7 Psychological Adjustment After Military Operations: The Utility of Postdeployment Decompression for Supporting Health Readjustment

Erik De Soir

This chapter provides a literature review of postdeployment stressors and their effects and explores the potential mitigating value of adding a transition period between the operational environment and the "homefront". The organized transition period between the end of a military operation and the homecoming, is currently known as Third Location Decompression (TLD), which is under study by the Belgian Defence department as a means of providing better psychosocial support to troops returning from difficult, dangerous, and potentially traumatic operation theatres.

The TLD, referred to in Belgium and France as "Sas d'Adaptation" (Adaptation Lock), has been developed by several NATO countries and can be an important preventive tool to foster post operational stress management and adjustment in returning soldiers and their spouses or partners. These programs usually combine postmission debriefing, psychosocial adjustment, mental and physical relaxation, sense giving, and mental health psychoeducation in a safe and comfortable location. There remains some disagreement regarding inclusion criteria—i.e., who needs a TLD—and whether or not civilian facilities should be used. With the exception of a few studies on perceived utility, up to now there is little empirical evidence regarding the benefits of TLD on postmission health and its usefulness regarding trauma screening and prevention (De Soir, 2011). This chapter will focus on the key features of various TLD programs with troops that have been deployed in different theaters in Afghanistan. The ingredients of what seems to be the ideal TLD program will be discussed in the light of the perceived benefits obtained in other NATO countries.

We begin by reviewing research regarding the antecedents, correlates, and outcomes of postmission adjustment during and after military (peacekeeping or war) operations. Traumatic stress and posttraumatic stress disorder (PTSD) play a prominent role in scientific research about readjustment and readaptation of troops after long-term deployment. Next, we discuss the implementation of Third Location Decompression programs in several NATO countries including Belgium and assess the evidence for their effectiveness in facilitating healthy adjustment and homecoming.

Portions of this chapter were drawn from E. De Soir (2011) NATO Technical Report "The Belgian end of mission transition period: Lessons learned from third location decompression after operational deployment," Defense Technical Information Center Accession Number ADA582836.

E. De Soir (✉)
Royal Higher Institute of Defence,
Bruxelles, Belgium
e-mail: erik.desoir@mil.be

S.V. Bowles, P.T. Bartone (eds.), *Handbook of Military Psychology*,
DOI 10.1007/978-3-319-66192-6_7

Psychological Adjustment During Deployment

PTSD-Related Adjustment

Of the various mental health problems that soldiers may experience during and after deployment, PTSD has probably received the most attention. Many studies have attempted to ascertain prevalence rates for PTSD in soldiers. For example, a recent review of 49 different studies in Canada, the United Kingdom, and the United States found PTSD prevalence rates of 11.3–14.4% among military personnel returning from the Iraq war (Hines, Sundin, Rona, Wessely, & Fear, 2014). The same study found somewhat lower rates in personnel returning from the Afghanistan war, 4.6—9.6%. In earlier research, PTSD rates varied from a very low 0.5% (Lundin & Otto, 1992) up to a high of 25.8% (Seedat, le Roux, & Stein, 2003) and were certainly lower than the 15.2% of PTSD found in a sample of Vietnam veterans (Kulka, Schlenger, Fairbank, & Cranston, 1990). Ramchand, Schell, Osilla, Burns, and Caldarone (2010) report how different ways of defining or measuring PTSD can result in very different prevalence estimates.

First of all, it is important to take a look at the antecedents of PTSD in military cohorts. Many studies have been done that examine at PTSD and other psychological reactions among military personnel involved in peacekeeping operations. Importantly, several sociodemographic variables seem to play a significant role in the prediction of PTSD. Risk of developing PTSD is higher for younger peacekeepers (Bolton, Litz, Britt, Adler, & Roemer, 2001; Kettner, 1972; Hotpof et al., 2003), women (Hotpof et al., 2003, Litz, Orsillo, Friedman, Ehlich, & Batres, 1997), servicemen of lower rank (Bolton et al., 2001; Hotpof et al., 2003), those with lower income (Kettner, 1972), those unemployed before enrolment (Ballone et al., 2000), divorced (Kettner, 1972), unmarried (Bolton et al., 2001), having a large family (Ballone et al., 2000), reporting a lack of athletic activities (Ballone et al., 2000), and those with less education (Bolton et al., 2001; Hotpof et al., 2003, Kettner, 1972; Litz, Orsillo et al., 1997). Contrary to some of these findings, older studies found that men were more prone to develop PTSD (Lundin & Otto, 1989), or found no differences between men and women (Lundin & Otto, 1992). Interestingly, Britt, Adler, and Bartone (2001) found that women reported more benefits as a result of deployment than did male soldiers.

Research on stress during peacekeeping missions has found that some personality variables predispose servicemen to develop stress-related problems, including PTSD. Soldiers having parents with a psychiatric history (Kettner, 1972), or having themselves a psychiatric history (Ward, 1997) were more prone to develop PTSD. Servicemen expressing hostility, paranoid ideation or psychoticism were also more at risk for PTSD (Bolton et al., 2001). Looking at medical units deployed during the Persian Gulf War, Bartone (1999) found that soldiers low in personality hardiness reported more stress related PTSD symptoms.

In addition to personality, situational variables seem to play a considerable role in the prediction of PTSD. Factors associated with PTSD include being a victim of war-zone violence (Litz, 1996), having been deployed previously in a peacekeeping operation (Hotpof et al., 2003), having participated in a mission of 6 months or longer (Ballone et al., 2000), being deployed on "combat duty" (Hotpof et al., 2003; Litz, Orsillo et al., 1997), being exposed to potentially traumatic events (Bolton et al., 2001; Hotpof et al., 2003), and personal discomforts during the mission (Litz, Orsillo et al., 1997). Other associated factors are witnessing serious injury or illness (Bolton et al., 2001) witnessing violence or the aftermath of violence (Litz, 1996), witnessing atrocities against civilians without the opportunity to help (Litz, Orsillo et al., 1997; Weisæth, Mehlum, & Mortensen, 1996), witnessing the effects of starvation (Litz, 1996), and being fired upon without permission to return fire (Weisæth et al., 1996). Litz (1996) found that the interaction between exposure to war-zone stress (e.g., going on a dangerous patrol) and frustration with the peace enforcement mission (e.g., restrictive rules of engagement) was the best predictor of PTSD severity. A measure reflecting events,

circumstances or contexts experienced as fulfilling, pleasing, or uplifting for military personnel was associated with fewer PTSD symptoms (Litz, Orsillo et al., 1997). Interestingly, Hotpof et al. (2003) found no evidence for previous deployment as a predisposing or a protective factor. Contrary to earlier research, the study of Litz, Orsillo et al. (1997) found no relationship between PTSD and the need to restrain the use of force when faced with life-threatening circumstances. It seems therefore that soldiers who experienced greater frustration tended to also benefit psychologically from their humanitarian role. In contrast, exposure to traditional combat was negatively related to positive aspects of peacekeeping, suggesting that more intensive levels of stress or threat to life may attenuate the potential rewards or gratification that would otherwise result from humanitarian duties associated with modern peacekeeping.

Beyond PTSD: Other Psychological Adjustment Problems During Deployment

In addition to PTSD, researchers have noted a number of physical and mental health problems experienced by troops engaged in peacekeeping operations. Buma, van Ameijden, and Huyboom (1999) reported interesting results about morbidity surveillance among 2283 Dutch peacekeepers in Cambodia. Findings indicated that the medical services were consulted by 1356 personnel (59.4%). The three main problems were all physical: tropical disorders (24.8%), musculoskeletal disorders and injuries (23.9%), and dermatological disorders (22.7%). Eight percent of the servicemen consulted for neurological and psychiatric disorders reasons. Contrary to these findings, in an older study, Lønnum, Kluge, and Malm (1982) found that the majority of repatriations in UNIFIL (United Nations Interim Force in Lebanon) operation between 1978 and 1980 (31.3%) were due to neuropsychiatric disorders, including headaches, anxiety, depression, and insomnia. Interestingly, Croft, Hoad, and Dales (1999) found that 6% of the 4400 hospitalizations of British troops deployed to Bosnia were due to psychiatric disease. Finally, Brundage, Kohlhase, and Gambel (2002) found that military personnel having been hospitalized for mental health reasons before deployment were at higher risk than those who were not hospitalized to be again hospitalized during the mission and after the end of the operation. At least, these three studies indicate that mental health is an important issue for military personnel and that it deserves attention.

Indeed, psychological problems were reported quite frequently by military personnel in the early peacekeeping operations in the nineties (Baggaley, Piper, Cumming, & Murphy, 1999; Weisaeth & Sund, 1982). Although Lundin and Otto (1992) found a low incidence of depression, sleep disorders, nightmares, and muscular tension among peacekeepers, Ward (1997) reported that a substantial proportion of young veterans reported persisting problems with anger, irritability, intrusive thoughts, exaggerated startle response, and bodily aches and pains. Orsillo, Roemer, Litz, Ehlich, and Friedman (1998) found that more than one-third of Somalia peacekeepers reported significant symptomatology on the dimensions of hostility, psychoticism, depression, and paranoid ideation. Women were more at risk for depression and anxiety (Lundin & Otto, 1989), and were more likely to have a higher score on scales of interpersonal sensitivity and psychoticism.

Several researchers have included control groups to better identify specific problems peacekeepers are confronted with. Compared to controls, veteran peacekeepers expressed higher levels of somatization (somatization) lower scores on a measure of general health (Ward, 1997). Moreover, peacekeepers report higher levels of fatigue (Hotpof et al., 2003). In comparison with soldiers stationed in Italy, more stress was reported by Italian peacekeepers in Bosnia, and they also showed more insomnia, a tendency for solitude, neurovegetative symptoms, and reelaboration of traumatic events (Ballone et al., 2000). Hotpof et al. (2003) found in a study of peacekeepers deployed in Bosnia between 1992 and 1996 that four symptoms (irritability and outbursts of

anger, avoiding doing things, night sweats, and unintended weight gain) were significantly more common in the Bosnia group than in the control group.

Interestingly, peacekeepers on missions in Somalia and Haiti saw their roles changed at the end of the mission, and at that time reported overall good mental health, even if maladjustments were noted in terms of misconduct and nonadaptive or abusive behaviors (e.g., fighting, disciplinary problems, and recklessness; Hall, Cipriano, & Bicknell, 1997).

Moderators of the Relation Between Stressors and Adjustment

Two hypothesized buffers of stress have been frequently studied: social support and coping strategies. Regarding social support, Carlström, Lundin, and Otto (1990) found that two-thirds of soldiers had someone to talk about their problems with during the mission. Other studies found a substantial number had a tendency to isolate from others (Ballone et al., 2000; Ward, 1997) or felt isolated (Bartone et al., 1998). Looking at military medical personnel on a humanitarian mission, Britt and Adler (1999) found that respondents were less likely to use adaptive coping strategies, and reported drinking more alcohol to deal with problems. In a similar vein, Hotpof et al. (2003) showed that peacekeepers deployed in Bosnia between 1992 and 1996 consumed significantly more alcohol than a control group. The association with alcohol decreased after controlling for demographic variables but was still present. Studies have also shown that cigarette smoking increases during peacekeeping deployments (Britt & Adler, 1999).

Asmundson, Stein, and McCreary (2002) investigated how PTSD symptoms may influence health status of deployed peacekeepers and nondeployed military personnel. Results for deployed personnel show that PTSD symptoms influence directly health status, controlling for the effects of depression and alcohol use. PTSD symptoms also had an indirect influence on health through alcohol. Britt and Bliese (2003) found evidence that engagement in work can serve as a buffer of negative effects associated with lack of sleep.

Another relevant study examined special operations soldiers deployed to Iraq and Afghanistan, and found that 15% (N = 201) screened positive for alcohol misuse following their return home (Skipper, Forsten, Kim, Wilk, & Hoge, 2014). When looking at the different types of combat exposure experienced by this group, results showed that alcohol abuse was higher for soldiers who reported greater exposure to atrocities, threats to self, and fighting. A more recent study looking at U.S. soldiers returning from a war-zone deployment to Afghanistan also found that combat exposure was related to increased risk for alcohol abuse in the early homecoming period (Bartone et al., 2015). Interestingly, this study also found that soldiers who were high in psychological hardiness were at lower risk for stress-related alcohol problems.

Family Problems of Deployed Troops

Several studies have found that peacekeepers often long for home (Carlström et al., 1990). Orsillo et al. (1998) found that participants reported quite a bit of distress regarding general frustrations associated with separation from family and friends. Once deployed, servicemen were generally eager to contact their families to confirm and verify that all was well at home and to let their families know that they had arrived safely (Bartone, Adler, & Vaitkus, 1998). Bell, Schumm, Knott, and Ender (1999) found that the most popular means of communication was the telephone. Interestingly, these authors found that stress of peacekeeping deployment was significantly predicted by having had problems of communication, in turn predicted by time to contact, mobilization readiness, and the unit returning earlier. The quality of the current communication means have increased dramatically with the appearance of smartphones and the quasi-permanent availability of social media. The disadvantage of this evolution is that soldiers on deployment carry a greater burden of accumulated small home front problems on their

shoulders. Before, contact with the homefront was only made on periodically calculated moments or in crisis situations.

Soldiers preparing to deploy often underestimate the stressors they will likely encounter during operations. For example, Britt and Adler (1999) found the following stressors were experienced more than expected: trouble communicating, feeling far away from things that are familiar, travel restrictions, isolation. When soldiers reported a large amount of family-related stress, those who were more engaged in their jobs showed lower levels of psychological distress than those who were disengaged (Britt & Bliese, 2003). In a study assessing the changes in marital satisfaction over time for soldiers who had deployed overseas on a peacekeeping mission, Schumm, Bell, and Gade (2000) found that among those who remained married, marital quality did not appear to change. This suggests that if separation reduced marital satisfaction moderately, it did not reduce soldiers' basic confidence in the intrinsic quality of the marriage. The authors also found that marital instability was not uncommon among deployed soldiers over a 2-year period, although it appeared to be highest for those who said that their marriage was in trouble a few months before deployment.

Organizational Stressors

Social and organizational factors can also influence stress and vulnerability for deployed soldiers. Ballone, Valentino, Occhiolini, Di Mascio, Cannone, and Schioppa (2000) conducted a study about the factors influencing the psychological stress level of Italian peacekeepers in Bosnia. Compared to a group of soldiers stationed in Italy, a higher proportion of peacekeepers had lower socioeconomic status. Also, more peacekeepers enrolled for economic reasons and were unemployed before the mission. The major factors associated with stress for this group of peacekeepers were: a mission lasting for 6 months or more, unemployment before enrolment, having a large family, and lack of physical activity.

Moreover, witnessing atrocities against civilians without the opportunity to help, and being subject to (close fire) incidents without the permission to return fire seemed to represent severe trauma for peacekeepers in comparison with traditional combat soldiers (Weisæth et al., 1996). The lack of a clear return date (Hall et al., 1997; Ritchie, Anderson, & Ruck, 1994), restricted local travel (Hall et al., 1997), changing rules of engagement (Ritchie et al., 1994), a lost sense of the mission (Hall et al., 1997), lack of meaningful activities in which to engage (Bartone et al., 1998), poor communication with home (Hall et al., 1997), boredom (Bartone et al., 1998; Ritchie et al., 1994), and determining work unit and section relationships are considered as stressors by peacekeepers. Indeed, Bartone et al. (1998) showed that virtually every work team in the U.S. peacekeeping unit they studies was composed of military personnel who had not worked together previously.

Nevertheless, most of the peacekeepers considered their jobs to be relevant and important to maintain peace. In their study of 35 medical personnel on a six-week humanitarian mission to Kazakstan, Britt and Adler (1999) found that soldiers believed they were gaining valuable professional experience that would be relevant to other missions including combat. On the other hand, if peacekeepers felt they were engaged in a lot of irrelevant activities, they expressed concern that their jobs skills were degrading through inactivity (Britt & Adler, 1999).

Positive Aspects of Deployment

In addition to negative effects of peacekeeping deployments, a number of researchers have found some positive effects. Litz, Orsillo et al. (1997) found that participants reported positive aspects of their mission activities, although traditional military duties were seen as more rewarding than humanitarian duties. Men were more exposed than women to traditional war zone stressors, and women were more affected by both peacekeeping-related stressors and low-magnitude stressors. Still, women reported feeling more positive about

their humanitarian duties. This suggests that the subject of postmission satisfaction and posttraumatic growth are important topics for psychosocial support activities.

Litz, King, King, Orsillo, and Friedman (1997) reported that exposure to traditional combat and negative aspects of peacekeeping appeared to influence PTSD severity. The most compelling results relate to the feature of peacekeeping that is particularly difficult to reconcile for combat-trained military personnel: the need to restrain the use of force when faced with possibly life-threatening circumstances. However, the restraint variable was not linked to PTSD, directly or indirectly. Positive aspects of peacekeeping were strongly negatively related to PTSD. It seems that soldiers who experienced greater frustration tended to also benefit psychologically from their humanitarian role. In contrast, exposure to traditional combat was negatively related to positive aspects of peacekeeping, suggesting that intensive levels of stress or threat to life may attenuate the potential rewards or gratification that would otherwise result from humanitarian duties associated with modern peacekeeping. At any rate, these feelings and frustrations need to be ventilated before the homecoming in order to avoid the cumulative effect of such emotions, which can lead to acting out and disturbed readjustment on the homefront.

Britt et al. (2001) studied the role of engagement in meaningful work and hardiness as possible variables playing a role when peacekeepers derive benefits from stressful events. They found that there was a strong link between personality hardiness (commitment, challenge, and control), and the tendency to perceive meaning in the deployment (soldier engagement, job importance, and peacekeeper identity). Interestingly, the location influenced both the contextual experiences and the perceived benefits peacekeepers felt. That is, servicemen who deployed to relatively safe areas in Hungary reported fewer experiences and perceived benefits than soldiers deployed to the more dangerous Bosnia and Croatia. Results also showed that contextual experiences mediated the link between the location and the perceived benefits felt by peacekeepers. Last, it appeared that women reported more benefits as a result of deployment than male soldiers.

If adjustment during deployment influences postdeployment adjustment, it is important to carefully track its evolution during the deployment and shortly before the homecoming. Weisaeth et al. (1996) studied stress among Swedish peacekeepers who served in South Lebanon. A considerable proportion of soldiers increased their consumption of alcohol during the service term (roughly 45%). Other problems included unemployment, higher divorce rate, deterioration of financial status, and legal problems. However, positive outcomes were also reported by peacekeepers. Specifically, they believed that their stress-tolerance and self-reliance had improved. In another relevant study, MacDonald, Chamberlain, Long, Pereira-Laird, and Mirfin (1998) examined mental, physical health, and stressors reported by 277 New Zealand peacekeepers. Results showed that at predeployment, well-being was relatively low, decreased further during deployment period, increased postdeployment, and decreased again at follow-up. Psychological distress was quite high at predeployment, was relatively low during the deployment period and immediately after the deployment, and it increased sharply at follow-up. The mean level of depression increased steadily from pre-deployment through mid-deployment, increased at postdeployment, and increased further at follow-up. Results demonstrate that the periods that most affected the mental health of the personnel were predeployment (preparation and anticipation of the deployment) and follow-up (adjustment to an altered routine).

Postdeployment Adjustment

PTSD-Related Issues

A number of studies have identified higher levels of PTSD in the period after soldiers return home from peacekeeping duties. Melhum and Weisæth (2002) investigated the predictors of PTSD

reactions in Norwegian U.N. peacekeepers 7 years after service. About half of the veterans reported that their alcohol consumption increased during their stay in Lebanon. The main reasons given for this increase were that alcohol was cheap, easily accessible or both. Significantly more members of the repatriated veterans reported tension, anxiety, and stress as reasons for the increased use of alcohol. Just 10 percent of the subjects were found to have PTSD. Finally, PTSD symptoms were related to both stressful life events, and the perceived lack of meaningfulness in the military mission. Moreover, the more comfortable the respondent was with U.N. service, the fewer PTSD symptoms reported. Increased alcohol consumption in the aftermath of the service was likewise linked to more PTSD symptoms.

Han and Kim (2001) examined psychiatric symptoms reported by international peacekeeping personnel in the Western Sahara Desert. Stressors included exposure to the hot, sandy environment and homesickness. Only 5% of respondents complained about anxiety, and most of them had no trouble sleeping but 8.4% complained of general fatigue. Sleep difficulties were associated with thoughts about family, work responsibilities, and noise (air conditioner, generator, TV, etc.). Interestingly, none of the respondents showed signs of clinically significant psychopathic or depressive problems. Furthermore, no significant discrepancies in symptoms or stress levels were noted in terms of team site, age, mission duration, or number of missions. MacDonald, Chamberlain, Long, Pereira-Laird and Mirfin (1998) report only three cases of PTSD (1%) in a sample of 277 New Zealand Defence Force peacekeepers.

Mental Health Issues

Two studies deal specifically with this issue. In the first study, Weisaeth et al. (1996) studied stress among Swedish peacekeepers who served in South Lebanon. A considerable proportion of soldiers increased their consumption of alcohol during the service term (roughly 45%). Other problems included unemployment, higher divorce rate, deterioration of financial status, and legal prosecution. However, positive outcomes were also reported by peacekeepers. Specifically, they believed that their stress-tolerance and self-reliance had been improved.

Greenberg et al. (2003) investigated the issue of self-disclosure among a sample of 1002 peacekeepers after return from deployment. They found that 44% of servicemen wanted to talk about their experience with someone, and approximately two-thirds did. Results indicate that women talked more than men, and those who disclosed reported lower scores on the GHQ-12 (Goldberg, 1972), and on a measure of PTSD symptomatology (PCL-M, Davidson et al., 1997). Peacekeepers speaking with their spouse/partner were more likely to be married, male, and older. Women were more likely to have spoken to other family members, and older personnel were more likely to speak with military friends/peers (deployed or not) or the chain of command. Speaking with more persons was associated with lower scores of both GHQ-12 and PCL-M. Interestingly, those who spoke to medical services had higher scores on both PCL-M and GHQ-12 that those who did not.

Readjustment Problems: Conclusion

As should be clear by now, existing literature on peacekeeping, peace enforcing, and combat operations shows that military personnel returning from operational deployments may experience a range of stress-related adjustment and mental health problems. PTSD-related issues, as a function of the type of exposure and the characteristics of the mission (boredom, frustration, combat exposure, witnessing atrocities, length of the deployment, etc.), organizational stressors (quality of leadership, meaning making, cohesion, predictability of return date, etc.), health problems, and family concerns may cause significant stress in returning troops. Considering this, it makes sense for policy makers to include a transitional phase between the operational theatre and the return home for military personnel. This transition

phase can serve as a screening tool and also catalyst for adequate coping with the typical homecoming challenges.

TLD as a Tool for Post Mission Readjustment

TLD refers to the procedures allowing troops to "unwind" or "to wash off the mission" after long-term deployments in difficult and dangerous operational theatres such as Iraq or Afghanistan. The question of a possible evaluation of such decompression programs was first raised in Belgium in spring of 2010 by the Chief of Defence. The literature review above makes it clear that postoperational stress management can be an important aspect of psychosocial support for soldiers and their significant others. Although other NATO countries use the term TLD, a working group of Belgian operational stress specialists chose to rename this transition period as an "adaptation period", inspired by the French "sas d'adaptation" (literally translated as "transition lock"). Decompression aims to achieve "a gradual reduction in pressure" or "the release from compression or stress." The so-called "third location" refers to a place that is neither the operational theatre nor home, somewhere in between the deployment zone and the home front. It is a place where a combined program of rest, relaxation, psychoeducation, and postmission debriefing can take place. The theoretical rationale for these programs is based upon the combat motivation literature, which holds that the morale and effectiveness of any individual depends upon his or her membership in a close-knit social group. It is thought to be important to ensure reintegration within the primary group that was exposed to operational or combat stressors (Hacker Hughes et al., 2008).

Decompression has been seen throughout history as time away from the warfront, being temporarily away from combat, taking time for relaxation and physical recovery (De Soir, 2011). However, this kind of decompression or "rest and relaxation" (R&R) did not prepare soldiers to adapt to civilian life, and did not provide the necessary time to unwind before returning to their families. After some armed conflicts, the decompression effect might have occurred somewhat by accident. For example, Freedman (2005) describes how troops returned from the Falklands war by sea or by air. Interestingly, those who sailed all the way home (a lengthy journey) appeared to adjust better psychologically than those who sailed only part of the journey. Presumably, this is because the former had more time available to "debrief" each other, to unwind and decompress. Even if these experiences cannot be seen as strong empirical evidence, they now appear as a starting point in the development of postdeployment decompression leave for soldiers following combat (Cobb, 1976).

Reflecting this growing awareness, a special conference was held in Portsmouth, UK, in order to review the existing decompression programs in Canada, the Netherlands, the United Kingdom, and the United States (Castro, Greenberg, & Vigneulle, 2009). Participants at the meeting, military mental health professionals from a variety of NATO countries, reviewed and compared existing TLD programs, and sought to determine if such programs really do lead to improvements in mental health for returning troops. This was the first attempt to arrive at a consensus among participating nations on the key questions surrounding TLD programs. Following extensive review and discussion, participants agreed that based on early positive evidence, TLD programs should be made available to all deploying personnel. As to content and format, it was thought best for TLD programs to include a combination of psychoeducation, rest, and recreation, and that there should be plenty of mental health professionals and chaplains or padres available for informal interactions. TLDs should provide opportunities and encouragement for informal discussions to take place regarding the operational experiences encountered during the deployment. The program should net be viewed as one of trauma (PTSD) or suicide prevention, although it may reduce the sense of stigma often associated with seeking help for mental health problems (Castro et al., 2009).

The concept of TLD is still quite new in Belgium, and continues to be studied and tested. France is also making use of TLD programs in something of an experimental manner. The experiences of an elite French unit (8ième Régiment Parachutiste), which had been ambushed in Afghanistan resulting in 10 fatalities, convinced the French armed forces to expand their post mission counseling for returning troops. A TLD was first organized somewhat "on the fly," and took place on a US military base in Bagram. But a number of practical problems there convinced the EMAT (*Etat-Major de l'Armée de Terre*) to follow the lead of several other NATO countries, who placed their TLD programs at a hotel resort in Cyprus.

Although TLD programs clearly show promise, it is important to note that to our knowledge, no study has yet provided high quality empirical evidence that TLD is beneficial. Also, it is still not clear whether and how much a TLD should be linked to the nature and intensity of the operations returning soldiers experienced during deployment. Most of the data that do exist on TLD programs are basically satisfaction reports, rather than hard evidence on the psychological benefits. Countries that are considering implementing TLD programs should be aware of these limitations. At the current time there is an absence of definitive evidence that decompression results in improved post mission mental health outcomes, or conversely that lack of decompression is associated with worsening mental health. There is a clear need for additional study.

Goals of the Decompression Program

The primary and overarching goal of decompression is restore and preserve the resiliency of soldiers after long-term deployment under difficult conditions. During deployments, a broad range of operational stressors, to include combat exposure, length of the mission, physical fatigue, and separation from the family, can negatively influence the troops' psychological fitness. Therefore, the goals of TLD programs (Table 7.1) should include physical rest and recreation in a safe environment, facilitating reintegration into civilian and family life, promoting wellness through relaxation and reflection, increasing recognition of potential mental health programs, encouraging help-seeking behaviors, and reducing stigma surrounding postmission adaptation problems. Importantly, decompression programs should not primarily aim at the prevention of psychiatric disorders such as PTSD or depression, or at reducing suicide. Although these may be desirable outcomes, they should not be the explicit aim of the program. Rather, TLD programs should be presented and seen as a rewarding compensation for troops after long and difficult deployments, as well as a recognition for the sacrifices they have made.

Table 7.1 Goals of TLD programs

Facilitating and easing the transition from combat-life to noncombat life: reducing the stress associated with return reintegration and readjustment in family life.
Promoting wellness and mental hygiene through rest, relaxation, recreation, and reflection: stimulate positive connotation about operational experience through individual reflection and group discussion of operational experience.
Increasing awareness of mental health symptoms and ways to address them: provide tools to work through difficult experiences and ways to recognize uncommon reaction (coping with anger).
Addressing command closure: achieve closure for the felt responsibility towards those who served.
Stimulate information exchange of operational experience: informal mental health interventions, during recreational activities and rest, helping the normalization process, taking away the stigma on help-seeking.
Reducing the stress associated with return, reintegration and readjustment in family life: coping with (young) children, spouses, meeting the expectations on both sides, working on the mindset of both sides.

Key Elements in Decompression Programs

Although existing decompression programs vary with respect to location, duration, structure, and content, there is nevertheless broad agreement across NATO countries as to the key components

to include. Typical features of decompression programs are (1) giving returning soldiers a short break from the operation theatre before homecoming; (2) psychoeducation, i.e., counseling on coping and adaptation strategies; (3) rest and recreation; (4) gradual exposure to alcohol consumption; (5) some degree of choice about how to spend time during the TLD program; and (6) structured opportunities to share experiences and engage in reflection on their experiences.

Location and Duration Most NATO nations appear to agree that decompression is best carried out in a third, neutral location. Therefore, a location which is half way between the operation theatre and the home-front is the best possible choice. For troops returning from Afghanistan to Europe, this could mean for example Malta, Cyprus, or Crete. Also, the weather conditions can play an important role and should be considered. A transition period in a cold and cloudy country would likely be more stressful that a sunny tourist destination.

Although Canada, France, Belgium, and the Netherlands prefer to use hotel resort facilities, the United States and the UK seem to prefer military bases. This might offer a better control of the troops and keep journalists away (instead of letting them book rooms in the same hotel resort). It is acceptable that soldiers prefer civilian facilities and that even from the organizational point of view (simply being away from the strictly military environment should be relaxing), but yet (to our knowledge) no empirical data are available to point at the differences in effectiveness regarding the rest and recreational (R&R) aspect of the program.

The experiences of the *Armée de Terre* of France suggest that a three-day TLD program is the optimum. If the program is any shorter than this, there may not be sufficient time to rest, adapt and to recuperate, nor to carry out the educational and social activities. Several days are needed to adapt to a normal (holiday) environment. However, if the TLD goes beyond 3 days, soldiers can begin to get bored and start to looking for action again, increasing the risk for misbehavior.

Structure TLD programs typically alternate between planned, mandatory activities and free time. The shift from the intense activity of military operations to R&R should be smooth. There should be a clear indicator provided to mark the end of the formal operational part of the mission, and the start of the TLD.

Similarly, the TLD structure should be quite clear and allow for adequate rest and physical recuperation alongside the more active and educational program ingredients. Again, the purpose of the TLD is to facilitate recovery, reinsertion and transition in normal life. Therefore, it is recommended that returning soldiers be exposed to the various aspects of normal life, with plenty of free choice of relaxation time. TLD psychologists of the French *Armée de terre* argue that it is senseless to separate soldiers from civilians in the resort where the program is carried out. Their viewpoint is that during a TLD soldiers will act like they would once on the home front. The best solution thus seems to be one in which soldiers are exposed to a structured program with a balance between mandatory elements and free choice or elective sessions. Although the wake-up time in the morning has to be early enough to ensure a disciplined beginning of the day program, it still has to be different from what it was in the operation zone.

Canadian service members remove their combat battledress, kit, and military gear before arriving in Cyprus, where they wear shorts and t-shirts. French soldiers usually arrive in full battle dress, but hand them over to the TLD staff upon arrival in the hotel resort. During the TLD, they wear their official military sports clothes, which help them to be recognizable by both the TLD and the hotel staff. For the French armed forces, this is an important part of the program. Although being allowed to rest and recuperate, the wear of official unit colors in their sports clothes reminds them that the TLD is really considered as "on duty." Their battle uniforms are laundered by personnel of the hotel resort, and they will wear them again when returning home.

A typical TLD day starts with a late wake up and breakfast, some mandatory session (psychoeducation session, mental relaxation, postmission

debriefing, etc.), followed by free sports and recreation, lunch, and a similar program in the afternoon. Most nations agree that soldiers should have some choice between different kinds of recreational and sports activities, but consider the mental health activities as mandatory. However, some workshops might also be optional, for example those addressing problems with young children after the homecoming, or anger management. Religious services should also be available but never made mandatory. Religious services may be even more important for units which have experienced fatalities or severely wounded casualties during the deployment.

Opportunities for Rest and Recreation (R&R) Although most TLD programs include rest and recreation, forced physical training activities should be avoided. This is especially true for group sports with a competitive edge. The soldiers' aggression levels, which were functional during the deployment, are still too high and carry risks for acting out behavior while on the playing fields. This is also true for risky sports such as jet-skiing, parasailing, canoeing, etc. Because risk-taking behavior is typical for soldiers who have been exposed to constant danger, it would be dangerous for them take part in these activities. It would be especially sad to see accidents with wounded casualties during the TLD program.

Although some nations organize diverse tourist activities during the TLD (e.g., France, Netherlands), others keep soldiers busy with a strict military regime. A *French SAS de fin de mission* may begin with a relaxing boat trip during which a band plays popular songs and soldiers are allowed to swim in the open sea. It may also contain a cultural visit to an ancient Roman mosaic site during the last day. With this cultural activity, the French army aims at a gradual exposure to normal leisure and tourist activities.

Another interesting element in the French program is massage. Each soldier receives at least one massage session, and everyone is examined by an osteopathic specialist. Six months in combat dress, carrying the military kit and gear, is potentially harmful to the back and lower limbs. The French armed forces consider it as crucial that every soldier returns home in a relaxed muscular condition.

Current TLD programs for NATO forces consider access to alcohol in a safe, controlled environment to be an important aspect of TLD, although the degree of access to alcohol differs varies. For some countries, such as the Netherlands, alcohol was freely available. For other such as the UK, the timing and amount of alcohol was more carefully controlled. In some cultures, alcohol is typically consumed as part of social function or part of the "table culture" or gastronomy, as for example France and Belgium. During the French TLD, soldiers were allowed to drink wine or beer with their meals starting at 7 pm, and bars closed at 1 am.

Although alcohol policies vary from country to country, it is nevertheless clear that military commanders are still responsible for the returning soldiers. Abuse of alcohol during the TLD is a strict disciplinary problem, and should be treated in the same way as it would be during the operation. Alcohol consumption during social events or parties at the TLD should be based on the principle of "mutual coercion mutually agreed upon." This means they everyone in the TLD program agrees to control his buddy over a reasonable and restricted use of alcohol during the time-off, and is clearly briefed on this at the beginning of the TLD. Together with a buddy system in which everyone "watches the back of someone else," good leadership should prevent any form of abuse. There is still some uncertainty regarding how much freedom of movement to allow soldiers during the TLD. Some armies will allow their soldiers to leave the hotel facilities, whereas other nations such as France and Belgium prefer to restrict soldiers to the hotel facilities.

Psychoeducational Components Although there is variability here as well, all the current TLD programs include form of mental health (MH) activities. These sessions typically aim at (1) reducing the stigma associated with MH

support although informing soldiers on the availability of support; (2) facilitating social sharing and mutual support during collective group sessions (preferably in the same groups that operated together); (3) informing soldiers about the normal thoughts, reactions, and emotions they may experience after returning from long term deployments; and (4) facilitating and stimulating the normal working through and psychological integration process. Post mission debriefing sessions might also focus on the most difficult or frightening parts of the tour of duty. These sessions can vary from the well-known protocols on psychological debriefing and do not primarily aim at emotional disclosure and ventilation. But they should always allow for direct support for all the possible reactions. These sessions are typically carried out by uniformed psychologists and are also valuable for identifying those at higher risk for long-term psychological problems.

Deciding who should Participate in TLD Programs

There is still some debate on whether to include in the TLD program military personnel who had to leave the mission prematurely for psychological, medical, or social reasons. Canada does not bring injured service members back in for the TLD, although some have requested it. It remains unclear what benefits this might have for the injured soldiers themselves or their colleagues.

In contrast, the UK brings their injured soldiers to the TLD if they are fit to transport and do not place an undue burden on those in Cyprus. To date, reactions of both the individuals and the units have been positive. Most was it as valuable in promoting the recovery process. For the US, allowing injured soldiers to return to the unit for the post mission activities, starting with a TLD activity, is not part of a general policy. For Belgium and France, this issue has not been raised until very recently, and is still under consideration.

Common Problems during the TLD

A frequent problem with the organization of a TLD is found with the policies on alcohol and freedom of movement during this transition phase. Restrictions on alcohol use are perceived by many troops as "childish," or showing a lack of trust. During the Netherlands TLD, soldiers receive a fixed number of tickets allowing them to purchase alcohol. Nevertheless, some soldiers do get drunk, and they are cared for by the TLD staff. Canada takes a somewhat different approach. They use a nonrestrictive policy that also applies control measures to mitigate the potential for misconduct. Soldiers are relied upon to use their own judgment and any misconduct is treated on a disciplinary basis. In contrast, the UK does not provide alcohol during the first day at the beach. Alcohol is later available after dinner, with limit of five drinks per person. The UK seeks to prevent "tribalizations" of close-knit units, and the related potential for clashes between differing units as a result of alcohol overconsumption. Belgium also follows the French policy with respect to alcohol during the SAS: no alcohol is permitted during the day (until 7 pm), and all hotel bars must close at 1 am sharp. Also, there is no stocking of alcohol in the hotel rooms.

Evaluation of Decompression Programs

There have been some attempts to evaluate the TLD programs of several NATO countries, but thus far these studies have not gone beyond assessing levels of soldier satisfaction with the programs. There is still no hard evidence regarding the mental health outcomes of TLD. What currently exists is limited to expert opinions and anecdotal evidence on the usefulness and success of these adaptation programs. These subjective reports indicate a high level of support for the utility of TLDs.

As to the right length for a TLD, the consensus view seems to be between 36 and 72 h.

The majority of those who experienced TLD were satisfied with the training received, including those cases that included so-called "BATTLEMIND" training (Castro, Hoge, & Cox, 2006). The psychoeducational components were reported to be satisfactory both during the TLD and 16–24 weeks later. Soldiers with low combat exposure report a greater degree of satisfaction with the TLD. Leaders attitudes toward the benefits of TLD appear to be somewhat mixed.

It is surprising that so many troops seem to be against participation in a TLD prior to attending the program, and yet show high levels of satisfaction with it afterwards. The role of combat exposure as related to the perceived usefulness of TLDs remains largely unclear, and merits further investigation.

Conclusions

At this early stage, the majority of NATO countries consider TLD to be a valuable component of post mission counseling and psychosocial adjustment. However, many questions remain to be answered. Even if the TLD can be perceived as a reward to the service members, it is important to be sure that no additional harm is done while bringing soldiers together and in some respect making them talk about their experiences.

With the limited available research data currently available, it is impossible to draw scientific conclusions about the mental health outcomes of TLD. There may even be potential risks with these decompression programs, comparable to the risks associated with psychological debriefing. Also, expectations might still be unreasonably high and military commanders might view TLD as a panacea for all kinds of operational problems. The utilization of TLD programs should certainly not lead to a disinvestment in other kinds of psychosocial or mental health support activities.

Outcome measures for TLD effectiveness thus far have focused only on the perceived utility of this kind of support. Here, troops who participate largely report their satisfaction. This does not necessarily mean mental health of soldiers improves after 3 days on a third location. Other outcomes besides satisfaction must be investigated. These would include such mental health symptoms of depression, stress, and trauma; rates of domestic violence; signs of improved reintegration and adaptation; cohesion and morale indicators; cues of reduction of stigma toward mental health; and indications of improved sleep amount and quality. Also, reduction of risky behaviors after deployment (e.g., alcohol and substance abuse, aggressive driving or behavior, mental rumination) should be included in future research, and randomized controlled designs are needed to determine program effectiveness. Future studies should also be planned ahead to allow for systematic data collection and have clear definitions about what outcomes to measure. It is also important to establish priorities as to whether or not the outcomes should be oriented toward operational or mental health issues.

At this writing, mental health professionals involved in TLD programs generally agree as to the effects decompression could or should achieve. These include improved morale, improved relationships with family members, reduced driving accidents, and lowered stigma associated with seeking mental health care. Even so, they generally agree that decompression alone may not reduce PTSD rates, physical injury rates, and suicide rates. Future research is needed to better document these possible outcomes, because decompression programs carry significant costs and must be defended to the civilian public and taxpayers.

Also, it may be unrealistic to provide TLD to all personnel returning from deployment on the basis of mission length. Ideally, the decision on whether to include a TLD should be made after an in-depth analysis of the context of each particular operation, based on the type of operation, the length, conditions, and level of hardship and risk. On the other hand, it is crucial that this decision is communicated to both the soldiers and their families in order to avoid last minute negative reactions or counter-productive opinions and rumors. More energy should be devoted to the management of communications about these programs. Each nation should show its gratitude and

recognition for the troops who have done their duty, serving their countries and the world in risky and arduous operations.

References

Asmundson, G. J., Stein, M. B., & McCreary, D. R. (2002). Posttraumatic stress disorder symptoms influence health status of deployed peacekeepers and non-deployed military personnel. *Journal of Nervous and Mental Disease*, *190*, 807–815.

Baggaley, M. R., Piper, M. E., Cumming, P., & Murphy, G. (1999). Trauma related symptoms in British soldiers 36 months following a tour in the former Yugoslavia. *Journal of the Royal Army Medical Corps*, *145*, 13–14.

Ballone, E., Valentino, M., Occhiolini, L., Di Mascio, C., Cannone, D., & Schioppa, F. S. (2000). Factors influencing psychological stress levels of Italian peacekeepers in Bosnia. *Military Medicine*, *165*, 911–915.

Bartone, P. T. (1999). Hardiness protects against war-related stress in Army Reserve forces. *Consulting Psychology Journal: Practice and Research*, *51*, 72–82.

Bartone, P. T., Adler, A. B., & Vaitkus, M. A. (1998). Dimensions of psychological stress in peacekeeping operations. *Military Medicine*, *163*, 587–593.

Bartone, P. T., Eid, J., Hystad, S. W., Jocoy, K., Laberg, J. C., & Johnsen, B. H. (2015). Psychological hardiness and avoidance coping are related to risky alcohol use in returning combat veterans. *Military Behavioral Health*, *3*, 274–282. https://doi.org/10.1080/21635781.2015.1085931

Bell, D. B., Schumm, W. R., Knott, B., & Ender, M. G. (1999). The desert fax: Calling home from Somalia. *Armed Forces and Society*, *25*, 509–521.

Bolton, E. E., Litz, B. T., Britt, T. W., Adler, A., & Roemer, L. (2001). Reports of prior exposure to potentially traumatic events and PTSD in troops poised for deployment. *Journal of Traumatic Stress*, *14*, 249–256.

Britt, T. W., & Adler, A. B. (1999). Stress and health during medical humanitarian assistance missions. *Military Medicine*, *164*, 275–279.

Britt, T. W., Adler, A. B., & Bartone, P. T. (2001). Deriving benefits from stressful event: The role of engagement in meaningful work and hardiness. *Journal of Occupational Health Psychology*, *6*, 53–63.

Britt, T. W., & Bliese, P. D. (2003). Testing the stress-buffering effects of self engagement among soldiers on a military operation. *Journal of Personality*, *71*, 245–266.

Brundage, J. F., Kohlhase, K. F., & Gambel, J. M. (2002). Hospitalizations experiences of U.S. servicemembers before, during and after participation in peacekeeping operations in Bosnia-Herzegovina. *American Journal of Industrial Medicine*, *41*, 279–284.

Buma, A. H., van Ameijden, E., & Huyboom, M. (1999). Morbidity surveillance among Dutch troops during a peace support operation in Cambodia. *Military Medicine*, *164*, 107–111.

Carlström, A., Lundin, T., & Otto, U. (1990). Mental adjustment of Swedish U.N. soldiers in South Lebanon in 1988. *Stress Medicine*, *6*, 305–310.

Castro C.A., Greenberg, N., & Vigneulle, R.M. (2009). Unpublished report from the third location decompression workshop (11–13 May 2009, Portsmouth, UK).

Castro, C.A., Hoge, C.W., & Cox, A.L. (2006). Battlemind training: Building soldier resiliency. In *Human dimensions in military operations – military leaders' strategies for addressing stress and psychological support* (pp. 42-1–42-6). Meeting proceedings RTO-MP-HFM-134, paper 42. Neuilly-sur-Seine, France: RTO.

Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine,* 38, 300–314.

Croft, A., Hoad, N., & Dales, R. (1999). Hospitalizations of British troops during operation joint endeavour (Bosnia). *Military Medicine*, *164*, 460–465.

Davidson, J. R. T., Book, S. W., Colket, J. T., Tulper, L. A., Roth, S., David, D., et al. (1997). Assessment of a new self-rating scale for post-traumatic stress disorder. *Psychological Medicine*, *27*, 153–160.

De Soir, E.L. (2011). *The Belgian end of mission transition period: Lessons learned from third location decompression after operational deployment*. NATO Technical Report, DTIC Report #ADA582836. Retrieved from http://www.dtic.mil/dtic/tr/fulltext/u2/a582836.pdf

Freedman, L. (2005). *The official history of the Falklands campaign: The origins of the Falklands war*. London: Routledge.

Goldberg, D. (1972). *The detection of psychiatric illness by questionnaire*. London: Oxford University Press.

Greenberg, N., Thomas, S. L., Iversen, A., Unwin, C., Hull, L., & Wessely, S. (2003). Do military peacekeepers want to talk about their experiences? Perceived psychological support of UK military peacekeepers on return from deployment. *Journal of Mental Health UK*, *12*, 565–573.

Hacker Hughes, J. G. H., Earnshaw, N. M., Greenberg, N., Eldridge, R., Fear, N. T., French, C., Deahl, M. P., & Wessely, S. (2008). The use of psychological decompression in military operational environments. *Military Medicine, 173*(6):534.

Hall, D. P., Cipriano, E. D., & Bicknell, G. (1997). Preventive mental health interventions in peacekeeping missions to Somalia and Haiti. *Military Medicine*, *162*, 41–43.

Han, C., & Kim, Y. (2001). Psychiatric symptoms reported by international peacekeeping personnel in the Western Sahara desert. *Journal of Nervous and Mental Disease*, *189*, 858–860.

Hines, L. A., Sundin, J., Rona, R. J., Wessely, S., & Fear, N. T. (2014). Posttraumatic stress disorder post Iraq and Afghanistan: Prevalence among military subgroups. *Canadian Journal of Psychiatry*, *59*, 468–479.

Hotopf, M., David, A., Hull, L., Ismail, K., Unwin, C., & Wessely, S. (2003). The health effects of peace-

keeping: Bosnia, 1992-1996. A cross sectional study: Comparison with non-deployed military personnel. *Military Medicine*, *168*, 408–413.

Hotpof, M., David, A. S., Hull, L., Ismail, K., Palmer, I., Unwin, C., & Wessely, S. (2003). The health effects of peacekeeping in the UK armed forces: Bosnia 1992-1996. Predictors of psychological symptoms. *Psychological Medicine*, *33*, 155–162.

Kettner, B. (1972). Combat strain and subsequent mental health. A follow-up study of Swedish soldiers serving in the United Nations forces 1961-1962. *Acta Psychiatrica Scandinavia*, *230*, 1–112.

Kulka, R.A., Schlenger, W.E., Fairbank, J.A., & Cranston, A. (1990). *Trauma and the Vietnam war generation: Report of findings from the National Vietnam Veterans Readjustement Study*. New York: Brunner-Mazel.

Litz, B. T. (1996). The psychological demands of peacekeeping for military personnel. *National Center for PTSD Clinical Quarterly*, *6*, 3–8.

Litz, B. T., King, L. A., King, D. W., Orsillo, S. M., & Friedman, M. J. (1997). Warriors as peacekeepers: Features of the Somalia experience and PTSD. *Journal of Consulting and Clinical Psychology*, *65*, 1001–1010.

Litz, B. T., Orsillo, S. M., Friedman, M., Ehlich, P., & Batres, A. (1997). Posttraumatic stress disorder associated with peacekeeping duty in Somalia for U.S. military personnel. *American Journal of Psychiatry*, *154*, 178–184.

Lønnum, A., Kluge, T., & Malm, O. J. (1982). Health and disease in UNFIL. *International Review of Army Navy Air Force Medicine Service*, *55*, 52–68.

Lundin, T., & Otto, U. (1989). Stress reactions among Swedish health care personnel in UNFIL, South Lebanon 1982-1984. *Stress Medicine*, *5*, 237–246.

Lundin, T., & Otto, U. (1992). Swedish UN soldiers in Cyprus, UNIFICYP: Their psychological and social situation. *Psychotherapy and Psychosomatics*, *57*, 187–193.

MacDonald, C., Chamberlain, K., Long, N., Pereira-Laird, J., & Mirfin, K. (1998). Mental health, physical health and stressors reported by New Zealand defence force peacekeepers: A longitudinal study. *Military Medicine*, *163*, 477–481.

Mehlum, L., & Weisaeth, L. (2002). Predictors of posttraumatic stress reactions in Norwegian U.N. peacekeepers 7 years after service, *15*(1):17–26.

Orsillo, S. M., Roemer, L., Litz, B. T., Ehlich, P., & Friedman, M. J. (1998). Psychiatric symptomatology associated with contemporary peacekeeping: An examination of post-mission functioning among peacekeepers in Somalia. *Journal of Traumatic Stress*, *11*, 611–625.

Ramchand, R., Schell, T. L., Osilla, K. C., Burns, R. M., & Caldarone, L. B. (2010). Disparate prevalence estimates of PTSD among service members who served in Iraq and Afghanistan: Possible explanations. *Journal of Traumatic Stress*, *23*, 59–68.

Ritchie, E. C., Anderson, M. W., & Ruck, D. C. (1994). The 528th combat stress control unit in Somalia of operation restore hope. *Military Medicine*, *159*, 372–376.

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

Seedat, S., le Roux, C., & Stein, D. S. (2003). Prevalence and characteristics of trauma and post-traumatic stress symptoms in operational members of the South African National Defence Force. *Military Medicine*, *168*, 71–75.

Skipper, L. D., Forsten, R. D., Kim, E. H., Wilk, J. D., & Hoge, C. W. (2014). Relationship of combat experiences and alcohol misuse among US special operations soldiers. *Military Medicine*, *179*, 301–308. https://doi.org/10.7205/MILMED-D-13-00400

Ward, W. (1997). Psychiatric morbidity in Australian veterans of the United Nations peacekeeping force in Somalia. *Australia and New Zealand Journal of Psychiatry*, *3*, 184–193.

Weisaeth, L., & Sund, A. (1982). Psychiatric problems in UNIFIL and the UN-soldiers' stress syndrome. *International Review of Army Navy Air Force Medicine Service*, *55*, 109–116.

Weisaeth, M. D., Mehlum, L., & Mortensen, M. S. (1996). Peacekeeper stress: New and different? *National Centre for PTSD Clinical Quarterly*, *6*, 12–15.