

The Impact of Deployment Length and Experience on the Well-Being of Male and Female Soldiers

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This study examined the effects of stressor duration (deployment length) and stressor novelty (no prior deployment experience) on the psychological health of male and female military personnel returning from a peacekeeping deployment. The sample consisted of men ($n = 2,114$) and women ($n = 1,225$) surveyed for symptoms of depression and posttraumatic stress. The results confirmed the hypotheses. Longer deployments and 1st-time deployments were associated with an increase in distress scores. However, the relationship between deployment length and increased distress was found only for male soldiers. The findings demonstrate the importance of considering the impact of exposure to long-term occupational stressors and confirm, in part, previous research that has demonstrated a different stress response pattern for men and women.

If the present rate of deploying U.S. forces continues as it has since the end of the cold war, then soldiers entering the military today will deploy an average of 14 times by the time they serve 21 years in the military (Castro & Adler, 1999). The projected deployment rate stands in stark contrast to the 4 deployments reported by soldiers who entered the service more than 20 years ago. This increased deployment rate is, in part, due to U.S. involvement in peacekeeping missions that have resulted in soldiers deploying to the same operational theater multiple times for deployments typically lasting longer than 6 months (Castro & Adler, 1999). The accelerated deployment rate is also due to an increased number of combat missions that require year-long deployments (Galloway, 2003). *Deployments* are defined by the

Center for Army Lessons Learned as the movement of forces within areas of operations, the positioning of forces into formation for battle, and/or the relocation of forces and materiel to desired areas of operations (Center for Army Lessons Learned, n.d.). Whether combat or peacekeeping, deployments can mean long stretches of time spent away from family and friends, difficulties in communication back home, inconvenient to harsh field conditions, lack of privacy, and an unpredictable combination of boredom, uncertainty, and threat (Bartone, Adler, & Vaitkus, 1998; Ritzer, Campbell, & Valentine, 1999). This article focuses on a U.S. peacekeeping deployment. Although peacekeeping deployments have stressors in common with combat deployment stressors (see Langholtz, 1998, for a review), the overall approach of a peacekeeping mission is based on a constabulary model, and thus it differs from combat operations in its fundamental approach and expectations.

The task of a peacekeeper is to maintain a presence that reduces the likelihood of resumed fighting between former warring factions. This presence can include guarding sensitive sites, patrolling areas, engaging in crowd control, and operating checkpoints. In addition, soldiers must maintain a base of operations (e.g., personnel services, medical services, logistics, command and control of the force, and so forth). Peacekeeping deployments may place strain on soldiers by combining a potentially threatening situation with the task of self-control. The tension inherent in this balance between soldiers' aggressive

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or retaliatory impulses and forced nonreaction is reflected in what Weisæth (1990) termed the *U.N. soldier stress syndrome*. According to this hypothesis, a clinical manifestation of helplessness may result when a soldier's normal outlet of responding to provocation and threat is hindered by the mission's rules of engagement.

Both peacekeeping and combat deployments come at a potential cost in terms of health (e.g., Bartone et al., 1998; Litz, Orsillo, Friedman, Ehlich, & Batres, 1997) and family well-being (McCarroll et al., 2000; Nice, 1993), although there are also positive outcomes associated with deployment. Studies have found that men and women in the military want the opportunity to do what they have been trained to do, and many service members find meaning in serving on a deployment (Britt, Adler, & Bartone, 2001). Despite these positive aspects of deployment, theoretically, at least, there is a point at which the psychological and physical cost may interfere with the functioning of military personnel and, consequently, with their effectiveness on a mission. Thus, it is important to identify the impact of the rate of deployment on the well-being of military personnel.

In addressing the impact of deployment rate on the well-being of male and female military personnel, we focus on two specific components of deployment history: the length of the deployment and the number of times a military member has been deployed. Given their possible importance in predicting the well-being of male and female military personnel, deployment history variables warrant careful examination. As described in the literature summarized below, both of these deployment history variables have emerged as potential predictors of well-being. The literature is inconsistent, however, and needs to be considered in the context of stress research. Such research has relevance not only to a high deployment tempo environment but also to stress models that specifically account for the impact of stressor duration and previous stressor exposure. Following a discussion of the two fundamental deployment history variables, we examine the potential for gender differences in how military personnel respond to these deployment history variables. Some stress and occupational health research demonstrates that men and women respond differently to stressors, and such differences need to be examined in order for such occupational stressor variables as deployment history to be comprehensively assessed.

Deployment History

Several peacekeeping studies have examined the role of deployment history in predicting military members' subsequent adjustment. The majority of these studies are conducted with men; few have specifically examined the experiences of women. Thus, the extent to which these results apply to women is not certain. Similarly, the extent to which research on deployment history regarding combat missions applies to peacekeeping operations is also not clear (see Litz, 1996, for a discussion of this contrast).

Deployment Length

Theory on stressor duration. Lazarus and Folkman (1984) described both person-centered and situation-centered aspects of stressful events that can lead an individual to appraise an event as relatively more or less stressful. One of the key situation-centered variables is the temporal factor of stressor duration. Lazarus and Folkman contended that the longer the stressor lasts, the more difficult it is for the individual to cope because exhaustion sets in. In the case of peacekeeping stressors, the duration of a deployment may lead to a decrease in well-being because the individual becomes psychologically and physically exhausted. Nevertheless, if the individual becomes habituated to the stressor, then such exhaustion may not occur. Thus, two contradictory expectations are proposed: that individuals will respond to a prolonged stressor either with exhaustion or with habituation. These two competing models can be tested by examining the impact of deployment length on individuals.

Military research on deployment length. Research with military populations has demonstrated that deployment length predicts soldier adjustment. Specifically, a Portuguese military unit of male soldiers deployed to the peacekeeping operation in Bosnia-Herzegovina was administered the Symptom Check List (SCL-90; Derogatis, 1993) to measure psychological well-being (da Silva, Paiva, Elsa, Rodrigues, & Ricardo, 1998). An analysis of the data indicated that 4 months into the deployment soldiers were less distressed than 6 months into the deployment, providing evidence that deployment length is a predictor of psychological health.

In a study of U.S. soldiers, Ritzer et al. (1999) examined the psychological and physical status of army personnel deployed to the Balkan region in support of Operation Joint Guard. Soldiers completed the Brief Symptoms Inventory (BSI; Derogatis,

1993) and a physical health symptoms checklist. Units that were deployed for the longest period of time reported more psychological distress and physical health symptoms than units deployed for shorter periods of time. In this report, the authors based their level of analysis on the company; thus, individual-level variables such as gender were not tested for their relationship to deployment length.

Taken together, the results of these two peacekeeping studies are consistent with results from a study of combat veterans in which deployment length also predicted greater psychological distress. In a study conducted with Vietnam veterans from New Zealand, Vincent, Chamberlain, and Long (1994) investigated the effects of deployment length on male veterans. It was found that soldiers who were deployed to Vietnam for at least 19 months were more likely to be classified as having posttraumatic stress disorder (PTSD) than soldiers who were deployed for less than 19 months. Still, none of the three studies of deployment length cited above addressed outcomes with female soldiers. In the only study we found on female soldiers and deployment length, Pierce (1997) reported that 2 years after the Gulf War, female veterans' scores on a depression scale were not related to the length of their deployment.

In reviewing the few studies that specifically address deployment length, it becomes immediately evident that there is no simple uniform method for defining short and long deployments. Part of this discrepancy is that deployments themselves vary depending on the nature of the military operation and the country's policies regarding deployments. Regardless, comparisons can be made in terms of relative length. In the studies that examined the impact of deployment length on soldier functioning, the length of the deployment was assessed in two different ways. In one study (e.g., da Silva et al., 1998), the same soldiers were assessed in the middle of one deployment (i.e., at 4 months) and again at the end of the same deployment (i.e., at 6 months). In the other studies, soldiers were assessed after they returned from deploying for various lengths of time depending on the unit or individual deployment cycle. Both methods of assessment yielded results indicating that greater deployment length was associated with greater distress for male peacekeepers. Given that only one study was found that specifically measured the link between deployment length and adjustment for women, no firm conclusions can be drawn about possible gender differences or similarities in responding to deployment length.

Deployment Experience

Theory on stressor experience. Besides deployment length, another aspect of deployment history that should be assessed to analyze the impact of the high pace of deployments on soldier well-being is the number of times a soldier has been deployed. The degree to which a deployment is a new experience for someone in the military may indicate the degree to which the deployment is a stressor, according to the model of stress and coping proposed by Lazarus and Folkman (1984). In their model, Lazarus and Folkman identified novelty as one of the major situational determinants characterizing stressful events. Novelty can be operationalized in different ways and can include lack of prior experience with particular events (such as peacekeeping) as well as lack of experience with particular emotions associated with peacekeeping events (e.g., frustration, helplessness). Lazarus and Folkman also proposed that novelty contributes to the stressful nature of a situation particularly when there is potential for harm or danger. In the case of peacekeeping, both of these threats exist. Stress theory would therefore suggest that previous deployment-related experience should be associated with greater well-being. Consistent with this prediction, McCarroll et al. (1993) found that soldiers with previous experience with the handling of human remains were less anxious about the prospect of handling bodies during a combat operation than inexperienced soldiers. This effect occurred for both male and female mortuary workers.

Despite the theoretical proposition that lack of novelty should reduce the potential negative effects of a stressor, research on traumatic experience would suggest otherwise. Studies with trauma survivors find that previous experience with trauma is associated with greater distress following a subsequent trauma (Brewin, Andrews, & Valentine, 2000; McFarlane, 2000), perhaps because of physiological changes in responses to the trauma (Stein, Yehuda, Koverola, & Hanna, 1997; Yehuda et al., 1993) or psychological changes in coping and attribution (Arata, 1999). Thus, it is reasonable to conclude that previous experience with a traumatizing event would increase the negative impact of a subsequent potentially traumatic event on an individual.

The literature on stressor novelty and prior traumatization leads to discrepant predictions about the role of deployment history on adjustment. One way to reconcile these two predictions is to borrow from Meichenbaum's (1985) theory of *stress inoculation*. Although designed as a clinical intervention, the fun-

damental concept of stress inoculation is that when an individual is taught effective coping skills and exposed to a graded series of stressful events, then an individual's resilience in the face of a particular stressor will be optimized. As Saunders, Driskell, Johnston, and Salas (1996) reported in their review of stress inoculation in applied work settings, stress inoculation training is associated with a reduction in anxiety and an enhancement in work-related performance. Thus, when a particular stressor is not necessarily traumatic but instead allows for the same kind of mastery gained from stress inoculation training, then previous experience will improve an individual's stress response to subsequent exposure. McCarroll et al. (1993) proposed this same inoculation process to account for the differences in anxiety between experienced and inexperienced mortuary workers. Solomon (1993) suggested that deployment experience may immunize soldiers from the stress of future deployments through the development of coping strategies and appropriate expectations. In the absence of mastery, exposure to potentially traumatic events would not be expected to be associated with increased resilience under stress.

Military research on deployment experience.

The research on the advantage and disadvantage of previous military deployment experience reflects these two fundamental and different theoretical predictions derived from research on stress inoculation and previous traumatization. For deployments that are not particularly traumatic, such as a low-intensity peacekeeping mission, experience appears to benefit military personnel. Although peacekeepers with deployment experience may not have been taught a specific set of coping strategies for handling the stress of deployment, it may be that these experienced peacekeepers are less distressed because they know what to expect on deployment and have already coped with it once.

Two studies examined the impact of deployment experience on military personnel who were deployed on missions that may have been stressful but not necessarily potentially traumatic. In Ritzer et al.'s (1999) study of U.S. soldiers deployed to Bosnia, the number of deployments a soldier had experienced in the last 3 years was not predictive of psychological health as measured by the BSI. Again, because the level of analysis was at the company level, gender differences were not reported. Another study of the impact of multiple deployments assessed psychological symptoms reported by U.S. Army soldiers returning from the Balkans in support of NATO's Operation Allied Force, a mission in support of the

air war against Serbia, but one in which the soldiers did not deploy to hostile territory (Martinez, Huffman, Adler, & Castro, 2000). The study found that male and female soldiers with a history of prior peacekeeping deployment to the Balkans reported lower rates of psychological distress on measures of PTSD, alcohol problems, and depression. However, the impact of deployment experience was not analyzed separately for men and women. Nevertheless, the results suggest that for deployments that are not particularly traumatic, a beneficial stress inoculation effect appears to be associated with deployment experience.

For deployments associated with greater intensity and potential for harm, as in the case of combat, deployment history is associated with either no difference in subsequent adjustment or worse adjustment. This lack of positive effect is consistent with evidence from the traumatic stress literature that previous exposure to a traumatic event increases an individual's risk of developing psychological symptoms following a subsequent traumatic event. Two studies examined the role of deployment experience on U.S. soldier adjustment following the Gulf War. McCarroll, Fagan, Hermsen, and Ursano (1997) compared the well-being of male U.S. military personnel who had served in both the Persian Gulf War and in Vietnam with those personnel who served in the Persian Gulf War but not in Vietnam. McCarroll et al. (1997) reported that Gulf War veterans with Vietnam War experience were more likely to be diagnosed by a clinician as having PTSD than soldiers who had no Vietnam War experience. Wolfe, Erickson, Sharkansky, King, and King (1999) also surveyed Gulf War veterans and found that combat experience prior to the Gulf War predicted higher rates of PTSD in the week after the soldiers returned to the United States. The relationship between prior combat experience and PTSD was significant for both male and female veterans, but there were only 10 female veterans in the sample with prior combat experience, thereby making any definitive conclusions difficult. Thus, in the case of combat veterans, prior combat deployment experience is associated with poorer adjustment to a subsequent combat deployment compared with those soldiers without prior combat deployment experience. These findings are consistent with the traumatic stress model of previous exposure, namely that previous experience with potentially traumatic stressors is linked to worse outcomes for those exposed to subsequent potentially traumatic stressors.

For the purposes of the present study, which fo-

cuses on a peacekeeping deployment, predictions about the benefits of previous deployment experience are based on the stress inoculation model. Specifically, it is expected that previous deployment experience is a benefit for military personnel adjusting to a subsequent low-intensity deployment. Although there were two studies that examined gender differences and neither found a difference in responses to deployment experience, the results are not conclusive given the small sample size of one of the studies. Thus, the issue of gender differences remains an open question worthy of examination.

Gender and Models of Stress

Given the stressor duration and stressor novelty research, it follows that deployment history variables are likely to play an important role in predicting peacekeeper adjustment. Indeed, research indicates that both deployment length and deployment experience have an impact on the adjustment of military personnel. When gender is taken into account, however, the story is less clear mostly because of a dearth of studies that address gender differences.

The need to examine the presence of gender differences is driven by recent findings and theories in stress research. In the field of occupational health, there are contradictory findings about the presence of gender differences in stress and coping. For example, there is evidence that women perceive stressors differently from men (e.g., Spielberger & Reheiser, 1994), although the gender differences in stressor perception may be overestimated (e.g., Murphy, Beaton, Cain, & Pike, 1994). There is similar inconsistency about gender differences in coping styles. For example, Lutzky and Knight (1994) and Soderstrom, Dolbier, Leiferman, and Steinhardt (2000) found gender differences in coping styles but other researchers have not (e.g., Hamilton & Fagot, 1988). In terms of reactions to stressors, there are also inconsistent findings regarding gender differences. Some research has found stress responses to be similar (e.g., Spielberger & Reheiser, 1994), whereas other research has found gender differences in responses to stressors (e.g., Jick & Mitz, 1985).

As Vermeulen and Mustard (2000) described in their study of occupational stress and gender differences, it is not clear whether findings regarding the link between occupational stressors and health apply equally to men and women. They found, for example, that although women reported greater

distress than men, negative psychosocial characteristics of work such as having high job demands and low job control were more associated with psychological distress for men than for women. That is, Karasek's (1979) decision-latitude model for understanding the job stressor-strain relationship does not necessarily account for the experiences of both male and female workers. Women, for example, may face additional stressors through discrimination (e.g., Brown & Fielding, 1993) and work-family conflict (Cinamon & Rich, 2002; Gutek, Searle, & Klepa, 1991) that are more predictive of distress for them than traditional measures of job demands and job control. Moreover, job control may actually be associated with higher levels of distress in women rather than the lower levels expected by the theory of decision latitude (Greenlund et al., 1995). Thus it appears that men and women may differ both in terms of reactions to stressors and in terms of benefits from potential moderators such as job control. Thus one of the goals of the present study is to assess the degree to which potential stressors (deployment duration) and potential moderators (previous deployment history) differentially relate to the well-being of male and female soldiers. By focusing on deployed military personnel who share the same job setting (i.e., soldiers in noncombat arms units on deployment), the present study addresses whether men and women respond similarly to two job-specific variables: task duration and task novelty.

Study Hypotheses and Research Question

The present study examines the effect of two aspects of peacekeeping deployment history (i.e., deployment length and previous deployments) on the psychological health of male and female military personnel. There are two hypotheses:

Hypothesis 1. Greater deployment length is associated with more depression and posttraumatic stress symptoms.

Hypothesis 2. Previous deployment experience is associated with decreased depression and posttraumatic stress symptoms.

Our research question is the following: Are there gender differences in how deployment length and deployment experience affect well-being?

Method

Mental Health Screening Program

The data reported here were collected as part of a Department of Defense mandated mental health screening program for all military personnel deployed to the Balkan theater of operations, including Bosnia-Herzegovina, Hungary, and Croatia (see Wright, Huffman, Adler, & Castro, 2002, for details). In brief, this program included all military personnel from the Army, Navy, Air Force, and Marines. No other theaters of operations where U.S. military forces were deployed were required to implement this screening program. This program became effective for the Balkans in February 1996 and ended in September 1999.

The purpose of the mental health screening program was twofold. First, it sought to determine the current mental health status of military personnel leaving the Bosnia area of operations to determine their mental health fitness for future deployments. Second, the program was designed to provide military personnel an opportunity to identify themselves as potentially needing mental health intervention. All participants of this screening program signed an informed consent and individual confidentiality was assured, except in cases when it was determined that there was a serious potential for self-harm or harm to others.

Deployment Length

It is important to emphasize that we did not control for deployment length. Deployment length was determined by a number of factors, which ranged from national policy to unit availability and individual circumstances. At the national level, the U.S. commitment of U.S. forces to Bosnia was to last only 1 year, from December 1995 to December 1996. This initial deployment into Bosnia was filled with a tremendous amount of uncertainty and risk, as the U.S. forces were prepared to fight their way into Bosnia if necessary.

In late November 1996, then-President Clinton decided to extend the U.S. involvement in Bosnia for an additional year, until December 1997. At the same time, given the relative stability of the operational environment, the total U.S. force deployed to Bosnia was nearly halved. This reduction in forces, among other factors, allowed a single U.S. Army division to provide the necessary combat forces to support two 6-month-long deployments. Corps and echelon above Corps provided additional units as required. The change in the operational environment and the subsequent reduction in required forces resulted in the United States reducing the deployment length from 12 months to 6 months.

When a deployment length of 6 months was established, there were numerous exceptions to this policy that could result in soldiers being deployed for longer or shorter periods of time. At the unit level, soldiers assigned to either the advanced party or the rear detachment could be deployed from 1 to 2 months longer than the main body. Soldiers assigned to low-density, high-demand units, such as military police, signal, or military intelligence units, could be deployed for either longer or shorter than the 6 months depending on the mission and the configuration of the deployed forces. For example, the mission might only have required two signal companies. Thus, a signal battalion

consisting of four companies might have deployed two companies for 3 months each, rather than deploying only two companies for the entire 6 months.

At the individual level, soldiers might also have redeployed from Bosnia for various reasons. For instance, soldiers were required to deploy to Bosnia if they had at least 90 days remaining on their current assignment (which was typically 3 years), although they then left Bosnia before other unit members to move on to their next assignment. Thus, given that there is an estimated 33% turnover in unit members per year, over the 6-month deployment period approximately 15% of soldiers would have returned before the end of the 6-month deployment to prepare for moving to their next duty assignment. Soldiers might also have returned early from deployment for required military training. Finally, soldiers might have left Bosnia early for medical (e.g., serious physical injury) or compassionate reasons (e.g., a seriously ill family member). Unfortunately, the number of soldiers that returned from Bosnia early due to these various reasons was not systematically determined. However, all soldiers were required to complete the mental health screen.

Thus, although deployment length might have varied for a number of reasons, the overall findings reported here are not considered unduly biased by the rotation policy because all soldiers, regardless of gender, were equally affected. In addition, there was no systematic bias in terms of mental health because those evacuated for medical reasons (including mental health reasons) were not screened.

Participants

The overall sample included 3,339 U.S. soldiers in non-combat arms units deployed on a NATO peacekeeping mission to the Bosnia area of operations that included Hungary, Bosnia-Herzegovina, and Croatia. The sample consisted of soldiers who were deployed from 1997 to the end of 1998; prior data were not used in the analysis because the deployment history variables were not included in those primary screening surveys. In terms of gender, 63.3% of the sample were men and 36.7% were women. In terms of rank, 53.1% of the sample were junior-enlisted soldiers (E1 to E4), 32.4% were noncommissioned officers (E5 to E9), and 14.5% were officers or warrant officers. The largest ethnic group was White (52.3%), followed by African American (31.1%), Hispanic (8.3%), and other (8.2%). A total of 44.4% of the sample were married. In terms of the highest education level obtained, 30.9% were high school graduates, 51.2% had some college, and 17.9% had a college degree. In this sample of deployed soldiers, 17.5% had previous deployment experience in the Balkans, whereas this was the first deployment for 82.4% of the sample. There were significant gender differences for each of the demographic variables (see Table 1). Male soldiers were significantly more likely than female soldiers to have previously deployed, to have higher rank, to be White, to be married, and to either have just a high school or have completed a college degree. Soldiers were deployed to Bosnia an average of 6.5 months ($SD = 2.4$).

Table 1
Demographics by Gender

Variable	Men <i>n</i> = 2,114 (63.3%)	Women <i>n</i> = 1,225 (36.7%)
Rank**		
Junior-enlisted	1,070 (51.1)	683 (56.6)
Noncommissioned officers	691 (33.0)	377 (31.2)
Officers/warrant officers	333 (15.9)	147 (12.2)
Race/ethnicity**		
White	1,199 (56.8)	545 (44.7)
African American	579 (27.4)	458 (37.5)
Hispanic	179 (8.5)	98 (8.0)
Other	155 (7.3)	119 (9.8)
Marital status**		
Not married	995 (47.1)	857 (70.5)
Married	1,118 (52.9)	359 (29.6)
Education**		
High school/GED	732 (35.1)	281 (23.5)
Some college	1003 (48.1)	678 (56.7)
College graduate	351 (16.8)	237 (19.8)

Note. Values enclosed in parentheses represent percentages.

** $p < .01$.

Procedure

Soldiers deployed to the Balkan region were administered a primary psychological screening survey within 30 days prior to redeploying back to their home station. The majority of these screenings occurred in groups of up to 100 soldiers. The surveys were hand scored on-site by medical personnel, and mental health staff members briefly interviewed those soldiers scoring above specified criteria on the screening as part of a secondary screen. On the basis of the secondary screen interview, some military personnel were referred for follow-up mental health services. The data presented here are taken from the results of the primary screen.

Measures

Covariates. Three variables were controlled for in the analysis. We controlled for rank in the analyses because higher military rank has repeatedly been shown to be associated with better reports of psychological health (Ritzer et al., 1999; Wolfe et al., 1999). We handled the potential confound of rank on well-being by including it in the multiple regression model.

The second covariate was marital status. Marital status was included as a covariate because previous research has found being married to be linked with better mental health (Simon, 2002). As in the case of rank, we handled the potential confound of marital status on well-being by including it in the multiple regression model.

Unit type was the third covariate. Unit type is a relevant but relatively unexamined variable (for an exception, see Bliese & Halverson, 1998). In the parlance of the U.S. Army, unit type is defined by the unit's role in combat. Units that serve a traditional frontline role (e.g., infantry,

cavalry, and armored units) are more likely to be directly involved in combat. These units are called Combat Arms units, and according to military regulations, only men may serve in these units. Other unit types include combat support and combat service support units. These noncombat arms units are composed of units that serve a supportive role, such as personnel, medical, maintenance, military police, and military intelligence units. Both men and women may serve in these units. To reduce the potential variance introduced by the unit type distinction, we restricted our analyses to noncombat arms units.

Deployment history. The screening survey included two questions concerning deployment history: (a) number of months on the deployment the soldier was currently completing and (b) how many previous times the participant had been deployed to the Balkans. From the results of earlier research on deployment experience (e.g., Martinez et al., 2000), we chose to treat this variable as dichotomous (no previous deployment experience versus previous deployment experience).

Depression. The Zung Self-Rating Depression Scale (SDS; Zung, 1965), a 20-item scale, measures depressive symptoms. The items are rated on a 4-point scale (1 = *a little of the time*, 2 = *some of the time*, 3 = *good part of the time*, and 4 = *most of the time*) with a possible raw score of 20 to 80 points. The scale contains items requiring reverse scoring to reduce the influence of the acquiescence response set. On this validated screen, individuals scoring above a raw score of 40 are considered to have at least mild depression (Zung, 1993). In terms of this validated cutoff score, 18.5% of the men and 23.7% of the women reported exceeding minimal cutoff criteria on the depression scale. The scale's internal consistency was high for both women and men, with Cronbach's $\alpha = .80$ and $.81$, respectively.

Posttraumatic stress. The Post-Traumatic Stress Scale (Bartone, Vaitkus, & Adler, 1994; Castro, Adler, & Huff-

man, 1999) measures posttraumatic stress symptoms that correspond to the symptom criteria outlined in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. [DSM-IV]; American Psychiatric Association, 1994). This instrument consists of a 17-item checklist with items that are rated on a 5-point scale (1 = *not at all*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, and 5 = *very often*). Some sample items include, "Had upsetting memories of the stressful event(s)," "Was not interested in things that used to be important to me," and "Had difficulty falling or staying asleep." A sum score was then calculated by adding each item, resulting in a possible range of 17 to 85. In this sample, the internal consistency was high for both women and men (Cronbach's $\alpha = .92$ and $.92$). Furthermore, by using the DSM-IV criteria for PTSD, an algorithm could be calculated to provide a rough estimate of the number of possible PTSD cases. After taking into account the corresponding minimum number of items for each of the three PTSD symptom clusters, items were considered to be endorsed if they occurred at least often or very often. In the present sample, 1.9% of the men and 3.0% of the women exceeded the criteria for possible PTSD.

Results

To assess the relationship among the demographic variables, deployment history, and soldier well-being, we first calculated the correlations for rank, gender, deployment length, number of previous deployments, depression, and posttraumatic stress (see Table 2). The correlations are presented separately for men and women (see Table 2). Means were also calculated for the depression and posttraumatic stress scales as a function of deployment length for men and women (see Table 3) and for depression and posttraumatic stress scales as a function of deployment experience (see Table 4). Finally, we ran two regression equations to predict the impact of deployment history variables on the likelihood of increased scale scores on the depression and posttraumatic stress measures. Tests of significance for the hypothesized effects in the regression analyses were one-tailed.

Descriptive Statistics

Length of deployment. As shown in Table 3, the depression rates for men generally increased as the length of deployment increased, whereas the depression scores for women rose slightly initially and then remained relatively stable. Univariate correlations between deployment length and depression scores were consistent with the patterns of the means reported in Table 3. For men, there was a significant zero-order correlation of .10 ($p < .01$) between the number of months they were deployed and increased scores on the depression scale. This relationship was

Table 2
Correlations Between Demographics, Deployment Experience, and Dependent Variables by Gender

Variable	Total sample		Men		Women		1	2	3	4	5	6	7
	M	SD	M	SD	M	SD							
1. Months on current deployment	6.51	2.43	6.70	2.57	6.19	2.13	—	-.27**	-.02	-.04	.04	-.04	-.03
2. Deployment experience	0.18	0.38	0.20	0.40	0.13	0.34	-.21**	—	.04	-.02	-.04	-.02	.01
3. Rank	16.80	6.16	17.00	6.3	16.44	5.90	.08**	.07**	-.19**	-.06	-.06	-.01	-.00
4. Depression	32.68	8.28	32.21	8.11	33.50	8.50	.10**	-.08**	-.25**	—	.64**	.79**	.37**
5. Posttraumatic stress symptoms	27.50	10.53	26.85	10.25	28.66	10.91	.14**	-.08**	-.17**	.67**	—	.52**	.53**
6. Depression cutoff	0.20	0.40	0.19	0.39	0.24	0.43	.06**	-.04	-.16**	.78**	.54**	—	.27**
7. Posttraumatic stress symptoms cutoff	0.02	0.15	0.02	0.14	0.03	0.17	.03	-.04	-.05*	.30**	.45**	.26**	—

Note. For rank, higher numbers indicate higher rank. Deployment experience is dichotomous and a higher number indicates experience. The correlations above the diagonal are for female soldiers, and the correlations below the diagonal are for male soldiers. Sample size ranged from 1,131 to 1,216 for women and 2,036 to 2,111 for men. * $p < .05$. ** $p < .01$.

Table 3
Length of Deployment and Mean Scale Score by Gender for Soldiers in Noncombat Arms Units

Variable	Months on deployment									
	1-2		3-4		5-6		7-8		9+	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Depression										
Women	32.71 (76)	8.97	34.54 (193)	9.00	33.65 (322)	8.36	33.30 (494)	8.42	32.83 (131)	8.14
Men	30.39 (167)	7.28	30.98 (389)	7.32	32.16 (173)	8.08	32.72 (774)	8.48	32.84 (600)	8.19
Total	31.12 (243)	7.90	32.16 (582)	8.07	33.13 (495)	8.29	32.95 (1268)	8.46	32.84 (731)	8.17
Posttraumatic stress symptoms										
Women	26.44 (70)	10.46	28.12 (180)	11.66	29.03 (307)	10.81	29.12 (462)	10.79	28.53 (121)	10.84
Men	23.73 (164)	7.99	24.60 (379)	9.22	27.91 (169)	10.88	27.47 (739)	10.70	28.15 (578)	10.33
Total	24.54 (234)	8.86	25.73 (559)	10.19	28.63 (476)	10.84	28.11 (1201)	10.76	28.22 (699)	10.42

Note. Sample sizes for each group are presented in parentheses under the means.

not significant for women ($r = -.04, p = .21$). These correlations were significantly different from one another ($z = 3.92, p < .01$).

Table 3 shows a similar pattern for posttraumatic stress and the number of months male soldiers were deployed. Again, univariate correlations between deployment length and posttraumatic stress scores dem-

onstrated a consistent pattern. Men's scores on posttraumatic stress increased as the length of deployment increased, as confirmed by the significant zero-order correlation ($r = .14, p < .01$). Although women's scores appeared to increase as a function of deployment length, this pattern was not systematic ($r = .04, p = .14$). These correlations

Table 4
Deployment Experience and Mean Scale Score by Gender for Soldiers in Noncombat Arms Units

Variable	Deployment experience		No deployment experience	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Depression				
Women	33.15 (163)	8.93	33.57 (1,050)	8.46
Men	30.91 (422)	7.61	32.51 (1,689)	8.17
Total	31.54 (585)	8.05	32.91 (2,739)	8.30
Posttraumatic stress symptoms				
Women	27.66 (153)	10.28	28.81 (983)	11.01
Men	25.20 (407)	9.00	27.22 (1,626)	10.44
Total	25.87 (560)	9.42	27.82 (2,609)	10.68

Note. Sample sizes for each group are presented in parentheses under the means.

were significantly different from one another ($z = 2.73, p < .01$).

It is important to note that the initial scores for women on both psychological scales were higher than those of men. However, for soldiers deployed 9 months or longer, there was no gap between men's and women's scores on the depression scale and a very narrow gap between men's and women's scores on the measure of PTSD symptoms.

Deployment experience. Previous deployment experience was also related to men's psychological well-being. For men, having deployed previously was correlated with lower levels of depression ($r = -.08, p < .01$) and posttraumatic stress ($r = -.08, p < .00$) although the effects were small. For women, previous deployment was not significantly related to psychological well-being (see Table 2). Although the correlations for the men were significant and the ones for the women were not, there were no significant gender differences in the correlation between deployment experience and depression ($z = -1.78, ns$) or between deployment experience and posttraumatic stress ($z = -1.75, ns$).

These descriptive statistics suggest that deployment history variables are significantly related to well-being for men, although perhaps not for women. However, descriptive statistics provide only limited information because they do not take into account the influence of covariates. Thus, regression analyses were also conducted.

Regression

To test our hypotheses, we conducted a series of moderated regressions with soldiers in noncombat arms units. First, gender was dummy coded (male = 0, female = 1), marital status was dummy coded (not married = 0, married = 1), and deployment experience was dummy coded (no previous deployment experience = 0, previous deployment experience = 1). Second, to prevent multicollinearity, we centered the nondichotomous predictor variables (Aiken & West, 1991). We created an interaction term between gender and deployment experience and gender and the centered variable deployment length. For each outcome variable, we conducted a moderated regression by entering the control variables (rank, marital status), one of the predictor variables (deployment length or deployment experience), the moderated variable (gender), and the interaction between the predictor and the gender. Standard multiple regression was selected as the analytic strategy to assess each of the components of the model and whether

they uniquely contributed to the dependent variables, as suggested by Tabachnick and Fidell (2001).

In Hypothesis 1, we predicted that months on the current deployment would be associated with higher rates of depression and posttraumatic stress. As shown in Table 5, there were main effects for the number of months on deployment for both depression and posttraumatic stress. Furthermore, the question regarding the presence of gender differences in the model was also tested, and the interaction term between gender and deployment length was significant for both outcomes. The interactions between gender and deployment length are graphed in Figures 1 and 2, and more descriptive details are provided in Table 3. The interactions were graphed following recommendations by Cohen and Cohen (1983) to define high and low values of the main effect as one standard deviation above and below the mean. The interactions indicate that for men, deployment length was associated with increases in depression and posttraumatic stress, but this relationship was not evident for women. Follow-up hierarchical regression revealed that when the Gender \times Deployment Length interaction term was entered into the equation in the final step, this term explained an additional 1% of the variance in depression ($\Delta R^2 = .01, p < .01$) and less than 1% of the variance in posttraumatic stress ($\Delta R^2 = .00, p < .05$). Although small, these increases were significant.

In Hypothesis 2, we predicted that previous deployment experience would be associated with increased psychological well-being. This hypothesis was supported. There was a significant main effect for deployment experience for both outcomes. As can be seen from the beta weights presented in Table 5, previous deployment experience was associated with fewer reported psychological symptoms of distress. Nevertheless, there was no significant interaction between gender and deployment experience.

When covariates were taken into account, the main effects for deployment length and deployment experience on well-being were both significant. Notice, however, that the presence of significant interactions between gender and deployment length implies that the relationship between deployment length and well-being is a function of gender.

Beyond demonstrating the impact of deployment history variables on well-being, we also conducted model testing to assess the impact of these variables on predicting the likelihood that an individual scored in a clinically symptomatic range. The depression scale had established cutoff scores reported in the literature, thus enabling us to test the model's ability

Table 5
Multiple Regressions Predicting Depression and Posttraumatic Stress Scores From Deployment Length, Deployment Experience, and Gender

Variable	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Dependent measure: Depression scale				
Marital status	-0.80	0.29	-.05	.01
Rank	-1.88	0.14	-.23	.00
Gender	0.89	0.33	.05	.01
Months on current deployment ^a	0.88	0.17	.11	.00
Previous deployment experience (dichotomous) ^a	-0.79	0.45	-.04	.04
Previous Deployment Experience (dichotomous) × Gender	0.20	0.84	.01	.81
Months on Current Deployment × Gender	-0.55	0.13	-.09	.00
Dependent measure: Posttraumatic stress scale				
Marital status	-0.31	0.39	-.02	.42
Rank	-1.41	0.19	-.14	.00
Gender	1.68	0.43	.08	.00
Months on current deployment ^a	1.41	0.22	.14	.00
Previous deployment experience (dichotomous) ^a	-1.04	0.59	-.04	.04
Previous Deployment Experience (dichotomous) × Gender	0.46	1.11	.01	.68
Months on Current Deployment × Gender	-0.35	0.18	-.04	.05

Note. Gender: 0 = male, 1 = female; marital status: 0 = not married, 1 = married; deployment experience: 0 = no experience, 1 = experience. Continuous predictor variables were centered. A hierarchical regression was conducted to estimate effect sizes. In the analyses with the depression scale as the dependent measure, $R^2 = .068$ for Step 1 involving everything except the final interaction; $\Delta R^2 = .005$ for the final interaction (Months on Current Deployment × Gender); and the final model $R^2 = .073$, $F(7, 3250) = 36.43$, $p < .00$. For the regression analysis with the posttraumatic stress scale as the dependent measure, $R^2 = .04$ for Step 1; $\Delta R^2 = .001$ for the final interaction (Months on Current Deployment × Gender); and the final model $R^2 = .042$, $F(7, 3103) = 19.25$, $p = .00$.

^a The *p* value reported in the table is based on a one-tailed significance test to reflect the directional hypothesis regarding this variable.

to predict the likelihood of exceeding cutoff criteria. We therefore replicated the previous analysis using a logistic regression model. Results presented in Table 6 demonstrate findings somewhat consistent with the linear regression model. In predicting the proportion of individuals exceeding cutoff on the depression scale, deployment length and the interaction between deployment length and gender were significant. Deployment experience did not emerge as a significant predictor in the equation. Logistic regression was not conducted with the posttraumatic stress scale because of the low number of soldiers who exceeded criteria on that scale.

Discussion

This study assessed the effects of gender, length of deployment, and number of previous deployments on the psychological health of soldiers deployed to Bosnia-Herzegovina as part of a peacekeeping mission. As predicted, deployment length was related to increases in depression and posttraumatic stress

scores. This effect was found for male but not for female soldiers. Also as predicted, previous deployment experience was significantly related to lower depression and posttraumatic stress scores for both male and female soldiers. There were no significant gender differences in the impact of deployment experience on well-being.

Deployment Length

Note that although the findings regarding the impact of deployment length on well-being suggest a difference in the way men and women respond to deployment length, when this effect is tested using hierarchical regression, the effect is small. Thus, caution is required in interpreting these findings. Follow-up research to confirm whether these gender differences are indeed present is also needed. Nevertheless, there are possible reasons for the main effect as well as the gender difference in the impact of this particular occupational stressor.

For male soldiers, results are consistent with what

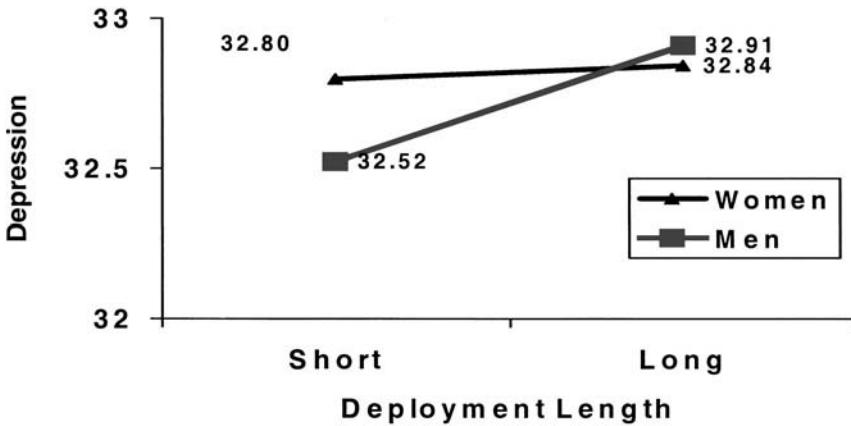


Figure 1. Regression results of interaction between deployment length and gender predicting depression scale score.

would be expected from stress theories about the impact of stressor duration in the stress response process. Stress theory suggests that after prolonged exposure to a stressor, individuals become exhausted and their health can be negatively affected, as is described in Seyle's (1976) model of the general adaptation syndrome. The alternative prediction, that individuals eventually habituate to the stressor, does not accurately describe the observed relationship between deployment length and distress for male soldiers.

The fact that the relationship between stressor duration and psychological health was not found for women raises some interesting possibilities. First, it may be that there is a ceiling effect on distress scores for women given that they start off with high scores in relation to men. A second explanation could be that, unlike male soldiers, female soldiers who were deployed over several months habituated to their situation and so were less likely to report increased distress. Such an explanation would be consistent with research on the physiological adaptation of



Figure 2. Regression results of interaction between deployment length and gender predicting posttraumatic stress scale scores.

Table 6
Logistic Regressions Predicting Exceeding Criteria on a Depression Scale From Deployment Length, Deployment Experience, and Gender

Variable	<i>B</i>	<i>SE B</i>	<i>p</i>
Marital status	-.16	.09	.08
Rank	-.09	.01	.00
Gender	1.12	.29	.00
Months on current deployment ^a	.08	.02	.00
Previous deployment experience (dichotomous) ^a	-.08	.15	.30
Months on Current Deployment × Gender	-.13	.04	.00
Previous Deployment Experience (dichotomous) × Gender	-.07	.26	.81
Constant	-.51	.24	.03

Note. Gender: 0 = male, and 1 = female; marital status: 0 = not married, 1 = married; deployment experience: 0 = no experience, 1 = experience.

^a The *p* value reported in the table is based on a one-tailed significance test to reflect the directional hypothesis regarding this variable.

women to stressors (Taylor et al., 2000). As Taylor and colleagues proposed in their more general tend-and-befriend model, it may well be that the coping strategy of women, the seeking of social support, protects them from chronic stressors (such as those inherent in a long deployment). In contrast, the coping strategy of men may protect them from the stressors in a short deployment but not from long-term stressors. What that strategy might be is beyond the scope of this article but warrants follow-up investigation.

A third possibility is that men are more reactive to the lack of job control inherent in being deployed (i.e., one does not have a choice about deploying or not). This explanation is consistent with previous research that has found that Karasek's decision-latitude model accounts for men's distress but not for women's (Vermuelen & Mustard, 2000). Thus, men may be more likely to respond with distress to the extended deployment, whereas women may be more vulnerable to other environmental characteristics such as a lack of social support. Indeed, previous research has demonstrated that military women perceive wartime stressors differently than do military men (Wolfe, Brown, Furey, & Levin, 1993). Such an explanation could be tested in a study of military personnel or other workers exposed for varying lengths of time to a chronic job-related stressor. Other work- and family-related stressors could be

examined to determine what influences women's adjustment over time. The present study did not include unit climate variables or other factors that would have allowed for an analysis of these variables.

Another interesting finding was that although men reported lower rates of distress than women across the varying lengths of deployment, the gap between men's and women's scores on posttraumatic stress virtually disappeared for individuals on deployments lasting 9 months or longer. Similarly, the gender gap in depression scores narrowed for individuals deployed for 9 months or more. Given that many studies find that women tend to report greater depression than men (Kessler, 2000), this convergence in scores is particularly surprising.

Roxburgh (1996) proposed two possible explanations from the occupational health field as to why women generally report more distress than men: Women either are more vulnerable to stress or are exposed to more stress. Another possibility may be motivational. That is, women may be more willing to report distress. While there are gender differences, the results from the present study show that after many months of a deployment, women's levels of distress were no different from those reported by men. These results, therefore, do not support previous findings suggesting that women are more vulnerable to stress, exposed to more stress, or more willing to report distress than men at least after prolonged exposure to a stressful environment.

Beyond some evidence of gender differences, the deployment length finding is also very interesting because of its implications. The steady increase in distress associated with deployment length for men presents several important areas for possible application and future research. For example, data based on this and follow-on studies can be used to develop recommendations for optimal deployment length and even model possible decrements in performance associated with increased distress. The model can then be used to predict the proportion of soldiers who might be symptomatic in terms of depression, and military planners can consider the timing of possible countermeasures whether through policy, prevention, or personnel rotation. The practical impact of these findings given a large-scale deployment involving tens of thousands of soldiers becomes evident when estimates are made using the parameters from the logistic regression model. Specifically, the model estimates that at approximately 4 months, 14.8% of the married male soldiers of mid-grade rank would report scores on the depression scale that exceed the cutoff for minimal symptoms. In contrast, at 6.5 months the

proportion of soldiers exceeding the depression score cutoff increases to 17.9%, and at approximately 9 months the expected proportion increases to 21.6%. Note that while the overall models may account for little variance in statistical terms, the results provide clear practical implications when planning to provide mental health services for the entire span of a deployment.

Deployment Experience

In terms of previous deployment experience, the findings are consistent with results from Martinez et al. (2000), who found that previous deployment experience to the same region was associated with better outcomes for soldiers on a noncombat mission. The findings are inconsistent, however, with those from Ritzer et al.'s (1999) study, which found no effect of previous deployment experience on psychological outcomes. The difference between our findings and those from Ritzer et al.'s study can be explained when one considers how deployment experience was defined and calculated, and how well-being was operationalized. We defined deployment experience as experience with deployments to the Balkan region (i.e., a similar peacekeeping deployment to the deployment the soldiers were on), whereas Ritzer et al. defined it as any type of previous deployment. In addition, we analyzed deployment experience as a dichotomous variable (no experience vs. experience), whereas Ritzer et al. only analyzed deployment experience as a continuous measure (i.e., the number of previous deployments). In an additional analysis, we assessed deployment experience as a continuous measure and found it significantly predicted depression but not posttraumatic stress symptoms, thus partially supporting the hypothesis. It may well be that deployment experience has a positive effect on soldiers only when the experience is obtained in a noncombat mission and is similar to the deployment being studied but that the deployment experience effect is not cumulative. That is, there may not be much of an added benefit from subsequent deployment experience beyond the first deployment.

In all, the findings regarding previous deployment experience provide support for the stress inoculation model. It may be that having experienced one previous deployment is enough to make soldiers more familiar and comfortable with a subsequent peacekeeping deployment than they would have been otherwise. This increased comfort may not, however, apply to all deployment situations. Deployments in-

volving potentially traumatic stressors, such as those experienced in combat, may not lead to better adaptation to subsequent combat deployments (e.g., Wolfe et al., 1999). This issue was beyond the scope of the present study but would be important to assess in future research.

Limitations

In reaching conclusions about the research findings, several issues need to be considered. One issue is that when the regressions were conducted to test for the added explanatory power of the Gender \times Deployment Length interaction, the interactions were significant but small. Our research design had two characteristics that might potentially cause low power, and thus small effect size (Aguinis & Stone-Romero, 1997). First, our research was based on a field study. McClelland and Judd (1993) suggested that field studies are much more likely to yield smaller effects because the overall model error is larger in field studies than experimental studies. Second, the two subgroups of the moderator (i.e., gender) had a disproportionate ratio in samples size (63.3% men and 36.7% women). Aguinis and Stone-Romero (1997) reported that with a larger sample size there is a marked decrease in power with disproportionate categorical moderator variables. Yet we should also note that this issue is common among moderated regression analyses, especially in field studies (Cronbach, 1987; McClelland & Judd, 1993). In fact, McClelland and Judd (1993) cited Evans as stating that "moderator effects are so difficult to detect that even those explaining as little as 1% of the total variance should be considered important" (p. 377). In general, it appears that the study's field-based design increased the risk of committing a Type II error, but even a small interaction effect is important if it is theoretically or practically meaningful (Abelson, 1985).

Although the percentage of variance explained is not large, even small changes in mental health scores can be meaningful in planning for hundreds of thousands of deployed soldiers. Such an effect may hold practical significance for military leaders making decisions about troop health and planning for mental health support over the course of an operation. In addition, understanding that there are potential differences between male and female soldiers at different times in the deployment may assist mental health specialists with targeting early intervention efforts.

Finally, another issue to consider in evaluating the utility of the results is the extent to which they

generalize beyond the sample studied. The sample in the present study was limited to soldiers in noncombat arms units. To assess whether the results generalized to other samples of men, we replicated the analyses with male soldiers in combat arms units. These 459 soldiers deployed during the same time period as the general sample and identified their unit type. In this second sample of men, the deployment length finding was replicated but deployment experience was not. Follow-up research with men and women in other occupations is needed to demonstrate generalizability. The findings may apply to nonmilitary settings in which employees are exposed to prolonged periods of occupational stress. Such settings could include extreme physical environments such as the Arctic or the space station, or environments that are very different culturally from the employee's culture of origin, such as the contrast experienced by ex-patriots and Peace Corps volunteers.

Future Directions

Results from the present study underscore the need for research in the area of both stressor duration and stressor novelty in the workplace. For example, occupational health research into the long-term impact of exposure to chronic work stressors on well-being and the potential to ameliorate the impact of stressors by previous exposure warrant further study. Research in the area of stressor duration and novelty should also not neglect the potential for gender differences in the way in which occupational stressors have an impact on well-being.

While beyond the focus of the present study, it would be useful to assess the degree to which men and women are exposed to similar amounts of stressors in a deployed environment. For those military personnel in noncombat arms units, types of stressors are likely to be similar (Wolfe, Brown, & Kelley, 1993). Perceptions of those stressors and their impact, however, may differ by gender (e.g., Rosen, Wright, Marlowe, Bartone, & Gifford, 1999). Addressing whether there are gender differences in stressor exposure may have implications for structuring potential interventions such as increasing acceptance of and access to social support or promoting cognitive restructuring to reduce the impact that such stressors have on military personnel.

Although the present study is limited in terms of its focus on peacekeeping in the Balkans, it provides a compelling setting from which to understand how occupational stress models may differ for men and women. By identifying underlying mechanisms that

differentiate men's and women's responses to a similar work-related stressor, other gender differences in the occupational health literature can perhaps be better understood. Promising areas of investigation include gender differences in the experience of deployment stressors and gender differences in coping style. Yet, future research in this area should be broad enough to develop models to account for both the differences and the similarities in the way in which men and women respond to occupational stressors.

Moreover, results from the present study demonstrate that deployment history variables are relevant in developing predictive models for military personnel. This study, however, only examined two aspects of deployment history, and these were part of an existing survey that could not be adapted to address specific research questions. Questions asking soldiers to specify the exact types of previous deployments they had experienced, the length of each of these previous deployments, and the extent to which these previous deployments are similar to the current deployment are recommended. Possible advantages gained by deployment experience could also be deconstructed to train soldiers deploying for the first time in terms of expectations, confidence, or some other variable that accounts for this difference in well-being. In addition, we did not assess the impact of deployment length beyond 10 months, and so it remains an open question as to whether distress would remain steady, rise dramatically, or level off over an even longer period of deployment.

Organizations that routinely subject their employees to chronic stressors, not to mention the employees themselves, could benefit from a clearer understanding of the long-term impact of occupational stressor exposure and how such impact can be managed. By capitalizing on the potential stress inoculation provided by previous exposure, organizations have the potential to optimize the health and well-being of their employees.

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