency of the 32 items in DAS to range between .58 and .96. In other studies, the 32 items in DAS showed an internal consistency of .95 (Carey, Spector, Lantinga, & Krauss, 1993; .91, Kurdek, 1992; .91; Spanier & Thompson, 1982). Test-retest reliability for the total DAS score over a one-week period was .87 (Carey, Spector, Lantinga, & Krauss, 1993) in a community sample of men and women. Internal consistency in this study for the 32 DAS items was .96.

Spanier (1976) found convergent validity between the DAS and the Locke-Wallace Marital Adjustment Test with a correlation of .86 in a sample of married couples. In his longitudinal study of validity and reliability of the DAS among

[6] The term "marital satisfaction" will be used to refer to "dyadic adjustment" to maintain consistent terminology throughout this paper.

heterosexual and homosexual samples, Kurdek (1992) found convergent validity between the DAS and the Kansas Marital Satisfaction Scale. The following correlations show the results of the DAS using the female heterosexual sample from Kurdek's study (1992): Dyadic Consensus subscale .51, Dyadic Satisfaction scale .59, Dyadic Cohesion scale .45, and Affectional Expression subscale .38. The DAS was highly recommended for use in research in Snyder, Heyman & Haynes (2008) chapter in *A Guide to Assessments that Work* and was noted for its good internal consistency, test-retest reliability, and generalizability.

Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996)

The CTS2 is a 78-item self-report instrument that measures psychological and physical aggression, sexual coercion, and use of reasoning in dealing with conflict of the participant and her partner (Appendix I, p. 119). Each item has a likert scale ranging from 0 to 7 to indicate the frequency of the behavior (0 = This has never happened, to 6 = More than 20 times in the past year, and 7 = Not in the past year but it did happen before). The instructions stated that the participant should use the past year as the time-period for answering the questions. This study used the past year at the time the participant answered the Surveymonkey questionnaire as the time-period the participant should consider when answering the questions.

There are five subscales in the CTS2: Psychological Aggression, Physical Aggression[7], Physical Injury, Sexual Coercion, and Negotiation. The full scale was estimated to take ten to fifteen minutes to complete (Straus et al., 1996). This study's

[7] The term Physical Aggression subscale will be used to refer to the CTS-2 Physical Assault subscale to maintain consistent terminology throughout this paper. Additionally, the term "aggression" will be used in place of terms such as "attack," "violence," and "abuse" for consistent terminology throughout this paper.

interest was in physical aggression, psychological aggression, and sexual coercion so these subscales were the only subscales included in the Surveymonkey questionnaire – the subscale Negotiation was excluded. The original plan was to combine the subscales Physical Aggression and Physical Injury into a composite score. However, after further consideration, it was determined that the incidents of Physical Aggression where an injury occurred were the same incident and there was a potential to double code and overstate the score. Therefore, the Physical Injury subscale was not included in the analyses. There were 54 total items in the Psychological Aggression, Physical Aggression and Sexual Coercion subscales (estimated time was about 7 - 10 minutes to complete).

Previous research found internal consistency for each CTS2 subscale with a sample of male and female college students: Psychological Aggression subscale .74 to .79, Physical Aggression subscale .77 to .88, and Sexual Coercion subscale .17 to .87 (O'Leary, & Williams, 2006; Straus et al., 1996).

Several other studies have supported the reliability and validity of the CTS2 (Jones, Ji, Beck, & Beck, 2002; Lucente, Fals-Stewart, Richards, & Gosha, 2001; Newton, Connelly, & Landsverk, 2004; Straus, 2004; Vega, & O'Leary, 2007). In addition, the CTS2 was highly recommended for use in research by Snyder, Heyman, & Haynes (2008) in their chapter review of assessments in *A Guide to Assessments that Work*.

Previous research found a correlation with a social desirability scale of -.17 for the Physical Aggression subscale, which suggested that participants' scores were not

significantly affected by an unwillingness to reveal socially undesirable behavior (Straus, 2007).

This study used both the prevalence and severity scoring method. The prevalence score gives a score of 1 if the participant selects any number from 1 to 7 in any item in a subscale and a score of 0 if only 0 was selected for all items in the subscale (Straus, 2001). Straus (2001) distinguished questions as either low or high in severity, which can be used for scoring the severity of aggressive behaviors. In addition to the prevalence scores, for those who select a high severity item another score of 1 was added (Straus, 2001). This study examined current year relationship behaviors so selection of number "7" (Not in the past year but it did happen before) on the likert scale was not included in scoring.

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet & Farley, 1988)

The MSPSS is a 12-item self-report instrument that measures perceived social support (Appendix I, p. 114). Each item has a likert scale that ranges from 1 (very strongly disagree) to 7 (very strongly agree). There are three sub-scales: Support from Friends, Support from Family, and Support from Significant Others. In a factor analysis study, the 3-factor model was supported with the Support from Friends (-.44) and Support from Family (-.43) subscales having the strongest associations with scores on the Beck Depression Inventory (Clara, Cox, Enns, Murray, & Torgrudc, 2003). The total MSPSS scores also showed a strong association with scores on the Beck Depression Inventory (-.44). This study's goals focused on community support and, therefore, only the Support from Friends and Support from Family subscales were used the analyses.

The time-period under consideration was the current period at the time when the participant participated in the Surveymonkey questionnaire.

Previous research found high levels of internal consistency of the MSPSS items for each of the subscales and the total scores from samples of pregnant women, adolescents and pediatric residents: Support from Friends subscale ranged from .90 to .94, Support from Family subscale ranged from .81 to .90, Support from Significant Other scale ranged from .83 to .98 and the total MSPSS items ranged from .84 to .92 (Zimet, Powell, Farley, Werkman & Berkoff, 1990). In previous research with college students, internal consistency of MSPSS total items ranged from .85 to .91 and the subscale items Support from Friends ranged from .87 to .94, Support from Family ranged from .87 to .91, and Support from Significant Others ranged from .85 to .95 (Dahlem, Zimet, & Walker, 1991; Eker, & Arkar, 1995; Zimet, Dahlem, Zimet, Farley, 1988).

In college students, Zimet et al. (1988) found test-retest reliability for the Support from Friends (.75), Support from Family (.85), and Support from Significant Other (.72) subscales and the total (.85). Stanley, Beck, & Zebb (1998) found test-retest reliability over a three-week period in older adults for the total MSPSS score (.73), Support from Friends subscale (.73), Support from Family subscale (.74) and Support from Significant Other subscale (.54).

Zimet et al., (1988) analyzed convergent validity of the MSPSS through correlations with the Hopkins Symptom Checklist, which measures depressive symptoms, and the MSPSS subscales. Perceived support measured by Support from Friends (-.24), Support from Family (-.24), and Support from Significant Other (-.13)

subscales, and the total MSPSS score (-.25) were significantly related to depressive symptoms.

MSPSS has also been examined with the Marlowe-Crowne Social Desirability Scale to see if there was a tendency towards socially desirable responses. The results showed no significant correlation in the Support from Friends (r = -.01, p = ns), Support from Family (r = .02, p = ns), and Support from Significant Other subscales (r = .03, p = ns) and total MSPSS score (r = -.01, p = ns; Dahlem, Zimet, & Walker, 1991).

Social Support Questionnaire (Short Form) (SSQSR; Sarason, Sarason, Shearin, & Pierce, 1987)

The full Social Support Questionnaire (SSQ) is a 27-item self-report instrument that measures social support. The instrument asks the participant to list people in their lives who support them in a given manner, then the participant was asked to rate on a 6-item likert scale how satisfied she was with this support. The satisfaction likert scale ranges between 1 to 6 with 1 being "very dissatisfied" and 6 "very satisfied." There were two subscales, Number of Supporters subscale, and Satisfaction with Support subscale. The time-period under consideration was the current period at the time when the participant participated in the Surveymonkey questionnaire. This study used the Satisfaction with Support subscale in SSQSR in its analyses in combination with the MSPSS Support from Friends and Support from Family subscales.

Sarason, Levine, Basham, & Sarason (1983) examined the SSQ items with a sample of undergraduate college students and found internal consistency of .97 for the total SSQ items, and .94 for the Satisfaction with Support subscale items. They also found significant test-retest reliability correlations of .90 for the Number of Supporters

subscale and .83 for the Satisfaction with Support subscale (Sarason et al., 1983), across a four-week period.

SSQSR (Appendix I, p. 126) was developed from the 27-item SSQ through statistical analysis of the items with samples of college students (Sarason et al., 1987). The SSQSR included two subscales (Number of Supporters subscale and Satisfaction with Support subscale) with 6 items each. Inter-correlations that included the SSQSR and SSQ found internal consistency of .90 (Number of Supporters subscale) to .93 (Satisfaction with Support subscale) for the SSQSR and .97 to .98 (Number of Supporters subscale) and from .96 to .97 (Satisfaction with Support subscale) for the SSQ (Sarason et al., 1987).

Sarason et al. (1987) examined content validity in the SSQ, and, subsequently, through statistical analyses, in the SSQSR. They examined the SSQ with different populations of college students and found correlations between the SSQ and the Beck Depression Inventory (SSQ Satisfaction with Support subscale -.22, $p < .05$, to -.51, $p < .001$; SSQSR Satisfaction with Support subscale -.19, $p < .05$, to -.47, $p < .001$), and the State-Trait Anxiety Inventory (SSQ Satisfaction with Support subscale -.57, $p < .001$; SSQSR Satisfaction with Support subscale -.55, $p < .001$; Sarason et al., 1987).

Military Social Support Questions

Questions regarding Yellow Ribbon Events and Family Readiness Group activities asked about the Reserve Component spouse's participation in the programs and how helpful the resource had been (Appendix I, p. 115). The initial question for each of these resources asked if the spouse had participated in the program. When a participant indicated she had participated, she was then asked when, during the deployment cycle,

she participated – pre-deployment, during deployment, and post-deployment. The respondent selected one or multiple time-periods depending on how many she attended (scoring one point each). Within the Family Readiness Group questions, participants were asked about their level of involvement – a six-point likert scale ranged from "5 – Actively Involved" to "0 – Not Involved". Additionally, five questions asked about how helpful the resource has been with different aspects of her husband's return from combat. A five-point likert scale ranged from "-2 – Extremely Unhelpful" to "2 – Extremely Helpful". The time-period under consideration was the current period at the time when the participant participated in the Surveymonkey questionnaire.

Scores were separated into two subscales for both the Yellow Ribbon Event and the Family Readiness Group questions: the Amount of Participation subscale and the Satisfaction subscale. For this study, the Amount of Participation subscale was not examined and the Yellow Ribbon Event Satisfaction subscale and the Family Readiness Group Satisfaction subscale were combined for a total perceived military social support satisfaction score. Total Military Social Support Satisfaction scores range from -20 to 20 with negative scores indicating dissatisfaction.

Table 2 provides a summary of the measures included in this study.

Table 2

Summary of Measurement Instruments Used

Measure	Score Range	Score Calculation Method
		Depressive Symptoms Measures:
QIDS[a]	0-27	The highest score of each of the QID's nine domains were summed into a total score.
CES-D[b]	0-60	The items of the CES-D were summed into a total score.
		Marital Adjustment Measures:
Dyadic Adjustment Scale	0-151	Items within each subscale of the DAS were summed into a subtotal. The subscale subtotal scores were then added together into a total scale score.
Revised Conflict Tactic Scale:		
Psychological Aggression Subscale	0-12	The prevalence and severity scoring methods for the CTS-2 were used. Prevalence method: 1 point was scored if the participant selected 1 to 6 on the

Table 2

(Continued) Summary of Measurement Instruments Used

Physical Aggression Subscale	0-12	Likert scale and zero points were scored if the participant selected "0" or "7" [c] on the likert scale. Severity method: An additional score of 1 was added for selected items that ask about behaviors that have been determined to be severe (Straus, 2001).
Sexual Coercion Subscale	0-7	
	Perceived Social Support Satisfaction Measures:	
MSPSS[d]	8-56	Items within each subscale (Friends Support, and Family Support subscales) were summed into a subtotal. The subscale subtotal scores were added together into a total scale score.
SSQSR[e] Satisfaction Subscale	6-36	The items of the subscale were summed into a total score.
	Military Social Support Questions:	
YRE[f] Satisfaction Subscale	-10-10	The items of each subscale were summed into a total score. Negative scores indicate reports of dissatisfaction and positive scores indicate reports of

Table 2

(Continued) Summary of Measurement Instruments Used

FRG[g] Satisfaction Subscale	-10-10	satisfaction with military support services.

Notes:

[a] QIDS – Quick Inventory of Depressive Symptoms

[b] CES-D – Center for Epidemiologic Studies – Depression Scale

[c] Participants selected "7" on the CTS2 likert scale to report marital aggressive behaviors that occurred in the past but did not occur within the previous year. In this study, we only looked at marital aggressive behaviors that occurred within the previous year. Therefore, participants' scores who selected "7" were recorded as "0."

[d] MSPSS – Multidimensional \ Scale of Perceived Social Support

[e] SSQSR – Social Support Questionnaire – Short Form

[f] YRE – Yellow Ribbon Events

[g] FRG – Family Readiness Group

CHAPTER 3

Results

Prior to statistical analyses, data were examined and missing data were interpolated when appropriate, as described below. Composite z-scores (see below) were constructed for measures of depression (QIDS and CES-D) and perceived social support satisfaction (MSPSS Support from Friends and Support from Family subscales and SSQSR Satisfaction subscale). Participants whose survey responses included more than 10% missing items from any of the measures (or more than one missing value from measures with less than 10 items – MSPSS (8) and SSQSR (6)) were excluded. There were 94 participants with no missing items and 42 participants with 10% or less missing items per measure with a total of 48 missing values (Mean 1.14 missing items per participant with missing values). Item imputation[8] was calculated using linear interpolation[9]. However, the DAS II subscale, Dyadic Satisfaction, was calculated using a series mean[10] since some of the items were reverse scored or had different likert scale ranges within the subscale. The numbers of missing responses to items within the various measures include DAS 11; CES-D 7; CTS2 6; SSQSR 4; MSPSS 3; QIDS 2; and the military support satisfaction questions. Questions with more than one missing item per participant include CTS2 – My partner choked me (5 missing, 3.7%); QIDS – Waking up too early (3 missing, 2.2%); DAS – How much agreement with spouse on: Religious Matters (2 missing, 1.5%), Conventionality (2 missing, 1.5%), Making Major

[8] The process of replacing missing data with substituted values.
[9] Linear interpolation: Interpolation is a method of constructing missing values within the range of a discrete set of known values. Linear interpolation was used to replace missing values using the last valid value before the missing value and the first valid value after the missing value. If the first or last case in the series had a missing value, the missing value was not replaced.
[10] Series mean: Replaced missing values with the mean of the participant's responses within the subscale.

Decisions (2 missing, 1.5%), and Household Tasks (2 missing, 1.5%); and SSQSR – How satisfied with support (2 missing, 1.5%), Help you feel better (2 missing, 1.5%), and Console you when you are upset (4 missing, 2.9%).

In order to strengthen the construct validity of the depression and community support measures (by decreasing the idiosyncratic error variance associated with each measure; Haynes, Smith, & Hunsley, 2011) unit-weighted composite z-scores were created between the two depression measures, QIDS and CES-D[11] and between the two community social support measures, MSPSS Support from Friends and Support from Family subscale and SSQSR Satisfaction subscale[12]. Correlations between measures of the same construct were first examined to determine if they were significantly related (QIDS and CES-D, .79; MSPSS and SSQSR, .64) and scores were transformed to z-scores then added to form a total composite score.

Study Goal 1: Descriptive Statistics

The first goal of this study was to provide descriptive statistics (frequencies, percentages, ranges, standard deviation, and ratings where relevant) on dependent and independent variables. Descriptive statistics of dependant and independent variables are shown in Table 3[13].

Depressive Symptoms

According to the *IDS/QIDS Instruments in English and Multiple Translations* (n.d.), categories of depressive symptom total scores for the QIDS-16 include; no

[11] The term "depression composite measure" will be used to refer to the composite z-score of the QIDS and CES-D measures.
[12] The term "social support composite measure" will be used to refer to the composite z-score of the MSPSS and SSQSR measures.
[13] In four measures from one to three cases were found to be above three standard deviations beyond the norm (QIDS: 1 case; CES-D: 2 cases; DAS: 1 case; and SSQSR: 3 cases) and some statisticians recommend removing the cases or transforming the data. The author of this study chose to include each case as reported.

depressive symptoms (0 – 5), mild depressive symptoms (6 – 10), moderate depressive symptoms (11 – 15), severe depressive symptoms (16 – 20), and very severe (21 – 27) depressive symptoms. These categories are based on norms from adult male and female inpatients and outpatients with chronic MDD or bipolar disorder (IDS/QIDS, n.d.; Rush et al., 2003; Trivedi et al., 2004). As shown in Table 3, study participant scores ranged from 0 to 22 (M = 7.9, SD = 4.5): no symptoms (N = 48, 35%), to mild (N = 54, 40%), to moderate (N = 26, 19%), to severe (N = 6, 4%), to very severe (N = 2, 2%) depressive symptoms. Confidence intervals (CI) ranged from an upper level of 8.7 to a lower level of 7.14.

Based on previous research of male and female Canadian military peacekeepers, household residents, psychiatric inpatients, parents, and nurse assistant samples, cut-off scores of 16 or higher for the CES-D have been used to indicate significant depressive symptoms (Boisvert et al., 2003; Eaton et al., 1999; Radloff, 1977). Participant's scores ranged from 6 to 45 (M = 15.6, SD = 7.5, CI Upper = 16.86, CI Lower = 14.34). Forty percent (N = 54) of participants had scores equal to or greater than 16.

Marital Satisfaction

According to prior research based on community samples of married couples, DAS scores of 114/115 are equivalent to a T-score of 50, which was the average for a community sample of married individual's in the original study (Spanier, 2001). A cut-off score of less than 100 is used to indicate poor marital satisfaction (Spanier, 2001). As shown in Table 3, participants' total DAS scores ranged from 35 to 148 (M = 107.5, SD = 22.8, CI Upper = 111.03, CI Lower = 103.37). Forty-two participants (31.6%) reported marital satisfaction levels below 100.

Table 3

Descriptive Statistics of Dependent and Independent Variables

Variable	Range	Mean	Confidence Interval		Cronbach's Alpha
			Upper	Lower	
QIDS [a]	0 – 22	7.9	8.7	7.14	.78
CES-D	6 – 45	15.6	16.86	14.34	.79
Dyadic Adjustment Scale [b]	35 – 148	107.2	111.03	103.37	.96
CTS 2[c] -Psychological Aggression –*PV*	0 – 12	3			.78
CTS 2 - Physical Aggression – *PV*	0 – 13	.7			.87
CTS 2 - Sexual Coercion – *PV*	0 – 7	.4			.69
CTS 2 - Psychological Aggression –*PP*	0 – 10	2.9			.72
CTS 2 - Physical Aggression – *PP*	0 – 10	.5			.77
CTS 2 - Sexual Coercion – *PP*	0 – 3	.1			.53
MSPSS [d] – Total	8 – 56	37.9	39.88	34.84	.93
MSPSS – Support from Friends	4 – 28	19.1	20.13	18.07	.96
MSPSS – Support from Family	4 – 28	18.8	19.75	17.77	.93
SSQSR – Satisfaction Subscale	6 – 36	30.4	31.61	29.19	.94
YRE – Satisfaction Subscale [e]	-10 – 10	.4			.94
FRG – Satisfaction Subscale	-10 – 10	-.6			.98
Military Support Measure	-20 – 20	-.2			.91

Table 3

(Continued) Descriptive Statistics of Dependent and Independent Variables

Note. Number of participants = 136.

[a] For the Quick Inventory of Depressive Symptomatology (QIDS) and the Center for Epidemiologic Studies Depression Scale (CES-D) total scores, higher numbers indicated more self-reported depressive symptoms.

[b] For the Dyadic Adjustment Scale scores, higher numbers indicated more self-reported marital satisfaction.

[c] For the Conflict Tactic Scale Revised (CTS 2 - *Participant was the Victim (PV); Participant was the Perpetrator (PP*) scores, higher numbers indicate more self-reported marital aggression.

[d] For the Multidimensional Scale of Perceived Social Support(MSPSS), Support from Friends and Support from Family subscale scores and the Social Support Questionnaire Short Form (SSQSR) Satisfaction subscale scores, higher numbers indicated more self-reported satisfaction with perceived community social support.

[e] "Military Support Measure" was the total score of the Yellow Ribbon Event (YRE) and Family Readiness Group (FRG) Satisfaction subscale scores – higher numbers indicated more self-reported satisfaction with perceived military social support (negative scores indicate more self-reported dissatisfaction).

Marital Aggression

As shown in Table 3, in response to the CTS2, 109 (80%) participants endorsed at least one item in the Psychological Aggression – *participant was the victim* subscale (M = 3, SD = 2.6) and 110 (81%) endorsed at least one item in the Psychological Aggression – *participant was the perpetrator* subscale (M = 2.9, SD = 2.3) in their marital relationship. Twenty-four participants (17.6%) endorsed items in the Physical Aggression – *participant was the victim* subscale (M = .7, SD = 2). Additionally, 23

participants (16.9%) endorsed items in the Physical Aggression – *participant was the perpetrator* subscale (M = .5, SD = 1.4). Twenty-four participants (17.6%) endorsed items in the Sexual Coercion – *participant was the victim* subscale (M = .4, SD = 1). In addition, 8 participants (5.9%) endorsed items in the Sexual Coercion – *participant was the perpetrator* subscale (M = .1, SD = .4).

Perceived Community Social Support Satisfaction

Total scores from the MSPSS Support from Friends and Support from Family subscales can range from 8 to 56 and higher scores indicate more self-reported satisfaction with perceived social support. As shown in Table 3, participant total scores ranged from 8 to 56 (M = 37.9, SD = 10.6, CI Upper = 39.88, CI Lower = 35.84), the MSPSS Support from Friends subscale scores ranged from 4 to 28 (M = 19.1, SD = 6.1, CI Upper = 20.13, CI Lower = 18.07) and the MSPSS Support from Family scores ranged from 4 to 28 (M = 18.8, SD = 5.9, CI Upper = 19.75, CI Lower = 17.77). The SSQSR Satisfaction subscale scores can range from 6 to 36 and higher scores indicate more satisfaction with self-reported perceived social support. Participant scores ranged from 6 to 36 (M = 30.4, SD = 7.2, CI Upper = 31.61, CI Lower = 29.19; Table 2).

Perceived Military Social Support Satisfaction

Total military support measure[14] scores can range from -20 to 20 (negative scores indicate dissatisfaction). Nineteen percent (N= 26) of the participants did not participate in either the Yellow Ribbon Events or in Family Readiness Groups and their perceived satisfaction scores were kept at zero. As shown in Table 3, when all participants (N=136) were included in the results, the military support measure scores ranged from -20 to 20

[14] The term "military support measure" will be used to refer to the total scores of the Yellow Ribbon Event and Family Readiness Group Satisfaction subscale scores and is a measure of self-reported, perceived satisfaction of military social support.

(M = -.2, SD = 7.3). Yellow Ribbon Event self-reported satisfaction scores can range from -10 to 10 (negative scores indicate dissatisfaction). As shown in Table 2, total participant (N = 136) self-reported perceived satisfaction with Yellow Ribbon Events ranged from -10 to 10 (M = .4, SD = 4.2). Family Readiness Group self-reported satisfaction scores can range from -10 to 10 (negative scores indicate dissatisfaction). As shown in Table 2, total participant (N = 136) self-reported perceived satisfaction with Family Readiness Groups ranged from -10 to 10 (M = -.6, SD = 4.8).

Eighty-one percent of participants (n= 110) participated in either Yellow Ribbon Events alone (N = 25), Family Readiness Groups alone (N = 22), or both (N = 63). The results, of self-reported perceived satisfaction with Yellow Ribbon Events for the 88 participants who attended at least one of the events, showed a mean of .6 with a standard deviation of 5.2. The results of self-reported perceived satisfaction with Family Readiness Groups for the 84 participants who were involved in a Family Readiness Group showed a mean of -.98 with a standard deviation of 6.1.

Study Goal 2: Inter-correlations Among Independent and Dependent Variables[15]

Pearson product-moment correlation coefficients were calculated between all continuous dependent variables (depressive symptoms, marital satisfaction, psychological aggression, physical aggression, sexual coercion, and community and military social

[15] In four measures from one to three cases were found to be above three standard deviations beyond the norm (QIDS: 1 case; CES-D: 2 cases; DAS: 1 case; and SSQSR: 3 cases). Bivariate correlation analyses were performed with the cases with outliers omitted (N = 130). There were four significant changes in these analyses compared to the analyses that included all participants (N = 136). The correlation between CTS2 – Sexual Coercion – participant was the victim measure and the depression composite measure was not significant (0.14, $p \geq .05$). The correlation between CTS2 – Sexual Coercion – participant was the victim measure and CTS2 – Physical Aggression – participant was the victim measure was also not significant (0.17, $p \geq .05$). The correlation between the social support composite measure and CTS2 – Psychological Aggression – participant was the victim measure was significant (-0.15, $p < .05$). Finally, the correlation between the social support composite measure and CTS2 – Psychological Aggression – participant was the perpetrator was significant (-0.18, $p < .05$).

support satisfaction). Zero-order (bivariate) correlations between the depression composite measure, the DAS, the CTS2 Psychological Aggression, Physical Aggression, and Sexual Coercion subscales, the social support composite measure, and the military support measure scores are displayed in Table 3. Although most measures used a likert scale (considered by some to resemble ordinal or ordered categorical scales more closely), Study Goal 2 was examined with Pearson product-moment correlations because of its general acceptance and robustness with minor violations of data assumptions (Fowler, 1987).

Depressive Symptoms and Marital Satisfaction

As shown in Table 4, the depression composite measure was significantly correlated with the DAS total dyadic adjustment score (-.51, $p < .001$).

Depressive Symptoms and Marital Aggression

As shown in Table 4, the depression composite measure was significantly correlated with the CTS2 Psychological Aggression – *participant was the victim* subscale scores (.41, $p < .001$), the CTS2 Psychological Aggression – *participant was the perpetrator* subscale scores (.42, $p < .001$), and the CTS2 Sexual Coercion – *participant was the victim* subscale scores (.18, $p < .05$). The depression composite measure was not significantly correlated with the CTS2 Physical Aggression – *participant was the victim* subscale scores, the CTS2 Physical Aggression – *participant was the perpetrator* subscale scores, or the CTS2 Sexual Coercion – *participant was the perpetrator* subscale scores.

Table 4

Inter-correlations Among Dependent and Independent Variables

Variable	Depression Composite Measure	DAS	CTS2						Social Support Composite Measure	Military Social Support Satisfaction
			PSY V	PHY V	SC V	PSY P	PHY P	SC P		
Depression Composite Measure[a]	1									
Dyadic Adjustment Scale – DAS[b]	-.51**	1								
Conflict Tactic Scale 2 - PSY– V[c]	.42**	-.58**	1							
Conflict Tactic Scale 2 - PHY – V	.13	-.41**	.67**	1						
Conflict Tactic Scale 2 - SC – V	.18*	-.32**	.32**	.30**	1					
Conflict Tactic Scale 2 - PSY – P	.42**	-.46**	.81**	.46**	.26*	1				
Conflict Tactic Scale 2 - PHY – P	.09	-.14	.53**	.65**	.12	.54**	1			
Conflict Tactic Scale 2 - SC – P	.05	-.01	.13	.17*	.48**	.17*	.20*	1		
Social Support Composite Measure[d]	-.45**	.31**	-.15	.02	-.04	-.15	-.03	-.03	1	
Military Social Support Satisfaction[e]	-.27*	37**	-.14	.02	.11	-.12	.00	.12	.27*	1

Table 4

(Continued) Inter-correlations Among Dependent and Independent Variables

Note. Number of participants = 136.

* p > .05; ** p > .001

[a] The Depression Composite Measure was a z-score composite of self-reported depressive symptoms composed of the Quick Inventory of Depressive Symptomatology (QIDS) and the Center for Epidemiologic Studies Depression (CES-D) higher numbers indicate more self-reported depressive symptoms.

[b] DAS=Dyadic Adjustment Scale score (higher scores indicate more self-reported marital adjustment).

[c] CTS2=Revised Conflict Tactic Scale score (higher scores indicate more self-reported marital conflict): V=Participant was the Victim and P=Participant was the Perpetrator; PSY=Subscale score - Psychological Aggression; PHY=Subscale score - Physical Aggression; SC=Subscale score - Sexual Coercion.

[d] The social support composite measure was a z-score composite of the Multidimensional Scale of Perceived Social Support (MSPSS) Support from Friends and Support from Family subscale scores and Social Support Questionnaire Short Form (SSQSR) Satisfaction subscale score (higher scores indicate more self-reported satisfaction with perceived community social support).

[e] Military Social Support Satisfaction was the total score of the Yellow Ribbon Event and Family Readiness Group satisfaction subscale scores (higher scores indicate more self-reported satisfaction with perceived military social support and negative scores indicate dissatisfaction).

Depressive Symptoms and Perceived Community and Military Social Support Satisfaction

As shown in Table 4, the depression composite measure was significantly correlated with the social support composite measure (-.45, $p < .001$) and with the military support measure scores (-.27, $p < .01$).

Marital Satisfaction and Perceived Community and Military Social Support Satisfaction

As shown in Table 4, the DAS total marital adjustment scores, were significantly correlated with the social support composite measure (.31, $p < .001$) and the military support measure scores (.37, $p < .001$).

Marital Aggression and Perceived Community and Military Social Support Satisfaction

The social support composite measure and the military support measure scores were not significantly correlated with the CTS2 subscale scores as shown in Table 4. [16]

Study Goal 3: The Incremental Contribution of Self-Reported Perceived Community and/or Military Social Support Satisfaction in Accounting for Variance in Depressive Symptoms Above and Beyond that Associated with Marital Satisfaction, and Marital Aggression.

Separate step-wise multiple regression analyses were conducted to examine the additional variance accounted for in the depression composite measure by a) the social support composite measure over and above variance accounted for by measures of marital satisfaction, or marital aggression[17] – participant as victim, or marital aggression

[16] The bivariate correlations between military support measure scores and the depression composite measure, the DAS, the CTS2 subscales and the social support composite measure were analyzed using all 136 participants. Bivariate correlations were also calculated using only participants who participated in both YRE and FRG programs (N = 109). However, there were no significant differences between the analyses. Therefore, the analyses using all participants (N = 136) was maintained.

[17] The term "marital aggression" will be used to represent the combined total scores of the CTS2 subscales Psychological Aggression, Physical Aggression, and Sexual Coercion.

– participant as perpetrator, and b) the military support measure over and above variance accounted for by measures of marital satisfaction, or marital aggression – participant as victim, or marital aggression – participant as perpetrator.

In order to examine the incremental contribution of the marital adjustment measures to the depression composite measure, several restricted and full regression models were constructed (see Tables 5, 6, and 7). The restricted models for each marital adjustment predictor variable measure were applied in Step 1. Next, the social support composite measure was added as a main and moderating variable to the models for each marital adjustment predictor variable, in Step 2. Finally, full models for each marital adjustment predictor variable, added the social support composite measure and the military support measure as main and moderating variables in Step 3. An F-test was conducted to examine the statistical significance of the change in R2 between the three steps.

Step 1

A restricted regression model that included the depression composite measure scores as the outcome variable and measures of marital satisfaction, or marital aggression-participant as victim, or marital aggression-participant as perpetrator as predictor variables were constructed. The goal of these analyses was to examine the degree to which variance in the measure of self-reported depressive symptoms was accounted for by variance in measures of the predictor variable marital satisfaction, or marital aggression-participant was the victim, or marital aggression-participant was the perpetrator. The equation below is a representation of each restricted regression model:

Step 1: $Y = \beta_1 X_1 + e$ (Model 1)

where Y= the depression composite measure scores, β = weights for predictors, X_1 = a) DAS (marital satisfaction) scores, or b) CTS2 (marital aggression-participant was the victim scores), or c) CTS2 (marital aggression-participant was the perpetrator scores), and e = error.

Restricted step-wise multiple regression for predictor variable marital satisfaction Model 1. As shown in Table 5, Model 1, marital satisfaction, measured by the DAS, accounted for 25% of the variance in the depression composite measure (R^2 = .25, p < .000).

Restricted step-wise multiple regression for predictor variable total marital aggression – participant was the victim Model 1. As shown in Table 6, Model 1, CTS2 marital aggression – participant was the victim scores, accounted for 11% of the variance in the depression composite measure scores (R^2 = .11, p < .000).

Restricted step-wise multiple regression for predictor variable total marital aggression – participant was the perpetrator Model 1. As shown in Table 7, Model 1, CTS2 marital aggression – participant was the perpetrator scores, accounted for 10% of the variance in the depression composite measure scores (R^2 = .10, p < .000).

Step 2

Regression models in Step 2 included the depression composite measure scores as the outcome variable, the original predictor variables from Step 1, (marital satisfaction scores, or marital aggression – participant was the victim scores, or marital aggression – participant was the perpetrator scores) and self-reported perceived community social support satisfaction measures as additional main and moderating variables. The goal of this set of analyses was to examine the degree to which measures of self-reported

perceived community social support satisfaction, as additive and interactive variables, increased the variance accounted for in the depression composite measure over and above that accounted for by the measures of marital adjustment. The equation below is a representation of each regression model:

$$\text{Step 2: } Y = \beta_1 X_1 + \beta_2 X_2 + (\beta_1 X_1 \times \beta_2 X_2) + e \quad \text{(Model 2)}$$

where Y= depression composite measure scores, β = weights for predictors, X_1 = a) DAS (marital satisfaction) scores, or b) CTS2 (marital aggression-participant was the victim) scores, or c) CTS2 (marital aggression-participant was the perpetrator) scores, X_2 = social support composite measure scores, $(\beta_1 X_1 \times \beta_2 X_2)$ = the interaction term for social support composite measure scores, and e = error.

Step-wise multiple regression for predictor variable marital satisfaction Model 2. As shown in Table 5, adding the social support composite measure scores to Model 1, DAS (marital satisfaction) scores, significantly increased the proportion of variance accounted for in the depression composite measure 10% over and above the restricted model ($\Delta R^2 = .10$, $p < .000$). Beta weights associated with this model revealed that the DAS ($\beta = -.41$, $p < .000$) and the social support composite measure scores ($\beta = -.33$, $p = .000$) contributed unique variance to the prediction of the depression composite measure scores in Army Reserve Component spouses. Additionally, based on an examination of the variance associated with interaction terms, the social support composite measure scores did not significantly moderate the association between the measure of marital satisfaction (DAS) and the depression composite measure scores.

Step-wise multiple regression for predictor variable marital aggression – participant was the victim Model 2. As shown in Table 6, Model 2, adding measures of

self-reported perceived community social support satisfaction to Model 1, marital aggression – participant was the victim, significantly increased the proportion of variance accounted for in the depression composite measure scores 18% over and above the restricted model ($\Delta R^2 = .18$, $p < .000$). Beta weights associated with this model revealed that the marital aggression – participant was the victim measure scores ($\beta = .30$, $p < .000$), and the social support composite measure scores ($\beta = -.43$, $p < .000$) contributed significantly to the prediction of the depression composite measure scores in Army Reserve Component spouses. The social support composite measure scores did not significantly moderate the association between the marital aggression – participant was the victim measure and the depression composite measure scores.

Step-wise multiple regression for predictor variable marital aggression – participant was the perpetrator Model 2. As shown in Table 7, adding the social support composite measure scores to Model 1, marital aggression – participant was the perpetrator measure scores, significantly increased the proportion of variance accounted for in the depression composite measure scores 17% over and above the restricted model ($\Delta R^2 = .17$, $p < .000$). Beta weights associated with this model revealed that the marital aggression – participant was the perpetrator measure ($\beta = .28$, $p < .000$), the social support composite measure ($\beta = -.42$, $p < .000$) scores contributed significantly to the prediction of the depression composite measure scores in Army Reserve Component spouses. The social support composite measure scores did not moderate the association between the marital aggression – participant was the perpetrator measure and depression composite measure scores.

Step 3[18]

The full regression models included the depression composite measure scores as the outcome variable, the original predictor variables from Step 1 (marital satisfaction scores, or marital aggression – participant was the victim scores, or marital aggression – participant was the perpetrator scores), the self-reported perceived community social support satisfaction measure variables, from Step 2; and self-reported perceived military social support satisfaction measures[19] as additional main and moderating variables. The goal of this set of analyses was to examine the degree to which measures of self-reported perceived military social support satisfaction, as additive and interactive variables, increased the variance accounted for in the depression composite measure over and above that accounted for by the measures of marital adjustment and self-reported perceived community social support satisfaction.[20] The equation below is a representation of each full regression model:

Step 3: $Y = \beta_1X_1 + \beta_2X_2 + (\beta_1X_1 \times \beta_2X_2) + \beta_3X_3 + (\beta_1X_1 \times \beta_3X_3) + e$ (Model 3)

where Y= depression composite measure scores, β = weights for predictors, X_1 = a) DAS (marital satisfaction) scores, or b) CTS2 (marital aggression-participant was the

[18] In four measures from one to three cases were found to be above three standard deviations beyond the norm (QIDS: 1 case; CES-D: 2 cases; DAS: 1 case; and SSQSR: 3 cases). Regression analyses were performed with the cases with outliers omitted (N = 130). There were no significant differences found between the analyses that included or omitted the outliers. Therefore, all of the cases were included in the analyses (N = 136).

[19] The regression analyses were calculated using all 136 participants. Regression analyses were also calculated using only participants who participated in both YRE and FRG programs (N = 109). However, there were no significant differences between the analyses. Therefore, the analyses using all participants (N = 136) was maintained.

[20] Step 2 and Step 3 analyses were performed in different sequencing with self-reported perceived military social support satisfaction variables entered first in Step 2 and self-reported perceived community social support satisfaction variables entered second in Step 3. No significant differences in the analyses were found when the sequencing of self-reported perceived community and military social support satisfaction variables were changed.

Table 5

Summary of Full and Restricted Models Predicting Self-Reported Depressive Symptoms as a Function of Perceived Community and Military Social Support Satisfaction

Variables	*SE*	*B*	*T*	Adjusted R^2	*F (df)*	ΔR^2	ΔF	*P*
Dyadic Adjustment Scale Total Score Models								
Model 1								
DAS [a]	.00		-6.81	.25	46.32 (1)			.000
Model 2				.35	36.48 (2)			.000
DAS	.00	-.41	-5.54			.26	46.32	.000
SSCM [b] – Main Effect	.04	-.33	-4.48			.10	20.05	.000
SSCM – Interaction [c]		-.15	-.46					.643
Model 3				.35	36.48 (2)			.000
DAS	.00	-.41	-5.54			.26	46.32	.000
SSCM – Main Effect	.04	-.33	-4.48			.10	20.05	.000
SSCM – Interaction [c]		-.15	-.46					.643

Table 5

(Continued) Summary of Full and Restricted Models Predicting Self-Reported Depressive Symptoms as a Function of Perceived Community and Military Social Support Satisfaction

						Adjusted		
Variables	*SE*	*B*	*T*	R^2	*F (df)*	ΔR^2	ΔF	*P*
MSM [d] – Main Effect [c]		-.05	-.64					.523
MSM – Interaction [c]		-.02	-.29					.775

Note. Number of Participants = 136. Dependent Variable: depression composite measure = a z-score composite of the Quick Inventory of Depressive Symptomatology (QIDS) and the Center for Epidemiologic Studies Depression Scale (CES-D) total scores.

[a] DAS = Dyadic Adjustment Scale total score.

[b] SSCM = social support composite measure – z-score composite of the Multidimensional Scale of Perceived Social Support (MSPSS) Support from Friends and Support from Family subscales and the Social Support Questionnaire Short Form (SSQSR) Satisfaction subscale.

[c] Not a Significant Predictor Variable.

[d] MSM = Military Support Measure– total score of the Yellow Ribbon Event and Family Readiness Group satisfaction subscale scores.

Table 6

Summary of Full and Restricted Models Predicting Self-Reported Depressive Symptoms as a Function of Perceived Community and Military Social Support Satisfaction

Variables	*SE*	*B*	*T*	Adjusted R^2	*F (df)*	ΔR^2	ΔF	*P*
CTS2 – Marital Aggression [a] - Participant was the Victim Models								
Model 1								
CTS2 – Marital Aggression–PV[b]	.02		4.05	.10	16.38(1)	.11	16.38	.000
Model 2				.28	27.36(2)	.18	34.28	.000
CTS2 – Marital Aggression–PV	.02	.30	4.03					.000
SSCM [c] – Main Effect	.04	-.43	-5.86					.000
SSCM – Interaction [d]		.06	0.53					.598
Model 3				.30	20.17(3)	.02	4.40	.000
CTS2 – Marital Aggression–PV	.02	.29	4.03					.000
SSCM [c] – Main Effect	.04	-.39	-5.16					.000
SSCM – Interaction [d]		.04	.35					.728

Table 6

(Continued) Summary of Full and Restricted Models Predicting Self-Reported Depressive Symptoms as a Function of Perceived Community and Military Social Support Satisfaction

Variables	*SE*	*B*	*T*	Adjusted R^2	*F (df)*	ΔR^2	ΔF	*P*
MSM [e] – Main Effect	.01	-.16	-2.10			.02	4.40	.038
MSM – Interaction [d]		.04	0.39					.697

Note. Number of Participants = 136. Dependent Variable: depression composite measure = a z-score composite of the Quick Inventory of Depressive Symptomatology (QIDS) and the Center for Epidemiologic Studies Depression Scale (CES-D) total scores.

[a] Marital Aggression = Total score of Revised Conflict Tactic Scale (CTS2) Psychological Aggression, Physical Aggression, and Sexual Coercion subscales.

[b] PV=Participant was the victim

[c] SSCM = social support composite measure – z-score composite of the Multidimensional Scale of Perceived Social Support (MSPSS) Support from Friends and Support from Family subscales and the Social Support Questionnaire Short Form (SSQSR) Satisfaction subscale.

[d] Not a Significant Predictor Variable.

[e] MSM = Military Support Measure– total score of the Yellow Ribbon Event and Family Readiness Group satisfaction subscale scores.

Table 7

Summary of Full and Restricted Models Predicting Self-Reported Depressive Symptoms as a Function of Perceived Community and Military Social Support Satisfaction

Variables	*SE*	*B*	*T*	Adjusted R^2	*F (df)*	ΔR^2	ΔF	*P*
CTS2 – Marital Aggression [a] - Participant was the Perpetrator Models								
Model 1								
CTS2 – Marital Aggression–PP [b]	.02		4.04	.10	16.30(1)	.11	16.30	.000
Model 2				.27	26.14(2)	.17	32.18	.000
CTS2 – Marital Aggression–PP	.02	.28	3.78					.000
SSCM [c] – Main Effect	.04	-.42	-5.67					.000
SSCM – Interaction [d]		.05	0.45					.656
Model 3				.29	19.23(3)	.02	4.17	.000
CTS2 – Marital Aggression–PP	.02	.27	3.75					.000
SSCM – Main Effect	.04	-.38	-5.00					.000
SSCM – Interaction [d]		.03	.27					.789

Table 7

(Continued) Summary of Full and Restricted Models Predicting Self-Reported Depressive Symptoms as a Function of Perceived Community and Military Social Support Satisfaction

Variables	*SE*	*B*	*T*	Adjusted R^2	*F (df)*	ΔR^2	ΔF	*P*
MSM [e] – Main Effect	.01	-.15	-2.04					.043
MSM – Interaction [d]		-.07	-0.66					.513

Note. Number of Participants = 136. Dependent Variable: depression composite measure = a z-score composite of the Quick Inventory of Depressive Symptomatology (QIDS) and the Center for Epidemiologic Studies Depression Scale (CES-D) total scores.

[a] Marital Aggression = Total score of Revised Conflict Tactic Scale (CTS2) Psychological Aggression, Physical Aggression, and Sexual Coercion subscales.

[b] PP = Participant was the perpetrator.

[c] SSCM = social support composite measure – z-score composite of the Multidimensional Scale of Perceived Social Support (MSPSS) Support from Friends and Support from Family subscales and the Social Support Questionnaire Short Form (SSQSR) Satisfaction subscale.

[d] Not a Significant Predictor Variable.

[e] MSM = Military Support Measure– total score of the Yellow Ribbon Event and Family Readiness Group satisfaction subscale scores.

victim) scores, or c) CTS2 (marital aggression-participant was the perpetrator) scores, X_2 = social support composite measure scores, (β_1X_1 x β_2X_2) = the interaction term for social support composite measure scores, X_3 = military support measure scores, and (β_1X_1 x β_3X_3) = the interaction term for military support measure scores, and e = error.

Full Step-Wise Multiple Regression for Predictor Variable Marital Satisfaction Model 3. As shown in Table 5, Model 3, adding the military support measure scores did not contribute any unique variance to the model over and above Model 2. Additionally, based on an examination of the variance associated with interaction terms the military support measure scores did not significantly moderate the association between the measures of marital satisfaction (DAS) and the depression composite measure scores.

Full Step-Wise Multiple Regression for Predictor Variable Marital Aggression – Participant was the Victim Model 3. As shown in Table 6, Model 3, adding measures of self-reported perceived military social support satisfaction to marital aggression - participant was the victim Model 2, significantly increased the proportion of variance accounted for in the depression composite measure scores 2% over and above Model 2 ($\Delta R^2 = .02$, $p < .038$). Beta weights associated with this model revealed that the marital aggression – participant was the victim measure scores ($\beta = .29$, $p < .000$), the social support composite measure scores ($\beta = -.39$, $p < .000$) and the military support measure scores ($\beta = -.16$, $p < .038$) contributed significantly to the prediction of the depression composite measure scores in Army Reserve Component spouses. The social support composite measure and the military support measure scores did not significantly

moderate the association between the marital aggression – participant was the victim measure and the depression composite measure scores.

Full Step-Wise Multiple Regression for Predictor Variable Marital Aggression – Participant was the Perpetrator Model 3. As shown in Table 7, Model 3, adding the military support measure scores to Model 2, marital aggression – participant was the perpetrator measure scores, significantly increased the proportion of variance accounted for in the depression composite measure scores 2% over and above Model 2 ($\Delta R^2 = .02$, $p < .043$). Beta weights associated with this model revealed that the marital aggression – participant was the perpetrator measure ($\beta = .27$, $p < .000$), the social support composite measure ($\beta = -.38$, $p < .000$) and the military support measure scores ($\beta = -.15$, $p < .043$) contributed significantly to the prediction of the depression composite measure scores in Army Reserve Component spouses. The social support composite measure and the military support measure scores did not moderate the association between the marital aggression – participant was the perpetrator measure and depression composite measure scores.

Exploratory Analyses

Descriptive Statistics of DAS Subscales

Exploratory analyses included ranges, mean, standard deviation, and internal consistency analyses of the DAS subscales: Dyadic Consensus, Dyadic Satisfaction, Affectional Expression, and Dyadic Cohesion. Linear T-score norms for each of the DAS subscales are based on the means and standard deviations from the scores of a community sample of married couples (Spanier, 2001, Spanier, 1976). Equivalent raw scores to T-scores of 50 for each subscale are: 1) DAS Dyadic Consensus subscale – 52;

2) DAS Dyadic Satisfaction subscale – 40.5; 3) DAS Affectional Expression subscale – 9; and, 4) DAS Dyadic Cohesion subscale – 13.5. Scores that are above a T-score of 50 indicated higher levels of self-reported marital satisfaction.

Participants' DAS Dyadic Consensus subscale scores ranged from 12 to 64 (M = 46.7, SD = 10.3) and internal consistency for the subscale items was .92. Participants' DAS Dyadic Satisfaction subscale scores ranged from 15 to 50 (M = 37.2, SD = 7.9) and internal consistency for the subscale items was .86. Participants' DAS Affectional Expression subscale scores ranged from 1 to 12 (M = 7.9, SD = 2.9) and internal consistency for the subscale items was .76. Finally, participants' DAS Dyadic Cohesion subscale scores ranged from 1 to 24 (M = 15.8, SD = 4.8) and internal consistency for the subscale items was .87.

Inter-correlations Among DAS Subscales and Depressive Symptom Composite Scores

As shown in Table 8, the strength of inter-correlations between the depression composite measure scores and the DAS subscale scores did not appear to differ across the various subscales (e.g., -.33 to -.51): DAS Dyadic Consensus subscale scores (-.46, $p < .001$), the DAS Dyadic Satisfaction subscale scores (-.51, $p < .001$), the DAS Affectional Expression subscale scores (-.43, $p < .001$), and the DAS Dyadic Cohesion subscale scores (-.33, $p < .001$).

Inter-correlations Among DAS Subscales and Marital Aggression Subscales

As shown in Table 8, the strength of inter-correlations between the DAS subscale scores and the CTS2 Psychological Aggression – *participant was the victim* subscale and between the DAS subscale scores and the CTS2 Psychological Aggression – *participant was the perpetrator* subscale did not appear to differ across the various subscales (e.g.,

-.31 to -.58). The DAS Dyadic Consensus subscale was significantly correlated with the CTS2 Psychological Aggression – *participant was the victim* subscale (-.51, $p < .001$), the CTS2 Physical Aggression – *participant was the victim* subscale (-.40, $p < .001$), the CTS2 Sexual Coercion – *participant was the victim* subscale (-.28, $p < .01$), and the CTS2 Psychological Aggression – *participant was the perpetrator* subscale (-.41, $p < .001$).

As shown in Table 8, the DAS Dyadic Satisfaction subscale was significantly correlated with the CTS2 Psychological Aggression – *participant was the victim* subscale (-.56, $p < .001$), the CTS2 Physical Aggression – *participant was the victim* subscale (-.33, $p < .001$), the CTS2 Sexual Coercion – *participant was the victim* subscale (-.31, $p < .001$), and the CTS2 Psychological Aggression – *participant was the perpetrator* subscale (-.47, $p < .001$).

As shown in Table 8, the DAS Affectional Expression subscale was significantly correlated with the CTS2 Psychological Aggression – *participant was the victim* subscale (-.50, $p < .001$), the CTS2 Physical Aggression – *participant was the victim* subscale (-.36, $p < .001$), the CTS2 Sexual Coercion – *participant was the victim* subscale (-.25, $p < .01$), and the CTS2 Psychological Aggression – *participant was the perpetrator* subscale (-.40, $p < .001$).

Additionally, as shown in Table 8, the DAS Dyadic Cohesion subscale was significantly correlated with the CTS2 Psychological Aggression – *participant was the victim* subscale (-.43, $p < .001$), the CTS2 Physical Aggression – *participant was the victim* subscale (-.32, $p < .001$), the CTS2 Sexual Coercion – *participant was the victim*

subscale (-.26, $p < .01$), and the CTS2 Psychological Aggression – *participant was the perpetrator* subscale (-.31, $p < .001$).

Inter-correlations Among DAS Subscales and Perceived Social Support Satisfaction

As shown in Table 8, the social support composite measure score was significantly correlated with the DAS Dyadic Consensus subscale scores (.21, $p < .05$), DAS Dyadic Satisfaction subscale scores (.36, $p < .001$), and the DAS Affectional Expression subscale scores (.24, $p < .01$), the DAS Dyadic Cohesion subscale scores (.28, $p < .01$) and the DAS total scores (.31, $p < .001$).

Additionally, as shown in Table 8, the military support measure scores were significantly correlated with the DAS Dyadic Consensus subscale scores (.38, $p < .001$), the DAS Dyadic Satisfaction subscale scores (.29, $p < .001$), the DAS Affectional Expression subscale scores (.24, $p < .01$), the DAS Dyadic Cohesion subscale scores (.25, $p < .01$) and the DAS total scores (.36, $p < .001$). The strength of the inter-correlations did not appear to differ between the DAS subscale scores and the social support composite measure or the military support measure scores (e.g., .21 to .38).

Table 8

Correlations Between Dyadic Adjustment Scale Subscales and Other Dependent and Independent Variables

	Dyadic Adjustment Scale [a]				
Variable	Dyadic Consensus	Dyadic Satisfaction	Affectional Expression	Dyadic Cohesion	Total
Dyadic Adjustment Scale I: Dyadic Consensus	1				
Dyadic Adjustment Scale II: Dyadic Satisfaction	.70**	1			
Dyadic Adjustment Scale III: Affectional Expression	.69**	.69**	1		
Dyadic Adjustment Scale IV: Dyadic Cohesion	.62**	.78**	.55**	1	
Dyadic Adjustment Scale Total	.91**	.91**	.79**	.83**	1
Depression Composite Measure [b]	-.46**	-.51**	-.43**	-.33**	-.51**
CTS2 [c] – Psychological Aggression – Participant as Victim	-.51**	-.56**	-.50**	-.43**	-.58**
CTS2 – Sexual Coercion – Participant was the Victim	-.28*	-.31**	-.25*	-.26*	-.32**
CTS2 – Physical Aggression – Participant was the Victim	-.40**	-.33**	-.36**	-.32**	-.41**
CTS2 – Psychological Aggression – Participant was the Perpetrator	-.41**	-.47**	-.40**	-.31**	-.46**

Table 7

(Continued) Correlations Between Dyadic Adjustment Scale Subscales and Other Dependent and Independent Variables

CTS2 – Sexual Coercion – Participant was the Perpetrator	.08	-.04	.03	-.07	-.01
CTS2 – Physical Aggression – Participant was the Perpetrator	-.12	-.14	-.13	-.08	-.14
Social Support Composite Measure [d]	.21*	.36**	.24*	.28*	.31**
Military Support Measure [e]	.38**	.29**	.24*	.25*	.37**

Note. Number of participants = 136.

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

[a] Dyadic Adjustment Scale; (positive correlations indicate higher levels of self-reported marital satisfaction).

[b] The depression composite measure was a z-score composite of the Quick Inventory of Depressive Symptomatology and the Center for Epidemiologic Studies Depression Scale total scores (positive scores show an increase in self- reported depressive symptoms).

[c] CTS2=Revised Conflict Tactic Scale score (positive correlations indicate higher levels of the self-reported behavior indicated by the specific subscale).

[d] Social support composite measure was a z-score composite of the Multidimensional Scale of Perceived Social Support Friend Support and Family Support subscale score and Social Support Questionnaire (Short Form) Satisfaction subscale score (positive correlations indicate higher levels of self-reported satisfaction with perceived community social support).

[e] Military support measure was the total score of the Yellow Ribbon Event and Family Readiness Group satisfaction subscale scores (positive correlations indicate higher levels of self-reported satisfaction with perceived military social support).

CHAPTER 4

Discussion

The current study examined depressive symptoms, marital adjustment, and perceived community and military social support satisfaction, in spouses of Reserve Component soldiers who have returned from military combat in Iraq or Afghanistan. The goals of this study were three-fold. The first goal of the current study was to describe self-reported depressive symptoms, marital adjustment, perceived community social support satisfaction, and perceived military social support satisfaction in spouses of Reserve Component combat soldiers. The second goal of was to examine the degree to which Reserve Component spouses' self-reported depressive symptoms were associated with their self-reported marital adjustment and perceived community or military social support satisfaction. The final goal was to examine the degree to which Reserve Component spouses' self-reported depressive symptoms were moderated by self-reported perceived community and military social support satisfaction.

The first goal was to describe self-reported depressive symptoms, marital adjustment and perceived community and military social support satisfaction. Depressive symptoms were reported by participants to be in the mild to moderate level in the current study. Participants in this study reported a mild level of depressive symptoms on the QIDS ($M = 7.9$, $SD = 4.5$). One outlier (.7%) was greater than three standard deviations from the norm; however, analyses that omitted cases of outliers found that the mean for scores on the QIDS remained within the confidence interval of the analysis that included all of the cases. Additionally, participants in this study reported a moderate level of depressive symptoms ($M = 15.6$, $SD = 7.5$) on the CES-D. There were two (1%)

participants who had outlying scores that were greater than three standard deviations from the mean; however, however, analyses that omitted cases of outliers found that the mean for scores on the CES-D remained within the confidence interval of the analysis that included all of the cases.

In comparison, confidence interval analyses indicate that this study's CES-D results (CI Upper = 16.86, CI Lower = 14.34) were comparable to CES-D results in a sample of 49 NG spouses whose husbands returned from Iraq (M = 15.32, SD = 9.89, CI Upper = 18.09, CI Lower = 12.55; Renshaw, Rodrigues, & Jones, 2008) and 50 NG soldiers who returned from Iraq (M = 13.04, SD = 9.7, CI Upper = 15.73, CI Lower = 10.35; Renshaw, Rodrigues, & Jones, 2009). Since the reports of depressive symptoms from the Renshaw, Rodrigues & Jones studies fell within the confidence intervals of the depressive symptoms reported in this study, even though the means are different, there is likely not a true difference between the studies because of error variance in the measures.

A possible explanation for the level of depressive scores reported among Reserve Component female spouses is that Reserve Component spouses likely have many stressors in their lives. In their review of depressive symptoms in military spouses, Verdeli et al, (2011) found that military spouses experienced diverse stressors throughout the deployment cycle that include role changes, financial concerns, home destabilization, shifts in family dynamics, increased parenting demands, caring for their children's mental health problems, changes from single parenting during deployment to co-parenting post-deployment, loneliness and isolation during deployment and post-deployment, loss of independence post-deployment, and fear for safety of their husbands while deployed to military combat, and anxiety about an upcoming deployment when they are home.

The level of depressive symptoms reported by participants in this study has important implications for services that might benefit this population. The significant association between depressive symptoms and marital satisfaction (discussed below), considered together with the associations between marital separation or divorce and suicide in Army soldiers (Hyman, Ireland, Frost, & Cottrel, 2012; Meinhardt, 2009), point to the need for increased behavioral health care and marital counseling services that target this population.

Another variable of interest in the current study was marital satisfaction. Overall, participants' total scores on the DAS showed a low-average level of self-reported marital satisfaction (M = 107.2, SD = 22.8). There was one (.7%) lower outlier score on the DAS; however, however, analyses that omitted cases of outliers found that the mean for scores on the DAS remained within the confidence interval of the analysis that included all of the cases.

Results of marital satisfaction measured by the DAS in this study (M = 107.2, SD = 22.8, CI Upper = 111.03, CI Lower = 103.37) were consistent with findings of a prior study of 49 Guard spouses of male soldiers who returned from military combat in Iraq (M = 107.98, SD = 12.91, CI Upper = 111.59, CI Lower = 104.37; Reddy, Meis, Erbes, Polusny, & Compton, 2011). Additionally, participants in this study reported comparable levels of marital satisfaction, measured by the DAS, in treatment seeking veterans and civilians diagnosed with PTSD and their partners (20 in treatment spouses M = 104.0, SD = 21.0, CI Upper = 113.2, CI Lower = 94.8; and 20 wait list spouses M = 99.5, SD = 19.9, CI Upper = 108.23, CI Lower = 90.77; Monson et al., 2012),

A third variable that was examined in the current study was marital aggression, which was broken down into three types of aggression – psychological aggression, physical aggression and sexual coercion – and both participant victimization and perpetration were examined. In this study, 80% of the participants reported on the CTS2 that they were victims of psychological aggression by their partners. Additionally, 81% of the participants reported they perpetrated psychological aggression on their partners.

In this study, as measured by the CTS2, 17.6% of the participants reported that they were victims of physical aggression by their partners. Additionally, 16.9% of the participants reported that they were perpetrators of physical aggression on their partners.

In this study, as measured by the CTS2, 17.6% of the participants reported that they were victims of sexual coercion by their partners. Additionally, 5.9% of the participants reported that they were perpetrators of sexual coercion on their partners.

Participants in this study reported low-average marital satisfaction and reported a high prevalence of marital aggression both as victims and as perpetrators. Participants reported very high rates of victimization from and perpetration of psychological aggression in their marriages. They also reported high rates of victimization from physical aggression and sexual coercion and perpetration of physical aggression. These findings implicate that Reserve Component families need improved access to behavioral health and marital counseling services, which may help them with their marital functioning and may help reduce the prevalence of marital aggression.

Another area of interest for this study was perceived community (friends and family) social support satisfaction. In this study, MSPSS Support from Friends ($M = 19.1$, $SD = 6.13$) and Support from Family subscales ($M = 18.76$, $SD = 5.9$) and the

SSQSR Satisfaction subscale (M = 30.4, SD = 7.2) were used to measure perceived community social support satisfaction. The SSQSR had three (2%) outlying scores that were greater than three standard deviations from the norm; however, analyses that omitted cases of outliers found that the mean for scores on the SSQSR remained within the confidence interval of the analysis that included all of the cases.

Another variable of interest to the current study, perceived military social support satisfaction, focused on two military services, Yellow Ribbon Events and Family Readiness Groups. Of the 88 participants who participated in the Yellow Ribbon Events, 51% reported satisfaction, 33% reported dissatisfaction, and 16% reported they were neither satisfied nor dissatisfied with the Yellow Ribbon Events. We did not locate any additional studies that assessed satisfaction with the Yellow Ribbon Events.

Of the 84 participants who participated in the Family Readiness Groups, 38% reported satisfaction, 44% reported dissatisfaction, and 18% reported they were neither satisfied nor dissatisfied with the Family Readiness Groups. In comparison, a survey of Army families found that 47% of the spouses who participated in a Family Readiness Group reported satisfaction with the help they received to prepare them for their husband's return from military combat (Rayzor, 2011). Additionally, in the 2004/2005 Survey of Army Families, 44% to 60% of spouses reported satisfaction with post-deployment support from their Family Readiness Group (Orthner, & Rose, 2006). The findings of low levels of satisfaction suggest that the Family Readiness Groups, as well as the Yellow Ribbon Events, could be improved to increase satisfaction among Reserve Component spouses.

Findings for the second goal, which examined the inter-correlations of self-reported depressive symptoms with self-reported marital adjustment and perceived community or military social support satisfaction, indicated that a self-reported composite measure of depressive symptoms in this study's population of Reserve Component spouses was significantly correlated with self-reported measures of marital satisfaction, psychological aggression whether the participant was a victim or perpetrator, sexual coercion when the participant was the victim, and perceived community and military social support satisfaction. As expected, results of this study showed a significant negative association between self-reported measures of depressive symptoms and marital satisfaction. These results are similar to previous published studies that involved populations of chronically depressed outpatients (Foran, et al., 2012), Minnesota Twin Family study participants (South, Krueger, & Iacono, 2011), pregnant married women (Whisman, Davila, & Goodman, 2011), inpatients with MDD (Kronmuller et al., 2009; Kronmuller et al., 2011), patients with renal disease (Pruchno, Wilson-Genderson, & Cartwright, 2009), a national sample of Canadians (Bulloch, Williams, Lavorato, & Patten, 2009), and a community sample of married women (Whitton, Stanley, Markman, & Baucom, 2008).

Previous studies suggest that the causal relations between depressive symptoms and marital satisfaction may be bi-directional (Bulloch, Williams, Lavorato & Patten, 2009; Pruchno, Wilson-Genderson & Cartwright, 2009; Whisman, 2001 Whisman, Davila, & Goodman, 2011; Whisman, & Uebelacker, 2009). On the one hand, marital dissatisfaction may lead to an individual's depressive symptoms because marital distress decreases support from the spouse, such as less cohesion, less intimacy and less

emotional acceptance, from the spouse (Whisman, 2001; Whisman, & Uebelacker, 2009). On the other hand, depressive symptoms may lead to marital dissatisfaction because the behavior of the depressed individual may be experienced as aversive and the avoidance or negative responses of the spouse to the depressed individual's behavior could strengthen the depressive symptoms and lead to increased difficulties in the marital relationship (Kronmuller et al., 2011; Whisman, 2001; Whisman, Davila, & Goodman, 2011; Whisman, & Uebelacker, 2009).

Moderating variables may also play a role in the association between depressive symptoms and marital satisfaction. Perceptions of interactions as well as expectations of gender roles in the marital relationship may play a roll in the association between depression and marital satisfaction (Davila, Karney, Hall, & Bradbury, 2003; Uebelacker, Bourtnage & Whisman, 2003). In other words, when a spouse is depressed, she may have a negative bias when she interprets interactions in her marital relationship. Another moderating variable, emotional withdrawal was proposed by Gottman & Krokoff (1989). They suggested that the emotional withdrawal of one spouse in a marital relationship is a risk factor for marital dissatisfaction in the other spouse. It is likely that the participants in this study who reported their spouses have been diagnosed with PTSD (35%), had a high risk for marital dissatisfaction related to their spouse's emotional withdrawal. In line with this explanation, Monson et al. (2009) found that emotional withdrawal by husbands was significantly associated with the marital dissatisfaction and depressive symptoms of their wives.

In line with Lawrence, Yoon, Langer, and Ro (2009), significant associations were found between self-reported measures of depressive symptoms and psychological

aggression when the participant was either the victim or the perpetrator. Other studies have found that measures of depressive symptoms were significantly higher for victims of psychological aggression, compared to those who were not victims in a community sample of couples (Taft et al., 2006), a community sample of young couples at risk for antisocial behavior (Kim & Capaldi, 2004), and outpatients with chronic depression (Foran et al., 2012). Additionally, previous studies found significant associations between depressive symptoms and perpetration of psychological aggression in populations of male veterans (Taft et al., 2009), undergraduate students in a relationship (Marshall, Sippel, & Beleau, 2011), a community sample of young couples at risk for antisocial behavior (Kim & Capaldi, 2004), and a community sample of young women in a relationship (Capaldi & Crosby, 1997).

In line with Foran et al. (2012), no significant associations were found in this study between self-reported measures of depressive symptoms and physical aggression, whether the participant was the victim or the perpetrator. Additionally, Iverson et al. (2011) found no significant association between self-reported measures of depressive symptoms and physical aggression when the participant was the victim in a baseline assessment of treatment seeking women survivors of interpersonal physical aggression. However, in contrast with this study, their study found significant associations between self-reported measures of depressive symptoms and physical aggression when the participant was the victim during their six-month follow-up assessment in women who did not respond to treatment and who were re-victimized (Iverson et al., 2011). This study's findings are also in contrast with those from previous studies (Kim & Capaldi, 2004; Golding, 1999; Stith et al., 2004; Varma et al., 2007) that did find significant

associations between measures of physical aggression and depressive symptoms. It is possible that the frequency of physical aggression may have an effect on the strength of the association with measures of depressive symptoms and that this study's participants have not experienced frequent victimization or perpetration of physical aggression. It is also possible that there was a high error variance in the subscale measures of these constructs.

In contrast with this study, in their review of the literature, Dutton and Karakanta (2013) found consistent evidence for the association between measures of physical aggression perpetration and depressive symptoms. They stated that the association between perpetrated physical aggression and depression likely occurs because of moderating factors related to the perpetrator such as genetics, personality disorders, insecure attachment, isolation, low social support, increased alcohol use, angry ruminations, or impulsivity (Dutton, & Karakanta, 2013).

In this study, a significant association was found between self-reported measures of depressive symptoms and sexual coercion when the participant was the victim. To our knowledge, there have been no previous studies that have examined the association between sexual coercion and depressive symptoms within marital relationships. Additionally, a significant association was not found between self-reported measures of depressive symptoms and sexual coercion when the participant was the perpetrator. However, only eight participants reported perpetration of sexual coercion, and therefore the findings should be interpreted with caution due to low power.

In this study, the composite measure of marital aggression (a total of the self-reported CTS-2 Psychological Aggression, Physical Aggression, and Sexual Coercion

subscales), when the participant was the victim or the perpetrator, was significantly associated with a self-reported composite measure of depressive symptoms. These findings were in line with previous studies that found significant associations between depressive symptoms and psychological aggression (Capaldi, & Crosby, 1997; Dutton & Karakanta, 2013; Foran et al., 2012; Kim & Capaldi, 2004; Marshall, Sippel, & Beleau, 2011; Taft et al., 2006; Taft et al., 2009) and physical aggression (Golding, 1999; Iverson et al., 2011; Kim & Capaldi, 2004; Stith et al., 2004; Varma et al., 2007). However, to our knowledge, no studies have examined the association between a composite measure of marital aggression and depressive symptoms. This composite measure likely reduced error variance by decreasing the idiosyncratic error variance associated with each subscale measure (Haynes, et al., 2011) and, therefore was a more valid measure of the construct.

In line with prior research, (Abbey, Abramis, & Caplan, 1985; Beck, Grant, Clapp, & Palyo, 2008; Cranford, 2004; Dean, Kolody & Wood, 1990; Haden & Scarpa, 2008; Ownsworth, Henderson, & Chambers, 2009; Pietrzak et al., 2010) this study found a significant association between self-reported measures of perceived social support satisfaction and depressive symptoms. In their review of the association between depression and social support, Lakey and Cronin (2008) found support for the theory that depressed persons perceive that they receive less social support than those who are not depressed. Additionally in this study, the military support measure (self-reported perceived satisfaction with Yellow Ribbon Events and Family Readiness Groups) was significantly associated with self-reported depressive symptoms. However, prior research on the association between self-reported depressive symptoms and perceived

satisfaction with the Yellow Ribbon Events and/or Family Readiness Groups was not found.

No significant associations were found in this study between self-reported measures of perceived community or perceived military social support satisfaction and self-reported measures of psychological aggression, physical aggression, and sexual coercion, whether the participant was the victim or the perpetrator. These findings are inconsistent with those of Beeble et al. (2009) who found a significant negative association between measures of community social support and psychological aggression. However, in line with this study, they did not find a significant negative association between measures of community social support and physical aggression. Additionally, in contrast with this study, Caldeira and Woodin (2012) found a significant negative association between measures of appraisal and tangible support and physical aggression. It is possible that the findings differ across studies partly because of the different methods of defining and measuring the construct of social support.

In contrast with previous studies (Abbey et al., 1985; Beck, et al., 2008; Cranford, 2004; Dean et al., 1990; Haden & Scarpa, 2008; Ownsworth et al., 2009; and Pietrzak et al., 2010), no significant moderating effects from self-reported measures of perceived community social support satisfaction on the associations between a self-reported composite measure of depressive symptoms and measures of marital satisfaction or marital aggression were found in this study. In addition, this study found no significant moderating effects, from self-reported measures of perceived military social support satisfaction, in the associations between a self-reported composite measure of depressive symptoms and measures of marital satisfaction or marital aggression. The current study

adds further support to the body of literature that did not find a moderating effect from measures of perceived social support satisfaction. For example, a moderating effect from measures of perceived social support satisfaction was not found in studies on associations between measures of depressive symptoms and psychological or physical aggression (Beeble et al., 2009), between measures of bereavement and recovery from bereavement (Stroebe, Zach, Stroebe, & Abakomken, 2005), and between measures of depressive symptoms and negative life events (Burton, Stice, & Seeley, 2004). Lakey and Cronin (2008) reviewed multiple studies on the association between measures of perceived social support and measures of depressive symptoms and psychological/physical aggression in their book chapter. In their review, they found inconsistent evidence that measures of perceived social support satisfaction moderated the strength of associations between measures of depressive symptoms and other psychosocial variables.

In line with prior research (Lakey and Orehek, 2011), in this study, measures of self-reported perceived community social support satisfaction significantly increased the proportion of variance accounted for in a composite measure of self-reported depressive symptoms in a model that included a measure of self-reported marital satisfaction, in a model that included a measure of martial aggression when the participant was the victim, and in a model that included a measure of marital aggression when the participant was the perpetrator. Furthermore, a measure of self-reported perceived military social support satisfaction significantly increased the proportion of variance accounted for in a composite measure of self-reported depressive symptoms in a model that included a measure of marital aggression when the participant was the victim, and in a model that included a measure of marital aggression when the participant was the perpetrator.

However, in this study, a measure of self-reported perceived military social support satisfaction did not significantly increase the proportion of variance accounted for in a composite measure of self-reported depressive symptoms in a model that included a measure of self-reported marital satisfaction.

In their review of social support literature, Lakey and Orehek (2011) proposed a "relational regulation" theory as an explanation of the consistent findings in research on the main effects that measures of perceived social support have been shown to have on severity of depressive symptoms. Additionally, they proposed the relational regulation theory as an explanation of the inconsistent findings in research on the moderating effects of perceived social support satisfaction between depressive symptoms and other psychosocial variables. Lakey and Orehek proposed the concept that people regulate their emotions, thoughts, and behaviors through their social interactions and it is the relational influence of the social interaction that determines the level of support people perceive. In contrast to the stress buffering theory that emphasizes that social support's benefits come from appraisal and on learning how to cope with stress through the social interaction, Lakey and Orehek's relational regulation theory emphasizes that it is the ordinary, day-to-day interactions in the social interaction that provide the benefits of social support. From the relational regulation point of view, social support is perceived through meaningful conversations on topics of shared interest and through shared activities. In other words, one person is likely to perceive another person as supportive if the other person has similar attitudes, values, and interests. Additionally, if a person's affect is positively altered through an interaction with another person, then she will likely perceive that person as supportive. The relational regulation theory explains that the

main effect of social support's relation to depression derives from social interactions, such as substantial conversations and mutually shared interests and activities that create positive changes in affect (Lakey & Orehek).

Exploratory analyses examined associations between measures of self-reported depressive symptoms, marital aggression, perceived community, and military social support satisfaction, and the DAS subscales: Dyadic Consensus, Dyadic Satisfaction, Affectional Expression, and Dyadic Cohesion. Each DAS subscale was highly associated with each measure (depression composite measure, CTS2 subscales, social support composite measure, and military support measure) and showed high degrees of multicoliniarity, which indicates that each subscale is unlikely to provide independent information beyond that provided by the total score.

Limitations

Although the current study contributes to the scant literature on the Reserve Component spouse population, the aforementioned findings should be interpreted in light of the following limitations. First, data collection through an online survey instrument had its benefits and its limitations. Benefits included the ability to reach a larger national sample of the population of participants and the ability to offer participants anonymous participation. However, this method was limited by its non-randomized sampling of participants and by the possible lack of availability of web access for potential participants. As a result, many spouses were likely not reached and, therefore, not given the opportunity to participate.

Web access was more of a concern fifteen years ago when estimates of access to the Internet in the years 1998-1999 ranged from 27 to 53 percent of the United States

population (Couper, 2000). Recently, however, Internet access has increased in the United States to 76.3 percent (U.S. Census Bureau, 2009). We found no data on how many Reserve Component spouses have Internet access. However, since the military provides methods for families to stay in contact with their deployed relatives through the Internet (Boots on Ground, n.d.), it was assumed that the majority of Reserve Component spouses do have some form of Internet access. Nevertheless, generalization of this study's findings should be limited to Reserve Component wives who have Internet access.

There are other limitations related to problems with recruitment. Some Reserve Component spouses, who had access to this study's Surveymonkey survey, may not have participated because of the stigma against calling attention to their own problems. We found no analyses on the prevalence of this type of stigma. However, anecdotal evidence from individual Reserve Component spouses and postings on social network sites and Army spouse blogs spoke about the problem of calling attention to problems of military spouses. Generally, the concern expressed about the behavior of military spouses calling attention to their problems focused on the idea that the role of a military spouse is to support her husband who served in a military combat mission. A military spouse who calls attention to her problems in the marital relationship would be seen as one who does not support or value her husband's service in the military, who does not support the military community, and who is weak. Other Reserve Component spouses may not have participated in this study's Surveymonkey survey because of a concern about revealing sensitive information and not following operations security (a.k.a., OPSEC) guidelines.

The spouses who participated differed from the general Reserve Component population, which could affect the degree of generalizability of this study's findings. Study participants differed from the general Reserve Component population in self-reported racial and ethnic background, rates of employment, partner's rank, and partner's psychological diagnosis and/or injury. U.S. DOD statistics (2012) indicate 76% of the Reserve Component population is White, compared to 90% of participants in this study who stated they were White. Fewer study participants (61%) reported full or part-time employment than was found in Booth et al. (78-79%; 2007). However, the economic conditions during the survey recruitment period may have had an impact – 13% of study participants' reported they were looking for employment. The percentage of officers and warrant officers of the total Reserve Component (14%; DOD, 2011) is close to the percentage of officers and warrant officers participants reported (16%). However, this study showed that 29% of study participants reported their partner to be ranked as privates and specialists, whereas the total Reserve Component percentage is 48.5% (DOD, 2011). Additionally, 56% of study participants reported their partners to be ranked sergeant, but total Reserve Component percentage of sergeants is 37.5% (DOD, 2011).

In a study of 1585 Guard brigade combat team members, Thomas et al. (2010) found that 33.2 % of Guard soldiers met criteria for PTSD or depressive mood disorders after 12 months of returning from combat deployment. Additionally, an Armed Service Health Surveillance Center report (2013) stated that of 50,759 Army Reserve Component soldiers, who participated in post-deployment reassessments from January to December 2012, 17.1% reported at least two PTSD symptoms, and 31.6% reported depressive

symptoms. In comparison, this study 42% of participants reported that their partners were diagnosed with one or more psychiatric condition. Additionally, this study's participants reported a number of wounded soldiers (18%) and seriously wounded soldiers (11%). The proportion of soldiers wounded reported by this study's participants was likely higher than the total Reserve Component combat soldiers who were wounded in Iraq or Afghanistan. An Armed Forces Health Surveillance Center report (2011) stated that 54,501 male troops (all military branches) were medically evacuated from Iraq and Afghanistan for battle injuries and 5,806 were evacuated for mental health disorders during the period of October 2001 and September 2010. Traumatic brain injury data is reported to have affected 37,749 Army Reserve Component soldiers during the period between 2000 and 2012 (Defense and Veterans Brain Injury Center, 2013). As of December 2009, over two million soldiers (all military branches) have deployed to Iraq and Afghanistan (Tan, 2009) and more troops have deployed since 2009. Given the number of wounded combat soldiers versus the number of deployed combat soldiers, it is likely that there were a greater number of Reserve Component spouses, who participated in this study, whose husbands were wounded in combat than would be found in the Reserve Component combat soldier spouse population as a whole.

Generalizability is also limited due to the exclusion of male and military spouses, exclusion of those in the Reserve Component who have not been deployed or were currently deployed, and exclusion of separated or divorced spouses.

There were limitations in this study's methods due to the sole reliance on self-report measures. First, there are limitations due to error within the specific measures used. Second, data accuracy may be decreased due to a variety of biases including the

participant's mood and emotions at the time of her participation, her purposeful omission of data, her social desirability bias, her perceptual bias, her state-dependent memory, and her memory and/or understanding of her personal situation. In addition to possible demand characteristics associated with self-report, another limitation is that none of the measures or the measures' cut-off scores was normed with a population of Army Reserve Component spouses.

Further limitations derive from the low number of participants who reported that they experienced sexual coercion behaviors as the perpetrator. Interpretation of this study's findings with regard to these behaviors should be made with caution due to low power. Additionally, four measures (QIDS, CES-D, DAS, and SSQSR) had one to three cases that were outliers. When analyzed with the outlying cases omitted (N = 130), four correlations changed significantly. The correlation between CTS2 – Sexual Coercion – participant was the victim measure and the depression composite measure was not significant (0.14, $p \geq .05$). The correlation between CTS2 – Sexual Coercion – participant was the victim measure and CTS2 – Physical Aggression – participant was the victim measure was also not significant (0.17, $p \geq .05$). The correlation between the social support composite measure and CTS2 – Psychological Aggression – participant was the victim measure was significant (-0.15, $p < .05$). Finally, the correlation between the social support composite measure and CTS2 – Psychological Aggression – participant was the perpetrator was significant (-0.18, $p < .05$). However, regression analyses did not show any significant difference between the analyses that included the outliers and the analyses that omitted the outliers.

Future Research

This study's findings indicate many areas that deserve additional research. Findings in this study suggest there are higher average levels of depressive symptoms, which suggests the need for behavioral health services. Further research that focused on the behavioral health service needs of this population would be beneficial to help guide future services. Further research on marital satisfaction and the relation between marital satisfaction and depression would be beneficial with this population, especially because of the suggested associations between relationship problems and suicide. Results from this study also indicate that there are concerning levels of marital aggression in the marriages of Army Reserve Component soldiers during the post-deployment period. Epidemiological studies of marital aggression within marriages in this population would be beneficial to help build awareness of this problem and to guide services.

The results of this study showed that some spouses have low depressive symptoms and high marital satisfaction. Further research on spouse resiliency and coping skills that pertain to each part of the military combat deployment cycle could help guide treatment and behavioral health services.

This study found that not all participants participated in Yellow Ribbon Events and Family Readiness Groups. Future research on filling in the gaps to accessing services would be beneficial to this population. Participants in this study reported that they were not very satisfied with Yellow Ribbon Events and Family Readiness Groups during the post-deployment period. Results also indicated that these military support services did not have a significant effect on the relations between depression and marital satisfaction and a very small effect on the association between depression and marital

aggression. Future research that focuses on enhancing the effectiveness of these services and their cost-effectiveness would be beneficial to this population

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Appendix A: Sample Email for Distribution to Members of Army Wives'

Organizations

Dear _____,

I am a graduate student in the Psychology department at the University of Hawai‘i at Mānoa and I am doing research on Army National Guard and Reserve wives.

The purpose of this study is to understand what positive or negative changes may have occurred, if any, in your marital relationship since your Army National Guard or US Army Reserve spouse has returned from military combat in Iraq or Afghanistan. In addition, this study is interested in to what degree you have been satisfied with support from family, friends, and your military unit's family support services.

I would like your members to have an opportunity to participate in this study. Please find an email letter attached that you may send to your members to let them know about the research.

The study is set-up as an online survey and is being conducted at the University of Hawai‘i at Mānoa. The principle investigator is Cynthia J'Anthony. If you have any questions about the study, you may contact her through email at csjantho@hawaii.edu.

You may go to the survey by clicking on this link: www.surveymonkey.com or you may copy the link and enter it directly onto your web browser.

Thank you for your consideration to distribute the attached email to your members.

Regards,

Cynthia J'Anthony, MA
PhD. Candidate,
Psychology Department
University of Hawai‘i at Mānoa
Honolulu, Hawai‘i

Attached Sample Email for Recruitment

Dear _____,

We are doing research on spouses of Army National Guard and Reserve soldiers.

Please help us with our research by participating in our survey.

The purpose of this study is to understand what positive or negative changes may have occurred, if any, in your marital relationship since your Army National Guard or US Army Reserve spouse has returned from deployment to Iraq or Afghanistan. In addition, this study is interested in the degree to which you have been satisfied with support from family, friends, and military family support services.

With your help, this study could help improve support services and increase understanding of challenges faced by spouses of the Army National Guard and Reserve.

Your identity is not collected or required and all data is anonymous.

The study is set-up as an online survey and is being conducted at the University of Hawai‘i at Mānoa. The principle investigator is Cynthia J'Anthony, MA who is a Ph.D. candidate in the Psychology Department at the University of Hawai'i at Mānoa. If you have any questions about the study, please feel free to contact her through email at csjantho@hawaii.edu. CHS Protocol #18746.

To go to the survey click on this link: http://www.surveymonkey.com/s/ARNG_and_USAR_Spouse_Survey or you may copy the link and enter it directly onto your web browser.

Thank you for your consideration and support in our efforts.

Regards,

Cynthia J'Anthony, MA
PhD. Candidate,
Psychology Department
University of Hawai‘i at Mānoa
Honolulu, Hawai‘i

Appendix B: Sample Email for Distribution to Online Army Spouse Organizations

Dear _____,

We are conducting research on spouses of Army National Guard and Reserve soldiers.

The purpose of this study is to understand what positive or negative changes may have occurred, if any, in Army National Guard or US Army Reserve spouses' marital relationships since their soldier/spouse returned from deployment to Iraq or Afghanistan. In addition, this study is interested in the degree to which the spouses have been satisfied with support from family, friends, and military family support services.

This study could help improve support services and increase understanding of challenges faced by spouses of the Army National Guard and Reserve.

We would like your members to have an opportunity to participate in this study. Members' identities are not collected or required and all data is anonymous. Please find an email letter attached that you can send to your members to let them know about this opportunity.

The study is set-up as an online survey and is being conducted at the University of Hawai'i at Mānoa. The principle investigator is Cynthia J'Anthony, MA who is a Ph.D. candidate in the Psychology Department at the University of Hawai'i at Mānoa. If you have any questions about the study, please feel free to contact her through email at csjantho@hawaii.edu. CHS Protocol #18746.

You may go to the survey by clicking on this link: http://www.surveymonkey.com/s/ARNG_and_USAR_Spouse_Survey or you may copy the link and enter it directly onto your web browser.

Thank you for your consideration and support in our efforts.

Regards,

Cynthia J'Anthony, MA
PhD. Candidate,
Psychology Department
University of Hawai'i at Mānoa
Honolulu, Hawai'i

Appendix C: Sample Email for Distribution to Online Army Spouse Blog sites

Dear _____,

We are conducting research on spouses of Army National Guard and Reserve soldiers.

The purpose of this study is to understand what positive or negative changes may have occurred, if any, in Army National Guard or US Army Reserve spouses' marital relationships since their soldier/spouse returned from deployment to Iraq or Afghanistan. In addition, this study is interested in the degree to which the spouses have been satisfied with support from family, friends, and military family support services.

This study could help improve support services and increase understanding of challenges faced by spouses of the Army National Guard and Reserve.

We would like your readers to have an opportunity to participate in this study. Your readers' identities are not collected or required and all data is anonymous. Please find a letter attached that you can send or announce to your readers to let them know about this opportunity.

The study is set-up as an online survey and is being conducted at the University of Hawai'i at Mānoa. The principle investigator is Cynthia J'Anthony, MA who is a Ph.D. candidate in the Psychology Department at the University of Hawai'i at Mānoa. If you have any questions about the study, please feel free to contact her through email at csjantho@hawaii.edu. CHS Protocol #18746.

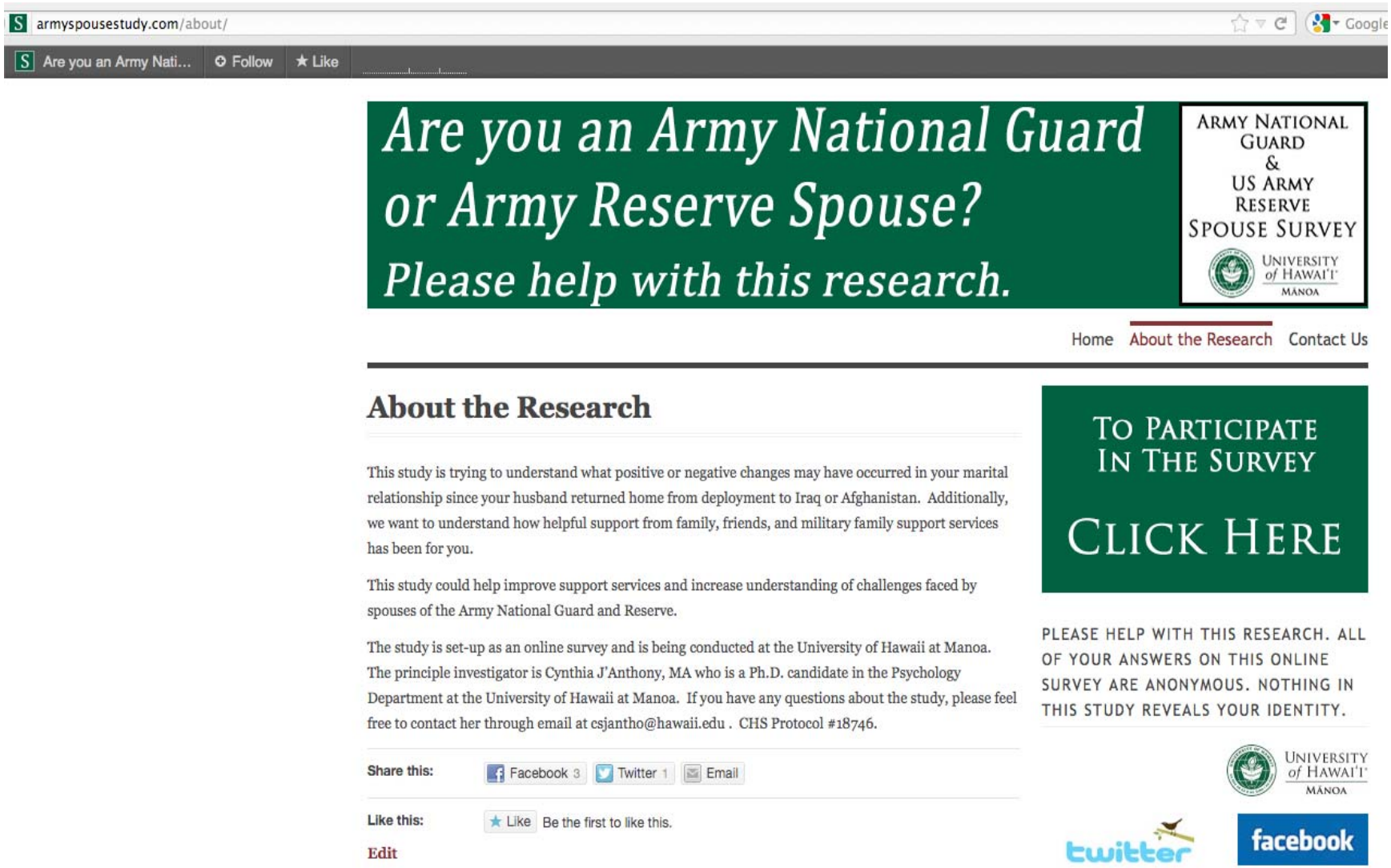
You may go to the survey by clicking on this link: http://www.surveymonkey.com/s/ARNG_and_USAR_Spouse_Survey or you may copy the link and enter it directly onto your web browser.

Thank you for your consideration and support in our efforts.

Regards,

Cynthia J'Anthony, MA
PhD. Candidate,
Psychology Department
University of Hawai'i at Mānoa
Honolulu, Hawai'i

Appendix D: Recruitment Website Home Page



Appendix E: Sample Social Networking Site Post Text (i.e. Facebook, MySpace, etc.)

Please help us with our research by participating in our survey.

This study is trying to understand what positive or negative changes may have occurred in your marital relationship since your husband returned home from deployment to Iraq or Afghanistan. In addition, this study's interest is to understand how helpful support from family, friends, and military family support services has been for you.

With your help, this study could help improve support services and increase understanding of challenges faced by spouses of the Army National Guard and Reserve.

This is an online research study.

To participate, please go to:
http://www.surveymonkey.com/s/ARNG_and_USAR_Spouse_Survey

The study is set-up as an online survey and is being conducted at the University of Hawai'i at Mānoa. The principle investigator is Cynthia J'Anthony, MA who is a Ph.D. candidate in the Psychology Department at the University of Hawai'i at Mānoa. If you have any questions about the study, please feel free to contact her through email at csjantho@hawaii.edu.

CHS Protocol #18746

Photo for Social Networking site page

Appendix F: Sample Twitter Notices

Army National Guard or Reserve Spouses, please take our survey:
www.surveymonkey.com/s/ARNG_and_USAR_Spouse_Survey

Spouse back from OIF/OEF? Take our survey:
www.surveymonkey.com/s/ARNG_and_USAR_Spouse_Survey

ARNG Spouse: Has your spouse returned from OEF/OIF? Please take our survey:
www.surveymonkey.com/s/ARNG_and_USAR_Spouse_Survey

USAR Spouse: Has your spouse returned from OEF/OIF? Please take our survey:
www.surveymonkey.com/s/ARNG_and_USAR_Spouse_Survey

Appendix G: Sample Press Release

Contact: Cynthia J'Anthony, M.A.
Phone: (808) 778-5755
Email: csjantho@hawaii.edu
FOR IMMEDIATE RELEASE
May 6, 2011

NEW RESEARCH FOCUSES ON POST–DEPLOYMENT EXPERIENCE OF NATIONAL GUARD AND US ARMY RESERVE SPOUSES

The ravages of war often stay with soldiers as they return from Iraq or Afghanistan. Guard and Reserve soldiers return from battle directly into their civilian communities. Now their spouses are on the frontline. Researchers to date have largely ignored these spouses. New research focuses on the post-deployment experience of this neglected population. Support for military families is a timely topic and deserves nationwide attention.

When deployed Guard and Reserve soldiers return from combat they go directly back into civilian communities. Their homes and families are off military bases - often great distances from existing post-combat support systems. Their spouses are thrust into caring for and coping with someone who may have been profoundly affected by combat. Recent studies indicate that Guard and Reserve soldiers experience higher rates of PTSD and suicide than active duty soldiers. How are spouses coping with this? How is it affecting their marriage? Is there volatile behavior in the home? Are spouses experiencing any behavioral health issues? Where do spouses turn for help? Is military family support helpful? Is support from family or friends helpful? This study seeks to answer these important questions.

This nationwide study is being conducted at the University of Hawai'i at Mānoa, and it focuses on marital distress and behavioral health issues of Army National Guard and US Army Reserve spouses. Numerous studies have researched the adverse impact military combat has on the behavioral health problems of military combat soldiers. However, little research has examined the level of post-deployment marital distress and related behavioral health issues affecting the spouses. Research is especially lacking for spouses of National Guard and Reserve soldiers.

Recruitment is underway for this study nationwide. The study is set-up as an online survey and the link to the survey is located at http://armyspousestudy.com. The participant's identity is not collected or required and all data received is anonymous. This study will be used to inform the public and policy makers about the challenges faced by spouses of Guard and Reserve soldiers who have returned from Iraq and Afghanistan military combat deployment. Additionally, the study will inform the public and policy makers about the community and military family support service needs of this population. Furthermore, studies of spouses in all branches of the military are greatly needed as well and it is hoped that the findings of this current study will help to further research for all military spouses.

If you are a civilian spouse (or unmarried couple but living together) of an Army National Guard or Reserve soldier who has returned from OEF/OIF deployment, your participation is very important. You will have the opportunity to have your personal situation heard and understood. By participating, you will help get information to the public about the challenges faced by Guard and Reserve spouses, which could lead to improved and/or new services to Guard and Reserve families. We anticipate that some spouses and their marriages are doing well and some are not. In order to understand the differences in these spouses and their marriages, it works best to compare and contrast the different situations, so we encourage spouses who are doing well to participate in the survey as well as those who feel they are not doing well.

Cynthia J'Anthony, MA is the principle investigator for this study. She is a doctoral candidate in clinical psychology at the University of Hawai'i at Mānoa's Department of Psychology.

Appendix H: Sample Flyer

ARE YOU AN ARMY NATIONAL GUARD OR ARMY RESERVE SPOUSE?

PLEASE HELP WITH THIS RESEARCH

The goal of this study is to understand what positive or negative changes may have occurred in your marital relationship since your husband returned home from deployment to Iraq or Afghanistan. Additionally, we want to understand how helpful support from family, friends, and military family support services has been for you.

This study could help improve support services and increase understanding of challenges faced by spouses of the Army National Guard and Reserve.

This is an online research study.
All responses are anonymous.

Please participate, go to:

http://armyspousestudy.com

If you do not have access to the Internet and wish to participate, please contact Cynthia J'Anthony, MA at (808) 778-5755.

This is a research study conducted at the University of Hawai'i at Mānoa.
Principle investigator: Cynthia J'Anthony, MA csjantho@hawaii.edu
CHS Protocol #18746

Appendix I: Online Survey

Informed Consent

Informed Consent

BRINGING THE WAR HOME:

MARITAL DISTRESS AND DEPRESSION IN ARMY RESERVE COMPONENT SPOUSES

Thank you for considering to participate in this study.

This is a research study conducted at the University of Hawaii at Manoa by Cynthia J'Anthony, M.A., who is the principle investigator. Your participation in this study is voluntary. You should read the information below before deciding whether or not to participate.

Purpose of the study:

The purpose of this study is to:

1. Understand what positive or negative changes may have occurred, if any, in your marital relationship since your Army National Guard or US Army Reserve spouse has returned from military combat in Iraq or Afghanistan.

2. Understand to what degree you have been satisfied with support from family, friends and your military unit's family support services.

Procedures:

This study involves using this online survey to answer some background questions about you and your spouse, to fill out some questions about your emotions, mood, and your marital relationship as well as questions about military family resources, and support from friends, and family. There are also questions at the end that ask you to share your personal thoughts.

You are encouraged to answer all the questions in order to help us more accurately understand your situation. However, your answer to each question is voluntary.

To participate in this study, you need to click on the "I Consent" button (at the bottom of this page)and answer the questions presented. It is estimated that the survey will take approximately 20 to 25 minutes to complete.

Potential risks and discomforts:

There are no physical health or injury risks in taking this online survey. There may be a risk that some questions could cause discomfort. If at any time you read a question that you are not comfortable answering, you do not need to answer it.

Anticipated benefits:

While there may be no direct benefits to your participation, this study may help to improve services and understand problems faced by spouses of the Army National Guard and Reserve. In addition, some people find a personal reward in participating in research that could be helpful to others in the future.

Anonymity:

All of your answers on this online survey are anonymous. Nothing in this study reveals your identity.

Participation and withdrawal:

Your participation in this research is voluntary. If you choose not to participate, it will not affect you in any way. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without prejudice.

Identification of investigators:

If you have any questions about the research, please feel free to contact Cynthia J'Anthony, M.A. at csjantho@hawaii.edu.

Rights of research subjects:

If you have questions regarding your rights as a research subject, you may contact the:

Committee on Human Studies

1960 East-West Road

Biomedical Building, Room B-104

Honolulu, HI 96822

Phone: 808-956-5007

1. Consent to Participate

○ I Consent ○ I Decline

2. Do you want information on how to remove this survey from the history of your web browser?

○ Yes

○ No

Information on Removing History from a Browser

Information on removing history from your browser

The graphics cache, your browser's back button, history file and cookies all can hold data leaving a trail of your internet activities. This data can be held in the files until they are manually cleared. If you are concerned about someone knowing you participated in this survey please follow the instructions below to remove the survey from your web browser history.

These suggestions will help keep someone with average computer skills from being able to trace your web browser history.

Before you begin, be sure to determine correctly which browser you are using. We have the instructions for Internet Explorer, Firefox, Netscape, Opera and Safari. If you are using a different type of browser you will need to consult with either an operating manual or use Google to search for instructions on deleting the history from your browser.

MICROSOFT INTERNET EXPLORER USERS

Note: Users running Internet Explorer 7.0 and above need to press the Alt key in order to access the file menu & get access to options such as File, Tools, etc.

View History

Microsoft Internet Explorer 7 and above users: Click "Tools" menu, "Internet Options", click "Settings" button under the Browsing history, and then click "View Files". Microsoft Internet Explorer 6.x users: Click "Tools" menu, "Internet Options", click "Settings" button, and then click "View Files".

Deleting History

Microsoft Internet Explorer 6.x and 7.x: Click "Tools" menu, "Internet Options", and click "Delete Files" or "Delete" button.

Users also have the option of automatically deleting files each time they close the browser window by clicking the "Advanced" tab and checking "Empty Temporary Internet Files folder when browser is closed" under the "Security" section.

Microsoft Internet Explorer 4.x users on an Apple Macintosh: Click "Hard Drive" icon, "System", "Preferences", "Explorer", and move the history file into the trash.

Microsoft Internet Explorer 3.02 and lower users: Click "View", "Options", open the tab "Advanced", click the "Settings" tab, and click the "Empty Folder" button.

MOZILLA FIREFOX USERS

View History

Press Ctrl + H to open the left-side history bar. or

Click History at the top of the window. or

Users using earlier versions of Mozilla Firefox can also view their history by clicking "Go" and clicking "History."

Delete History

Click the "Tools" menu, "Options", clicking the "Privacy" button, and under "History" click the "Clear" or "Clear Now" button. or

Press CTRL + Shift + DEL to open the Clear Data Window.

NETSCAPE USERS

View History

Open Netscape and click the "Edit" menu, "Preferences", "History", and view the location where Netscape is storing your files. Next, open this folder within Explorer.

Deleting History

Click the "Edit" menu, "Preferences", "History", and click the "Clear History" button.

OPERA USERS

View History

Click “Help” and then “About”. Within the “About Opera” window you'll see the full path to where the cached files are stored. Browse to that file path to view cached files.

Delete History

Click the "File" menu, "Preferences", "History", and click "Empty now" button. In addition, users can check "Empty on exit" if they wish for this task to occur each time they exit the browser.

SAFARI USERS

View History

At the top of the screen there are menu options. Click on "History."

Delete History

Choose 'Clear History' at the bottom of the pull down menu.

Background Questions

Background Questions

Instructions:

Please answer the following background questions about yourself and your spouse. If you feel the answers provided do not fit your situation exactly, then please choose the answer that is closest to your situation. If you do not feel comfortable answering a question, you do not have to answer it. However, please understand that all questions asked are important to the study and will be helpful in understanding the results of the study. Thank you for your participation.

1. Gender

- ☐ Male
- ☐ Female

2. What year were you born?

3. What is the zip code where you currently live?

4. Race/Ethnicity

	Race	Are you of Hispanic, Latino or Spanish ethnicity?
Race and Ethnicity		

If you selected an "other" race (please specify)

5. What is your level of education?

6. What is your annual household income?

7. What is your employment status? (select all that apply)

- ☐ Unemployed (by choice)
- ☐ Unemployed (looking for work)
- ☐ Employee Full-time
- ☐ Employee Part-time
- ☐ Self-employed Full-time
- ☐ Self-employed Part-time
- ☐ Family business Full-time
- ☐ Family business Part-time

Average number of hours you work per week:

8. Please enter the year you were married (or, if not married, the year you started living together as a couple)

9. Please select the item that describes your Marital Status:

Background questions continued

1. Are you currently pregnant?

- ○ Yes
- ○ No

2. How many children live with you and are in your care?

Number of Children

3. How old are your children who live with you?

	Youngest or Only Child	Child 2	Child 3	Child 4	Child 5	Child 6
Select ages:						

Ages of additional children

4. How many step-children live with you and are in your care?

Number of Step-children:

5. How old are your step-children who live with you?

	Youngest or Only Step-Child	Step-Child 2	Step-Child 3	Step-Child 4	Step-Child 5	Step-Child 6
Select ages:						

Ages of additional step-children

6. Are you currently or have you ever been enlisted, appointed or inducted into military service?

- ○ Yes
- ○ No

7. Has your spouse ever served in the military?

- ○ Yes
- ○ No

8. Has your spouse been deployed to Iraq (OIF) or Afghanistan (OEF)for military combat missions?

- ○ Yes
- ○ No

Background Questions: Spouse's Military Career

The following questions refer to your spouse's military career. Please answer them to the best of your knowledge.

1. Please select the military branch your spouse serves (served)in:

2. Please select your spouse's military component:

3. Is your spouse currently serving in the military?

- Yes
- No

4. If no:

	Month of Separation	Year of Separation
Please select month and year of separation from the service:		

5. Number of OIF/OEF Deployments

	Number of OIF/OEF Deployments
How many times has your spouse been deployed to Iraq or Afghanistan for a military combat mission?	

6. Deployment Length

	Length of OIF/OEF Deployment (Months)
How long was your spouse's most recent OIF/OEF deployment?	
How long was your spouse's longest OIF/OEF deployment?	

7. When did your spouse return home from the last deployment?

	Month	Year
Please select both Month and Year		

8. Please select which is currently true:

	Deployed to Iraq or Afghanistan	Deployed but not to Iraq or Afghanistan	Living at home	Not living at home but not deployed
My spouse is currently:	○	○	○	○

9. How many years has your spouse been in the military?

10. What is your spouse's current rank?

Background Questions: Spouse's Military Career continued

1. Is your spouse currently employed? (select all that apply)

- ☐ No - Due to lack of available jobs
- ☐ No - Due to his physical disability
- ☐ No - Due to his mental health disability
- ☐ No - Due to retirement
- ☐ No - Due to Other (see below)
- ☐ My spouse is Full-Time Military
- ☐ My spouse is a student (Full or Part-time)
- ☐ Yes - Full-time
- ☐ Yes - Part-time

Other (please specify)

2. Was your spouse wounded in military combat in Iraq or Afghanistan? (please select all that apply):

- ☐ No physical injury
- ☐ Traumatic Brain Injury
- ☐ Major injury (such as loss of limb(s), loss of sight/hearing, quadriplegic, paraplegic, chronic debilitating pain or other life changing injury)
- ☐ Other injury (such as shrapnel or bullet wounds, use of limb(s) diminished, partial loss of sight/hearing)

3. To your knowledge, since returning from Iraq or Afghanistan, has your spouse been diagnosed with a psychiatric diagnosis by a licensed practitioner? (please select all that apply)

- ☐ No known or no psychiatric diagnosis
- ☐ Post-Traumatic Stress Disorder
- ☐ Depression
- ☐ Social Anxiety or Phobia
- ☐ Alcohol Use Disorder (alcohol abuse or dependency)
- ☐ Other psychiatric diagnosis

Other (please specify)

4. Since returning from deployment, has your spouse talked about, threatened or attempted to commit suicide?

- ○ Yes
- ○ No

Counseling Hotline Information

Counseling Hotline

If your partner has thoughts of suicide, please call or have your partner the **Suicide Prevention Lifeline at 1-800-273-8255 & press 1 for Veterans** or you may call the **Military One Source counseling line at 1-800-342-9647**. They are available 24 hours a day, 7 days a week.

They will be able to offer counseling over the phone and they can help you find a local therapist whom you and/or your partner can meet with in person.

The Suicide Prevention Lifeline may also be reached online: www.suicidepreventionlifeline.org.

You may also wish to call one of the following crisis hotlines:

Boys Town Suicide and Crisis Line: 800-448-3000 or 800-448-1833 (TDD)

Provides short-term crisis intervention and counseling and referrals to local community resources. Counsels on parent-child conflicts, marital and family issues, suicide, pregnancy, runaway youth, physical and sexual abuse, and other issues. Operates 24 hours, seven days a week.

Covenant House Hotline: 800-999-9999

Crisis line for youth, teens, and families. Gives callers locally based referrals throughout the United States. Provides help for youth and parents regarding drugs, abuse, homelessness, runaway children, and message relays. Operates 24 hours, seven days a week.

Dyadic Adjustment Scale

Relationship Satisfaction

1. Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your spouse for each item on the following list. (Place a checkmark √ to indicate your answer).

	Always agree	Almost always agree	Occasionally disagree	Frequently disagree	Almost always disagree	Always disagree
Handling family (relationship) finances	○	○	○	○	○	○
Matters of recreation	○	○	○	○	○	○
Religious matters	○	○	○	○	○	○
Demonstrations of affection	○	○	○	○	○	○
Friends	○	○	○	○	○	○
Sex relations	○	○	○	○	○	○
Conventionality (correct or proper behavior)	○	○	○	○	○	○
Philosophy of life	○	○	○	○	○	○
Ways of dealing with parents or in-laws	○	○	○	○	○	○
Aims, goals, and things believed important	○	○	○	○	○	○
Amount of time spent together	○	○	○	○	○	○
Making major decisions	○	○	○	○	○	○
Household tasks	○	○	○	○	○	○
Leisure time interests and activities	○	○	○	○	○	○
Career decisions	○	○	○	○	○	○

Relationship Satisfaction continued

1. Please indicate how often the following items happen in your relationship:

	All the time	Most of the time	More often than not	Occasionally	Rarely	Never
How often do you discuss or have you considered divorce, separation, or terminating your relationship?	○	○	○	○	○	○
How often do you or your spouse leave the house after a fight?	○	○	○	○	○	○
In general, how often do you think that things between you and your spouse are going well?	○	○	○	○	○	○
Do you confide in your spouse?	○	○	○	○	○	○
Do you ever regret that you married (or lived together)?	○	○	○	○	○	○
How often do you and your spouse quarrel?	○	○	○	○	○	○
How often do you and your spouse "get on each other's nerves?"	○	○	○	○	○	○

2. Please select how often the following occurs in your relationship:

	Every day	Almost every day	Occasionally	Rarely	Never
Do you kiss your spouse?	○	○	○	○	○
Do you and your spouse engage in outside interests together?	○	○	○	○	○

3. How often do the following occur between you and your spouse?

	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often
Have a stimulating exchange of ideas	○	○	○	○	○	○
Laugh together	○	○	○	○	○	○
Calmly discuss something	○	○	○	○	○	○
Work together on a project	○	○	○	○	○	○

Relationship Satisfaction continued

1. These are some things about which couples agree and sometimes disagree.

Indicate if either item below caused differences of opinion or were problems in your relationship during the past few weeks.

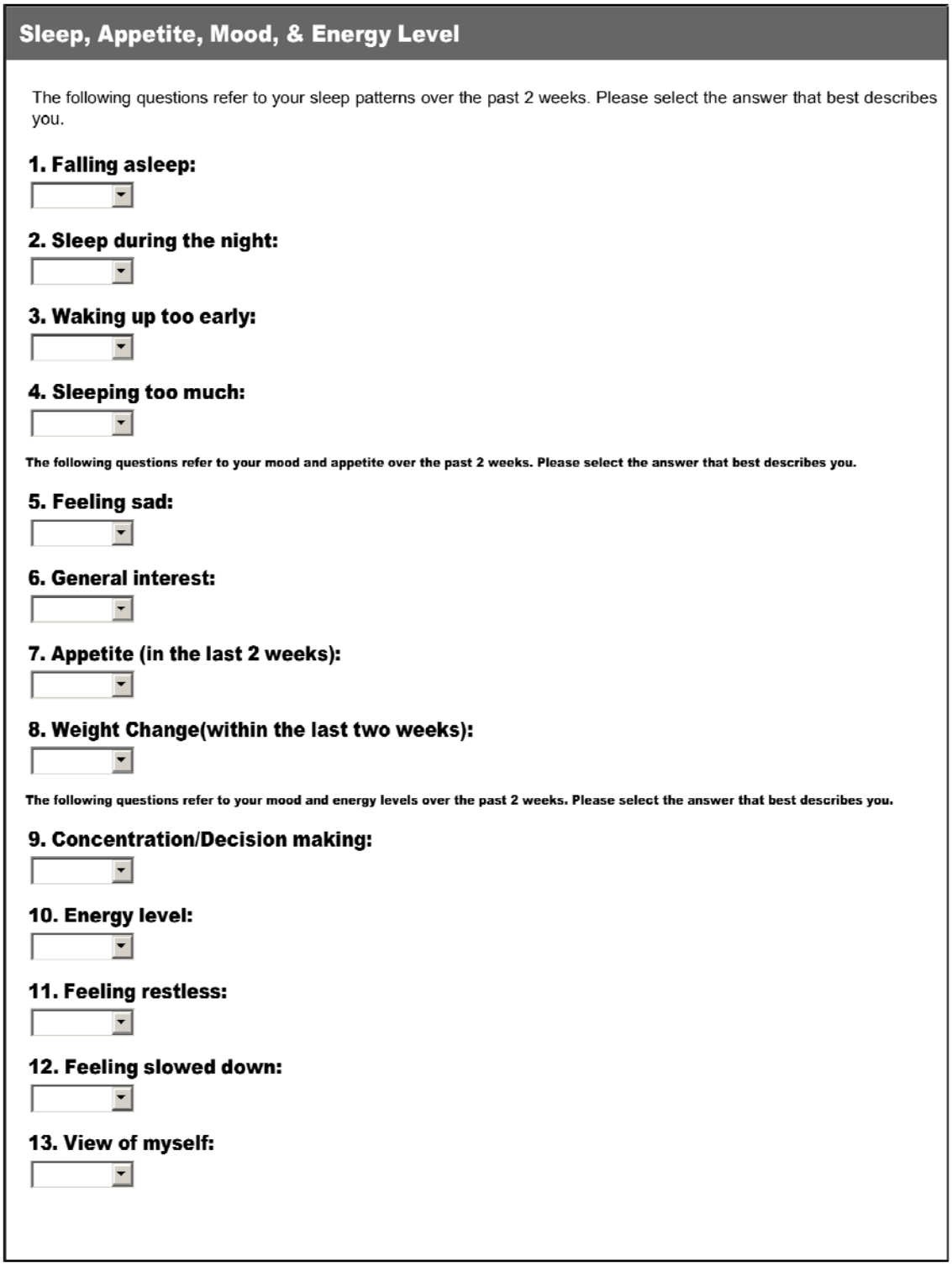
	Yes	No
Being too tired for sex	○	○
Not showing love	○	○

2. The dots below represent different degrees of happiness in your relationship. The point, "happy," represents the degree of happiness of most relationships. Please select the dot that best describes the degree of happiness, all things considered, of your relationship.

○ Extremely unhappy ○ Fairly unhappy ○ A little unhappy ○ Happy ○ Very happy ○ Extremely happy ○ Perfect

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

Quick Inventory of Depressive Symptomatology Self-Report



Sleep, Appetite, Mood, & Energy Level

The following questions refer to your sleep patterns over the past 2 weeks. Please select the answer that best describes you.

1. Falling asleep:

2. Sleep during the night:

3. Waking up too early:

4. Sleeping too much:

The following questions refer to your mood and appetite over the past 2 weeks. Please select the answer that best describes you.

5. Feeling sad:

6. General interest:

7. Appetite (in the last 2 weeks):

8. Weight Change(within the last two weeks):

The following questions refer to your mood and energy levels over the past 2 weeks. Please select the answer that best describes you.

9. Concentration/Decision making:

10. Energy level:

11. Feeling restless:

12. Feeling slowed down:

13. View of myself:

14. Thoughts of death or suicide:

Counseling Hotline Information

Counseling Hotline

If you have thoughts of suicide or of hurting yourself in any way, please call the **Military One Source counseling line at 1-800-342-9647.** They are available 24 hours a day, 7 days a week.

They will be able to offer counseling over the phone and they can help you find a local therapist whom you can meet with in person.

You may also wish to call one of the following crisis hotlines:

Boys Town Suicide and Crisis Line: 800-448-3000 or 800-448-1833 (TDD)

Provides short-term crisis intervention and counseling and referrals to local community resources. Counsels on parent-child conflicts, marital and family issues, suicide, pregnancy, runaway youth, physical and sexual abuse, and other issues. Operates 24 hours, seven days a week.

Covenant House Hotline: 800-999-9999

Crisis line for youth, teens, and families. Gives callers locally based referrals throughout the United States. Provides help for youth and parents regarding drugs, abuse, homelessness, runaway children, and message relays. Operates 24 hours, seven days a week.

Multidimensional Scale of Perceived Social Support

Support from Friends and Family

In this section, you are being asked about support you receive from family and friends.

Each question describes an aspect of support you may receive from friends and/or family.

1. In the range from "very strongly disagree" to "very strongly agree", select the one that best describes your situation.

	Very strongly disagree	Strongly disgree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
My family really tries to help me.	○	○	○	○	○	○	○
I get the emotional help and support I need from my family.	○	○	○	○	○	○	○
My friends really try to help me.	○	○	○	○	○	○	○
I can count on my friends when things go wrong.	○	○	○	○	○	○	○
I can talk about my problems with my family.	○	○	○	○	○	○	○
I have friends with whom I can share my joys and sorrows.	○	○	○	○	○	○	○
My family is willing to help me make decisions.	○	○	○	○	○	○	○
I can talk about my problems with my friends.	○	○	○	○	○	○	○

Yellow Ribbon Events Questions

Military Support Services - Yellow Ribbon Events

This next section asks about military resources and services you may have used and/or participated in, how often you used them and how helpful they were to you.

1. Have you participated in any Yellow Ribbon Events?

- ○ Yes
- ○ No

Military Support Services - Yellow Ribbon Events

The following questions refer to your participation in Yellow Ribbon events.

1. During what stage(s) in your husband's deployment cycle have you attended Yellow Ribbon events? (select all that apply)

- ☐ Pre-deployment
- ☐ During deployment
- ☐ Post-deployment

2. How helpful have the Yellow Ribbon events been...

	Extremely Unhelpful	Not Helpful	Neutral or Does Not apply	Helpful	Extremely Helpful
1. With helping you understand the problems your spouse may have had after returning home from combat?	○	○	○	○	○
2. With helping you get the help you need for problems that may have come up after your spouse returned from combat?	○	○	○	○	○
3. With helping you with marital problems that you might have encountered when your spouse returned from combat?	○	○	○	○	○
4. With helping you maintain healthy emotions since your spouse returned from combat?	○	○	○	○	○
5. With helping you cope with stress since your spouse returned from combat?	○	○	○	○	○

Family Readiness Group Questions

Military Support Services - Family Readiness Group

1. Have you received information from and/or participated in any Family Readiness Group forums, events or volunteer activities?

- ○ Yes
- ○ No

Military Support Services - Family Readiness Group

The following questions refer to your receiving information and/or participation in your Army Guard/Reserve unit Family Readiness Group forums, events or volunteer activities.

1. During what stage(s)in your husband's deployment cycle did you receive information from and/or participate in your Army Guard/Reserve unit Family Readiness Group events or volunteer activities? Select all that apply

- ☐ Pre-deployment
- ☐ During deployment
- ☐ Post-deployment

2. How involved have you been in your Army unit Family Readiness Group?

- ○ Actively involved
- ○ Quite involved
- ○ Somewhat involved
- ○ Occasionally involved
- ○ Rarely involved
- ○ Not involved

3. How helpful has your Army unit Family Readiness Group been...

	Extremely Unhelpful	Not Helpful	Neutral or Does Not apply	Helpful	Extremely Helpful
1. With helping you understand the problems your spouse may have had after returning home from combat?	○	○	○	○	○
2. With helping you get the help you need for problems that may have come up after your spouse returned from combat?	○	○	○	○	○
3. With helping you with marital problems that you might have encountered when your spouse returned from combat?	○	○	○	○	○
4. With helping you maintain healthy emotions since your spouse returned from combat?	○	○	○	○	○
5. With helping you cope with stress since your spouse returned from combat?	○	○	○	○	○

Revised Conflict Tactics Scale

Relationship Behaviors

No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might happen when you have differences. Please select how many times you did each of these things in the past year, and how many times your partner did them in the past year. If you or your partner did not do one of these things in the past year, but it happened before that, please select the dot indicating that it happened before.

1. How often has this happened?

	Once in the past year	Twice in the past year	3 to 5 times in the past year	6 to 10 times in the past year	11 to 20 times in the past year	More than 20 times in the past year	Not in the past year, but it did happen before	This has never happened
I insulted or swore at my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I threw something at my partner that could hurt.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I twisted my partner's arm or hair.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I had a sprain, bruise, or small cut because of a fight with my partner.	○	○	○	○	○	○	○	○
My partner had a sprain, bruise, or small cut because of a fight with me.	○	○	○	○	○	○	○	○
I made my partner have sex without a condom.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I pushed or shoved my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I used force (like hitting, holding down, or using a weapon) to make my partner have oral or anal sex.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I used a knife or gun on my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I passed out from being hit on the head by my partner in a fight.	○	○	○	○	○	○	○	○
My partner passed out from being hit on the head in a fight with me.	○	○	○	○	○	○	○	○

I called my partner fat or ugly.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I punched or hit my partner with something that could hurt.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○

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Relationship Behaviors continued

1. How often has this happened?

	Once in the past year	Twice in the past year	3 to 5 times in the past year	6 to 10 times in the past year	11 to 20 times in the past year	More than 20 times in the past year	Not in the past year, but it did happen before	This has never happened
I destroyed something belonging to my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I went to a doctor because of a fight with my partner.	○	○	○	○	○	○	○	○
My partner went to a doctor because of a fight with me.	○	○	○	○	○	○	○	○
I choked my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I shouted or yelled at my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I slammed my partner against a wall.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I needed to see a doctor because of a fight with my partner, but I didn't.	○	○	○	○	○	○	○	○
My partner needed to see a doctor because of a fight with me, but didn't.	○	○	○	○	○	○	○	○
I beat up my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I grabbed my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I used force (like hitting, holding down, or using a weapon) to make my partner have sex.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I stomped out of the room, or house, or yard during a disagreement.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I insisted on sex when my partner did not want to (but did not use physical force).	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○

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Relationship Behaviors continued

1. How often has this happened?

	Once in the past year	Twice in the past year	3 to 5 times in the past year	6 to 10 times in the past year	11 to 20 times in the past year	More than 20 times in the past year	Not in the past year, but it did happen before	This has never happened
I slapped my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I had a broken bone from a fight with my partner.	○	○	○	○	○	○	○	○
My partner had a broken bone from a fight with me.	○	○	○	○	○	○	○	○
I used threats to make my partner have oral or anal sex.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I burned or scalded my partner on purpose.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I insisted my partner have oral or anal sex (but did not use physical force).	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I accused my partner of being a lousy lover.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I said something to spite my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I threatened to hit or throw something at my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○
I felt physical pain that still hurt the next day because of a fight with my partner.	○	○	○	○	○	○	○	○
My partner still felt physical pain the next day because of a fight we had.	○	○	○	○	○	○	○	○
I kicked my partner.	○	○	○	○	○	○	○	○
My partner did this to me.	○	○	○	○	○	○	○	○

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Domestic Violence Hotline Information

Domestic Violence Hotline

If you need to speak with someone about domestic violence issues, the following resource may be helpful:

National Domestic Violence/Child Abuse/ Sexual Abuse: 800-799-SAFE /800-799-7233/800-787-3224 TDD or 800-942-6908 (Spanish Speaking)

This is a 24-hour-a-day hotline. It provides crisis intervention and referrals to local services and shelters for victims of partner or spousal abuse. English and Spanish speaking advocates are available 24 hours a day, seven days a week. Staffed by trained volunteers who are ready to connect people with emergency help in their own communities, including emergency services and shelters.

The staff can also provide information and referrals for a variety of non-emergency services, including counseling for adults and children, and assistance in reporting abuse. They have an extensive database of domestic violence treatment providers in all US states and territories. Many staff members speak languages besides English, and they have 24-hour access to translators for approximately 150 languages. For the hearing impaired, there is a TDD number. This is a resource for anyone--man, woman or child--who is experiencing or has experienced domestic violence or abuse, or who suspects that someone they know is being abused.

Touch-Tone Telephones:

If you call a hotline from a telephone used by someone who is hurting you don't forget to clear the "redial" button on the phone. When you hang up from making your phone call dial a number such as your local "time and temperature" line or just punch a few random numbers. Then, hang up as your normally would and your trail should be obscured.

Center for Epidemiologic Studies Depression Scale

Mood in the Past Week

Please state how often you have felt this way during the past week.

1. During the past week:

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
I was bothered by things that usually don't bother me.	○	○	○	○
I did not feel like eating; my appetite was poor.	○	○	○	○
I felt that I could not shake off the blues even with help from my family or friends.	○	○	○	○
I felt I was just as good as other people.	○	○	○	○
I had trouble keeping my mind on what I was doing.	○	○	○	○
I felt depressed.	○	○	○	○
I felt that everything I did was an effort.	○	○	○	○
I felt hopeful about the future.	○	○	○	○
I thought my life had been a failure.	○	○	○	○
I felt fearful.	○	○	○	○
My sleep was restless.	○	○	○	○
I was happy.	○	○	○	○
People were unfriendly.	○	○	○	○
I enjoyed life.	○	○	○	○
I had crying spells.	○	○	○	○
I felt sad.	○	○	○	○
I felt that people dislike me.	○	○	○	○
I could not get "going".	○	○	○	○

Social Support Questionnaire (Short Form)

Support from Friends and Family

The following questions ask about people in your environment who provide you with help or support. Each question has two parts:

1.) Select the family members or friends from the drop-down menus below whom you can count on for help or support in the manner described. Select up to nine people by indicating their relationship to you. The drop-down menu purposefully excludes yourself and your spouse. You may select a family member type or friend more than once.

2.) Select from the menu how satisfied you are with the overall support you have.

If you have no support for a question, select the words "No one" on the first drop down menu and leave the rest blank. However, still rate your level of satisfaction.

1. Whom can you really count on to be dependable when you need help?

	Select each person that applies
1st person	
2nd person	
3rd person	
4th person	
5th person	
6th person	
7th person	
8th person	
9th person	

2. How satisfied are you with this support?

3. Whom can you really count on to help you feel more relaxed when you are under pressure or tense?

	Select each person that applies
1st person	
2nd person	
3rd person	
4th person	
5th person	
6th person	
7th person	
8th person	
9th person	

4. How satisfied are you with this support?

5. Who accepts you totally, including both your worst and your best points?

	Select each person that applies
1st person	
2nd person	
3rd person	
4th person	
5th person	
6th person	
7th person	
8th person	
9th person	

6. How satisfied are you with this support?

7. Whom can you really count on to care about you, regardless of what is happening to you?

	Select each person that applies
1st person	
2nd person	
3rd person	
4th person	
5th person	
6th person	
7th person	
8th person	
9th person	

8. How satisfied are you with this support?

9. Whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps?

	Select each person that applies
1st person	
2nd person	
3rd person	
4th person	
5th person	
6th person	
7th person	
8th person	
9th person	

10. How satisfied are you with this support?

11. Whom can you count on to console you when you are very upset?

	Select each person that applies
1st person	
2nd person	
3rd person	
4th person	
5th person	
6th person	
7th person	
8th person	
9th person	

12. How satisfied are you with this support?

Contact Information

Thank you

Thank you for your participation in this survey!

If you know of an Army National Guard or Reserve spouse whose spouse has returned from OIF/OEF combat and who may be interested in participating in this study, please refer them to the survey link:
http://www.surveymonkey.com/s/ARNG_and_USAR_Spouse_Survey.

If you have any questions about this survey please contact the principle investigator, Cynthia J'Anthony, by emailing her at csjantho@hawaii.edu or call 808-778-5755.

You may also contact the University of Hawaii Committee on Human Studies if you have questions about your rights as a participant in this research study. Their contact information is:

Committee on Human Studies

1960 East-West Road

Biomedical Building, Room B-104

Honolulu, HI 96822

Phone: 808.956.5007

Email: uhirb@hawaii.edu.

If you would like to participate in a future research study, please email Cynthia J'Anthony at csjantho@hawaii.edu.

Also,if you would like to receive information on the results of the research, please email Cynthia J'Anthony at csjantho@hawaii.edu with your request. Please understand that it may take some time (possibly a year or more) to compile and analyze the data.

If you feel the need to discuss your answers to any of the questions in this survey or need someone to help you with any emotional distress, **Military OneSource** (militaryonesource.com)provides a 24 hour a day/ 7 days a week confidential call-in line which is available to military families. The number is **1-800-342-9647**. They will also be able to help you connect with a local therapist.

If you need to speak with someone about domestic violence issues, the following resource may be helpful:

National Domestic Violence/Child Abuse/ Sexual Abuse: 800-799-SAFE /800-799-7233/800-787-3224 TDD or 800-942-6908 (Spanish Speaking)

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