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Relationships, Health, and Coping Among Active Duty Military and Veterans

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RELATIONSHIPS, HEALTH, AND COPING AMONG ACTIVE DUTY MILITARY
AND VETERANS

by

Emily Prosser

A Thesis Submitted in
Partial Fulfillment of the
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ABSTRACT

RELATIONSHIPS, HEALTH, AND COPING AMONG ACTIVE DUTY MILITARY AND VETERANS

by

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The University of Wisconsin-Milwaukee, 2014
Under the Supervision of Dr. Diane Reddy

This study investigated the association between types of coping and functional impairment in active duty military and veterans (N = 57, ages 20-63). Participants completed an online survey that asked about their experiences with interpersonal violence, coping strategies in which they engage, and questions about their physical and psychological health and well-being. Disengagement coping was positively associated with functional impairment and accounted uniquely for 33.8% of the variance. These findings reveal interesting information about the types of violence this sample experienced, as well as important information about their coping strategies and how they are associated with impairment in functioning. These findings suggest the need for further research on the topic, so the results can inform programs and resources available to current and former military members.

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Relationships, Health, and Coping among Active Duty Military and Veterans

Interpersonal violence is defined as “the intentional use of physical force or power, threatened or actual, against another person or against a group or community that results in, or has a high likelihood of resulting in, injury, death psychological harm, maldevelopment, or deprivation” (Dahlberg & Krug, 2002). No one is immune to interpersonal violence; it can happen to anyone in any type of relationship. Common instances of interpersonal violence include dating violence, bullying, and other abuse. One of those instances, dating and relationship violence (specifically domestic violence), is considered a serious public health problem (Marshall, Panuzio, & Taft, 2005). Evidence of the significance is documented in a report from the U.S. Department of Justice and the Center for Disease Control and Prevention. According to that report, approximately 25% of women and nearly 8% of men had been a victim of rape or physical assault inflicted by a spouse, former spouse, cohabiting partner, or date (Tjaden & Thoennes, 2000). Furthermore, it is estimated that the annual incidence of domestic violence is between 2-23% (Laumbach, 2004). This number grows when considered specifically in a military population.

Domestic violence is experienced at a higher rate in a military population, where one or both individuals in a given relationship are active duty military or veterans, than in the general civilian population. It is estimated to range from 13.5-58% annually (Marshall et al., 2005). While a significant amount of research has examined the reason this violence rate is higher in the military, no definitive conclusion has been reached. It has, however, been proposed that perpetrators may be experiencing combat related PTSD, leading to violent reactions to everyday problems (Jones, 2011).

A considerable amount of research has been dedicated to both the reduction and prevention of domestic violence as well as policy changes to make it easier for victims of violence to get help, specifically in a military population (Carlson Gielen et al., 2006; Erez & Bach, 2003; Lutgendorf, 2010; MacDonald & Tucker, 2009). One of these military policies is a mandatory reporting rule that states any health care provider who notices signs of domestic violence is required to ask the individual about it and then refer him or her to services. The policy further requires that the violence ultimately be reported to the victim's commanding officer either through the Family Advocacy Program (FAP) or the police (Carlson Gielen, et al., 2006).

Views and concerns about the mandatory reporting rule were studied by Carlson Gielen and colleagues. They studied a group of active duty women and found that 73.5% thought it would help women who are being abused to get help, but 74.1% thought it could put women in further danger of being hurt. When asked about the consequences of mandatory reporting, abused women reported that they feared damaging their career (49.1%) or their partner's career (92.1%). The abused women also reported fear of the policy making other abused women less likely to report their abuse (62.4%) and losing their autonomy (47.7%).

While all of this research is valuable, an important gap exists in the literature. Minimal research on the effects of the interpersonal violence among active duty military and veterans has been done. The majority of the existing research focuses on civilian populations. For example, stress, in this case, abuse, can lead to negative physical and psychological outcomes (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986), however minimal literature investigates the effect of these outcomes on an active

duty military and veteran population. Research on the civilian population on the other hand is available. In fact, research in the civilian population shows experience with violence is associated with poor psychological outcomes.

Mertin and Mohr (2000) studied a sample of 100 women that were living in domestic violence shelters. These women were, on average, separated from their partners for approximately 9 weeks at the time of the study. Researchers assessed their domestic violence history, PTSD symptomology, depression, and anxiety. They found that nearly half (45%) of their sample of women who had experienced domestic violence met the DSM-IV criteria for PTSD. While most women in the sample experienced significant levels of depression and anxiety, those meeting the criteria for PTSD diagnosis experienced depression and anxiety at a higher level. Mertin and Mohr (2000) recommend further research on long-term outcomes for these women. Additionally, Vogel and Marshall (2001) studied a sample of low-income women to see if a history of abuse was related to greater PTSD symptoms. They found that women who experienced the highest incidence of symptomology were victims of severe violence and rape (71%). When investigating the likelihood of developing PTSD after intimate partner violence, Yoshihama and Horrocks (2003) found that 14% of their sample of women with past domestic violence experience may experience lifetime PTSD. They also found the likelihood of developing PTSD varied across the lifetime. It was high in the mid-20s, dropped in the 30s and began to rise again in the 40s.

Negative psychological health outcomes are not the only problem faced by victims of domestic violence. Howard, Trevillion, and Agnew-Davies (2010) explain victims often face a number of acute and chronic physical health illnesses and injuries.

These can range from broken bones to gastrointestinal problems to gynecological disorders. Cromer and Sachs-Ericsson (2006) investigated the link between childhood abuse, current life stress, and PTSD with health outcomes in a sample of adult men and women. They found that childhood abuse, current life stress and PTSD were all linked with poor health. Particularly, in the presence of current life stress, those who were abused experienced more health problems than those that were not abused. Poor health included experience with asthma, diabetes, hypertension, heart problems, and/or a number of other serious health problems. These negative psychological and physical health outcomes can be further worsened or buffered by the way the victim copes with the violence.

Coping Strategies. Coping is defined as a person's changing cognitive and behavioral efforts to manage specific demands that are appraised to exceed the person's resources (Lazarus & Folkman, 1984b). The underlying theory states that cognitive appraisal of a stressful situation and the resulting coping methods impact immediate and long term outcomes. If an individual appraises a situation to be a threat, and something can be done to change the situation, they will attempt to cope with the situation (Folkman et al., 1986). There are many types of coping strategies that an individual can use to overcome a stressful situation.

Some strategies tend to be more adaptive than others. For example, Folkman and colleagues (1986) describe two different categories of coping depending on their function: emotion-focused coping, which aims to regulate stressful emotions, and problem-focused coping, which aims to alter the relation causing the distress. While Folkman and Lazarus (1984b) were careful to emphasize the benefits of both strategies,

emotion-focused coping was thought to be more maladaptive, whereas problem-focused coping was thought to be more adaptive. Another category of coping, avoidant coping, also maladaptive, includes behaviors such as denial, wishful thinking, and withdrawal. Active coping, however, includes behaviors such as problem solving, help seeking, and acceptance (Krause, Kaltman, Goodman, & Dutton, 2008). Past research has largely categorized avoidant coping as a negative way of dealing with trauma while active coping is generally seen as a positive coping strategy. However, what qualifies as adaptive coping may vary by person, (Lewis, Griffing, Chu, Jospitre, Sage, Madry, & Primm, 2006).

Folkman, Lazarus, Gruen, and DeLongis (1986) suggest coping could negatively impact health in a few different ways: coping can affect the frequency and duration of neurochemical responses, using substances or high risk behaviors as coping mechanisms could threaten health, and certain forms of coping could get in the way of adaptive health behaviors. Developing and maintaining adaptive coping strategies is important to the healing process of an interpersonal violence victim.

Coping and Health Outcomes. Many researchers appear interested in how coping with a stressful event impacts health outcomes. Solomon, Mikulincer, and Avitzur (1988) found that war veterans that engaged in a problem-focused coping experience fewer combat-related PTSD symptoms than those that engaged in avoidant coping. However, Scarpa and colleagues (2006) examined how coping moderates the relationship between community violence victimization and PTSD. Measuring avoidant, interpersonal, and problem-focused coping, they found that the utilization of avoidant coping behaviors was related to heightened PTSD symptom severity. Specifically, they found that the positive

relationship between victimization and PTSD severity was significant with high avoidant coping. Contrary to what they expected, problem-focused and interpersonal coping were not related to PTSD. One explanation given for this finding is that these coping strategies may be most effective when the individual feels he or she has control over the stressful situation (Scarpa et al., 2006). Flicker, Cerulli, Swogger, and Talbot (2012) also investigated how coping strategies would affect symptoms. They measured depressive symptoms and posttraumatic symptoms in a non-military sample of women who were seeking protective orders against their non-military abusers and found that disengagement, self-blame, and denial were all associated with higher levels of depressive and posttraumatic symptoms. Similarly, Krause and colleagues (2008) found that avoidant coping behaviors were associated with an increased level of PTSD symptoms in their study of female intimate partner violence victims. Less research exists on physical health outcomes. The majority of the research on coping and resulting physical health outcomes is focused on individuals with chronic illness (Aldwin & Park, 2004). Stein and Rotheram-Borus (2004) studied coping and physical health outcomes in a sample of HIV positive youth. They found that depressive withdrawal was associated with an increase in AIDS symptoms. Choosing adaptive coping styles is important to acute and long term health outcomes – both physical and psychological.

Summary. Interpersonal violence, which goes beyond physical and sexual abuse, is a major public health issue that has received an increasing amount of attention. However, the attention is heavily focused on certain areas, such as intimate partner violence, in the general population. Military populations need more attention because of the heightened rates at which domestic violence occurs. Much of the existing literature

examining interpersonal violence in the military is prevalence data and policy change literature. Minimal research exists on the health outcomes of individuals who have experienced interpersonal violence.

The current study seeks to understand how types of coping predict functional impairment in active duty military and veterans who have experienced interpersonal violence. Previously validated instruments will be used to examine how a number of coping strategies predict PTSD symptoms, depression symptoms, negative physical symptoms, and life satisfaction. Understanding these associations could fill a gap in research on military active duty personnel and veterans and possibly provide insight into the healing process for this population.

It is hypothesized then that interpersonal and problem-focused coping strategies will negatively predict high PTSD symptoms, high negative physical symptoms, high depressive symptoms, and low life satisfaction in active duty military and veterans who have experienced interpersonal violence. It is also hypothesized that disengagement coping will positively predict high PTSD symptoms, high negative physical symptoms, high depressive symptoms, and low life satisfaction in active duty military and veterans who have experienced interpersonal violence.

Methods

Participants. Participants were 57 current or former military men and women (63.2% and 35.1% respectively) ages 20 to 63 ($M = 36.86$; $SD = 11.02$) who had experienced at least one incident of interpersonal violence. Participants were primarily Caucasian (86%); additionally two (3.5%) were African American, two (3.5%) were Hispanic, three (5.3%) were Asian and one (1.8%) was Native American. A total of 47

participants (82.5%) were veterans and 10 (17.5%) were still serving. The majority of participants were in the Army (59.6%), while the other participants were members of the Navy (15.8%), the Marines (14%), and the Air Force (10.5%).

Measures. The following questionnaires were given to all participants.

Experience with interpersonal violence. Experience with interpersonal violence, namely that of having violence committed against him/her, was assessed using a modified version of the Conflict-Tactics Scale Revised (CTS2: Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The Conflict-Tactics Scale Revised is a widely used 78-item questionnaire that assesses violence and aggression between intimate partners. The questionnaire asks how often an individual experienced a particular type of violence in the past year on a scale from 1 (“Once in the past year”) to 6 (“More than 20 times in the past year”). If the individual did not experience that type of violence, he or she can answer with 0 (“This has never happened”). If the type of violence was experienced, but not in the past year, the option is also given to choose 7 (“Not in the past year, but it did happen before”). In this case, a follow-up question using a similar scale was added so participants could indicate how many times within their lifetime they experienced that type of violence. To assess this behavior in more than just intimate partners, the Conflict-Tactics Scale Revised was reworded to include any individual rather than just an intimate partner. The questionnaire measures psychological and physical aggression, reasoning, and negotiation in both directions by using paired questions (one for the respondent and one for their partner). This was modified to be unidirectional because this survey only surveyed the individual receiving the violence. The questionnaire contains

five subscales: Negotiation ($\alpha = .86$), Psychological Aggression ($\alpha = .79$), Physical Assault ($\alpha = .86$), Sexual Coercion ($\alpha = .87$), and Injury ($\alpha = .95$).

Coping Strategies. Coping strategies were assessed using the COPE (Carver, 1989). The COPE is a well-established 60-item instrument often used to assess the degree to which an individual uses a variety of coping strategies. Participants were asked to answer the questions on the COPE scale in relation to the most recent incident of interpersonal violence. Each strategy was rated on a scale from 1 (I haven't been doing this at all) to 4 (I've been doing this a lot). Past research established three subscales for the COPE that were used in this study: interpersonal coping, problem-focused coping, and disengagement coping (Scarpa et al., 2006).

Physical and Psychological Health. Physical health was measured using the Cohen-Hoberman Inventory of Physical Symptoms (CHIPS; Cohen & Hoberman, 1983). The Cohen-Hoberman Inventory of Physical Symptoms consists of a list of 33 common physical symptoms and asks participants to rate how intrusive each symptom is in a two-week time frame on a 5-point Likert-scale from 0 (not been bothered by the problem) to 4 (been extremely bothered by the problem). A total score is then created by adding across all 33 items. It has an internal reliability of .88.

Psychological health was measured using a life satisfaction measure, a measure of depression symptoms, and a measure of PTSD symptoms. Life satisfaction was measured using the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larson, & Griffin, 1985). The Satisfaction with Life Scale is a 5-item instrument used to assess one's overall satisfaction with life. It has a coefficient alpha of .87. Depression symptoms were assessed using the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, &

Erbaugh, 1961), one of the most widely used instruments for detecting depression symptoms. It consists of 21 items that measure attitudes and symptoms characteristic of depression ($\alpha = .91$). PTSD symptomology was measured using the Impact of Events Scale-Revised (IES-R, Weiss & Marmar, 1996). The Impact of Events Scale-Revised consists of a list of 22 difficulties people experience after a stressful life event. Participants are asked to rate how bothersome each difficulty has been in the previous 7 days on a scale of 0 (Not at all) to 4 (Extremely).

Because the sample was comprised of active duty military and veterans, a measure of combat related trauma was included to account for the variance in the PTSD symptoms related to combat as opposed to interpersonal violence. The military specific PTSD Checklist (PCL-M; Weathers, Litz, Herman, Huska, & Keane, 1993) is a commonly used measure to assess PTSD in military members that faced combat. It consists of 17 items that assess symptoms of PTSD as related to combat experiences ($\alpha = .93$). This measure was only be given to individuals who indicated they had deployment experience.

Procedures. The participants were recruited by campus announcements to complete an anonymous survey on relationships, coping and health among veterans and active duty military members. Respondents were given a separate survey link and were asked to pass the survey along to other veterans and active duty military members. No one that may have received a link passed on from other current and former military members participated. A phone number for the National Domestic Violence Hotline was also provided at the end of the survey for anyone that may have wanted or needed the assistance.

Results

Nature of Relationships and Violence

Participants were asked open-ended questions about the nature of the relationship in which the violence occurred. Of the 32 who responded, 17 (53.1%) reported violence inflicted by a significant other, six (18.8%) reported violence inflicted by a family member, five (15.6%) reported a co-worker inflicting violence, and four (12.5%) reported an acquaintance inflicting the violence. They were also asked if they still participated in the relationship. Only 2 (13.3%) of the 15 people that responded to that question were still in the relationship. When asked about what kind of effect the violence had on them, participants reported physical (21.2%), mental (18.2%), and emotional (57.6%) effects. It is also interesting to note that one individual who completed the survey had most recently experienced the violence just two days prior.

The nature of the violence was assessed using the Conflict-Tactics Scale Revised. The most common types of physical violence reported were being pushed or shoved ($n = 23$; 41.8%) and being grabbed ($n = 21$; 38.2%). Participants also reported having items thrown at them (27.2%), being punched or hit (23.6%), having their arm or hair twisted (21.8%), and being slapped (20%) or slammed against a wall (16.4%). Only two individuals reported having a gun or knife used on them (3.6%). There were few reports of sexual violence. Three individuals (5.4%) reported being forced to have sex. Though eight participants (14.5%) reported being forced not to use a condom. Participants also reported being sworn at (70.9%), and reported threats of being hit or having something thrown at them (18.2%). Some individuals reported injuries as a result of the violence

such as sprains, bruises, or cuts (23.6%), but few went to the doctor for their injuries (12.7%).

Correlations and Regression Predicting Functional Impairment

Correlations between all predictors and outcome variables were computed (Table 1). It was discovered that the Satisfaction with Life Scale, the Beck Depression Inventory, the Cohen-Hoberman Inventory of Physical Symptoms, and the Impact of Events Scale were highly correlated with one another. Because of this, a principal components analysis was run on the variables, using a Varimax rotation, extracting based on an Eigenvalue of 1, and suppressing coefficients smaller than .4. This revealed only one outcome variable, which was labeled functional impairment (Table 2).

The military PTSD Checklist and the Impact of Events Scale (measuring PTSD related to interpersonal violence) were also highly correlated with one another, providing evidence that the two likely would not provide any differing information on PTSD symptoms, regardless of the events triggering them. For this reason, the military PTSD Checklist was not used as a control variable.

Because participants were allowed to skip any question with which they felt uncomfortable, adding all the inclusive variables together and dividing by the number of items in each subscale minus the number of missing variables created the COPE subscales. This allowed for more participants to be included in the final regression. The three COPE subscales were entered into a linear regression to predict the outcome variable of functional impairment. In general, participants engaged in problem focused coping ($M = 2.11$; $SD = .818$) more than in disengagement coping ($M = 1.66$; $SD = .707$) or interpersonal coping ($M = 1.92$; $SD = .824$). Also interesting to note, those who

reported having violence inflicted on them by a significant other ($N = 20$) report engaging in problem focused coping more often ($M = 4.5$) than disengagement coping ($M = 3.14$) or interpersonal coping ($M = 2.66$) (Figure 1). There were virtually no differences in the types of coping used between having reported psychological or physical violence.

Contrary to the hypotheses, the results (Table 3) showed that neither interpersonal coping, nor problem focused coping significantly predicted functional impairment in active duty military members and veterans who had experienced interpersonal violence. However, supporting the hypothesis, using disengagement coping significantly positively predicted functional impairment, that is to say that higher levels of disengagement coping strategies were associated with a higher level of functional impairment, $\beta = .737, t = 4.08, p < .001$. This accounted uniquely for 33.8% of the overall variance, $F(3, 40) = 9.07, p < .001$.

Discussion

As hypothesized, engaging in disengagement coping styles is associated with higher levels of functional impairment among active duty military members and veterans who have experienced interpersonal violence. This is in line with past research that found participating in a disengaged or avoidant type of coping is associated with more negative psychological health outcomes (Flicker et al., 2012; Krause et al., 2008). Interpersonal and problem-focused coping did not significantly predict functional impairment. Past research on this has been mixed, but the results of this study are in line with the findings of Scarpa and colleagues (2006) who found that, contrary to what they hypothesized, interpersonal and problem-focused coping were not associated with PTSD outcomes.

This implies that active duty military members and veterans, who are using a disengagement style of coping, could be experiencing a higher level of impairment of functioning. Engaging in a disengagement style of coping is not necessarily negative, as it may be the only way the individual is able to cope with the stressful and traumatic event that they are experiencing. However, this could still lead to an impairment in functioning that, once removed from actively experiencing the trauma, may become problematic and need to be addressed. The individuals in this study may not have chosen a disengagement style of coping the majority of the time, but when they did, it was associated significantly with impairment in functioning. This points to a need for further research to understand how what may motivate the choice to use a disengagement coping style and the impact on functional impairment.

Also interesting to note, with nearly half of those reporting the type of relationship in which the violence occurred being non-domestic/non-romantic relationships, this study adds to the research on interpersonal violence as a whole. The sample reports violence happening in a variety of types of relationships. With participants reporting violence between acquaintances, co-workers (particularly of differing ranks in the military), friends, and other family members, there is definitely violence occurring in relationships beyond those romantic in nature and future research should focus more on these relationships and how they could be associated with types of coping and functional impairment.

There were some limitations to this study. The sample size of those that completed the survey was small ($N = 57$). There were 106 participants to start, but 49 (46.2%) of the participants did not complete the second half of the survey, which

contained all of the outcome measures. They therefore could not be included in the analyses. The sample also contained only students from a single university collected through campus announcements, so it was not a random sample. These results cannot, therefore, be generalized to all active duty military members and veterans. Another limitation of this study was the lack of diversity in the sample. The majority of the participants were Caucasian, had experienced deployment, and were still or had been a member of the Army. This also leads to the inability to generalize the results. One other possible limitation was that, although participants were ensured this survey was completely anonymous, they may not have wanted to share their experiences of interpersonal violence for a number of reasons. This may have been especially true if the individual was still involved in the relationship. It is also important to note that the analyses in this study are correlational, and a causal relationship between the coping and functional impairment is therefore unable to be established.

Despite the limitations, these results add important information to the literature. The violence that occurred in this sample was not limited to significant others, broadening the literature on interpersonal violence as a whole. It also provides information on violence experiences, and associations between coping and functional impairment in an active duty military and veteran sample. This is especially important in relation to disengagement coping as this study has found an association between this type of coping and higher functional impairment. Solomon and colleagues (1988) also found that similar types of coping (e.g. distancing) were associated with an increase in combat-related PTSD symptoms. This provides important information on what kinds of coping behaviors health care professionals may need to focus on educating the military members

and veterans about, in order to prevent further functional impairment. However, both of these research areas need more attention. Large scale studies on military bases or as a part of reintegration practices could help to further inform the literature in this area and develop programs to help active duty military members and veterans who have experienced interpersonal violence cope in a healthy manner.

Future research should gather a larger, more diverse sample, perhaps from bases and posts around the country. In addition, further research on how the type of relationship relates to functional impairment and types of coping would be of value to investigate. This study only gives minimal data on the differences in the relationship in which the violence occurs and the type of coping in which the individual chose to engage. This may give a better understanding of what services would be appropriate for the veterans and military members that would utilize them.

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Average Utilization of a Coping Strategy by the Relationship in which the Violence Took Place

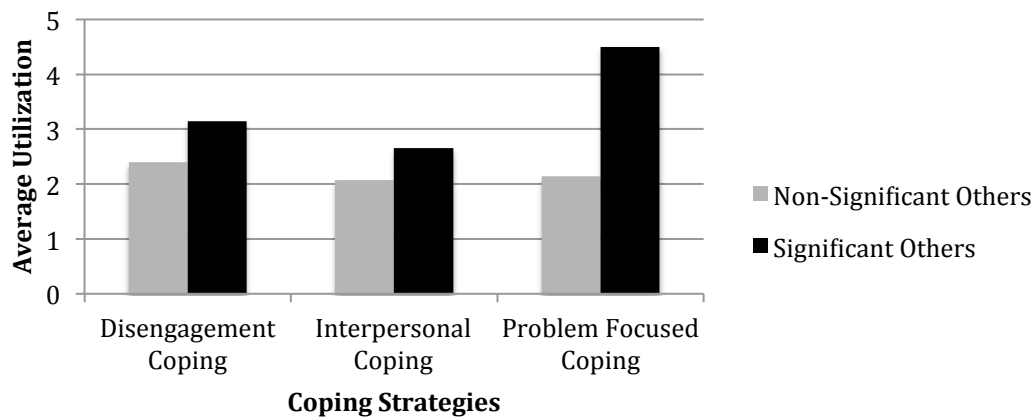


Figure 1.

Table 1.

Descriptive statistics and zero-order correlations of study variables

Variable	N	Mean	SD	1	2	3	4	5	6	7	8
<i>Types of Coping</i>											
1. Interpersonal Coping	40	1.92	.82	1	.758**	.431**	.465**	.324	.250	.367*	.365
2. Problem-Focused Coping	40	2.11	.81		1	.611**	.564**	.407*	.217	.229	.267
3. Disengagement Coping	45	1.66	.71			1	.834**	.713**	.515**	.537**	.636**
<i>Impacts of Interpersonal Violence</i>											
4. PTSD Symptoms	42	47.24	23.71				1	.589**	.430**	.695**	.610**
5. Depression	43	1.42	.46					1	.775**	.747**	.748**
6. Life Satisfaction	48	13.42	4.49						1	.620**	.658**
7. Physical Symptoms	41	51.41	18.20							1	.716**
<i>Impacts of Military Deployment</i>											
8. Military PTSD Symptoms	30	31.17	13.46								1

**. Correlation significant at the 0.01 level (2-tailed).

*. Correlation significant at the 0.05 level (2-tailed)

Table 2.
Principal Components Analysis

	Component 1
Depression Scale	.922
Physical Symptoms Scale	.915
Life Satisfaction Scale	.812
PTSD Scale	.752

Table 3.
Main Effects Predicting Functional Impairment

Predictors	<i>B</i>	<i>SE</i>	β	Partial	Part
<i>Main Effects for Types of Coping</i>					
Interpersonal Coping	.198	.266	.163	.392	.106
Problem-Focused Coping	-.143	.305	-.117	-.099	-.067
Disengagement Coping	1.04	.255	.737**	.657	.582

** $p < .001$