MARITAL SATISFACTION: VETERANS FROM OPERATION IRAQI FREEDOM (OIF) AND OPERATION ENDURING FREEDOM (OEF)

by

WARREN PONDER

Presented to the Faculty of the Graduate School of

The University of Texas at Arlington in Partial Fulfillment

of the Requirements

for the Degree of

MASTER OF SCIENCE IN SOCIAL WORK

THE UNIVERSITY OF TEXAS AT ARLINGTON

August 2009

ACKNOWLEDGEMENTS

First I need to thank God, without Him none of this would be possible. I would like to thank my parents who raised me in a productive and healthy manner, who instilled a dedicated work ethic in me from the beginning. I owe great appreciation to my wife, Melissa, and family who have allowed me to pursue academic aspirations with their unwavering and unyielding support. Also my brother who said I never would make it this far, I still remember that conversation and have one more degree to go.

Dr. Aguirre has shown me the ropes and helped me grow as a person and researcher during the thesis experience answering questions at all hours of the day. Dr. Smith-Osborne helped me greatly start the MSSW program, become active in local veteran events, and answered my questions upon my return stateside after my deployment, thank you. Dr. Granvold has greatly impacted my research and practice interests as a social worker. Your direct practice courses have influenced my therapeutic approach and empathy greatly.

This thesis is for the men and women of the U.S. Armed Forced who have sacrificed so much. Hopefully this thesis will shed some light into the area of marriage and combat. My fellow soldiers in Lightning Platoon who helped me through some of the best and worst times of my life, I will never forget my experiences with you all in Iraq.

July 15, 2009

ABSTRACT

MARITAL SATISFACTION: VETERANS FROM OPERATION IRAQI FREEDOM (OIF) AND OPERATION ENDURING FREEDOM (OEF)

Warren Ponder, M.S.S.W.

The University of Texas at Arlington, 2009

Supervising Professor: Regina T.P. Aguirre

The researcher conducted an online survey through social networking sites to identify variables that influenced marital satisfaction among Operation Iraq Freedom (OIF) and Operation Enduring Freedom (OEF) veterans. Surprisingly, post-traumatic stress disorder (PTSD) was not significantly associated with martial satisfaction. However, two key variables were identified to be significant contributors to marital satisfaction: how often per week the veterans communicated with their spouses and length of time stateside. Implications and recommendations for future research are discussed.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

Figure Page

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Over 4500 US service members have been killed defending America's freedom since 9/11 (Fisher, Klarman, Oboroceanu, 2008). Aside from the death toll, how many marriages and relationships have been affected by the War on Terrorism? Historically, divorce rates increase after a war (Gimbel & Booth, 1994; South, 1985). The present conflicts in Iraq (Operation Iraqi Freedom) and Afghanistan (Operation Enduring Freedom) have recently experienced surges in the number of US troops deployed, while our allies are reducing their troop presence. With no end in sight for either conflict, frequent deployments will continue. Currently all research on male soldiers has focused within heterosexual relationships. Women's satisfaction with their quality of life on post (Shores & Scott, 2005) and their attitudes and perceptions have been identified in playing a prevalent role in military recruitment and retention (Grace & Steiner, 1978; Hunter, 1983; Thoresen & Goldsmith, 1987). With wives' attitudes and perceptions playing a paramount factor in retention, the military is forced to address this issue. Renshaw, Rodrigues, and Jones (2008) concluded spouses' perception of combat exposure and marital satisfaction is related. Gimbel and Booth (1994) note "combat directly increases violent and unlawful (antisocial) behavior and stress, which then affects marital quality and stability" (p.702). If the level of combat exposure and soldiers' marital satisfaction are intertwined, then treatment services can be directed to the veterans who report elevated levels of combat exposure upon return to America after their tour overseas to prevent marital dissolution. By increasing the level of marital satisfaction, retention and recruitment may be improved, along with a better quality of life for veterans. Achieving a higher quality of life for soldiers and their spouses will hopefully create a more effective and higher quality fighting force.

1.1 Definitions

- BAS - Basic Allowance for Subsistence (Office of the Secretary of Defense, 2009a)
- BAH - Basic Allowance for Housing (Office of the Secretary of Defense, 2009b)
- OEF - Operation Enduring Freedom (Special Inspector General for Iraq Reconstruction [SIGIR], 2008)
- OIF - Operation Iraqi Freedom (Special Inspector General for Iraq Reconstruction [SIGIR], 2008)
- MHAT - Mental Health Advisory Team (U.S. Army Surgeon General, 2003)
- Theater of War (theatre) - Defined by the Secretary of Defense or the geographic combatant commander, the area of air, land, and water that is, or may become, directly involved in the conduct of the war (Department of Defense, 2001)

1.2 Prevalence

Marital satisfaction and level of combat exposure have inevitably varied from conflict to conflict and would be retrospectively almost impossible to quantify. One way to track satisfaction is by looking at the historical divorce rate. Since the Civil War it has been consistently observed that the general population divorce rate rises after wars. For example, the divorce rate rose from 1.8 per 1000 marriages after the Civil War to 17 per 1000 after WWII (Pavalko & Elder, 1990). Additional rises are illustrated in Figure A.1. During the Korean and Vietnam Wars women did not see much if any combat. The Gulf War was one of the first conflicts in which women were deployed in large numbers (Agrist & Johnson, 2000). Angrist and Johnson (2000) state “higher divorce rates for deployed women were in fact caused by deployment” (p. 51).

There is conflicting research about combat and marital satisfaction. Several studies have postulated that soldiers deployed to Iraq for Desert Storm (Schumm, Bell, & Gade, 2000; Schumm, Bell, Knott, & Rice, 1996) and to Somalia for operation Restore Hope (Bell, Teitelbaum,

& Schumm, 1996; Schumm, Bell, Knott, & Rice, 1996; Schumm, Bell, & Gade, 2000) did not have reduced marital satisfaction. Contrastingly more recent empirical evidence has shown that soldiers deployed to Operation Iraqi Freedom (OIF) (Renshaw, Rodrigues, & Jones, 2008; 2009) have shown a relationship between deployments and marital satisfaction. Renshaw, Rodrigues, and Jones (2008) found a positive relationship between combat exposure and marital satisfaction. Renshaw, Rodrigues, and Jones (2009) assert "combat exposure was not directly related to marital satisfaction" (p. 110). With these mixed results further investigation is needed.

1.3 Impact of the Problem

The War on Terrorism has stretched America's fighting force thin with soldiers currently on their third or even fourth combat deployment. Renshaw, Rodrigues, and Jones (2008; 2009) assert there is a relationship between combat and marital satisfaction. As mentioned previously (Renshaw, Rodrigues, & Jones, 2008) found a positive relationship between combat exposure and marital satisfaction whereas (Renshaw, Rodrigues, & Jones, 2009) found they are not directly related. It is no secret that separation of family members creates elevated rates of depression and anxiety, which add to stress (Eaton et al., 2008). In addition to a typical 12 month separation, military families have to cope with prolonged separation since 2007 when tours were extended to 15 months (SteelFisher, Zaslavsky, & Blendon, 2008). Eaton et al. (2008) present a laundry list of issues that military spouses and families experience: adjustment to a mobile lifestyle, isolation from previous family (nuclear and extended), new military regulations and rules, and family separations. In addition to the new military rules that spouses and family have to adjust to are the normal everyday tasks that civilians deal with as well: jobs, child rearing, and household duties (Eaton et al., 2008). Although combat and marital satisfaction affect many areas in everyday living, for purposes of this study, only social and psychological impacts will be discussed.

1.3.1 Social Impact

Lundquist (2007) examined the divorce rate of enlisted personnel to comparable civilian populations from 1979 to 1983. Limited education, economic instability, age of marriage (the younger a person marries the more likely they will divorce), intergenerational transfer (the parents were divorced, which made it more likely the offspring would follow suit), religious affiliation, and race are all factors that previous studies have concluded impact divorce (Lundquist, 2007). Aside from the officer population, the previously mentioned contributors to divorce are what many view as the profile of the stereotypical enlisted soldier. Enlisted military personnel are twice as likely as their civilian counterparts to have their parents divorced and are considerably less religious than their civilian counterparts (Lundquist, 2007). Another factor that may contribute to young enlisted soldiers deciding to marry is the monetary incentive. Lundquist (2007) points out that better living conditions (e.g. off base housing) accompany a married enlisted soldier, along with monthly income for food, in addition to family separation pay (in times of deployment) and higher moving allowances. In her analysis, Lundquist (2007) concluded that within a comparable civilian sample the enlisted soldier is more likely to get divorced. Hoge, Castro, and Eaton (2006) surveyed soldiers before and after deployment to Iraq and noted deployment to Iraq appears to be related to an augmented propensity for divorce.

Aside from divorce, deployments can add extra stress, which could potentially lead to domestic violence rates rising if the veterans and their spouses are not treated. McCarroll et al. (2008) examined reports of domestic violence from 1997 to 2005 that were attended to by the Department of Veterans Affairs (VA). There were 1417 individuals who were involved in 1681 domestic violence incidents. Of the sample, thirty seven percent acknowledged that the trigger of the incident was marital discord (McCarroll et al., 2008). Stith, Green, Smith, and Ward (2008) found “that there is a significant relationship between marital satisfaction/discord and IPV (interpersonal violence) for both victims and perpetrators” (p. 155). In the general population, approximately thirty percent of intimate partner female homicides are committed by their

significant other (Brewer & Paulson, 1999; Puzone, Saltzman, Kresnow, Thompson, & Mercy, 2009; Stith et al., 2008). Newby et al. (2005) studied the impact deployment has on domestic violence upon return of the veteran stateside. Surprisingly, they found that within the first ten months, the only significant predictor of domestic violence was age. They concluded that as the age of the couple increased, the likelihood for domestic violence decreased.

1.3.2 Psychological Impact

There are numerous psychological problems that veterans returning from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) have. The psychological problems in this study will focus on mental health issues and suicide. Hoge, McGurk, Thomas, Cox, Engel, and Castro (2008) noted that 43.9% of returning veterans met the criteria for a diagnosis of post traumatic stress disorder (PTSD). Seal, Bertenthal, Maguen, Kristian, Chu, and Marmar (2008) acknowledged that returning veterans are at high risk for depression and alcohol misuse. The mental health issues were not only prevalent in the soldiers themselves but in their spouses as well (SteelFisher et al., 2008). Diagnostic and Statistical Manual (DSM) diagnoses and suicide are linked; ninety percent of suicides (in the general population) have a DSM diagnosis (Goldsmith, Pellmar, Kleinman, & Bunney, 2002). Suicide is an important and prevalent issue in the armed forces because of the numerous lives it affects. According to the Army Suicide Event Report, there were 109 suicides and 935 suicide attempts in Calendar Year (CY) 2007 (Suicide Risk Management & Surveillance Office, 2008). The report illuminates the stark difference in suicide among enlisted soldiers, soldiers under 25 years of age, and the difference in support systems. For a complete listing please refer to Table A.1.

1.4 Current Attempts to Address the Problem

Before the War on Terrorism little research was done on marital satisfaction of veterans returning from combat. For purposes of this study, only post 9/11 initiatives will be investigated. Since the War on Terrorism began, mental health treatment has shifted from the division level to the brigade level (Warner et al., 2007). This is the largest realigning of forces since WWII

(Warner et al., 2007; US Department of the Army [DoA], 2004). Prior to 9/11 mental health clinicians were assigned to divisions, which are accountable for services to three or more brigades. Each brigade has roughly three to five thousand soldiers, so a staff of mental health providers could have been responsible for upwards of fifteen thousand soldiers. Since clinicians are now staffed at the brigade level services are more accessible to soldiers.

In early 2006 there were numerous mental health clinicians including psychiatrists, psychologists, and social workers deployed to Baghdad in an effort to thwart rising mental health problems of soldiers returning stateside (Warner et al., 2007). Warner et al. (2007) note the "plan included a three-tiered approach of education, early identification, and coordination of care" (p. 913). While still in theatre, the soldiers received several assessment instruments and those who tested positive were offered treatment services in Baghdad (Warner, et al, 2007). The soldiers were screened in Baghdad for suicidal ideation and PTSD while their family members who were awaiting return received education about mental health services that were offered in their local community and on their respective military installation (Warner, et al., 2007). This is an effort to identify issues prior to the soldiers' return stateside.

In July of 2003, the U.S. Army Surgeon General chartered the Operation Iraqi Freedom (OIF) Mental Health Advisory Team (MHAT) (U.S. Army Surgeon General, 2003). The OIF/MHAT mission is to "assess OIF-related mental health issues, and to provide recommendations to OIF medical and in line commands" (p.5). The OIF/MHAT has released five different reports, with the most recent (MHAT V) reporting different analyses and recommendations for each theatre, OIF and OEF, respectfully.

1.5 Purpose Statement

The purpose of this study is to identify key variables that influence marital satisfaction among veterans participating in select, online, social networks who have returned stateside from deployment to OIF or OEF.

1.5.1 Research Question and Hypothesis

The research question under investigation is how does a combat deployment affect marital satisfaction?

- Hypothesis 1: Veterans who are 30 years and older will have higher marital satisfaction scores than those 29 and younger as measured by the Relationship Assessment Scale (RAS).
- Hypothesis 2: Veterans who were extended are going to have lower Relationship Assessment Scale (RAS) scores than veterans who were not extended.
- Hypothesis 3: The higher the level of combat exposure on the Combat Exposure Scale (CES) the veteran experienced the lower the Relationship Assessment Scale (RAS) score.
- Hypothesis 4: Veterans who have a clinical cutoff of above 50 on the Post Traumatic Stress Disorder Checklist Military (PCL-M) will score below the 3.5 range on the Relationship Assessment Scale (RAS) (which represents a distressed relationship).
- Hypothesis 5: A model exists to predict RAS scores based on selected demographics, PCL-M scores, deployment length and CES scores.

1.6 Significance of the Study

The National Association of Social Workers (NASW, 1996) states:

> The primary mission of the social work profession is to enhance human wellbeing and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty.
>
> (Paragraph 1).

Returning veterans and their spouses are extremely vulnerable due to the unique experience that they have lived through. If elements influencing marital satisfaction can be identified then specific treatment modalities can be structured for this unique population. The potential findings of this

study apply to all social workers and mental health clinicians since these professions are dedicated to helping people.

Great strides have been made by the Department of Defense (DOD) and the DoA to address issues of mental health. This can be seen by the formation of the OIF/MHAT that was first deployed to Baghdad in 2003. Researchers and clinicians need to learn how to increase marital satisfaction so that the soldiers and their families do not feel any extra burdens or stress. Recruitment and retention are influenced greatly by the soldier's family life, more specifically marital satisfaction. Therefore if marital satisfaction can increase so can recruitment and retention of soldiers already in the ranks. By retaining soldiers that have combat experience and years of training the military can save money as opposed to training a soldier from basic training and beyond.

CHAPTER 2

LITERATURE REVIEW

2.1 Hypothesis One

Hypothesis one is veterans who are 30 years and older will have higher marital satisfaction scores than those 29 and younger as measured by the Relationship Assessment Scale (RAS). There is interesting findings in the literature, McLeland and Sutton (2005) found that younger males were more satisfied than older males in marriage. Newby et al. (2005) concluded couples over 30 were less likely for domestic violence post deployment. The McLeland and Sutton (2005) study has a several limitations that warrant further inquiry into their conclusions.

McLeland and Sutton (2005) examined the marital satisfaction among two groups: military and nonmilitary. The sample size was 46 total participants with 23 in each group. McLeland and Sutton (2005) administered two measures of marital satisfaction: the Kansas Marital Satisfaction Scale (KMSS) and the ENRICH Marital Satisfaction Scale (EMS). Participants were divided into age groups of 18 to 29 and 30 and above. In their analysis, McLeland and Sutton (2005) found there was a significant overall difference ($F(2, 43) = 4.1$, $p = .023$) between age and marital satisfaction on both scales. However, they found no significant difference between the younger participants and the above thirty cohort on the KMSS ($p = .83$). On the EMS they found the younger participants were significantly more satisfied than the over 30 age group ($F(1, 44) = 5.52$, $p = .023$). Most would think that this goes against conventional wisdom and that the older one is the more satisfied s/he would be with his/her partner.

In a review of the literature, Tonizzo, Howells, Day, Reidpath, and Froyland (2000) found that marital satisfaction and partner violence is related. Newby et al. (2005) investigated the role of deployment upon domestic violence. Newby et al. (2005) noted age was not a factor of pre-

deployment domestic violence; however, it was a significant difference of the wives who experienced post-deployment domestic violence. The mean age of the wives who reported domestic violence post-deployment was 28.63 whereas the mean age of wives whom did not report post-deployment domestic violence was 31.24 (Newby et al., 2005). Age is a factor of post-deployment domestic violence. Byrne and Arias (1997) concluded "consistent with prior research increasing marital dissatisfaction was significantly associated with a higher frequency of marital violence for husbands and wives" (p.191). With violence and more specifically domestic violence being related to low marital satisfaction it is of paramount interest to investigate further.

The results from the McLeland and Sutton (2005) study should be interpreted with caution due to the limitations: geographical region, sample size, focus on men (all 46 participants were men), and wartime. Their sample was before deployment and therefore stressors that affect soldiers and their families during the deployment were not taken into account. A 12 month deployment may certainly be an extraneous variable that needs to be taken into consideration.

2.2 Hypothesis Two

The present study hypothesizes veterans who were extended are going to have lower Relationship Assessment Scale (RAS) scores than veterans who were not extended. SteelFisher, Zaslavsky, and Blendon (2008) found mixed results among extended and non extended groups. Since extensions affect so many military families this topic deserves further investigation.

SteelFisher et al. (2008) examined the toll that extensions had on spouses who were extended versus spouses of veterans who were not extended in OIF. They noted that the extended group of spouses faired far worse than the group of spouses whose veterans were not extended. The extended group of spouses, reported feelings of loneliness (85%), anxiety (64%), and depression (53%) (SteelFisher et al., 2008). They concluded that spouses of soldiers who are deployed, especially extended, report higher levels of stress and difficulty.

However, SteelFisher et al. (2008) also concluded “extension was not a significant predictor of problems with financial status ([*r*=0.538], *p* = 0.078), weakened marriages ([*r*=0.657], p = 0.105), or weakened relationships with families in the partners' units ([*r*=-0.296], *p* = 0.473)” (p. 227). This is surprising considering that they noted spouses reported higher levels of loneliness, depression, and anxiety as compared to spouses who were not extended. SteelFisher et al. (2008) found loneness was the most prevalent issue spouses faced. Soloman and Dekel (2008) conclude that loneliness is a factor for POWs and non POWs in marital adjustment after war. SteelFisher et al. (2008) concluded that over half of the spouses were depressed and Faulkner Davey, and Davey (2005) noted that depression led to decreased levels of marital satisfaction from the husband. SteelFisher et al. (2008) found that anxiety was the second most prevalent issue spouses had. Whisman (1999) asserts that depression and anxiety lead to marital dissatisfaction. With loneliness, depression and anxiety empirically proven to be associated with marital satisfaction, the results from SteelFisher et al. (2008) are questionable and warrant further inquiry.

SteelFisher et al. (2008) results should be interpreted with caution due to the limitations: all measures were self-report, they were health measures (not clinical measures), and logistic regression may not have controlled for extraneous variables between extensions and other issues. Their study was a telephone survey which did not use an empirically validated measure of marital satisfaction. SteelFisher et al. (2008) were able to show that extended people fared worse on loneliness, anxiety, and depression than those not extended. Since the overall health was worse for those who were extended, it is reasonable to postulate that marital satisfaction would follow suit.

2.3 Hypothesis Three

It is hypothesized that the higher the level of combat exposure on the Combat Exposure Scale (CES) the veteran experienced the lower the Relationship Assessment Scale (RAS) score.

Renshaw et al. (2008; 2009) have been the leading researchers of marital satisfaction and combat exposure in OIF. However they have found mixed results in their most recent studies.

Renshaw et al. (2008) conducted a study of National Guard soldiers returning to America after a combat deployment in Iraq. Renshaw et al. (2008) utilized the RAS, CES, and PCL-M to assess marital satisfaction. Renshaw et al. (2008) note "SP [spouse's perception] of combat exposure was significantly positively related to marital satisfaction" (p. 591). Renshaw et al. (2008) went on to state "when spouses perceived low levels of combat exposure, SSR [soldiers self report] of symptoms was significantly negatively related to spouses' marital satisfaction" (p. 591). Renshaw et al. (2008) were able to conclude that for wives whose husbands showed considerable psychological impairments, the perception that their spouse experienced an extreme amount of combat may have been the barrier to marital bliss. Therefore it is logical to surmise that how the spouse views the level of combat directly influences the wife's level of marital satisfaction. What influences the soldier's sense of marital satisfaction?

In the Renshaw et al. (2009) article he expanded his analysis and looked at martial satisfaction in greater depth than the 2008 study. They examined a National Guard Unit from Utah who was deployed from 2005 to 2006 and noted

> Combat exposure was positively associated with both PTSD and depressive symptom severity, and these symptoms were significantly related to lower levels of marital satisfaction and perceived social support; however, combat exposure was not directly related to either marital satisfaction or perceived social support. (p. 110)

With mixed results about the role combat exposure plays in marital satisfaction, further inquiry is warranted. Laufer and Gallops (1985) found that "combat exposure significantly contributed to higher levels of marital disruption" (p. 848). They went on to conclude "the group with the highest rate of marital failure was Vietnam veterans exposed to heavy combat in the period after 1967 (49%)" (p. 848).

There are several limitations to the Renshaw et al. (2009) study: homogenous sample (all participants were white), all were National Guard soldiers, all of the participants completed high school and a lot had college degrees. The Renshaw et al. (2008) article asserts that how the spouse perceives the soldiers level of combat influences marital satisfaction. Renshaw et al. (2009) stated the level of combat did not directly influence marital satisfaction. With such mixed results further inquiry is needed.

2.4 Hypothesis Four

The present study hypothesizes veterans who have a clinical cutoff of above 50 on the Post Traumatic Stress Disorder Checklist Military Version (PCL-M) will score below the 3.5 range on the Relationship Assessment Scale (RAS) (which represents a distressed relationship). The majority of PTSD research and combat veterans has come from the Vietnam War, only two studies (Renshaw et al., 2008; Renshaw et al., 2009) to date have used the PCL-M and RAS on the OEF/OIF population. Hoge, et al. (2008) found that 43.9% of returning veterans met the criteria for a diagnosis of PTSD. With almost half of returning veterans meeting the diagnostic criteria for PTSD more research is needed.

Jordan et al. (1992) concluded that marital and family issues were more prevalent among Vietnam veterans with Post Traumatic Stress Disorder (PTSD) as compared to those without PTSD. According to the National Vietnam Veterans Readjustment Survey, Vietnam veterans diagnosed with PTSD were twice as likely to be divorced than those not diagnosed with PTSD (Jordan et al., 1992; Kulka, et al., 1990; Riggs, Byrne, Weathers, & Litz, 1998). Furthermore, Vietnam veterans diagnosed with PTSD are three times more likely to have experienced several divorces (Jordan et al., 1992; Kulka et al., 1990; Riggs et al., 1998).

A plethora of studies have verified that partners of veterans diagnosed with PTSD are at a higher risk for marital discord as compared to those without PTSD (Renshaw et al., 2008). Jordan et al. (1992) acknowledged that veterans' wives exhibited symptoms of PTSD that their spouses were showing. Riggs et al. (1998) concluded that veterans diagnosed with PTSD have

elevated levels of anxiety with their partner as compared to veterans not diagnosed with PTSD. These results were in accordance with other empirical studies (Carroll, Rueger, Foy, & Donahoe, 1985; Solomon, Mikulincer, Fried, Wosner, 1987). Riggs et al. (1998) illustrated "that partners of veterans diagnosed with PTSD expressed a greater fear of intimacy than partners of veterans without PTSD" (p. 97).

Seal et al. (2008) found a co-morbid diagnosis of depression and PTSD in thirty percent of their sample. Seal et al. (2008) note that fifty nine percent of veterans in their sample screened positive for depression and forty six percent screen positive for high-risk alcohol use. Alcohol misuse and depression are common themes that veterans suffer from. The military population is potentially at greater risk for diagnosis of PTSD, depression or anxiety than the civilian population due to extended amounts of time away from home.

Few studies to date have investigated how PTSD scores on the PCL-M relate with marital satisfaction scores on the RAS. However a group of researchers in Utah have inquired about marital satisfaction and PTSD among veterans returning from OIF. Renshaw et al. (2009) investigated a National Guard Unit returning from OIF after a twelve month deployment. Renshaw et al. (2009) administered the RAS and PCL-M to personnel who had returned stateside. In their sample of 50 participants, twelve percent met the clinical cutoff of 50 on the PCL-M and fourteen percent fell below the clinical cutoff on the RAS score of 3.5 which represents marital distress (Renshaw et al., 2009). Renshaw et al. (2009) along with previous studies (Busby, Christensen, Crane, & Russell, 1995; Crane, Middleton, & Bean, 2000) state that within community samples, six to twenty six percent of the participants scored in the distressed range on the RAS. Those samples were non-veteran samples and utilized a civilian population. Renshaw et al. (2009) noted the limitations of their study: homogenous sample (all participants were White), all were National Guard soldiers, all had completed high school and many had college degrees. Renshaw et al. (2009) have the most extensive study to date examining how

PCL-M scores relate to scores to the RAS. However with the numerous limitations that were listed, further inquiry and replication is needed.

2.5 Hypothesis Five

The final hypothesis is a more robust analysis of marital satisfaction and the combat experience. Hypothesis five is that a model that exists to predict RAS scores based on selected demographics, PCL-M scores, deployment length and CES scores. There have been two recent studies (Renshaw et al., 2008; 2009) that have utilized the three standardized measures that this study will incorporate: the CES, RAS, and PCL-M. Renshaw et al. (2008) found that the spouse's perceptions of the level of combat exposure their marital partner experienced influenced the level of martial satisfaction the couple has. However, Renshaw et al. (2009) asserts that there was no direct link between combat exposure and marital satisfaction. The present study has identified four variables that influence marital satisfaction: age (McLeland & Sutton, 2005), deployment extensions (SteelFisher et al., 2008), PTSD (Renshaw et al., 2008), and combat exposure (Renshaw et al., 2008). Regression analysis will be run to measure the impact these variables have on marital satisfaction.

CHAPTER 3

METHODOLOGY

This study was an online exploratory design investigating the relationship between combat deployment and marital satisfaction. The independent variable was the length and nature of the combat deployment soldiers participated in as measured by the PCL-M, CES, and demographic questions. The dependent variable that was investigated is marital satisfaction which was quantitatively measured by the Relationship Assessment Scale (RAS). The purpose of this study was to identify key variables that influence marital satisfaction. If common themes can be established clinicians can design treatment regimens for each specific issue. On April 10, 2009 this study was approved by the University of Texas at Arlington (UTA) Institutional Review Board (IRB). For a copy of the approval letter please refer to Appendix A.

3.1 Sample

The desired sample for this study was married soldiers who have completed a combat deployment in OIF or OEF. The sample was drawn from OIF/OEF groups registered with online networking sites. Once permission was granted by the group leaders, advertisements and postings were circulated online to all group members. With members of the group potentially still being on active duty, news of the survey may have traveled by "word of mouth" to soldiers currently in theatre. This may be a valuable asset in recruiting soldiers have returned stateside in the time frame this study was administered.

3.2 Instrumentation

The present study utilized three standardized assessment instruments: the Posttraumatic Stress Disorder Checklist Military (PCL-M), the Combat Exposure Scale (CES) and the Relationship Assessment Scale (RAS). A demographic questionnaire was also developed

(Appendix B) and delivered through use of Survey Monkey. The website link to the survey was provided for the participants.

3.2.1 Combat Exposure Scale

Keane et al. (1989) developed the CES which is a self-report measure that has seven questions. The questions are rated from one to five, with one representing never and five representing the higher in frequency in which something occurred. Please refer to Table A.2 for a complete listing of all potential CES scores.

Rubin and Babbie (2007) acknowledge the importance of reliability and validity. There are several types of reliability: inter-rater (which was not available for the CES), test-re-test, and internal consistency reliability. Test-retest reliability is when the instrument is administered to the same persons at two different times. If the correlation between the two administrations is above .70 it is considered to be acceptable (Rubin & Babbie, 2007). The test-retest reliability of the CES is .97 (Keane et al., 1989). This represents excellent stability of the CES instrument. Rubin and Babbie (2007) note "internal consistency reliability assumes that the instrument contains multiple scores of the other items to produce an overall score" (p.183). A widely used method of assessing internal consistency is Cronbach's Alpha. The Cronbach's Alpha for the CES is .85 (Keane et al, 1989). An alpha in the .80 to .90 range is considered acceptable (Rubin & Babbie, 2007).

Rubin and Babbie (2007) assert validity occurs when an instrument measures the concept it is intended to measure. For example, a PTSD instrument measures PTSD and not personality disorders. Within the realm of validity there are numerous types such as face, content, criterion-related, construct, factorial, and discriminant validity. Renshaw et al. (2008) acknowledge that Kean et al. (1989) found the CES has good discriminant validity. Rubin and Babbie (2007) illustrate discriminant validity is "the degree to which scores on an instrument correspond more highly to measures of the same construct than they do to scores on measure of

other constructs" (p. 636). This means that the CES corresponded highly with other instruments that measure combat exposure.

3.2.2 Relationship Assessment Scale

The second standardized assessment instrument is the Relationship Assessment Scale (RAS) conceptualized and constructed by Hendrick (1988). The RAS is a seven question measure that assesses relationship satisfaction in close relationships (Hendrick, 1988; Renshaw et al., 2008). The cumulative scores range from one to five. Hendrick, Dicke, and Hendrick (1998) concluded scores that are 4.0 or higher represent non-distressed couples and scores between 3.0 to 3.5 and lower suggest distress in the relationship for men and women.

The RAS has good discriminant validity (Hendrick et al., 1998). Spanier (1976) developed the Dyadic Adjustment Scale (DAS) which has been used by Schumm, et al. (1986) to assess the reliability and validity of the Kansas Marital Satisfaction Scale (KMSS). Both the DAS and KMSS have been widely used to assess new marital satisfaction scales. Hendrick et al. (1998) note "the RAS shows relatively high correlations with the DAS (.80 in one study and .88 in another study) and with the KMSS (.64 for men and .74 for women, in one study)" (p.141). This suggests that the RAS has good discriminant validity which is imperative in an assessment instrument. The alpha of the RAS is .86 (Hendrick, 1988). The RAS is an appropriate measure for use in the military population. Hendrick (1988) concludes "most important, the RAS is a generic relationship satisfaction measure with potential for much wider application than would be possible for a standard marital satisfaction measure" (p. 97).

3.2.3 PTSD Checklist Military

There are several versions of the PTSD Checklist (PCL) that can be modified to different populations including civilians, spouses, and military personnel. The specific version of the PCL that will be administered to the returning veterans in this study is the PTSD Checklist-Military (PCL-M). The PCL-M is a Likert scale standardized assessment instrument. The measure has 17 questions and assesses PTSD symptomology set forth by the DSM IV (American Psychiatric

Association, 1994). Pratt, Brief, and Keane (2006) examined the PCL-M and concluded it has good convergent and discriminant validity along with high internal consistency and test-retest reliability. Each of the 17 questions mirror the 17 characteristics set forth by the DSM IV TR for diagnosis of PTSD. Each question can be answered from 1 (not at all) to 5 (extremely). A clinical cut off score of 50 or greater is used within the military population to diagnose and assess the intensity of PTSD (Weathers, Litz, Herman, Huska, & Keane, 1993).

3.3 Data Collection

The first step in the data collection process was to obtain permission from the respective group leader. Emails have been sent to each group leader explaining the study. Please refer to Appendix C. Once permission was obtained, the survey was posted online. The group leader sent out emails, a "news" web posting, or potentially both to all the group members letting them know of the survey and inviting their participation. The present study was exempt from the informed consent process since respondents have maintained anonymity.

In addition to the email invitation, another way that the study could have been advertised was by word of mouth. All of the veterans filling out the survey will have returned stateside. However, when the soldiers were in their respective theatre, OIF or OEF they probably had interface with other units and possibly made friends with whom they are still in contact. A soldier who has completed the survey may have potentially told his or her friends who are currently deployed about the study. Once those soldiers have returned stateside they would be eligible to fill out the survey. For purposes of this thesis, data will be collected for eight weeks.

The participants have been shown a link with the researcher's email and phone number in case they have questions or issues pertaining to the survey. During the survey there was a link to the Department of Defense Military Health System where the veteran can query for a mental health provider based upon his/her insurance status. There was also a link to the National Suicide Prevention Hotline and the phone number included in case the veteran felt distressed.

3.3.1 Threats to Internal and External Validity

When conducting research, investigators seek to determine causality. There are three criteria that have to be met to infer causality: the cause variable precedes the effect in time, the two variables have to be empirically correlated, and the correlations between the two variables under investigation cannot be influenced by any extraneous variables (Rubin & Babbie, 2007). To make sure that the preceding criteria for inferring causality are intact, threats to internal and external validity must be controlled for or reduced.

3.3.3.1 Internal Validity

Rubin and Babbie (2007) state "internal validity refers to the confidence we have that the results of a study accurately depict whether one variable is or is not a cause of another" (p. 232). Full Power of Random Assignment (FPRA) is ideal but due to the nature of this survey (no randomization and no comparison group) it cannot be used. The anticipated threats to internal validity are history, maturation, statistical regression, and attrition.

History takes the form of media coverage of the OIF/OEF conflict, injury (to the soldier during deployment), and seeing fellow soldiers hurt or killed during the deployment which could raise PTSD symptoms. It is not easy to assess the media, so figuring out how much of a role they played is hard to quantify. The CES will assess for the impact of injury and witnessing fellow soldiers get hurt. Maturation could be seen through varied lengths of time the veteran has been stateside before filling out the survey. This is reduced by collecting information on the length of time stateside which can then be used as a variable in analysis. Statistical regression is another threat to internal validity. This will be reduced by having a large sample size. Attrition is possible in any survey. In this study, there is a possibility that a veteran could start filling out the survey and not complete it. This is reduced through selection of brief instruments.

3.3.3.2 External Validity

Rubin and Babbie (2007) state "external validity refers to the extent to which we can *generalize* the findings of a study to setting and populations beyond the study conditions" (p.

235). There is a potential for selection bias because this survey takes the form of an online survey. Not everyone has access to a computer or the internet. However, since respondents are sought from all branches and all components of the military this will allow for more generalizable results. Most of the OIF/OEF veterans are younger therefore more likely to be online.

3.4 Data Analysis

Data will be analyzed using the Statistical Package for Social Sciences (SPSS) version 16.0. The significance level for this investigation will be set *a priori* at α=.10. Black (1999) found in exploratory designs a more liberal significance criterion of ($p<.10$) is acceptable. The research question under investigation is how does a combat deployment affect marital satisfaction? The dependent variable will be scores on the RAS assessment instrument. The primary independent variable of interest is the length and nature of the combat deployment the veterans participated in. The independent variables measured include:

- age,
- Military Occupational Specialty (MOS),
- Job title if MOS not combat arms,
- gender,
- ethnicity,
- rank,
- number of deployments,
- length of deployment,
- length of time stateside,
- number of children,
- family's combined annual income,
- length of marriage,
- marital status of the soldiers parents,

- how many hours per week the spouse works,
- main method of communication with spouse while deployed,
- if main method was computer-based, primary method of communication on the computer,
- how often per week the veteran communicated with spouse,
- geographical proximity of family,
- injuries during deployment,
- if injured, description of injury in combat,
- deployment status (extended versus not extended),
- participating in mental health services,
- medications,
- RAS scores,
- PCL-M scores, and
- CES scores.

Demographic information will be reported. Data will be used to test the hypotheses using the following statistical strategies:

- Hypothesis 1: Veterans who are 30 years and older will have higher marital satisfaction scores than those 29 and younger as measured by the Relationship Assessment Scale (RAS). The statistical analysis used for this hypothesis is the independent samples t-test. This will assess if the difference between groups is significant (beyond chance occurrence).
- Hypothesis 2: Veterans who were extended are going to have lower Relationship Assessment Scale (RAS) scores than veterans who were not extended. The statistical analysis used for this hypothesis is the independent samples t-test.

This will assess if the difference between groups is significant (beyond chance occurrence).

- Hypothesis 3: The higher the level of combat exposure on the Combat Exposure Scale (CES) the veteran experienced the lower the Relationship Assessment Scale (RAS) score. The statistical analysis used for this hypothesis is Pearson's correlation. This will assess if the inverse relationship that is expected to be found is a chance occurrence or statistically significant.
- Hypothesis 4: Veterans who have a clinical cutoff of above 50 on the Post Traumatic Stress Disorder Checklist Military (PCL-M) will score below the 3.5 range on the Relationship Assessment Scale (RAS) (which represents a distressed relationship). The statistical analysis used for this hypothesis is Pearson's correlation. This will assess if the inverse relationship that is expected to be found is a chance occurrence or statistically significant.
- Hypothesis 5: A model exists to predict RAS scores based on selected demographics, PCL-M scores, deployment length and CES scores. The statistical analysis used for this hypothesis is regression.

CHAPTER FOUR

RESULTS

The primary reason for this study was to identify variables that influence marital satisfaction among OIF or OEF veterans. Data was collected online from April 11, 2009 to May 21, 2009, which included 230 respondents who started the survey. One hundred and seventeen cases did not meet criteria for inclusion for this study: 88 were not married; 21 did not fill out the assessment instruments; five were currently deployed; three did not respond to the "are you married question" leaving 113 participants that were included in the data analysis. Findings and analysis are presented in this chapter and organized by objectives.

4.1 Demographic Variables

Objective 1 was to describe veteran who responded to the Martial Satisfaction Survey on the following characteristics:

- age,
- Military Occupational Specialty (MOS),
- job title if MOS not combat arms,
- gender,
- ethnicity,
- rank,
- number of deployments,
- length of deployment,
- length of time stateside,
- number of children,
- family's combined annual income,
- length of marriage,

- marital status of the soldiers parents,
- how many hours per week the spouse works,
- main method of communication with spouse while deployed,
- if main method was computer-based, primary method of communication on the computer,
- how often per week the veteran communicated with spouse,
- geographical proximity of family,
- injuries during deployment,
- if injured, description of injury in combat,
- deployment status (extended versus not extended),
- participating in mental health services,
- medications,
- RAS scores,
- PCL-M scores, and
- CES scores.

4.1.1 Age

The first variable used to describe veterans is age. This was a continuous variable at the interval level of measurement a continuous variable at the ordinal level of measurement. The mean age was 35.76 years old (SD=8.64) with a range from 20 to 60 years old.

4.1.2 Military Occupational Specialty

The second demographic variable collected for analysis was Military Occupational Specialty (MOS). MOS was operationalized as a categorical variable at the nominal level of measurement. The data were organized as combat arms and not combat arms. There were 46 participants (40.7%) who identified their MOS as combat arms and 67 (59.3%) whose MOS was not combat arms.

4.1.3 Job title if MOS not combat arms

There were 67 veterans who identified their MOS as not combat arms. They were asked to provide their job title for future analysis.

4.1.4 Gender

The majority of the participants in this study were male (N=96, 85.0%) whereas females accounted for 15% (N=17).

4.1.5 Ethnicity

The mode ethnicity of the respondents were White (N=101, 89.4%). There were four other categories of ethnicity (African American, Hispanic, Asian, and Other) accounting for 11.6% of participants (N=12). For a complete listing please refer to Table 4.1.

Table 4.1: Ethnicity of Participants

	Frequency	Percent
White	N=101	89.3%
Hispanic	N=5	4.4%
Other	N= 4	3.5%
Asian	N= 2	1.8%
African American	N= 1	.9%
Total	N= 113	100%

4.1.6 Rank

Soldiers are often analyzed by categorizing enlisted vs. officer. For purposes of this study there were three levels of this variable (E1-E4, E5-E9, and warrant/commissioned officer). The distribution of respondents was as follows: E1 through E4 (N=40, 35.4%), E5 through E9 (N=41, 36.3%), and warrant/commissioned officer (N=32, 28.3%).

4.1.7 Number of Deployments

The participants were asked to identify the number of times they were deployed. There was one respondent who selected multiple answers, leaving 112 for analysis. The mode was one deployment (N=54, 47.8%). For a more complete listing please refer to Table 4.2.

Table 4.2: How many times have you been deployed?

	Frequency	Percent
Once	N=54	48.2%
Twice	N= 33	29.4%
Three times	N=13	11.6%
Four times	N= 12	10.7%
Total	N= 112	100%

4.1.8 Length of deployment

Respondents were asked to enter the length of each of their deployments in months. This number was aggregated to arrive at a total time the respondent was deployed. There were 5 respondents who did not answer this question leaving 108 for analysis. The mean length a person was deployed was 16.75 months (SD 8.64). The minimum length a person was deployed was three months whereas the maximum was 39 months.

4.1.9 Length of time stateside

This variable had four levels: less than 90 days, 91 to 180 days, 181 days to 365 days, and 366 or more days. All participants answered this question however one participant selected two answers so their response was extracted leaving 112 for analysis. The mode of was 366 days or more (N=88, 78.6%). Please refer to Table 4.3 for the distribution of responses.

Table 4.3: How many days have you been back in the United States since your most recent deployment?

	Frequency	Percent
366 or more days	N= 88	78.6%
91 to 180 days	N= 10	8.9%
181 to 365 days	N=9	8%
Less than 90 days	N= 5	4.5%
Total	N= 112	100%

4.1.10 Number of children

The participants were asked to identify the number of children they have. The mean number of children was two (SD 1.54). Number of children ranged from zero to six.

4.1.11 Family's combined annual income

Income was divided into three categories: less than 30,000, 30,001 to 50,000, and more than 50,001 dollars. The income total was based on the soldier and spouse's income. One participant selected two answers to the question; therefore that response was excluded from analysis. Sixteen respondents (14.2%) made less than 30,000, 25 (22.1%) made between 30,001 to 50,000, and 71 (62.8%) made above 50,000 dollars.

4.1.12 Length of marriage

The length of marriage was measured in number of years the couple have been married. The average length of marriage was 8 years and 9 months (SD 8.08). The shortest length of marriage reported was one year and the longest was 37 years.

4.1.13 Marital status of the soldier's parents

This variable was divided into five categories: never married, married, separated, divorced, or widowed. There were two respondents selected multiple answers so their data were

not kept in the data set for the descriptive analysis. About half of the respondents' parents were married (N=56, 30.6%). Please refer to Table 4.4 for the distribution of responses.

Table 4.4: What is the marital status of your parents?

	Frequency	Percent
Married	N= 56	50.5%
Divorced	N=34	30.6%
Widowed	N= 18	16.2%
Never married	N= 3	2.7%
Total	N= 111	100%

4.1.14 How many hours per week the spouse works

The number of hours per week that the soldier's spouse works was measured in five categories: the spouse does not work, 11 to 20 hours, 21 to 30 hours, 31 to 40 hours, and more than 40 hours a week. There was one participant who selected more than one category so that response was not counted in this analysis. The group with the most respondents was spouses who work more than forty hours a week (N=36, 32.1%). Please refer to Table 4.5 for the distribution of responses.

Table 4.5: How many hours a week does your spouse work?

	Frequency	Percent
More than 40 hours	N= 36	32.1%
Does not work	N= 30	26.8%
31 to 40 hours	N= 29	25.9%
11 to 20 hours	N= 11	9.8%

Table 4.5 - *Continued*

21 to 30 hours	N=6	5.4%
Total	N= 112	100%

4.1.15 Main method of communication with spouse while deployed

In this study, soldiers were asked to identify the main method of communication with their spouse using the following categories: computer (email, instant messenger, or webcam), US mail, or the telephone. There were 16 participants who selected more than one answer to this question and their responses were not calculated in this analysis. Fifty soldiers (51.2%) used the computer as their main method of communication, 19 soldiers (19.6%) used the US mail system, and 28 soldiers (28.9%) talked on the phone for their main method of communication.

4.1.16 If main method was computer-based, primary method of communication on the computer

If the veteran identified the primary method of communication as on the computer, a contingency question popped up asking which method was the primary used. There were three possible answers: email, instant messenger, or webcam. There were a total of 50 respondents. Email was the most common form of communication (N=36, 72%), instant messenger and webcam had the same amount of responses (N=7, 14%, respectively).

4.1.17 How often per week the veteran communicated with spouse

This variable was placed into five categories: less than once a week, one to two times, three to four times, five to six times a week, or every day. The mode was everyday (N=41, 36.6%). For a more complete listing please refer to Table 4.6.

Table 4.6: How often per week did you communicate with your spouse?

	Frequency	Percent
Everyday	N= 41	36.6%
1 to 2 times	N= 26	23.2%
Less than once a week	N= 23	20.5%
3 to 4 times	N=12	10.7%
5 to 6 times	N= 10	8.9%
Total	N= 112	100%

4.1.18 Geographical proximity of family

The distance family members were from the veteran post deployment was placed into four categories: within 50, 51 to 100, 101 to 200, and 201 or more miles. There was one veteran who filled in two answers so that response was not calculated in the analysis leaving 112 included in the analysis. The mode response was 201 or more miles away (N=55, 49.1%). For a more complete listing, please see Table 4.7.

Table 4.7: How close geographically are your family members (immediate or distant) to you post deployment?

	Frequency	Percent
201 or more miles	N= 55	49.1%
Within 50 miles	N=40	35.7%
51 to 100 miles	N= 10	8.9%
101 to 200 miles	N=7	6.3%
Total	N= 112	100%

4.1.19 Injuries during deployment

Veterans were asked if they were injured during their combat deployment to OIF or OEF. The majority responded that they were not injured in combat (N=86, 76.1%) whereas only twenty-seven (23.9%) said they had been injured during combat.

4.1.20 If injured, description of injury in combat

If the veteran stated they had been injured during the deployment a subsequent question was asked inquiring about the nature of the injury. The veteran was allowed to write in a short answer describing the injury. For the purpose of this thesis, these data were not used but will be in future analyses.

4.1.21 Deployment status (extended versus not extended)

Each branch of the military has different lengths of a standard deployment. For example, the Army considers a 12-month tour standard whereas, in the Marines a standard deployment is six months. The veterans were asked if their standard length of deployment was extended. Fifty-seven participants skipped the question. Of the fifty six veterans who answered the question, forty (71.8%) were not extended and only 16 (28.6%) were extended past their standard tour length.

4.1.22 Participating in mental health services

The specific types of mental health services inquired about in this survey were individual, couples, or group counseling services. The participant was also given the option of selecting they are “not participating in mental health services” or the option “choose not to answer”. There was one participant who selected multiple answers and was subsequently excluded from analysis. Therefore this person’s data was excluded leaving 112 for analysis of this variable. The mode response was “not participating in mental health services” (N=71, 63.4%). Please refer to Table 4.8 for the complete distribution of responses.

Table 4.8: Are you currently participating in mental health services?

	Frequency	Percent
Not participating in mental health services	N= 71	63.4%
Individual counseling	N= 25	22.3%
Choose not to answer	N= 7	6.2%
Group counseling	N=6	5.4%
Couples counseling	N= 3	2.7%
Total	N= 112	100%

4.1.23 Medications

Veterans were asked if they are taking medications for any of the following: depression, anxiety, sleep issues, or other. They were also given the option of selecting "not taking medication" or "choose not to answer". There were eleven participants who selected multiple answers and were consequently excluded from analysis, leaving 102 that were analyzed. The most common answer was "not taking medication" (N=62, 60.8%). For the full distribution of responses, please refer to Table 4.9.

Table 4.9: Are you currently taking medications for any of the following issues?

	Frequency	Percent
Not taking medication	N= 62	60.8%
Choose not to answer	N= 14	13.7%

Table 4.9 - *Continued*

Other	N=12	11.8%
Sleep issues	N= 9	8.8%
Depression	N= 5	4.9%
Total	N= 102	100%

4.1.24 RAS scores

All respondents completed the RAS. The mean RAS score was 3.47 (SD= .60). The minimum RAS score was 1.86 and the maximum was 4.57. Sixty eight participants (60.1%) scored in the non distressed range (3.51 or higher) and forty five (39.9%) scored in the distressed range (3.5 or lower) on the RAS. The RAS distribution was negatively skewed (RAS= -1.063, SE= .227) and the distribution appears platykurtic. Taking the standard error of the kurtosis statistic (RAS= .451) and multiplying by 2 to construct the range of normality (-.902 to .902), the distribution approaches normality because the value for the RAS kurtosis (RAS= .391) falls within the range of -.902 to .902.

4.1.25 PCL-M scores

There were three respondents who did not complete the PCL-M, leaving 110 that were analyzed. The mean PCL-M score was 43.25 (SD= 17.53). The minimum PCL-M score was 17 and the maximum was 85. The PCL-M distribution was positively skewed (PCL-M= .444, SE= .230) and appears leptokurtic. Taking the standard error of the kurtosis statistic (PCL-M= .457) and multiplying by 2 to construct the range of normality (-.914 to .914), the distribution approaches normality because the value for the PCL-M kurtosis (PCL-M= -.667) falls within the range of -.914 to .914.

4.1.26 CES scores

All respondents completed the CES. The mean was 16.53 (SD= 9.79). The minimum CES score was 0 and the maximum was 39. The CES distribution was positively skewed (CES=

.119, SE= .227) and appears leptokurtic. Taking the standard error of the kurtosis statistic (CES= .451) and multiplying by 2 to construct the range of normality (-.902 to .902), the distribution approaches normality because the value for the CES kurtosis (CES= -.873) falls within the range of -.902 to .902.

4.2 Hypothesis Analyses

4.2.1 Hypothesis one

The first hypothesis was veterans who are 30 years and older will have higher marital satisfaction scores than those 29 and younger as measured by the Relationship Assessment Scale (RAS). All 113 participants were included in this analysis. The mean score for the thirty and above cohort was 3.52 (SD=.55) whereas the 29 and younger was 3.37 (SD= 69). Homogeneity of variance was assessed using Levene's Test. Equal variances were not assumed ($F_{(58.9)}$=4.05, p=.05). The t-test indicates no difference between the 30 and above cohort and the 29 group on their RAS scores ($t_{(58.9)}$=1.13, p=.26).

4.2.2 Hypothesis two

The second hypothesis was veterans who were extended are going to have lower Relationship Assessment Scale (RAS) scores than veterans who were not extended. Of the 113 participants in this survey, only 56 answered the question regarding deployment extension used for this hypothesis. Sixteen veterans were extended and forty were not extended. Veterans who were extended had lower mean RAS scores 3.34 (SD= .71) than those not extended 3.46 (SD= .58). Homogeneity of variance was assessed using Levene's Test. Equal variances were not assumed ($F_{(23.5)}$=1.69, p=.20). The t-test indicates no difference between the extended and not extended groups on their RAS scores ($t_{(23.5)}$=-.60, p= .55).

4.2.3 Hypothesis three

Hypothesis three asserted the higher the level of combat exposure on the Combat Exposure Scale (CES) the veteran experienced, the lower the Relationship Assessment Scale (RAS) score. All participants completed both the CES and RAS assessment instruments.

Pearson's correlation was calculated to analyze this hypothesis. Pearson's correlation indicate a weak, negative correlation between the CES and RAS but the correlation was not statistically significant (*r*=-.07, p=.44).

4.2.4 Hypothesis four

Hypothesis four was veterans who have a clinical cutoff of above 50 on the Post Traumatic Stress Disorder Checklist Military (PCL-M) would score below the 3.5 range on the Relationship Assessment Scale (RAS) (which represents a distressed relationship). There were three veterans who did not complete the PCL-M leaving 110 to be included in the analysis. The PCL-M and RAS scores were converted into nominal dichotomous variables (50 and above v. 49 and below, respectively) for purposes of analysis to confirm or deny this hypothesis. Because both variables were nominal dichotomous, the Phi correlation was used for this hypothesis. The Phi correlation indicated a weak, negative correlation (Phi=-.15, p=.11). In addition, a Pearson's correlation was ran which indicated no significant relationship (*r*=-.12, p=.20).

4.2.5. Hypothesis five

Hypothesis five was that a model exists to predict RAS scores based on selected demographics (MOS, age, medication, injuries, length of time stateside, and participation in mental health services,) PCL-M scores, deployment length and CES scores. All variables for this hypothesis were selected based on gaps identified in previous research (e.g. McLeland & Sutton, 2005; Renshaw et al., 2008; Renshaw et al., 2009, SteelFisher et al., 2008). The entry method used for the Multiple Regression method in SPSS was "Enter" as this is the most conservative (Brace, Kemp, & Snelgar, 2006).

There were six models tested before a statistically significant regression was found. The models were created based upon the literature review conducted earlier in this thesis (e.g. McLeland & Sutton, 2005; Renshaw et al., 2008; Renshaw et al., 2009, SteelFisher et al., 2008). If the ANOVA was not statistically significant then the variable with the highest probability value was excluded and this process was repeated until a statistically significant model was found. The

first model contained all nine predictors identified above and the ANOVA was not statistically significant ($F_{(9)}$=1.29, p=.26). The highest probability value identified was the CES scores (p=.99) which was then excluded. The second model was not statistically significant ($F_{(8)}$=1.47, p=.18) and age was the predictor identified with the highest significance level (p=.99). The third model created was not statistically significant either ($F_{(7)}$=1.70, p=.12). The predictor with the highest significance level identified for this model was injured during combat (p=.94). The fourth model created was not statistically significant at the .05 level ($F_{(6)}$=2.01, p=.08) and the predictor with the highest significance level found was participation in mental health services (p=.94). The fifth model created was not statistically significant at the .05 level ($F_{(5)}$=1.93, p=.10) and the predictor with the highest probability value was medication (p=.56).

In summary the following variables were removed: CES scores, age, injuries, participation in mental health services, and medication before a useful model was discovered. The final model was statistically significant ($F_{(4)}$=3.29, p=.01). No tolerances were close to zero, so there was no collinearity issue. The model had an adjusted R square value of .08, which accounts for 8% of the RAS variability.

CHAPTER 5

DISCUSSION

The purpose of this study was to identify key variables that influence marital satisfaction among veterans participating in select, online, social networks who have returned stateside from deployment to Operation Iraqi Freedom (OIF) or Operation Enduring Freedom (OEF). The findings of this thesis are important because minimal research has been done on marital satisfaction for OIF and OEF veterans. Gaps that were identified in previous research were addressed: participation in mental health services, medication, injuries in combat, length of time stateside, age, Combat Exposure Scale (CES) scores, PTSD Checklist-Military (PCL-M) scores, number of children, length of marriage, family's combined income, and how often per week did the veteran communicate with their spouse. Only two variables were identified as predictors of Relationship Assessment Scale (RAS) scores: length of time stateside and PCL-M scores. Future research needs to delve into these predictors of RAS scores and it affects the dyad of service member and spouse. This chapter will discuss external validity, practical interpretation of findings, implications for practice, and future recommendations.

5.1 Demographic Variables

5.1.1 Age

The mean age of participants in this study was 35.76 years old (SD 8.64) with a range from 20 to 60 years old. According to the Department of Defense (2007) the average age of the Active Duty personnel is 28.3 years old. With a seven-year age difference, it cannot be stated with certainty that a representative sample emerged of the entire Armed Forces.

5.1.2 Military Occupational Specialty

Every military branch uses different MOS coding systems to define their service members' categories. The most consolidated information this author could find only examined

enlisted soldiers. The Office of the Under Secretary of Defense (2007) found that almost 200,000 enlisted soldiers had a job classified as infantry. This was the second largest grouping code after the category of "electrical". In the present study, 40.7% of participants identified their Military Occupational Specialty (MOS) as combat arms and 59.3% were not combat arms. However, the present study did not ask the participant for their branch or if they were reserve, Active or Guard component. Therefore, it is uncertain if this is a representative sample of MOS in the Armed Forces.

5.1.3 Gender

In the present study, 85% of respondents were male and 15% were female. According to the Department of Defense (2007) women comprise 14.4% of the Active Duty population. The data on gender is thought to be representative of the Armed Forces.

5.1.4 Ethnicity

In the present study, 89.3% of the sample was White. In the entire Department of Defense, approximately 70% are White (Office of the Under Secretary of Defense, 2007). This sample does not appear representative of the Armed Forces.

5.1.5 Income

Approximately 10% of the entire military made less than $33,267, 50% between $33,268 and $51,128, and 40% made above 51,128 in Fiscal Year 2007 (Office of the Under Secretary of Defense, 2007). The present study grouped income in similar brackets with a few thousand dollars discrepancy between the categories. The results in the present study were 14.2% made less than 30,000, 22.1% made between 30,001 to 50,000 dollars, and 62.8% made above 50,000 dollars. The lowest stratum appears to be representative; however the middle and highest are not. The data in the present study may be higher because the families' combined income was taken into account, which includes the spouse, whereas the data from the Office of the Under Secretary of Defense (2007) did not include the spouse's income.

5.1.6 Participation in Mental Health Services

An alarming 63.9% of participants answered that they are not participating in mental health services after a deployment. This is very surprising given that other researchers Hoge et al. (2008) found that 43.9% of returning service members from Iraq met the criteria for diagnosis of PTSD. Erbes, Westermeyer, Engdahl, and Johnsen (2007) found that 56% of OIF/OEF veterans diagnosed with PTSD and only 18% of risky drinkers sought mental health services through the Veteran Affairs (VA). Hoge, Auchterlonie, and Milliken (2006) concluded that one third of OIF veterans are receiving mental health services within their first year of being back in the US. The low rate of access of mental health services in this question deserves further inquiry in future research.

5.1.7 Medication

Sixty percent of participants were not taking medication, which is expected given that service members in this sample did not seek out mental health services. If more personnel sought mental health services, this number would probably be higher.

5.1.8 Relationship Assessment Scale

The mean RAS score was 3.47, which was close to the cutoff of 3.5. Sixty eight participants (60.1%) scored in the non distressed range (3.51 or higher) and forty five (39.9%) scored in the distressed range (3.5 or lower) on the RAS. This is surprising because conventional wisdom would lead one to believe that deployment would lead to distress. However, data was only collected from the service members' point of view. No data was collected from the spouses. SteelFisher et al. (2008) conclude "deployment-related problems are fairly widespread among Army spouses in the post- September 11, 2001 context" (p.227). This might be why the RAS score are not lower.

5.1.9 PTSD Checklist Military

Thirty six percent of this sample had a diagnosis of PTSD according to the PCL-M. The only other study to date to use the PCL-M with veterans from OIF or OEF was conducted by

Renshaw et al. (2009). They found that within their sample, 12% had PTSD. The results from the present study are three times the amount found by Renshaw et al. (2009). However, Hoge et al. (2008) found that 43.9% of returning veterans had a diagnosis of PTSD. The results of the present study may be high because of the military's repeated deployments since 2005 to 2006 when Renshaw et al. (2009) collected their data.

5.1.10 Combat Exposure Scale

Forty eight percent of the respondents reported moderate or high combat exposure. More specifically 23% reported moderate, 19% moderate heavy, and 5% heavy combat exposure. These statistics are in line with prior research. Renshaw et al. (2009) reported 34% moderate, 10% moderate heavy and 4% heavy combat exposure. This present sample is thought to be representative.

5.2 Hypothesis One

The first hypothesis was veterans who are 30 years and older will have higher marital satisfaction scores than those 29 and younger as measured by the Relationship Assessment Scale (RAS). It was thought that the older one gets, the more satisfied s/he would be in marriage. McLeland and Sutton (2005) examined marital satisfaction in a military vs. civilian sample. They used two assessment instruments (Kansas Marital Satisfaction Scale [KMSS] and ENRICH Marital Satisfaction Scale [EMS]) and found an overall difference between age (18 to 29 and above 30) and military status (military v. civilian) on only one of the two marital satisfaction scales (EMS) they administered between the younger and older cohort.

The present study used the RAS to measure relationship satisfaction and used the same age categories as the previous study. This study found that there was not a statistically significant difference in marital satisfaction between those 30 years and older and those 29 years and younger. Some possible explanations are that this study used a different assessment instrument to measure marital satisfaction.

5.3 Hypothesis Two

The present study hypothesized veterans who were extended would have lower Relationship Assessment Scale (RAS) scores than veterans who were not extended. This hypothesis was largely based upon the scholarly research of SteelFisher et al. (2008). They found that the extended group of spouses reported higher feelings of loneliness (85%), anxiety (64%), and depression (53%) as compared to the non extended group of spouses who reported lower feelings of loneliness (72%), anxiety (41%), and depression (39%). This author thought that if the spouses of soldiers were having issues of loneliness, anxiety, and depression, the service members would as well. There was no significant relationship between extensions and marital satisfaction among the participants. However, this may be due to response rate error. Only 56 out of 113 participants answered this question, roughly a 50% response rate.

5.4 Hypothesis Three

Prior research (Renshaw et al., 2009) acknowledges that combat exposure is related to PTSD symptoms, which are in turn related to lower marital satisfaction. This study found that there was a weak negative correlation between the CES and RAS, however it was not statistically significant. This finding is consistent with the only other article examining marital satisfaction and combat exposure utilizing a sample from OIF or OEF (Renshaw et al., 2009). It can conclusively be stated that there is no statistically significant relationship between the CES and RAS within the OIF or OEF population.

5.5 Hypothesis Four

This study found a weak negative correlation between the PCL-M and RAS (Phi= -.15, p= .11). The only other study to use the RAS and PCL-M investigating OIF veterans was Renshaw et al. (2009). They found that PTSD is related to lower marital satisfaction (r=-.44, p<.01). The results of this thesis are surprising given the relationship that Renshaw et al. (2009) discovered. There are several possible explanations for this study's findings: the way analysis was preformed and administration of the instruments (online). The PCL-M and RAS were analyzed as nominal dichotomous variables. In addition a Pearson's correlation was not

statistically significant (*r*=-.12, p=.20). The PCL-M and RAS were administered online and therefore participants might have had questions they could not ask an administrator. The online survey took approximately 30 minutes to complete and the PCL-M was at the end. This was done so the participant would not get tired at the beginning and complete the entire survey. However this could have led the participants to get tired and not answer the PCL-M as they would have if it were placed at a different position in the survey. Another possible explanation for these results could be that when Renshaw et al. (2009) gathered their data, it was collected at one military installation. The combat experiences of that unit could have been very homogeneous. The present study was an online survey with the potential for a nationwide sample, with more diversity in experiences. The combat experiences of different personnel from different units may have brought a more diverse sample and a more representative view of PTSD and marital satisfaction. Though the findings were that no relationship exists between the RAS and PCL-M in this study, future examination of this relationship is needed.

5.6 Hypothesis Five

A series of regression models were created for analysis in search of a model useful in predicting marital satisfaction. The first regression model contained predictor variables that were noted in the literature as possible gaps in understanding marital satisfaction: participation in mental health services, medication, injuries in combat, length of time stateside, age, MOS, length of deployment, CES, and PCL-M scores. In total five variables (CES scores, age, injuries during combat, participation in mental health services, and medication) were removed until a useful model for predicting RAS scores was discovered at the .05 significance level. This thesis fill gaps in the literature: CES scores, age, injuries during combat, participation in mental health services, and medication are not significant predictors of low RAS scores. However, length of deployment, length of time stateside, MOS and PCL-M are, explaining 8% of the variance in RAS scores.

The main contribution to the marital satisfaction literature is the realization that the predictor variables suspected as influential (i.e. CES scores, age, injuries during combat, participation in mental health services, and medication), were not significant. This allows future research to exclude them in the data collection process since they were proven in this thesis to not be significant predictors of marital satisfaction. Additionally, the identification of the model containing length of deployment, length of time stateside, MOS and PCL-M scores are important contributions to the literature.

5.7 Limitations, Implications, and Recommendations for Future Research

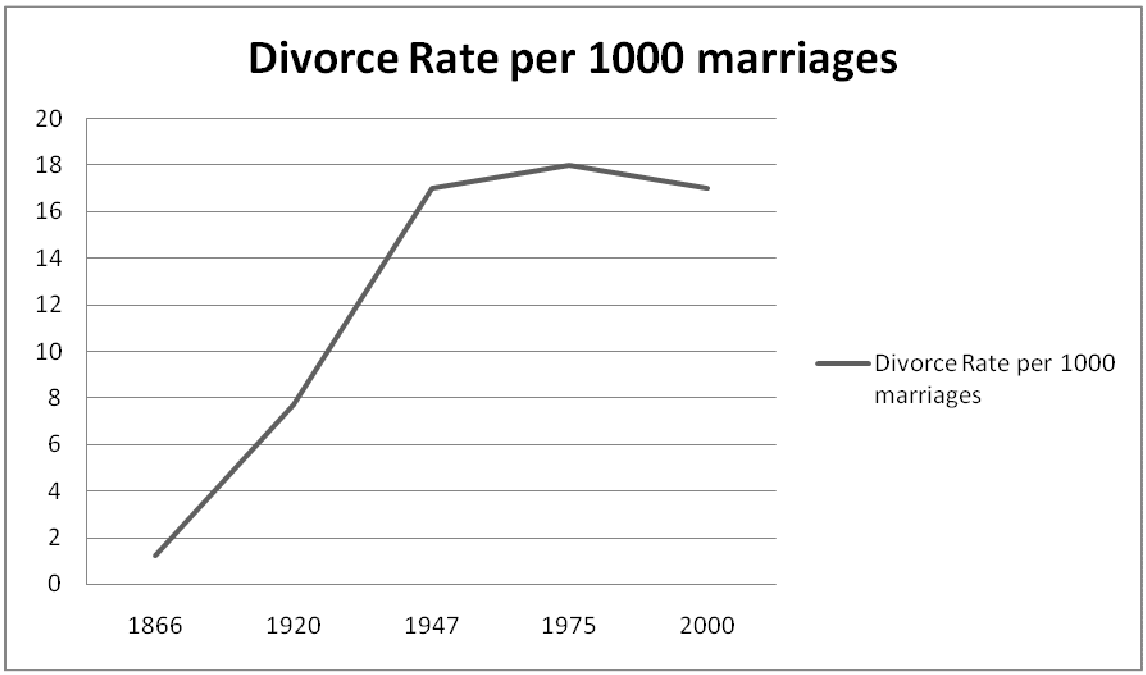
These findings should be interpreted with caution for several reasons. This survey was online and not in a venue where the respondent could ask clarifying questions if they had any. It was thought that by administering this survey online, an ethnically diverse sample would emerge; this was not the case. There was an overwhelming amount of participants who were White, which makes the results less generalizable. The questions were formatted so that participants did not have to answer one question to move on to the next. This was an oversight on the author's part; each question should have been made mandatory to decrease the likelihood of missing data. This study only focused on married service members, there are probably numerous potential participants that were excluded because they were dating or cohabiting and not married. It would have been ideal to gather data on the spouses of the veterans but this would have been too lengthy of a process given the time constraints of this thesis.

After completion of the analysis several variables that should have been gathered were not: branch of service (Marines, Army, Navy, or Air Force), component (Reserve, Guard, Active duty), theatre (OIF or OEF), and religiosity. Other studies (Renshaw et al., 2008, 2009) collected data on branch, component and theatre, but not religiosity. Religiosity has been empirically proven to influence marital satisfaction (Ahmadi, Azad-Marzabadi, & Nabipoor Ashraf, 2008). These four variables should be considered when conducting future research.

These findings are not only helpful to researchers but practitioners as well. A model has been created that accounted for eight percent of the variance in RAS scores. With the two variables that have been identified (length of time stateside and PCL-M scores) practitioners can assist veterans upon return home. Veteran Affairs (VA), military, and Department of Defense (DoD) contract social workers who work with veterans can brainstorm and come up with creative ideas to increase the likelihood that service members will have a easier assimilation process back to America and address their PTSD. Simple things such as reassuring the veteran this is a normal process and the longer they are home the higher their marital satisfaction will be, could quell their nerves. Hopefully this will help the natural process of reintegration back into their family and marriage. Having a thorough screening process for veterans upon return stateside to identify those in need of treatment is crucial. A simple and plausible solution would be to administer a rapid assessment instrument such as the PCL-M to identify service members at risk for PTSD. Both of these predictors need to be concentrated on by practitioners serving the veteran population. Future research should attempt to create a model and identify predictors that account for even more of the variance in marital satisfaction.

APPENDIX A

FIGURES AND TABLES



Sources: Pavalko, & Elder, (1990)

Figure A.1 Divorces per 1000 marriages

Table A.1 Attempted Suicide and Suicide Rates

Category	Enlisted	Officer	Age<25 Years	Age >25 Years	Single	Married, Divorced, Separated
Suicide Attempts	98%	2%	70%	30%	42%	58%
Suicides	90%	10%	40%	60%	53%	47%
Total		100%		100%		100%

Sources: Suicide Risk Management & Surveillance Office (2008)

Table A.2 Combat Exposure Scale (CES)

CES score	0 to 8	9 to 16	17 to 24	25 to 32	33 to 41
Severity of Combat	light	Light-moderate	moderate	Moderate heavy	Heavy combat

Sources: Keane et al. (1989)

APPENDIX B

LETTER TO GROUP FACILITATOR

Dear Group Leader,

I am a veteran of Operation Iraqi Freedom (OIF) who served 15 months as an infantryman with the 3rd Stryker Brigade in Mosul and Baghdad. After my discharge from Active Duty, I enrolled at the University of Texas at Arlington to pursue a Master's degree in Social Work. Part of my graduation requirements is completion of a thesis, which takes the form of an online survey. The goal of this online survey is to assess how a combat deployment affects marital satisfaction.
I have created an online survey that will allow me to collect data. The online survey consists of demographic questions and three standardized assessment tools that have previously been used in empirical studies. My goal is to obtain as many respondents as possible to ensure a strong study. It is my hope that you will agree to send the link to this survey to your group members. This may be done at your discretion either in the form of an email or a "news" posting to the webpage. The survey will be anonymous. Respondents will not have to provide their names nor contact information. Surveys that are filled out by your group members will be coded numerically allowing for no potential way of connecting responses to personal accounts. Also, as an additional measure to protect respondents, I will not mention the specific social networking site or group that I collect data from in the thesis or any publications related to it. I will, though, have to mention the social networking site or group to the Internal Review Board (IRB) for protection of human subjects. As you may know, as a researcher, I am required to have the IRB review my study to ensure that my study protects human subjects. Upon completion and defense of my thesis I will gladly distribute a copy to anyone in your group who wants one.
Please let me know at your earliest convenience if you are willing to allow me to survey your members. Please do not hesitate to contact me at warren.ponder@mavs.uta.edu or my cell phone 253-495-1797.
Thank you for your time,

Warren Ponder

APPENDIX C

IRB #2009-1488s APROVAL LETTER

THE UNIVERSITY
OF TEXAS
AT ARLINGTON

Office of
Research Administration

Box 19181
202 E. Border St., Suite 201
Arlington, Texas
76019-0181
T 817.272.3723
F 817.272.1111
http://www.uta.edu/research

Expertise at UT Arlington
www.uta.edu/expertise

April 17, 2009

Warren Ponder
Dr. Regina Aguirre
The University of Texas at Arlington
School of Social Work
Box 19129

RE: Expedited Approval of Protocol

TITLE: *Marital Satisfaction: Veterans from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF)*

IRB No.: 2009-1488s

The University of Texas Arlington Institutional Review Board (UTA IRB) has determined that this research is eligible for expedited review in accordance with Title 45 CFR 46.110(a)-(b)(1), 63 FR 60364 and 63 FR 60353, category (7).

The IRB Chairman (or designee) approved the protocol effective April 10, 2009. IRB approval for the research shall continue until April 9, 2010. In order for the research to continue beyond the first year, Continuation Review must be completed within the month preceding the date of expiration indicated above. A reminder notice will be forwarded to the attention of the Principal Investigator (PI) at that time.

It is further found that the above referenced study also qualifies for a waiver of the requirement to obtain Informed Consent under the federal guidelines for the protection of human subjects as referenced at Title 45 CFR 46.116(d)(1)-(4). The procedures indicated in the study provide that:

1. the research involves no more than minimal risk to the subjects;
2. the waiver will not adversely affect the rights and welfare of the subjects;
3. the research could not practicably be carried out without the waiver, and
4. whenever appropriate, the subject will be provided with additional pertinent information after participation.

Title 45 CFR 46.117 (c). An IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds that:

1. Pursuant to §46.117(c)(2), the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

The approved subject sample size is 4000.

Please be advised that as the principal investigator, you are required to report local adverse (unanticipated) events to this office within 24 hours. In addition, pursuant to Title 45 CFR 46.103(b)(4)(iii), investigators are required to, "promptly report to the IRB ***any*** proposed changes in the research activity, and to ensure that such changes in approved research, during the period for which IRB approval has already been given, are **not initiated without prior IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject."

All investigators and key personnel identified in the protocol must have documented *Human Subjects Training* or *CITI* Training on file with this office.

If applicable, approval by the appropriate authority at a collaborating facility is required prior to subject enrollment. If the collaborating facility is *engaged in the research*, an OHRP approved Federalwide Assurance (FWA) may be required for the facility (prior to their participation in research-related activities). To determine whether the collaborating facility is engaged in research, go to: http://www.hhs.gov/ohrp/humansubjects/assurance/engage.htm

The UT Arlington Office of Research Administration Regulatory Services appreciates your continuing commitment to the protection of human research subjects. Should you have questions or require further assistance, please contact Robin Dickey by calling 817-272-9329.

Sincerely,

Patricia Turpin

Digitally signed by Patricia Turpin
DN: cn=The University of Texas System, ou=The University of Texas at Arlington CA, o=www.xensign.com/repository/CPS Incorp. by Ref. LIAB.LTD(c)99, cn=Patricia Turpin, email=pturpin@uta.edu
Date: 2009.04.19 18:42:04 -05'00'

Patricia Turpin, Ph.D., RN, NEA, BC
Associate Clinical Professor
UT Arlington IRB Chair

APPENDIX D

IRB #2009-1488s APROVAL LETTER

THE UNIVERSITY
OF TEXAS
AT ARLINGTON

Technology Management

Box 19161
202 E. Border St.
Arlington, Texas
76019-0161

T 817.272.1119
F 817.272.1110
http://www.uta.edu

April 24, 2009

Warren Ponder
Dr. Regina Aguirre
Social Work
The University of Texas at Arlington
Box 19129

IRB No.: **2009-1488**

RE: Minor Modification Approval Letter

Title: *Marital Satisfaction: Veterans from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF)*

The UT Arlington Institutional Review Board (UTA IRB) Chair (or designee) reviewed and approved the modification(s) to this protocol on **April 17, 2009** in accordance with Title 45 CFR 46. 110(b)(2). Therefore, you are authorized to conduct your research. The modification(s), indicated below, was deemed minor and appropriate for expedited review.

- **ADD recruitment medium: Iraq and Afghanistan Veterans of America (IAVA)**

Pursuant to Title 45 CFR 46.103(b)(4)(iii), investigators are required to, "promptly report to the IRB ***any*** proposed changes in the research activity, and ensure that such changes in approved research, during the period for which IRB approval has already been given, **are not initiated without IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject."

The modification approval will additionally be presented to the convened board on May 10, 2009 for full IRB acknowledgment [45 CFR 46.110(c)]. All investigators and key personnel identified in the protocol must have documented *Human Subjects Involved in Research (Tier II) Training* or other UTA approved compliance education in the responsible conduct of human subject research on file with the UT Arlington Office of Research Administration Regulatory Services.

The UT Arlington Office of Research Administration appreciates your continuing commitment to the protection of human research subjects. Should you have questions or require further assistance, please contact Robin Dickey by calling (817) 272-9329.

THE UNIVERSITY
OF TEXAS
AT ARLINGTON

Technology Management

Box 19161
202 E. Border St.
Arlington, Texas
76019-0161

T 817.272.1119
F 817.272.1110
http://www.uta.edu

Sincerely,

Patricia Turpin

Digitally signed by Patricia Turpin
DN: o=The University of Texas System, ou=The University of Texas at Arlington CA, ou=www.verisign.com/repository/CPS Incorp. by Ref.LIAB.LTD(c)99, cn=Patricia Turpin, email=pturpin@uta.edu
Date: 2009.04.24 15:40:10 -05'00'

Patricia Turpin, PhD, RN, NEA, BC
Associate Clinical Professor
UT Arlington IRB Chair

APPENDIX E

MARITAL SATISFACTION SURVEY

Marital Satisfaction Survey

1. Demographics

This survey is intended to collect information on veterans, their combat experience and their adjustment to being stateside. If you have already participated in this survey please exit the survey now.

This survey contains questions about your experience following combat deployment(s). The survey data will be kept anonymous and confidential, and you will not be asked to identify yourself in any way. If you choose to participate in this survey, please proceed. If you do not choose to participate, you may close this window to exit the survey at any time.

This survey is part of a study being conducted by Warren Ponder at the University of Texas at Arlington in partial fulfillment of thesis requirements. IRB approval has been granted. If you have any questions or concerns regarding your participation in this survey please contact Warren Ponder (warren.ponder@mavs.uta.edu). If you would like to receive a copy of the results of this study, please send an email to Warren Ponder at the above address.

Every attempt will be made to see that your study results are kept confidential. A copy of the records from this study will be stored in (Department of Social Work; Office of Dr. Regina T.P. Aguirre; SOCW A318) for at least (3) years after the end of this research. The results of this study may be published and/or present at meeting without naming you as a subject. Although your rights and privacy will maintained, the Secretary of the Department of Health and Human Services, the UTA IRB, and personnel particular to this research have access to the study records. Your results will be kept completely confidential according to the current legal requirements. They will not be revealed unless required by law, or as noted above.

This survey is expected to take 20-30 minutes. You may quit or choose not to answer any questions at no consequence. There is no direct no direct benefits for participating in this research study nor are there any foreseeable risks associated with participating in the research.

Marital Satisfaction Survey

2. Demographics

* **1. Are you currently deployed?**

- [ ] Yes
- [ ] No

Page 2

Marital Satisfaction Survey

3. Demographics

Unfortunately, you must be a veteran from Operation Iraqi Freedom (OIF) or Operation Enduring Freedom (OEF) in order to participate in this survey. If you are NOT a veteran, I thank you for your time and interest and ask that you please exit the survey now by closing the browser window or clicking on the Exit Survey link. If you are a veteran from OIF or OEF please click next.

Page 3

Marital Satisfaction Survey

4. Demographics

* **1. Are you married?**

- [ ] Yes
- [ ] No

Page 4

Marital Satisfaction Survey

5. Demographics

Unfortunately, you must be married to participate in this survey. If you are not currently married, I thank you for your time and interest and ask that you please exit the survey now by closing the browser window or clicking on the Exit Survey link. If you are married, please click next.

Page 5

Marital Satisfaction Survey

6. Demographics

* 1. What is your sex?

- [ ] Male
- [ ] Female

* 2. What is your ethnicity?

- [ ] White
- [ ] Black
- [ ] Hispanic
- [ ] Asian
- [ ] Other

* 3. During your deployment was your MOS combat arms?

- ◯ Yes
- ◯ No

Page 6

Marital Satisfaction Survey

7. Demographics

* **1. Since your MOS was not combat arms, please type in your MOS in the space provided.**

Page 7

Marital Satisfaction Survey

8. Demographics

* **1. How old are you today?**

* **2. What was your rank the day you deployed for theatre?**

- [ ] E1 through E4
- [ ] E5 through E9
- [ ] Warrant or Commissioned Officer

* **3. How many times have you been deployed?**

- [ ] Once
- [ ] Twice
- [ ] Three times
- [ ] Four times

Marital Satisfaction Survey

9. Demographics

* 1. Enter the length of your deployment.

Page 9

Marital Satisfaction Survey

10. Demographics

* **1. Enter the lengths of your deployments in number of months.**

First deployment

Second deployment

Page 10

Marital Satisfaction Survey

11. Demographics

* **1. Enter the lengths of your deployments in number of months.**

First deployment

Second deployment

Third deployment

Page 11

Marital Satisfaction Survey

12. Demographics

* **1. Enter the lengths of your deployments in number of months.**

First deployment

Second deployment

Third deployment

Fourth deployment

Page 12

Marital Satisfaction Survey

13. Demographics

* 1. Was your deployment extended?

- ◯ Yes
- ◯ No

Page 13

Marital Satisfaction Survey

14. Demographics

* **1. Were any of your deployments extended?**

- [ ] Yes
- [ ] No

Page 14

Marital Satisfaction Survey

15. Demographics

* **1. How many days have you been back in the United States since your most recent deployment?**

- [ ] Less than 90 days
- [ ] 91 to 180 days
- [ ] 181 days to 365 days
- [ ] 366 days or more

Page 15

Marital Satisfaction Survey

16. Demographics

* **1. How many children do you currently have?**

* **2. What is your family's combined annual income?**

- [ ] Less than $30,000
- [ ] $30,001 to $50,000
- [ ] More than $51,001

* **3. How long have you been married?**

* **4. How many hours a week does your spouse work?**

- [ ] Spouse does not work
- [ ] 1 to 10 hours
- [ ] 11 to 20 hours
- [ ] 21 to 30 hours
- [ ] 30 to 40 hours
- [ ] More than 40 hours

Marital Satisfaction Survey

17. Demographics

* **1. How often per week did you communicate with your spouse?**

- [ ] less than once a week
- [ ] 1-2 times a week
- [ ] 3-4 times a week
- [ ] 5-6 times a week
- [ ] everyday

* **2. What was the main mode of communication with your spouse while you were deployed?**

- [ ] Computer (email, instant messenger, webcam)
- [ ] US mail
- [ ] Telephone

Marital Satisfaction Survey

18. Demographics

* **1. What was the primary method of communication on the computer?**

- [ ] E-mail
- [ ] Instant Message/Chat Program
- [ ] Webcam

Marital Satisfaction Survey

19. Demographics

* **1. What is the marital status of your parents?**

- [ ] Never Married
- [ ] Married
- [ ] Separated
- [ ] Divorced
- [ ] Widowed

* **2. How close geographically are your family members (immediate or distant) to you post deployment?**

- [ ] Within 50 miles
- [ ] 51 to 100 miles
- [ ] 101 to 200 miles
- [ ] 201 or more miles

Marital Satisfaction Survey

20. Demographics

* **1. Are you currently participating in mental health services?**

- [ ] Individual counseling
- [ ] Couples counseling
- [ ] Group counseling
- [ ] Not participating in mental health services
- [ ] Choose not to answer

* **2. Are you currently taking medications for any of the following issues?**

- [ ] Depression
- [ ] Anxiety
- [ ] Sleep issues
- [ ] Other
- [ ] Not taking medication
- [ ] Choose not to answer

* **3. Were you injured during your combat deployment?**

- [ ] Yes
- [ ] No

Marital Satisfaction Survey

21. Demographics

* **1. Please describe your injury.**

If at any time during this survey you feel distressed and would like to talk with someone at the National Suicide Prevention Hotline click here or call 1-800-273-8255 (Veterans press 1).

If at any time you feel like you need to query for a mental health provider in your local area click here.

Page 21

Marital Satisfaction Survey

22. Relationship Assessment Scale (RAS)

Please select the bubble for each item which best answers that item for you.

*** 1. How well does your partner meet your needs?**

	Poorly		Average		Extremely well
.	◯	◯	◯	◯	◯

*** 2. In general, how satisfied are you with your relationship?**

	Unsatisfied		Average		Extremely satisfied
.	◯	◯	◯	◯	◯

*** 3. How good is your relationship compared to most?**

	Poor		Average		Excellent
.	◯	◯	◯	◯	◯

*** 4. How often do you wish you hadn't gotten in this relationship?**

	Never		Average		Very often
.	◯	◯	◯	◯	◯

Marital Satisfaction Survey

23. Relationship Assessment Scale (RAS)

Please select the bubble for each item which best answers that item for you.

* **1. To what extent has your relationship met your original expectations:**

	Hardly at all		Average		Completly
.	◯	◯	◯	◯	◯

* **2. How much do you love your partner?**

	Not much		Average		Very much
.	◯	◯	◯	◯	◯

* **3. How many problems are there in your relationship?**

	Very few		Average		Very many
.	◯	◯	◯	◯	◯

Marital Satisfaction Survey

24. Combat Exposure Scale (CES)

Please select the bubble below the answer that best describes your experience.

* **1. Did you ever go on combat patrols or have other dangerous duty?**

	No	1-3X	4-12X	13-50X	51+times
.	◯	◯	◯	◯	◯

* **2. Were you ever under enemy fire?**

	Never	<1 month	1-3 months	4-6 months	7 mos or more
.	◯	◯	◯	◯	◯

* **3. Were you ever surrounded by the enemy?**

	No	1-2X	3-12X	13-25X	26+times
.	◯	◯	◯	◯	◯

* **4. What percentage of the soldiers in your unit were killed (KIA), wounded, or missing in action (MIA)?**

	None	1-25%	26-50%	51-75%	76% or more
.	◯	◯	◯	◯	◯

If at any time during this survey you feel distressed and would like to talk with someone at the National Suicide Prevention Hotline click here or call 1-800-273-8255 (Veterans press 1).

If at any time you feel like you need to query for a mental health provider in your local area click here.

Marital Satisfaction Survey

25. Combat Exposure Scale (CES)

Please select the bubble below the answer that best describes your experience.

* **1. How often did you fire rounds at the enemy?**

	Never	1-2X	3-12X	13-50X	51 or more
.	◯	◯	◯	◯	◯

* **2. How often did you see someone hit by incoming or outgoing rounds?**

	Never	1-2X	3-12X	13-50X	51 or more
.	◯	◯	◯	◯	◯

* **3. How often were you in danger of being injured or killed (i.e., being pinned down, overrun, ambushed, near miss, etc.)?**

	Never	1-2X	3-12X	13-50X	51 or more
.	◯	◯	◯	◯	◯

If at any time during this survey you feel distressed and would like to talk with someone at the National Suicide Prevention Hotline click here or call 1-800-273-8255 (Veterans press 1).

If at any time you feel like you need to query for a mental health provider in your local area click here.

Marital Satisfaction Survey

26. Posttraumatic Stress Disorder Military (PCL-M)

Below is a list of problems and complaints that veterans sometimes have in reponse to stressful military experiences. Please read each one carefully, then chose your answer to indicate how much you have been bothered by that problem IN THE PAST MONTH.

* **1. Repeated, disturbing memories, thoughts, or images of a stressful military experience?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

* **2. Repeated, disturbing dreams of a stressful military experience?**

	Not at all	A little bit	Moderatly	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

* **3. Suddenly acting or feeling as if a stressful military experience were happening again (as if you were reliving it)?**

	Not at all	A little bit	Moderatly	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

* **4. Feeling very upset when something reminded you of a stressful military experience?**

	Not at all	A little bit	Moderatly	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

If at any time during this survey you feel distressed and would like to talk with someone at the National Suicide Prevention Hotline click here or call 1-800-273-8255 (Veterans press 1).

If at any time you feel like you need to query for a mental health provider in your local area click here.

Page 26

Marital Satisfaction Survey

27. Posttraumatic Stress Disorder Military (PCL-M)

Below is a list of problems and complaints that veterans sometimes have in reponse to stressful military experiences. Please read each one carefully, then chose your answer to indicate how much you have been bothered by that problem IN THE PAST MONTH.

* **1. Having physical reactions (e.g. heart pounding, trouble breathing, sweating) when something reminded you of a stressful military experience?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

* **2. Avoiding thinking about or talking about a stressful military experience or avoiding having feelings related to it?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

* **3. Avoiding activities or situations becuase they reminded you of a stressul military experience?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

* **4. Trouble remembering important parts of a stressful military experience?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

If at any time during this survey you feel distressed and would like to talk with someone at the National Suicide Prevention Hotline click here or call 1-800-273-8255 (Veterans press 1).

If at any time you feel like you need to query for a mental health provider in your local area click here.

Page 27

Marital Satisfaction Survey

28. Posttraumatic Stress Disorder Military (PCL-M)

Below is a list of problems and complaints that veterans sometimes have in reponse to stressful military experiences. Please read each one carefully, then chose your answer to indicate how much you have been bothered by that problem IN THE PAST MONTH.

* **1. Loss of interest in activities that you use to enjoy?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

* **2. Feeling distant or cut off from other people?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

* **3. Feeling emotionally numb or being unable to have loving feelings for those close to you?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

* **4. Feeling as if somehow your future will be cut short?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
.	◯	◯	◯	◯	◯

If at any time during this survey you feel distressed and would like to talk with someone at the National Suicide Prevention Hotline click here or call 1-800-273-8255 (Veterans press 1).

If at any time you feel like you need to query for a mental health provider in your local area click here.

Page 28

Marital Satisfaction Survey

29. Posttraumatic Stress Disorder Military (PCL-M)

Below is a list of problems and complaints that veterans sometimes have in reponse to stressful military experiences. Please read each one carefully, then chose your answer to indicate how much you have been bothered by that problem IN THE PAST MONTH.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
* 1. Trouble falling or staying asleep?	◯	◯	◯	◯	◯
* 2. Feeling irritable or having angry outbursts?	◯	◯	◯	◯	◯
* 3. Having difficulty concentrating?	◯	◯	◯	◯	◯
* 4. Being "super-alert" or watchful or on guard?	◯	◯	◯	◯	◯
* 5. Feeling jumpy or easily startled?	◯	◯	◯	◯	◯

If at any time during this survey you feel distressed and would like to talk with someone at the National Suicide Prevention Hotline click here or call 1-800-273-8255 (Veterans press 1).

If at any time you feel like you need to query for a mental health provider in your local area click here.

Page 29

REFERENCES

Ahmadi, K., E., Azad-Marzabadi, E., & Nabipoor Ashraf, S. M (2008). The influence of religiosity on marital satisfaction. *Journal of Social Sciences, 4(*2), 128-135.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th Ed.). Washington, D.C.: Author.

Anderson, W. L., & Little, D. W. (1999). All's fair: War and other causes of divorce from a Beckerian perspective. *American Journal of Economics & Sociology, 58*(4), 901-922.

Angrist, J. D. & Johnson IV, J. H. (2000). Effects of work-related absences on families: Evidence from the Gulf War*. Industrial & Labor Relations Review, 54*(1), 41-58.

Bell, D.B., Tietelbaum, J.M., & Schumm, W.R. (1996). Keeping the home fires burning: Family support issues. *Military Review, 76*, 80-84.

Black, T.R. (1999). *Doing quantitative research in the social sciences: An integrated approach to research design, measurement and statistics.* London: Sage.

Brace, N., Kemp, R., & Snelgar, R. (2006). *SPSS for psychologists: A guide to data analysis using SPSS for Windows* (3rd ed.). Hampshire, England: Palgrave Macmillan.

Brewer, V. E., & Paulsen, D. J. (1999). A comparison of U.S. and Canadian findings on uxoricide risk for women with children sired by previous partners. *Homicide Studies, 3(4)*, 317–332.

Busby, D. M., Christensen, C., Crane, D. R., & Larson, J. (1995). A revision of the Dyadic Adjustment Scale for the use with distressed and nondistressed couples: Construct hierarchy and multidimensional scales. *Journal of Marital and Family Therapy, 21*(3), 289-308.

Byrne, C.A., & Arias, I. (1997). Marital satisfaction and marital violence: Moderating effects of attributional processes. *Journal of Family Psychology, 11*(2), 188-195.

Carroll, E. M., Rueger, D. B., Foy, D. W., & Donahoe, C. P. (1985). Vietnam combat veterans with posttraumatic stress disorder: Analysis of marital and cohabiting adjustment. *Journal of Abnormal Psychology, 94*(3), 329-337.

Crane, D.R., Middleton, K.C., & Bean, R.A. (2000). Establishing criterion scores for the Kansas Marital Satisfaction Scale and the Revised Dyadic Adjustment Scale. *American Journal of Family Therapy*, *28*(1), 53-60.

Department of Defense (2001). Department of Defense dictionary of military and associated terms (as amended through 17 October 2008). Retrieved February 20, 2009, from http://www.dtic.mil/doctrine/jel/doddict/data/t/05478.html.

Department of Defense (2007). Profile of the military community. Retrieved July 4, 2009 from http://cs.mhf.dod.mil/content/dav/mhf/QOL-Library/Project%20Documents/MilitaryHOMEFRONT/Reports/2007%20Demographics.pdf.

Eaton, K. M., Hoge, C. W., Messer, S. C., Whitt, A. A., Cabrera, O.A., McGurk, D., et al. (2008). Prevalence of mental health problems, treatment need, and barriers to care among primary care-seeking spouses of military service members involved in Iraq and Afghanistan deployments. *Military Medicine, 173*(11), 1051-1056.

Engel, C. C., Oxman, T., Yamamoto, C., Gould, D., Barry, S., Stewart, P., et al. (2008). RESPECT-Mil: Feasibility of a systems-level collaborative care approach to depression and post-traumatic stress disorder in military primary care. *Military Medicine*, *173*(10), 935-940.

Erbes, C., Westermeyer, J., Engdahl, B., & Johnsen, E. (2007). Post-traumatic stress disorder and service utilization in a sample of service members from Iraq and Afghanistan. *Military Medicine, 172*(4) 359-363.

Faulkner, R. A., Davey, M., & Davey, A. (2005). Gender-related predictors of change in marital satisfaction and marital conflict. *The American Journal of Family Therapy, 33,* 61–83.

Fisher, H., Klarman, K., & Oboroceanu, M.J. (2008). American war and military operations casualties: Lists and statistics. Retrieved February 14, 2009, from http://www.fas.org/sgp/crs/natsec/RL32492.pdf.

Follette, V. M., & Ruzek J.I. (Eds.). (2006). *Cognitive-behavioral therapies for trauma.* New York: Guilford.

Gimbel, C., & Booth, A. (1994). Why does military combat experience adversely affect marital relations? *Journal of Marriage & Family, 56,* 691-703.

Goldsmith, S., Pellmar, T., Kleinman, A., & Bunney, W. (Eds.). (2002). Reducing suicide: A national imperative. Washington, DC: National Academies Press.

Grace, G., & Steiner, M. (1978). Navy wives as a factor influencing retention among Navy enlisted personnel. Arlington, VA: USN-Manpower R & D Program, Office of Naval Research.

Hendrick, S.S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family, 50,* 93-98.

Hendrick, S.S., Dicke, A., & Hendrick, C. (1998). The relationship assessment scale. *Journal of Social and Personal Relationships*, *15*(1), 137-142.

Hoge, C.W., Auchterlonie, J., & Milliken, C. S. (2006). Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan. *Journal of the American Medical Association, 295(*9) 1023-1032.

Hoge, C.W., Castro, C.A., & Eaton, K.M. (2006). Impact of combat duty in Iraq and Afghanistan on family functioning: Findings from the Walter Reed Army Institute of Research Land Combat Study. Retrieved March 31, 2009, from http://ftp.rta.nato.int/public//PubFullText/RTO/MP/RTO-MP-HFM-134///MP-HFM-134-05.pdf.

Hoge, C.W., McGurk, D., Thomas, J.L., Cox, A.L., Engel, C.C., & Castro, C.A. (2008). Mild traumatic brain injury in U.S. soldiers returning from Iraq. *New England Journal of Medicine, 358*(5), 453-463.

Hunter, E. (1983). *Families under the flag*. New York: Praeger.

Jacobson, P. (1959). *American marriage and divorce*. New York: Rinehart.

Jordan, B. K., Marmar, C.R., Fairbank, J. A., Schlenger, W. E., Kulka, R. A., Hough, R. L., et al. (1992). Problems in families of male Vietnam veterans with post traumatic stress disorder. *Journal of Consulting and Clinical Psychology*, *60,* 916-926.

Keane, T., Fairbank, J., Caddell, J., Zimering, R., Taylor, K., & Mora, C. (1989). Clinical evaluation of a measure to assess combat exposure. *Psychological Assessment, 1,* 53-55.

Kulka, R. A., Schlenger, W. E., Fairbank, J. A., Hough, R. L., Jordan, B. K., Marmar, C. R., et al. (1990). *Trauma and the Vietnam war generation.* New York: Brunner/Mazel.

Laufer, R.S., & Gallops, M.S. (1985) Life-Course Effects of Vietnam Combat and Abusive Violence: Marital Patterns. *Journal of Marriage and the Family*, *47*(4), 839-853.

Lundquist, J.H. (2007). A comparison of civilian and enlisted divorce rates in the early all volunteer era. *Journal of Political and Military Sociology*, *35*(2), 199-217.

McCarroll, J.W., Castro, S., Nelson, E.N., Fan, Z., Evans, P., & Rivera, A. (2008). Characteristics of domestic violence incidents reported at the scene by volunteer victim advocates. *Military Medicine*, *173*(9), 865-870.

McLeland, K.C., & Sutton, G. W. (2005). Military service, marital status, and men's relationship satisfaction. *Individual Differences Research, 3*(3), 177-182.

National Association of Social Workers. (1996). National Association of Social Workers: Code of Ethics. Retrieved January 20, 2009 from http://www.socialworkers.org/pubs/code/code.asp.

Newby, J.H., Ursano, R.J., McCarroll, J.M. Liu, X., Fullerton, C.S., & Norwood, A.E. (2005). Postdeployment domestic violence by U.S. Army soldiers. *Military Medicine*, *170*(9), 643-647.

Office of the Secretary of Defense (2009a). Basic Allowance of Subsistence (BAS). Retrieved February 20, 2009 from http://www.defenselink.mil/militarypay/pay/bas/index.html.

Office of the Secretary of Defense (2009b). Basic Allowance for Housing (BAH). Retrieved February 20, 2009 from http://www.defenselink.mil/militarypay/pay/bah/index.html.

Office of the Under Secretary of Defense Personnel and Readiness (2007) Population Representation in the Military Services. Retrieved June 27, 2009 from http://www.defenselink.mil/prhome/PopRep2007.

Pavalko, E., & Elder, G. (1990). World War II and divorce: A life-course perspective. *The American Journal of Sociology. 95*(5), 1213-1234.

Perry, W. (2005). The U.S. Military: Under Strain and at Risk. *The National Security Advisory Group.*

Pratt, E.M., Brief, D.J., & Keane, T.M. (2006). Recent advances in psychological assessment of adults with posttraumatic stress disorder. In Follette, V. M. & Ruzek J.I. (Eds.) *Cognitive-behavioral therapies for trauma* (2nd Ed, pp. 34-61). New York: Guilford.

Puzone, C. A., Saltzman, L. E., Kresnow,M., Thompson, M. P., & Mercy, J. A. (2000). National trends in intimate partner homicide, United States, 1976–1995. Violence Against Women, 6(4), 409–426.

Renshaw, K.D., Rodrigues, C.S., & Jones, D.H. (2008). Psychological symptoms and marital satisfaction in spouses of Operation Iraqi Freedom veterans: Relationships with spouses' perceptions of veterans' experiences and symptoms. *Journal of Family Psychology*, *22*(3), 586-594.

Renshaw, K.D., Rodrigues, C.S., and Jones D.H. (2009). Combat exposure, psychological symptoms, and marital satisfaction in National Guard soldiers who served in Operation Iraqi Freedom from 2005 to 2006. *Anxiety, Stress, and Coping, 22*(1), 101-115.

Riggs, D.S., Byrne, C. A., Weathers, F. W., & Litz, B. T. (1998). The quality of the intimate relationships of male Vietnam veterans: Problems associated with posttraumatic stress disorder. *Journal of Traumatic Stress, 11,* 87-101.

Schumm, W. R., Bell, D.B., & Gade, P. (2000). Effects of a military overseas peacekeeping deployment on marital quality, satisfaction, and stability. *Psychological Reports, 87,* 815-821.

Schumm, W. R., Paff-Bergen, L. A., Hatch, R. C., Obiorah, F. C., Copeland, J. M., Meens, L. D., et al. (1986). Concurrent and discriminant validity of the Kansas Marital Satisfaction Scale. *Journal of Marriage & the Family, 48,* 381-387.

Schumm, W.R., Hemesath, K. Bell, D.B., Palmer-Johnson, C.D., & Elig, T.W. (1996). Did Desert Storm reduce marital satisfaction among Army enlisted personnel? *Psychological Reports, 78,* 1241-1242.

Schumm, W.R., Bell, D.B., Knott, B., & Rice, R.E. (1996). The perceived effect of stressors on marital satisfaction among civilian wives of enlisted soldiers deployed to Somalia for operation Restore Hope. *Military Medicine, 161,* 601-606.

Seal, K. H., Bertenthal, D., Maguen, S., Kristian G., Chu, A., & Marmar, C. R. (2008). Getting beyond "Don't Ask; Don't Tell": An evaluation of US *Veterans* Administration postdeployment mental health screening of *veterans* returning from *Iraq* and Afghanistan. *American Journal of Public Health, 98*(4)714-720.

Shores, K.A., & Scott, D. (2005). Leisure constraints among military wives. *Journal of Park and Recreation Administration, 23*(3), 1-24.

Soloman, S., & Dekel, R. (2008). The contribution of loneliness and posttraumatic stress disorder to marital adjustment following war captivity: A longitudinal study. *Family Process*, *47*(2), 261-275.

Solomon, Z., Mikulincer, M., Fried, B., & Wosner, Y. (1987). Family characteristics and posttraumatic stress disorder: A follow-up of Israeli combat stress reaction casualties. *Family Process, 26,* 383-394

South, S.J. (1985). Economic conditions and the divorce rate: A time series analysis of the postwar United States. *Journal of Marriage and the Family, 37,* 31-41.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38,* 15–28.

Special Inspector General for Iraq Reconstruction [SIGIR] (2008). Quarterly Report to Congress: Acronyms and Definitions. Retrieved February 20, 2009, from http://www.sigir.mil/reports/quarterlyreports/Oct08/pdf/Acronyms_-_October_2008.pdf.

SteelFisher, G. K., Zaslavsky, A.M., & Blendon, R.J. (2008). Health-related impact of deployment extensions on spouses of active duty Army personnel. *Military Medicine*, *173,* 221-229.

Stevenson, B., & Wolfers, J. (2007) Marriage and divorce: Changes and their driving forces. *The Journal of Economic Perspectives*, *21*(2), 27-52.

Stith, S. M., Green, N.M., Smith, D.B., & Ward, D.B. (2008). Marital satisfaction and marital discord as risk markers for intimate partner violence: A meta-analytic review. *Journal of Family Violence, 23,* 149–160.

Suicide Risk Management & Surveillance Office (2008). Army Suicide Event Report (ASER), Calendar Year 2007. Retrieved January 11, 2009, from http://media.mcclatchydc.com/smedia/2008/05/29/19/Army-Suicide.source.prod_affiliate.91.pdf.

Thoresen, R., & Goldsmith, E. (1987). The Relationship between Army families' financial well-being and depression, general well-being, and marital satisfaction. *Journal of Social Psychology, 125,* 545-547.

Tonizzo, S., Howells, K., Day, A., Reidpath, D., & Froyland, I (2000). Attributions of negative partner behavior by men who physically abuse their partners. *Journal of Family Violence, 15*(2), 155-167.

U.S. Army Surgeon General (2003). Operation Iraqi Freedom (OIF) Mental Health Advisory Team (MHAT) Report 16 December 2003. Retrieved January 11, 2009, from http://www.armymedicine.army.mil/reports/mhat/mhat/mhat_report.pdf.

U.S. Army Surgeon General (2008). Mental Health Advisory Team (MHAT) V Operation Iraqi Freedom 06-08: Iraq Operation Enduring Freedom 8: Afghanistan. Retrieved January 11, 2009, from http://www.armymedicine.army.mil/reports/mhat/mhat_v/Redacted1-MHATV-4-FEB-2008-Overview.pdf.

U.S. Department of the Army: 2004 Army Transformation Roadmap. Washington, DC, Department of the Army. 2004.

Warner, C.H., Breitbach, J.E., Appenzeller, G.N., Yates, V. Grieger, T. & Webster, W.G. (2007). Division mental health in the new brigade combat team structure: Part II. Redeployment and postdeployment. *Military Medicine, 172*(9), 912-917.

Weathers, F., Litz, B., Herman, D., Huska, J., & Keane, T. (1993). *The PTSD Checklist (PCL): Reliability, validity, and diagnostic utility*. Paper presented at the Annual Convention of the International Society for Traumatic Stress Studies, San Antonio, TX.

Whisman, M.A. (1999). Marital dissatisfaction and psychiatric disorders: Results from the National Comorbidity Survey. *Journal of Abnormal Psychology, 108*(4), 701-706.

BIOGRAPHICAL INFORMATION

Warren Ponder graduated from Texas Tech University with a Bachelor's degree in psychology in 2003. After graduation he joined the U.S. Army as an infantryman and was deployed to Operation Iraqi Freedom for fifteen months. Since his acceptance to the University of Texas at Arlington School of Social Work he has participated in numerous veteran's activities and organizations. The master's degree will be conferred on August 15, 2009. He has been accepted into the doctoral program at the University of Texas at Arlington starting in August 2009. He will also begin a one year fellowship at the Department of Veteran Affairs Hospital specializing in Substance Abuse and will attend the doctoral program part time. He hopes to continue research in the realm of veterans especially returning from Iraq and Afghanistan.