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Can religious coping, religious involvement, spirituality, and social support predict trauma symptoms at six months after combat?

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Can Religious Coping, Religious Involvement, Spirituality, and Social Support Predict Trauma
Symptoms at Six Months after Combat?

by

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Presented to the Faculty of the
Graduate Department of Clinical Psychology

George Fox University

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of the requirements for the degree of

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in Clinical Psychology

Newberg, Oregon

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Can Religious Coping, Religious Involvement, Spirituality, and Social Support Predict
Trauma Symptoms Six Months after Combat?

by

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has been approved


at the

Graduate School of Clinical Psychology

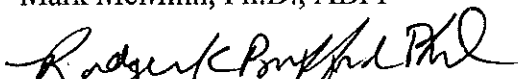
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Abstract

Numerous studies in the past 20 years have found significant correlations between religious coping, religious involvement, social support and post-traumatic stress symptom severity. Though the literature is robust regarding this correlation, the overwhelming majority of studies have relied on retrospective cross-sectional data. Therefore, conclusions regarding causality have been unsubstantiated. This longitudinal study explored social support, spirituality, and religious coping as potential protective factors against the development of post trauma stress symptoms and depression among soldiers exposed to combat. Two hypotheses were tested. First, it was hypothesized that measures of social support, religiosity, and spirituality would, alone or in combination, predict the development of Post Traumatic Stress Disorder (PTSD) related symptoms 6 months after deployment. Second, soldiers who scored lowest on social support prior to trauma exposure would be most likely to develop PTSD symptoms. A multiple

regression methodology allowed for the assessment of the predictive capacity of each individually assessed factor. Soldiers who endorsed a negative religious coping style prior to combat were significantly more likely to endorse PTSD related symptoms. Soldiers who endorsed higher existential wellbeing prior to combat were significantly less likely to report depression symptoms post-combat. These findings suggest that providers should screen for religious coping styles and spiritual wellbeing among soldiers prior to deployment and after deployment and incorporate relevant spiritually integrated treatments into both prevention and early intervention strategies. Also, it further supports prior research regarding the need to foster social support following deployment among those who experience trauma.

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Chapter 1

Introduction

The number of United States service members having served in the Iraq and Afghanistan conflicts since 2001 is approximately 1.64 million. In the history of all-volunteer U.S. forces the lengths of these deployments have been the longest, the pace of being redeployed the fastest, and breaks from combat have been the most infrequent (Belasco, 2007; Bruner, 2006; Hosek, Kavanagh, & Miller, 2006). Though the intensity of combat operations has been at a record level, the inclusion of better body armor for the troops along with modern medical efficiency has led to a much higher percent of soldiers surviving combat experiences than in previous wars (Regan, 2004; Warden, 2006).

Body armor and surgeons, however, are proving to be ineffective at protecting and caring for the mental and emotional trauma that combat inflicts on soldiers. According to recently published studies conducted by both the US Army and the RAND Corporation (Rand), soldiers returning from the Iraq and Afghanistan campaigns are returning with post traumatic stress syndrome (PTSD) at an alarming rate (Tanielian & Jaycox, 2008; Hoge et al., 2004). Both the military and Rand studies suggest that at least 15% of soldiers returning from Iraq and Afghanistan are carrying with them significant symptoms of PTSD and major depression (Hoge et al., 2004; Tanielian & Jaycox, 2008). According to these studies, the approximate number of service members currently struggling with these invisible wounds as of October 2007 was

226,000 persons with PTSD and 225,000 with major depression. Data from the Post-Deployment Health Re-Assessment (PDHRA), which is administered to service members 90 to 120 days after returning from deployment, indicated 20.3% of active and 42.4% of reserve component soldiers as having clinically significant psychological symptoms requiring mental health treatment (Milliken, Auchterlonie, & Hoge, 2007). Similarly Lapierre, Schwegler, and LaBauve (2007) found that 44% of soldiers involved in combat operations in either Iraq (n = 2,275) or Afghanistan (n = 1,814), self-reported clinically significant levels of depressive symptoms, posttraumatic stress symptoms, or both post-deployment. Sadly, though perhaps unsurprisingly, these rates of PTSD and depression coincide with an increase in suicide among soldiers. The suicide rate among soldiers has nearly doubled since the beginning of the war in Iraq and Afghanistan in 2002. The Army reports that in January of 2009 alone, 24 Army active duty soldiers ended their own lives, eight times the average number for the month since the Army started tracking numbers in 1980.

Religious Beliefs and Trauma

Well known among researchers and clinicians who work with those who have endured severe trauma is its common, poignant, and sometimes damaging effect upon victims' sense of meaning and purpose to life as well as their personal religious and spiritual beliefs (Calhoun & Tedeschi, 1999; Calhoun & Tedeschi, 2000; Decker, 2007; Janoff-Bulman, 1992; Lifton, 1988). A recent Department of Veterans Affairs (VA) study of 1385 veterans involved in both inpatient and outpatient VA mental health services investigated motivating factors behind veterans' initial and continued use of mental health services (Fontana & Rosenheck, 2004). Results from the study suggest that the primary motivators behind veterans' initial entrance and continual pursuit

of treatment for PTSD were not related to the severity of commonly assessed trauma symptoms but to a veterans' sense of guilt, a search for meaning and purpose, and a weakening of religious faith.

All three primary motivators behind veterans' pursuit of services—guilt, a quest for meaning, and weakened religious faith—have also been tied to suicide rates. Survivor's guilt has been found to be a significant predictor of suicide attempts and preoccupation with suicide among Vietnam combat veterans with PTSD (Hendin & Haas, 1991). A loss of meaning and purpose has also been tied to suicide. In a study among Croatian citizens who were combat veterans, suicidality was significantly tied to low existential well being scores (Nad, Marcinko, Vuksan-Cusa, Jakovljevic, & Jakovljevic, 2008). Investigations into religion and religious coping have found that negative religious coping is significantly related to depression, anxiety, and PTSD symptom severity (Witvliet, Phipps, Feldman, & Beckham, 2004), while the loss of religious beliefs has been tied to increased risk of suicide (Colucci & Martin, 2008).

However, trauma does not always lead to a loss of existential meaning and a weakening of religious faith; indeed, it has also been found to act as a catalyst in the strengthening of both (Affleck & Tennen, 1996; Calhoun & Tedeschi, 1998; Linley & Joseph, 2004; Shaw, Joseph, & Linley, 2005). Additionally, a number of studies have found that a critical factor in recovering from traumatic events involves finding existential/spiritual meaning within or through them (Herman, 1992; Pryzgodka, 2005; Solomon, 2004; Tedeschi, Park, & Calhoun, 1998). Results from both veins of inquiry seem to further support past findings suggesting that addressing issues of beliefs and personal processes of accommodation and assimilation is critical in post-trauma care (Calhoun et al., 2000; Falsetti, Resick, & Davis, 2003; Resick & Schincke, 1993).

Numerous studies suggest that spiritual beliefs, religious involvement, and religious coping strategies can increase resiliency and augment the rate of recovery from the psychological damage trauma inflicts (Astin, Lawrence, & Foy, 1993; Calhoun et al., 2000; Conner, Davidson, & Lee, 2003; Davis, Nolen-Hoeksema, & Larson, 1998; Drescher & Foy, 1995; Linley & Joseph, 2004; Klingler, 1999; Gorsuch & McPherson, 1989; Murad, 1991; Parappully, Rosenbaum, van den Daele, & Nzewi, 2002; Pargament, Smith, Koenig, & Perez, 1998; Phan & Kingree, 2001; Racklin, 1998; Rouss, 2007; Saunders, 1999; Solomon, 2004; Witvliet et al., 2004). These findings are consistent with a number of similar studies that show positive religious coping, spiritual wellbeing, and religious involvement play significant roles in increasing overall health, healthy lifestyles and lower risk of mortality (Goldbourt, Yaari, & Medalie, 1993; Hummer, Rogers, Nam, & Ellison, 1999; McCullough, Hoyt, Larson, Koenig, & Thoresen, 2000; Oman, Kurata, Strawbridge, & Cohen, 2002; Plante & Sherman, 2001; Powell, Shahabi, & Thoresen, 2003), fewer complications and increased rate of recovery from surgeries (Oxman, Freeman, & Manheimer, 1995; Tix & Frazier, 1998), decreased rates of substance use (D'Onofrio et al., 1999; Kendler, Gardner, & Prescott, 1997) and depression (Ai, Dunkle, Peterson, & Bowling, 1998; Braam, Beekman, Deeg, Smit, & Van Tilburg, 1997; Kendler, Gardner, & Prescott, 1999; Koenig, George, & Peterson, 1998; Koenig, McCullough, & Larson, 2001; Koenig et al., 1992; McCullough & Larson, 1999; Shaw et al., 2005), and a reduction of severe mental illness symptoms (Bussema & Bussema, 2000; Sullivan, 1993; Tepper, Rogers, & Coleman 2001).

Social Support and Trauma

High levels of social support have also been closely associated with better health (for a review, see Cohen & Wills, 1985). Conversely, among military and veteran populations low

social support has been associated with higher levels of PTSD (Keane, Scott, Chavoya, Lamparski, & Fairbank, 1985; King, King, Fairbank, Keane, & Adams, 1998). Two recent meta-analysis ($n = 77$ and $n = 68$ studies) that examined risk factors related to developing PTSD found that a lack of social support is among the strongest predictor of PTSD ($ES = .40$, Brewin, Andrews, & Valentine, 2000; $ES = .28$, Ozer, Best, Lipsey, & Weiss, 2003). A number of retrospective studies further exploring the relationship between PTSD and social support found that among both civilian non-combatant trauma populations (Andrews, Brewin, & Rose, 2003; Andrykowsky & Cordova, 1998; Cook & Bickman, 1990; Kimerling & Calhoun, 1994; Schnurr, Lunney, & Sengupta, 2004; Zoellner, Foa, & Bartholomew, 1999) and military combat veterans (Barrett & Mizes, 1988; Beiser, Turner, & Ganesan, 1989; Jankowski et al., 2004, 2005; Solomon, Waysman, & Mikulincer, 1990), social support is inversely correlated with the development and maintenance of PTSD as well as the severity of the PTSD symptoms.

Most studies of military veterans have solely used retrospective cross-sectional data to describe the relationship between PTSD and social support (Guay, Billette, & Marchand, 2006). Therefore, though there exists today a large body of research on PTSD and social support, conclusions regarding causality have only weak support (King, Taft, King, Hammond, & Stone, 2006).

Purpose and Hypotheses

The purpose of the current study was to explore social support, spirituality, and religious coping as potential protective factors for trauma and depression among soldiers serving in a combat zone. As numerous previous studies have found strong evidence for a relationship between symptom severity of post traumatic stress and individual spiritual and religious

functioning, this study was aimed at examining which spiritual and religious factors have the strongest relationship with trauma symptoms after returning from deployment. Two hypotheses were tested. First, it was hypothesized that measures of social support, religiosity, and spirituality would, alone or in combination, predict the development of PTSD related symptomatology six months after deployment. Though there was no specific hypothesis about which of these protective factors were strongest, a multiple regression methodology allowed for the assessment of the predictive capacity of each. Second, soldiers who scored lowest on social support prior to trauma exposure during their Gulf War deployment were expected to be most likely to develop PTSD symptomatology.

Chapter 2

Methods

Procedure and Participants

The participants were comprised of a convenience sample of soldiers from three Oregon Army National Guard infantry companies. They were surveyed using a demographics questionnaire (see Appendix A), and the following scales: the Post-Traumatic Stress Disorder Checklist - Military Version, Beck Depression Inventory Second Edition, Social Support Questionnaire, Duke Religion Index, Pargament Brief Religious Coping Scale (RCOPE), and the Spiritual Wellbeing Scale one month prior to a deployment to Iraq (April 2009). Six months after returning from their year long combat tour (November 2010), they were again administered the Post-Traumatic Stress Disorder Checklist - Military Version and the Beck Depression Inventory Second Edition as well as the Combat Exposure Scale. Company and Platoon leadership approved of the study and all participants were provided an informed consent. This study was also approved by George Fox University's Human Subjects Review Board.

Of the 221 participants who were surveyed, 75 returned completed data sets. Two participants declined participation. The remaining 144 datasets were not used because Army administrators misplaced the information required to match the deidentified datasets. The 75 participants were all male with an average age of 27.21 ($sd = 6.88$). The sample included 1 African-American, 2 Asian-Americans, 56 European Americans, 5 Native Americans, 3 Hispanic/Latinos, 1 Pacific Islander, 6 described as Other, and one declined to indicate.

Religious affiliation included 15 Protestants, 11 Catholics, 16 Christian Orthodox, 1 Jew, 9 described as Other, and 23 selected None. The sample's education level included 67 high school/GED, 4 college graduates, and 4 indicated having completed post-graduate education. There were 30 married, 6 divorced, and 39 single soldiers. The sample included 2 officers and 73 enlisted soldiers. This was the first deployment to a combat zone for 42 soldiers, the second for 20 soldiers, the third for 11 soldiers, the fourth for 1 soldier, and the sixth for 1 soldier.

Measures

Post traumatic stress. The PTSD Checklist Military Version (PCL-M; Weathers, Litz, Herman, Huska, & Keane, 1993) was administered at time one and time two. The PCL-M is a 17-item self-report measure derived from DSM-IV (APA, 1994) criteria for PTSD. The PCL-M is among the most commonly used measures of PTSD (Elhai, Gray, Kashdan, & Franklin, 2005). Weathers et al. (1993) developed the PCL-M to assess PTSD symptoms and associated features of the disorder related to military experiences. Respondents are asked to rate the degree to which they have experienced symptoms within the last month on a 5-point scale from 1 (*not at all*) to 5 (*extremely*). Ratings on each item are summed to provide a score indicating PTSD severity. The instrument has demonstrated good psychometric properties (Weathers et al., 1993). Further, the PCL-M has demonstrated excellent internal consistency (Ruggiero, Rheingold, Resnick, Kilpatrick, & Galea, 2006). Convergent validity of the PCL-M is supported by positive correlation with other measures of PTSD (e.g., $r = .85$ and $.93$ with Mississippi Scale for PTSD; Weathers et al. 1993; and $r = .92$ with CAPS .92; Blanchard, Jones Alexander, Buckley, & Forneris, 1996). It has been found that a cut-off score of 50 (Blanchard et al., 1996; Bliese et al., 2008; Forbes, Creamer, & Biddle, 2001) in combat veteran populations provided optimal

sensitivity and specificity for a screening classification of PTSD. Internal consistency for the PCL-M has been found to be excellent ($\alpha = .97$; Jakupcak et al., 2007).

Depression. The Beck Depression Inventory II (BDI-II; Beck, Steer, Ball, & Ranieri, 1996) was administered at time one and time two. The BDI-II is a widely-used 21-item self-report measure that assesses the severity of current depression. The BDI-II is a revision of the BDI-I (Beck et al., 1961). Modifications from the original BDI were made in response to changed diagnostic criteria for major depression with the publication of the DSM-IV. Notable changes include asking respondents to rate items according to how they have been feeling in the past two weeks rather than one and discarding items regarding body image, work difficulties, and hypochondria. Additionally, items regarding sleep and appetite now assess for increases and decreases in both. Participants rate themselves on a 4-point Likert scale ranging from 0 to 3 the extent that they have experienced the symptom in the past two weeks, yielding a total score in the range of 0 to 63. The internal consistency of the BDI-II was demonstrated to be good (Cronbach's $\alpha = .91$; Beck, Steer, Ball et al., 1996) and the 1-week test-retest reliability was shown to be high ($r = .93$; Beck, Steer, & Brown, 1996).

Social support. The Social Support Questionnaire Short-Form (SSQ6; Sarason & Shearin, 1986) was administered at time one. The SSQ6 includes 6 items that respondents are asked to answer in two parts. The first part of each question asks the individual to list supportive individuals, who they would turn to given a specified situation, yielding a measure of number of supports or "N" score. The second part asks subjects to rate their level of satisfaction with the support they receive in each situation yielding a measure of satisfaction with supports or "S" score.

Sarason, Levine, Basham, & Sarason (1983) reported excellent internal consistency estimates for the SSQ “N” Scores with a Cronbach alpha of .97 and item-total correlations ranging from .51 to .79. Cronbach alpha for the “S” scores was .94 and correlations of “S” items with the total score ranged from .48 to .72. The correlation between the SSQ “N” scores and “S” scores was .34. Sarason et al., (1983) argued that this modest correlation between “N” and “S” scores demonstrates that these two components measure different aspects of social support and provides the rationale for analyzing the two components of social support separately. The test retest reliabilities were .90 for the “N” scores and .83 for the “S” scores during a 4-week interval (Sarason et al., 1983).

Construct validity evidence showed that higher SSQ scores were significantly correlated with lower depression and hostility scores, as measured by the Multiple Adjective Affect Check List. Sarason et al. (1983) reported significant positive correlations between SSQ scores and self-esteem as well as between ratings of optimism about current life situation and both SSQ “N” scores and SSQ “S” scales. Factor analyses of the measure demonstrated evidence that one strong factor underlies each of the two SSQ scales (“N” and “S” scales). The short form of the SSQ has been found to correlate very highly with the regular form and to have similar correlations with other instruments (Sarason, Shearin, Pierce, & Sarason, 1987).

Green and Berlin (1987) used the SSQ in a study of Vietnam veterans. These authors found a significant inverse correlation between PTSD symptoms and social support utilization by Vietnam veterans within their first year of returning from the war zone ($r = -.26$; $p < .05$). Although Green and Berlin did not psychometrically evaluate the appropriateness of using the SSQ measure with a sample of war veterans, their findings provide support for the construct

validity of the SSQ. In addition, Green and Berlin used the SSQ in their study as a measure of past social supports not current social supports.

Religiosity. The Duke Religion Index (DUREL; Koenig, Parkerson, & Meador, 1997) was administered at time one. The DUREL is a 5-item brief measure of religiosity designed to be included in epidemiological surveys examining relationships between religion and health outcomes. It assesses organized religious activity (frequency of attending religious services), non-organized religious activity (frequency of praying, meditating, or studying religious text) and intrinsic religiosity (internalization of one's religious practices and beliefs). Items are scored on a 5 to 6-point Likert scale, and responses are summed so that the total score ranges from a low of 5 to a high of 27. In a literature review of the DUREL Koenig and Büssing (2010) report the overall scale has high test-retest reliability (intra-class correlation = 0.91), high internal consistence (Cronbach's alpha's = 0.78–0.91), and high convergent validity with other measures of religiosity (r 's = 0.71–0.86).

Religious coping. The Brief RCOPE (Pargament, Smith, Koenig, & Perez, 1998) was administered at time one. The Brief RCOPE was designed to offer an efficient, theoretically meaningful way to integrate religious dimensions into models and studies of stress, coping, and health. The Brief RCOPE is a 14-item measure adapted from the full RCOPE (a 17-factor validated measure assessing the full range of religious coping methods; Pargament, Koenig, & Perez, 2000). The Brief RCOPE assesses (a) positive religious coping strategies (religious forgiveness, seeking spiritual support, collaborative religious coping, spiritual connection, religious purification, and benevolent religious reappraisals) with ranges from 7 (*low*) to 28 (*high*), and (b) negative religious coping strategies (spiritual discontent, punishing God

reappraisals, interpersonal religious discontent, demonic reappraisal, and reappraisals of God's powers), with scores also ranging from 7 to 28 (Pargament et al., 1998). Each item is scored on a 4-point Likert scale with response options including "not at all," "somewhat," "quite a bit," and "a great deal." This brief scale has good discriminant and concurrent validity (Cotton et al., 2006; Pargament et al., 1998; Pargament, Feuille, & Burdzy, 2011). The Brief RCOPE has demonstrated good internal consistency in a number of studies across widely differing samples. In a recent meta-analysis using a total sample of $n = 5,835$ the median alpha for the PRC scale was 0.92 while the median alpha reported for the NRC scale was 0.81. Non-significant associations were found in a variety of populations between the two scales (Pargament et al., 2011).

Spiritual wellbeing. The short version of the Spiritual Well Being Scale (SWB; Paloutzian & Ellison, 1982) was administered at time one. The SWB was developed based on the concept that spiritual well-being has two dimensions: a vertical dimension, which refers to one's sense of well-being in relationship to God, and a horizontal dimension that indicates one's perception of life's purpose and satisfaction separate from any specifically religious reference. The full SWB is a 20-item self-administered instrument designed to measure spiritual well-being in both of these dimensions (10 religious items and 10 existential items). Three scores are derived from the SWB: a total spiritual well-being (SWB) score, a summed religious well-being (RWB) score, and a summed existential well-being (EWB) score. According to Paloutzian and Ellison, the test-retest reliability coefficients for the scale are .93 for SWB, .96 for RWB, and .86 for EWB. Alpha coefficients reflecting internal consistency are SWB, .89; RWB, .87; and EWB, .78. The instrument was chosen because of its ability to provide an overall measure of the

perception of spiritual quality of life, subscale scores for religious and existential well-being, as well as a history of high reliability and internal consistency (Cobb, 2008; Paloutzian & Ellison, 1982). The brief six item version of the SWB includes three religious well-being and three existential well-being items selected by regression methods, allowing for the continued use of the two subscales. Kroft (2007) tested the short form of the revised Spiritual Well-Being Scale and found it to be reliable and to demonstrate validity comparable to the long form.

Combat exposure. The Combat Exposure Scale (CES; Keane et. al., 1989) was administered at time two. The CES is a 7-item self-report measure that assesses wartime stressors experienced by combatants. Items are rated on a 5-point frequency (1 = *no* or *never* to 5 = *more than 50 times* on questions 1, 5, 6, & 7), 5-point duration (1 = *never* to 5 = *more than 6 months* on question 2), 5-point frequency (1 = *no* to 5 = *more than 25 times* on question 3) or 5-point degree of loss (1 = *no one* to 4 = *more than 75%* on question 4) scale. Respondents are asked to respond based on their exposure to various combat situations, such as firing rounds at the enemy and being on dangerous duty. The total CES score (ranging from 0 to 41) is calculated by using a sum of weighted scores, which can be classified into 1 of 5 categories of combat exposure ranging from *light* to *heavy*. The categories are divided as follows: total score between 1-8 is *light*, 9-16 *light-moderate*, 17-24 *moderate*, 25-32 *moderate-heavy*, and 33-41 *heavy*. The CES was developed to be easily administered and scored and is useful in both research and clinical settings.

Chapter 3

Results

The purpose of this study was to examine whether religious and social protective factors could predict combat related trauma symptomatology. Results from the CES indicated the group experienced an average of light-moderate combat exposure. Table 1 summarizes the CES scores.

Table 1

Combat Exposure Scale Item Scores N =(75)

Scale	<i>M (SD)</i>
CES-1: Combat Patrols	4.01 (1.02)
CES-2: Enemy Fire	2.68 (1.48)
CES-3: Surrounded by Enemy	1.34 (0.98)
CES-4: Percentage WIA/KIA	1.23 (0.61)
CES-5: Fire Rounds at Enemy	1.29 (0.86)
CES-6: Witness WIA/KIA	1.28 (0.74)
CES-7: In Danger	1.79 (1.06)
<u>CES-T: Total Weighted Score</u>	<u>10.66 (1.43)</u>

The average total CES score using weighted scores was near eleven, indicating an average of light-moderate amount of combat exposure. The average CES combat patrol score for the entire year was slightly over four, indicating an average of 13-50 combat patrols per soldier. The average score regarding the amount of times the participants believed they were in danger of being injured or killed was nearly two, indicating one to two times during the deployment. In contrast, the average score for number of months where-in the soldiers reported being under enemy fire was nearly three, indicating at least one to three months. A comparison with recent studies involving combat exposure of infantry soldiers in OIF and OEF revealed this sample to have been exposed to a lower amount of combat. Renshaw, Rodrugues, and Jones (2009) used the CES to measure National Guard ($n = 50$) soldiers who served in Iraq from 2005 to 2006. Their sample also reported an average of light-moderate amount of combat exposure, though with a higher mean score 15.70 (8.53). A comparison of the level of direct engagement with enemy forces regarding combat exposure with the Renshaw et al. (2009) sample and the sample of Marines and US Army soldiers who served in OEF and OIF from the study by Hoge et. al. (2004) is noteworthy. In comparison to the 72% of this sample who reported coming under enemy fire, Renshaw et al. (2009) sample reported 84%, while Hoge et. al. (2004) reported 84% of OEF US Army soldiers, 93% of OIF US Army soldiers and 97% of OIF US Marines. While 10% of this sample endorsed firing upon the enemy, Renshaw et al. (2009) sample was 40%, and Hoge et. al. (2004) reported 27% of the OEF US Army soldiers, 77% of the OIF US Army soldiers, and 87% of the OIF Marines. Thus, this sample's level of combat exposure was consistently lower than that of similar groups used in recent studies.

To examine whether religious and social protective factors could predict combat related trauma symptomatology two hypotheses were tested using regression analysis and repeated measures analysis of variance (ANOVAs). All analyses were conducted using the Statistical Package for the Social Sciences (SPSS) version 17. The first hypothesis stated that pre-deployment protective factors could predict combat related trauma symptoms six months after deployment. To test this hypothesis, a multiple regression was used for each outcome measure (i.e., the BDI-II and the PCL-M). PCL-M score six months post-deployment, and for the second the BDI-II at six months post-deployment was used. The independent variables originally intended to be used to predict psychiatric symptoms six months post-deployment (PCL-M and BDI-II) were pre-deployment scores on the following scales: Social Support Questionnaire (SSQ), Duke Religion Index (DUREL), Brief RCOPE Positive Religious Coping scale, Brief RCOPE Negative Religious Coping Scale, the Combat Exposure Scale, Spiritual Wellbeing Existential scale, and the Spiritual Wellbeing Scale Religious scale. The first dependent variable analyzed was the PCL-M Time 2. However, because of the clerical error that resulted in a smaller sample size, Pearson correlations were calculated in order to determine which measures should be used as independent variables. The RCOPE Negative ($n = 74, r = .28, p < .01$) and SWB Total ($n = 74, r = -.24, p < .05$) were the only variables that significantly correlated (though the SWB Total evidenced an inverse correlation) with the PCL-M Time 2. Tabachnik and Fidell (2001) suggested when using multiple regression analysis a sample size of $N \geq 50 + 8m$ (where m is the number of independent variables), which this study was able to meet by first factoring out independent variables using Pearson correlations (here two predictors were used

and so a sample size at least 66 was needed). This allowed for a minimal possibility of Type 2 error.

For the first regression, where the dependent variable was the PCL-M, a significant regression model was determined, $F(1, 72) = 4.62, p < .05$, with an R^2 of .12 ($n = 74$). Only RCOPE Negative and the SWB total were entered into the regression (as they met the correlation requirements described above). Both significantly contributed to the prediction model. Both RCOPE Negative ($\beta = .24$) and SWB Total ($\beta = -.20$) significantly contributed to the model. These findings indicate that the RCOPE Negative and the SWB Total combine to significantly predict the development of PTSD symptoms and contributes to 12% of the variance in the development of PTSD symptomatology.

The second regression used BDI-II as the dependent variable. Again, Pearson correlations were calculated to determine which scales would be included in the regression, and only EWB significantly correlated with the BDI-II Time 2 ($r = .29, p < .01$). A significant regression model was also determined, $F(1, 70) = 7.58, p < .01$, with an R^2 of .10 ($n = 72$) and a beta weight of -0.31. These findings indicate that the EWB significantly inversely predicts the development of Depressive symptoms and contributes to 10% of the variance in the development of Depressive symptoms.

The second hypothesis asserted that a soldier's level of perceived social support, as measured by the SSQ, would predict development of depressive and PTSD related symptoms. Depressive symptoms were measured at time one and time two using the BDI-II, and a one-way ANOVA was used to determine increase in symptoms across time. Next, a bivariate regression analysis was used to determine whether social support predicted change in depressive symptoms;

for this analysis, the independent variable was the participants' report on the SSQ, and the dependent variable was change of depressive symptoms across time (this was calculated by subtracting BDI-II scores at time one from time two). This statistical procedure was repeated to measure the development of PTSD symptoms, substituting the PCL-M for the BDI-II.

An ANOVA showed that depressive symptoms significantly increased from time one ($m = 6.85, sd = 7.83$) to time two ($m = 11.84, sd = 10.33$), $F(1, 73) = 23.81, p < .001, \eta^2 = .54$ ($n = 75$). The regression analysis was not significant, indicating that pre-deployment social support did not predict change in depressive symptoms. The second ANOVA showed that the soldiers' PTSD symptomatology increased from time one ($m = 28.04, sd = 14.99$) to time two ($m = 36.55, sd = 16.25$), $F(1, 73) = 28.13, p < .001, \eta^2 = .54$ ($n = 75$). This regression was also not significant, indicating that pre-deployment social support did not predict the development of PTSD symptoms.

Table 2

Outcome Measures Change Over Time (N = 75, DF = 1, 73)

Scale	Time 1 M (SD)	Time 2 M (SD)	<i>p</i>	η^2
BDI-2	6.86 (7.83)	11.84 (10.33)	< .001	.54
PCL-M	28.04 (14.99)	36.55 (16.25)	< .001	-.54

In response to the second hypothesis, these analyses denoted that though both PTSD and depressive symptoms increased after deployment, the soldier's level of perceived pre-

deployment social support as measured by the SSQ did not significantly account for change in symptoms. Neither of the correlations among the SSQ and the two change scores were significant.

Chapter 4

Discussion

Past investigations into the part spiritual beliefs and religious practices play in psychological wellbeing have shown these to be correlated with recovery from trauma (Fontana & Rosenheck, 2004;), and suggested they may significantly contribute to resiliency (Pargament et al., 1998; Phan & Kingree, 2001; Racklin, 1998; Rouss, 2007; Solomon, 2004; Witvliet et al., 2004). Social support post-trauma has also consistently been found to be significantly tied to psychological recovery (Andrews et al., 2003; Schnurr et al., 2004; Solomon et al., 1990). However, most of these studies until now have relied on correlational data gathered after the trauma was experienced (King et al., 2006). Therefore, comments on direction of causality have been mainly speculative. A unique aspect of this study is that spiritual, religious, and social beliefs in individuals were gathered prior to exposure to traumatic events. This allowed the opportunity to examine and comment on the potential effects people's spiritual and religious beliefs, and perceived quality of social support, had on their emotional and psychological resiliency to traumatic events.

This study found that soldiers who reported higher existential wellbeing prior to deployment were less likely to develop depressive symptoms post deployment. People who report higher existential wellbeing could be characterized as finding greater satisfaction with life and having a strong sense of purpose. Finding evidence that existential wellbeing plays a

significant factor in resiliency to trauma was not a surprise. Researchers and theorists in the psychological community have espoused this for many years (Frankl, 1978; Gilmartin & Southwick, 2004; Herman, 1992; Pryzgod, 2005; Solomon, 2004; Tedeschi et al., 1998). Testimonies of trauma survivors, psychological interventions and therapeutic frameworks have been based upon and built founded upon this concept, such as Frankl's logotherapy (Southwick, Gilmartin, Mcdonough, & Morrissey, 2006).

It was also found that soldiers who employ negative religious coping strategies prior to deployment are more likely to develop PTSD symptomatology as the RCOPE Negative significantly predicted scores on the PCL-M. Five types of negative religious coping strategies are included in the negative religious coping scale on the RCOPE. The first, is spiritual discontent conceptualized as an individual expressing confusion and dissatisfaction with his or her relationship with God in an attempt to gain comfort and closeness to God. The second type of negative religious coping assessed was punishing God reappraisals, a person's tendency to conceptualize stressful or painful life experiences as divine punishment in an effort to find meaning. Third, was interpersonal religious discontent, an attempt to gain intimacy with others and closeness to God via expressing confusion and dissatisfaction with clergy or members or his or her faith community. In another attempt to find meaning, the fourth type of negative religious coping, demonic reappraisal, is redefining the stressor as an act of the Devil. Similarly, the fifth and final type of negative religious coping strategy assessed is an individual's attempt to find meaning through reappraisals of God's powers, redefining God's power to influence the stressful situation. This study demonstrated that soldiers who endorsed employing these negative religious coping strategies prior to combat are more likely to develop symptoms commensurate with

PTSD. This finding provides further evidence for the use of already established interventions that include addressing spiritual and religious issues when treating symptoms of traumatic stress (Chen, 2005; Phillips, Lakin, & Pargament, 2002; Sageman, 2004; Siwy & Smith, 1988; Sornborger, 2006). For the chaplain's corp this finding will likely come as no surprise. Indeed, the military's long tradition of embedding spiritual and religious teachers among the combat troops seems to be validated by this finding. It is hoped that this finding might be used to help refine the spiritual and religious discourse the chaplains engage in with their soldiers. In order to better protect soldiers from suffering the invisible wounds of war, it certainly would be beneficial for chaplains, and perhaps even mental health professionals, to engage in exposing negative religious coping strategies among the troops and helping replace these with positive religious coping strategies. One place to start might be to include items assessing for negative religious coping in the pre-deployment mental health screeners that have become a regular part of care provided for US soldiers.

Perceived quality of social support prior to deployment was predicted to be a strong resiliency factor based on numerous retrospective studies (King et al., 2006) that have found post deployment social support to be strongly correlated with symptom severity and course. This study found that no support for the hypothesis that perceived social support prior to combat exposure would predict the development of PTSD and depressive symptoms. Unique to this study was the exploration of whether or not social support prior to trauma was predictive of symptom presentation. While there was significant changes for both depression and PTSD between times one and times two, pre-deployment social support as measured by the SSQ was not significantly predictive of trauma symptoms. It was surprising to find that the level of

perceived social support prior to deployment did not possess predictive validity, as this construct has generally been intimately tied to the development of post-deployment combat related PTSD. It has been discussed in the literature whether strong social support is a state that in-itself is a protective factor, or if social support is a trait (a by-product) of resilient people who tend to be successful at developing strong social networks (King et. al., 1998; Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009). Findings from the present study do not provide support for the idea that social support is a trait of resilient people. If it were just a byproduct of resilient people, the data should have revealed that those who reported high social support prior to deployment were more resilient, and it did not. These results, then, offer further weight to the necessity of incorporating the development of strong social support into the treatment plans of soldiers experiencing trauma symptoms post-deployment.

A key related question is whether combat deployment erodes pre-deployment social support. The absence of a post-deployment social support measure in the present study prevented exploration of this question. Future studies need to explore it.

This study has a number of limitations. First, the lack of a control group combined with the lower amount of combat exposure experienced related to groups used in other studies limits the confidence in asserting that measured changes in psychological functioning resulted from combat versus the effects of a long deployment. Further studies might include a control group of soldiers whose duties keep them on established bases sheltered from direct combat experiences. Secondly, the sample was largely ethnically and geographically homogeneous. Further, the use of National Guard service members rather than Active Duty soldiers may limit the generalizability of the results concerning social support. National Guard members experiences

post deployment are significantly different than their Active Duty counterparts. For example, soon after returning from the war zone they are often immediately immersed in a civilian social environment where they may feel disconnected from those with whom they previously felt a close affinity. However, the recent study by Renshaw, Rodrigues, and Jones (2009) indicates that National Guard members' patterns of interrelationships between combat exposure, psychological symptoms, and interpersonal variables are similar to those of active duty soldiers. Another limitation was only one measure of perceived social support was used. Social support is a multidimensional concept, thus more research using other developed measures of social support and the incorporation of structural equation modeling may elicit varying results. Further, this study did not include a post deployment social support measure. Though post deployment social support was not a concept tied to the hypotheses tested, including such a measurement could have been illuminating. Incorporating an analysis of change in social support would have allowed insight into whether it is predictive of trauma and depression.

The use of the short forms of SWB and R-COPE was also a limitation. It is notable that both have demonstrated strong psychometric convergent validity with their originating instruments. However, their abbreviated construction may not have allowed for an adequate as possible assessment of the measured constructs.

Despite the limitations, this was the first longitudinal study to examine the temporal association between social support, religious and spiritual factors, and PTSD/depressive symptoms. Results from this study offer three valuable insight into factors that contribute to soldier and likely civilian resiliency to trauma. First, soldiers who report higher existential wellbeing prior to deployment are less likely to develop depressive symptoms post deployment.

Second, soldiers who employ negative religious coping strategies prior to a combat deployment are more likely to develop PTSD symptomatology. Third, level of perceived social support prior to combat exposure was is not related to the development of PTSD and depressive symptoms. In sum, while increases in depression and PTSD were found following deployment, prior existential well-being and the absence of negative religious coping strategies predicted better post-combat outcomes. Future research should attempt to replicate these findings in larger and more representative samples of OEF/OIF soldiers and veterans as well as with civilian populations. Finally, it is hoped that the future will see the development and testing of preventative assessments and interventions designed to increase resiliency through the incorporation of these findings.

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Appendix A
Demographics Questionnaire

Assigned Number: _____

Age: _____ Date of Birth (Month/Year; example 5/1980): _____

Sex: _____

Rank: _____ Date of Rank: _____

M.O.S.: _____ Previous M.O.S.: _____

of deployments to combat zone (including this one): _____

Ethnicity:

African-American Asian-American European-American

Native-American Hispanic/Latino Pacific Islander

Other _____

Religious Affiliation:

Protestant Catholic Christian Orthodox Jewish

Other _____ None

Marital Status:

If Married Date of Marriage (Month/Year; example 10/2003): _____

If Divorced Date of Divorce (Month/Year; example 11/2003): _____

Remarried Widowed Single

Education:

High School/GED Bachelors Post-Graduate

Appendix B
Curriculum Vitae

Justin Orton

jorton06@gmail.com

EDUCATION

- 2008 - Present **Student in Doctor of Clinical Psychology Program (Psy.D.):**
George Fox Graduate School of Clinical Psychology (APA Accredited), Newberg, OR. *Cumulative GPA 3.8*
- 2010 **Basic Officers Leadership Course:** US Army Active Duty, Ft Sam Houston, San Antonio, TX.
- 2006 - 2008 **Master of Arts in Clinical Psychology:** George Fox Graduate School of Clinical Psychology (APA Accredited), Newberg, OR. *Cumulative GPA 3.8*
- 2008 **Basic Clinical Hypnosis Certificate:** Oregon Society of Clinical Hypnosis' 20 hour course taught by Licensed Psychologists, Oregon Health Sciences University, Portland, OR
- 2002 **English Teaching as a Foreign Language for Adults Certificate:** Cambridge University ext. campus St. Guiles, San Francisco, CA
- 1999 **U.S. Army Officer Candidate School:** 196th Regiment, Ft Meade, SD
- 1995 - 1999 **Bachelor of Science, Psychology and Social Science:** Lewis-Clark State College, Lewiston, ID. *Cumulative GPA 3.8*
- 1998 **U.S. Army Basic and MOS Combat Engineer Training:** 1st Engineer Brigade, Ft Leonard Wood, MO

HONORS AND AWARDS

- 2008 **Army Health Professions Scholarship (HPSP):** Two year scholarship, commissioned as a 2nd Lieutenant
- 2008 **Richters Scholarship:** Award for full payment of all dissertation costs
- 2004 - 2006 **Army Commendation Medal (ARCOM):** For meritorious service as a leader during combat operations in support of Operation Iraqi Freedom, Iraq

2004 - 2006 **Combat Action Badge:** For having been engaged in combat on numerous occasions, Iraq

1998 - 1999 **Dean's List:** Lewis-Clark State College, Lewiston, ID

CLINICAL EXPERIENCE

Sept 2010 - Present **Madigan Army Medical Center Clinical Psychology Internship:** Joint Base Lewis McCord, Tacoma, WA
 Internship Director: Dr. Kerr, Psy.D.

- American Psychological Association Accredited Internship
- 3 Month Neuropsychology Rotation
- 1 Month Primary Care Psychology Rotation
- 2 Month Community Mental Health Clinic Rotation
- 6 Month Military Psychology Rotation

Aug 2009 - May 2010 **PTSD and Psychopathology Assessment:** Portland VA and Oregon Health and Sciences University, Portland, OR
 Supervisor: Irene Powch, Ph.D.

- Trained for and currently administering the gold standard for post-traumatic stress disorder assessment, the Clinician Administered Protocol for PTSD (CAPS), for research study participants before and after interventions
- Administering The Structured Clinical Interview for DSM-III-R (SCID)
- Weekly group and individual supervision

Aug 2009 - May 2010 **Practicum III:** Health and Counseling Center, George Fox University, Newberg, OR
 Supervisor: Kristina Kays, Psy.D.

- Providing individual therapy, cognitive behavioral/solution focused, to students at George Fox University.
- Weekly staff training meetings
- Receiving weekly individual and group supervision

July 2009 - Aug 2009 **U.S. Army Clinical Psychology Rotation:** Madigan Army Medical Center, Ft. Lewis, WA
 Supervisor: Burton T Kerr, Ph.D.

- 45 day active duty for training
- Behavioral Health Rotation
- Soldier Readiness Service Rotation
- Neuropsychology Rotation
- Army Substance Abuse Program Rotation

- Received “Outstanding” rating on overall evaluation of student clinical performance by Clinical Psychology Internship Program Director

Aug 2008 - May 2009

Practicum II: Salem Veterans Center, Salem, OR

Supervisor: David Collier, Psy.D.

- Provided individual readjustment therapy for combat veterans, focused on treatment for post-traumatic stress disorder, CBT, Prolonged Exposure Therapy, and Acceptance and Commitment Therapy Focus (ACT)
- Facilitated the sites first Iraq and Afghanistan veterans group. Manualized 32 week, Trauma Focused Group Therapy (TFGT)
- Received weekly individual and group supervision

May 2007 - May 2008

Practicum I: St Paul School District, St Paul, OR

Supervisor: Susan Patchin, Psy.D.

- Provided individual therapy to students in grades K-12
- Conducted psychoeducational groups on social skills, coping skills, and ADHD/impulsivity
- Taught weekly class on organization and study skills for grades 7 and 8th
- Completed behavioral observations and biopsychosocial assessments of students
- Presented preventative curriculum on bullying to second through fifth graders and facilitated further intervention through an educational series taught by the Sheriff’s Department
- Assisted teachers in implementing behavioral interventions of disruptive students
- Attended multidisciplinary Student Assistance Team meetings to present information regarding client progress and recommendations
- Organized and supervised a substance abuse awareness program with high school students
- Received weekly individual and group supervision

Jan 2007 - May 2007

Prepracticum: University Counseling Center, George Fox

University, Newberg, OR, Supervisor: Clark Campbell, Ph.D.

- Provided individual psychotherapy to volunteer undergraduate students
- Conducted intake interviews
- Formulated diagnostic impressions, treatment plans, and case formulations
- Received weekly group and individual supervision

RELEVANT WORK EXPERIENCE

July 2007 - Sept 2008

Youth Treatment Specialist: Chehalem Youth and Family Services, Developmentally Delayed Resident Home, Newberg, OR, Supervisor: Erin Poletrea

- Supervised high risk adolescents with development disabilities, including Autism and Fetal Alcohol Syndrome, in a residential home and on outings into the community
- Administered daily medications and chart controlled medication count
- Employed the restraint protocol as set by the Oregon Intervention System when needed in order to maintain the safety of the clients
- Charted and encouraged client progress along individual behavioral plans

Jan 2006 - July 2006

Case Manager and Psycho-Social Rehab Worker: Diversified Social Services, Dalton Gardens, ID, Supervisor: Kristina L Nicholas-Anderson

- Worked with individuals with severe chronic mental illness including Schizophrenia, Schizoaffective, and Bi-Polar disorders
- Assessed needs of clients using a biopsychosocial model
- Provided psychoeducation within clients homes, in the community, and at the clinic
- Linked and coordinated services in the community including mental health services, training and assistance in ADLs, vocational rehabilitation, disability benefits, medical appointments, and insurance authorization
- On call 24 hours a day to provide support for clients in-crisis

Oct 2004 - Jan 2006

Point Vehicle Commander on an Army Counter-IED Combat Patrol: US Army B CO 467th EN BN, Tikrit, Iraq, Platoon Leader: MSG Jock Simpson

- Lead-vehicle commander (RG-31 Cougar) in a daily/nightly counter-IED combat patrol
- Conducted route clearance missions along military routes throughout areas deemed possessing highest enemy threat levels, including the Iraqi areas of Tikrit, Mosul, Kirkuk, Samarra, and Bayji
- Frequently engaged and eliminated threats to coalition forces including improvised explosive devices (IED), land mines, and enemy personnel

- Operator of M1 Panther Robotic Tank, Unmanned Arial Vehicle Raven, PAC-Bot Bomb Robot, RG-31 Mine Resistant Vehicle, and the M114 Up-armored HMVEE
- Rank was Staff Sergeant (SSG)

Jan 1998 - June 1998

Resident Technician: Port of Hope Drug and Alcohol Rehabilitation Center, Coeur d Alene, ID, Supervisor: Marlene Scott

- Conducted intake interviews
- Observed and recorded patients' vitals: BP, heart rate, mental and physical status
- Supervised patients' during daily activities

RELEVANT FIELD EXPERIENCE/ VOLUNTEER WORK

Aug 2008 - May 2010

Student Council President George Fox University Doctorate of Clinical Psychology Program (GDCP): George Fox University, Newberg, OR

- Chosen by student body to represent and advocate for the clinical psychology doctoral students needs
- Facilitate bi-weekly student council meetings
- Oversee student council led sub-committees
- Meet bi-weekly with GDCP program director
- Initiated and facilitating systemic changes in the GDCP program, based on a GDCP self study, to increase trust and sense of community within cohorts and between the student body and faculty

Sept 2009 - May 2010

Clinical Oversight: George Fox University, Newberg, OR

- Oversee second year Psy.D. students' practicum experiences both individually and within a clinical team environment

Aug 2007 - May 2009

GDCP Student Council Member: George Fox University, Newberg, OR

- Elected by cohort to represent student interests
- Head of the community care committee, disbursed aide to students in crisis, advocated for and obtained ergonomic chairs in all classrooms for students with back injuries, conducted a GDCP wide community self study looking at mental and behavioral health of the student body
- Member of the multicultural committee, helped to organize and hold monthly multicultural exposure and training meetings

Feb 2008 - Mar 2008

Admissions Interviewer: George Fox University, Newberg, OR

- Chosen to co-interview with faculty members applicants for the clinical psychology doctoral program
- July 2007 - May 2008 **Peer Mentor:** George Fox University, Newberg, OR
- Assisted first year Psy.D. student in adjusting to graduate school by providing academic and professional guidance and support
- Aug 2002 - July 2004 **English as a Foreign Language (EFL) Teacher:** Hsinchu and Pintung, Taiwan
- Taught English to Chinese students grades K-12
 - Participated in numerous regional cultural traditions, developed and maintained friendships with many local nationals
- Oct 2001 - April 2002 **Crisis Counselor:** 1-800-HITHOME, San Diego, CA
- Assisted callers through crisis situations using empathy, problem solving techniques and making referrals to appropriate community resources
- July 1997 - Sept 1997 **International Relief Worker:** Manila, Philippines
- Worked as an educator within a Filipino population living in a landfill outside the city of Manila; part of an effort with Mercy Ships International to move families out of the “Smokey Mountain”
- Sept 2002 - May 2004 **President of local Youth Volunteers of America (YVA):** Coeur d’ Alene, ID
- Coordinated volunteer activities in North Idaho: Big Brothers/Sisters, Special Friends, Food Drive, Youth Community Outreach
 - Two years as a Big Brother
 - Awarded Volunteer of the year

MEMBERSHIPS AND PROFESSIONAL AFFILIATIONS

- Jan 2007- Present **Student Affiliate,** American Psychological Association
- Jan 2005 - Present **Veterans of Foreign Wars (VFW)**

PUBLICATIONS, PRESENTATIONS & MANUSCRIPTS

McMinn, M. R., Orton, J. J., & Snow, K. N. (2011). Counseling and psychotherapy within and across faith traditions. In L. Miller (Ed.), *Oxford Handbook of the Psychology of Religion and Spirituality*. New York: Oxford.

McMinn, M. R., Orton, J. J., & Woods, S. W. (2008). Technology in clinical practice. *Journal of Psychology and Christianity*, 27, 56-60.

Orton, J. (2007; 2008). *Building Military Cultural Competency*. Guest lecture, Graduate Multicultural Therapy Course, George Fox Graduate School of Clinical Psychology, Newberg, OR.

Orton, J. (2009). *Understanding Cognitive Changes in the Elderly*. Guest lecture, Graduate Geropsychology Course, George Fox Graduate School of Clinical Psychology, Newberg, OR.

RESEARCH EXPERIENCE

Jan 2008 - Present

Doctoral Dissertation: George Fox University, Newberg, OR.
Committee Members: Mark McMinn Ph.D., Patrick Stone, Ph.D., Roger Bufford, Ph.D.

- *Assessing Social, Spiritual and Religious Factors in Resiliency to War Trauma*
- An empirical investigation of the contribution of social support, religious behavior, and spirituality to soldier psychological resiliency to war trauma
- Using the Social Support Questionnaire (SSQ), Beck Depression Inventory (BDI-2), Trauma History Screen, Duke University Religion Index (DUREL), Religious/spiritual coping short form (Brief RCOPE), Primary Checklist for PTSD - Military (PCL-M), Spiritual Wellbeing Scale, and the Combat Exposure Scale (CES)
- Collecting original data from a US Army National Guard Infantry Battalion (N=270)
- Preliminary oral defense passed
- Pre-deployment data collection completed, awaiting return of assessed infantry battalion in May 2010 for post-deployment data collection

Aug 2009 - Present

Assessing Efficacy of Group Cognitive Processing Therapy (CPT) and alternative treatments (e.g. Acupuncture) in treating veterans diagnosed with PTSD: Portland VA and Oregon Health and Sciences University, Portland, OR
Research Team Leader: Irene Powch, Ph.D.

- Assess for study participants PTSD symptom severity levels pre and post interventions through administering the Clinician Administered Protocol for PTSD (CAPS)
- Assess for presence and severity of comorbid Axis I disorders in study participants pre and post interventions through

administering The Structured Clinical Interview for DSM-III-R
(*SCID*)

Sept 2007- Present

Research Team Member: George Fox University, Newberg, OR.
Chair: Mark McMinn, Ph.D.
Meet bi-monthly to discuss and evaluate progress, methodology,
and design of group and individual research projects.
· Assist team members in data collection and analysis.

RELEVANT COURSEWORK

Assessment Courses:

Personality Assessment
Cognitive and Intellectual Assessment
Child and Adolescent Psychopathology and Assessment
Neuropsychological Assessment
Comprehensive Assessment

Clinical Psychology Courses:

Cognitive Behavioral Therapy
Psychodynamic Psychotherapy
Substance Abuse
Geropsychology
Family and Couples Therapy
Advanced Family Therapy
Multicultural Therapy
Spiritual and Religious Diversity in Psychotherapy
Behavioral Interventions
Clinical Foundations to Treatment
Object Relations Therapy
Human Sexuality and Sexual Dysfunction
Integrative Approaches to Psychology and Psychotherapy
Domestic Violence
Play Therapy
Clinical Supervision and Management of Psychological Services
Consultation, Education, and Program Evaluation

Scientific Foundations of Psychology:

Ethics for Psychologists
Psychopathology
History and Systems of Psychology
Social Psychology
Learning, Cognition and Emotion

Human Development
 Theories of Personality and Psychotherapy
 Spiritual and Religious Issues in Professional Psychology
 Biological Basis of Behavior
 Psychopharmacology

Psychological Research Courses:

Psychometrics
 Statistics
 Advanced Statistics and Research Design

ADDITIONAL PROFESSIONAL TRAINING

- | | |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Feb 2010 | <i>Deployment Psychology</i> (10 day course), Department of Defense Center for Deployment Psychology, Bethesda Naval Medical Center, Bethesda, MD |
| Aug 2009 | <i>Suicide Risk Assessment and Treatment Planning</i> , Madigan Army Medical Center, Ft. Lewis, WA, David Jobes, Ph.D. |
| Jan 2009 - Present | <i>Psychodynamic Case Discussion Group</i> , Kurt Free, Ph.D. Monthly meeting to conceptualize and discuss treatment goals for cases through a dynamic perspective. |
| Nov 2008 | <i>Primary Care Psychology</i> , George Fox University, Newberg, OR, Julie Oyemaja, Psy.D. |
| Sept 2008 | <i>Towards a Global Psychology: Re-considering Culture and Context</i> , George Fox University, Newberg, OR, Derek McNeil, Ph.D. |
| Feb 2008 | <i>College Counseling</i> , George Fox University, Newberg, OR, Bill Buhrow, Psy.D. |
| Feb 2008 | <i>Forgiveness</i> , George Fox University, Newberg, OR, Nathaniel Wade, Ph.D. |
| Oct 2007 | <i>Forensic Assessment</i> , George Fox University, Newberg, OR, Elena Balduzzi, Ph.D., Alex Millkey, Psy.D., and Daniel Smith, Psy.D. |
| Sept 2007 | <i>Forensic Psychology</i> , George Fox University, Newberg, OR, Laura Zorich, Psy.D. |
| May 2007 | <i>Important Topics in Clinical Work with Sexual Minorities</i> , Oregon Psychological Association, Eugene, OR, Carol Carver, Ph.D., Bruce Czuchna, Psy.D., Nancy Kemp, Ph.D., and Shoshana Kerewsky, Psy.D. |

- May 2007 *Meta Analysis of Family Research*, Oregon Psychological Association, Eugene, OR, Alyson Mease Williams, Ph.D.
- May 2007 *Building Cultural Competency for Work with Latino/a Clients*, Oregon Psychological Association, Eugene, OR, Paul Murray, Ph.D., Josie Wilson, Ph.D.,
- Oct 2006 *Motivational Interviewing*, William Miller, Ph.D., George Fox University, Newberg, OR.