

On Return from Peacekeeping: A review of current research on psychological well-being in military personnel returning from operational deployment

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Introduction

The number and size of UN and Allied peacekeeping deployments have increased dramatically since the end of the Cold War¹, as have the budgets that support them. The UN budgeted 7.23 billion USD for the 2012-2013 fiscal year for UN Peacekeeping operations². An explanation for this increase is likely to be found in two global trends seen in armed conflict in recent years: first, that nearly all wars in the world today are fought within countries, and second, the unprecedented rise in peace agreements as a means to end conflict². Both of these factors present new challenges for peace-building as former enemies must continue living side by side when the conflict has ended, in a continuous negotiation for peace.

Research suggests that international peace support operations indeed have the potential to improve the chances for preventing further conflict. In the first global, quantitative analysis on the effect of peacekeeping operations (PKOs), Doyle and Sambanis found a significant and substantial effect of peacekeepers on peacebuilding two years post conflict [3]. This finding is similar to later studies. For example, Fortna demonstrated that the risk of further conflict drops by 75%–85% with the presence of a PKO^{4,5}. Other research has found that PKOs limit the temporal and spatial contagion of conflict⁶, and can also have a preventive effect, reducing the risk of genocidal violence⁷. However, recent research has also found that peacekeeping operations in settings where there is not yet peace or stability, such as Afghanistan, may entail the risk of spurring violence against civilians by rebel groups if the deployment does not have an explicit mandate to protect civilians⁸. Similarly, when looking at other definitions of success aside from the prevention of further conflict, such as meeting the goals of the mandate, or establishing basic democracy and stability – a governance goal for most current deployments – the impacts of operational deployments are less clear^{9,10}.

With regards to the peacekeepers themselves and the effect these missions have on psychological health and well-being, an extensive body of literature has studied returned American servicemen from Vietnam and Somalia, Iraq and Afghanistan, covering issues of psychological ill-health from alcoholism and suicide to the adverse effects of a negative homecoming experience^{11,12}. As this review will show however, less is known of soldiers from other countries as well as the long-term effects of peacekeeping on psychological well-being. With the notable exception of the US millennium cohort study³, longitudinal studies in the field are rare but increasingly called for¹³. In the following, an overview of current research in a range of areas concerning the psychological well-being of returning peacekeepers will be presented, and some research gaps highlighted.

Psychological health in returning soldiers

In general, most returning Service personnel do well in the months after deployment. In a recent review covering 68 articles based on research conducted on Canadian, Danish, Finnish, US, Swedish, Norwegian, and UK peacekeepers, Sareen and colleagues studied the association between deployment on a PKO and subsequent psychological health, finding that most Service personnel cope well after such a deployment¹⁴. For those returning soldiers who do encounter post deployment difficulties, however, the study importantly identifies four correlates to distress and post traumatic stress disorder (PTSD): 1) level of exposure to traumatic events during deployment, 2) number of deployments, 3) pre-deployment personality traits or disorder, and 4) post-deployment stressors. Pietrzak et al. similarly found in a review of 18 longitudinal studies on mental health outcomes in military personnel that it was combat exposure rather than deployment as such that had a negative impact on mental health¹³. Combat exposure and young age in male soldiers has been found to be significantly linked to increased alcohol misuse in returning soldiers^{15,16}. As substance abuse is highly

correlated with PTSD – alcohol may serve as a coping mechanism after trauma¹⁶ – any comorbidity should be carefully determined. In returning soldiers, the Sareen et al. study further found that perceived meaningfulness of mission, post-deployment social support, and a positive perception of homecoming was associated with a lower likelihood of distress after deployment¹⁴, buffering post-deployment psychological ill health^{14,17}. In a 2010 Mental Health and Well-being report, the Australian Defence Force (ADF) found no differences in mental health between deployed and non-deployed personnel¹⁸. The report did find, however, that the prevalence of affective and anxiety disorders was significantly higher in ADF personnel than in the general Australian population, with depression levels at 6.4% for ADF personnel versus 3.1% in the Australian public, and PTSD levels at 8.3% in ADF personnel versus 5.2% in the public. The reasons for this difference are yet unknown but due to the potential of trauma exposure during deployment, the authors call for more research to determine whether differences in deployed and non-deployed personnel might have been masked if healthier people are deployed, or if the ADF's preventive work is successful in mitigating mental ill-health in returning personnel¹⁸.

Mirfin (2004) found that levels of PTSD and depression symptoms increased in New Zealand soldiers with longer deployment to Bosnia, an increase that did not take place in the control groups who were not deployed. Interestingly, the most stressful period for the deployed soldiers in this study was at six months following their return to New Zealand¹⁹. This finding supports other research which suggests that the transition period from operational deployment to life at home can be lengthy, and is likely to be the point where ongoing mental health and health behaviour issues relating to deployment arise^{20,21}. However, little is known of how soldiers are faring in life further along than 6 months after deployment. Recent research from the USA suggests that initial post-deployment screening may underestimate the mental health burden of returning soldiers and there is a call for more longitudinal data to determine the long-term implications of deployment^{22,23}. The finding of Hoge et al. that mental health problems after deployment are significantly associated with attrition from the military again emphasizes the importance of longitudinal studies²⁴: those who stay and deploy again may represent a more resilient group (the “healthy soldier effect”²⁵)²⁶ while those who leave fare ill, and fall off the radar for help.

Mild Traumatic Brain Injuries (mTBI)

The positive news that most soldiers do well after operational deployments has been challenged of late.

Recently, numerous studies on soldiers returning from the various operational missions in the former Yugoslavia, and several studies based on the ongoing missions in Iraq and Afghanistan, demonstrate an increase of PTSD rates in these particular conflicts²⁷. A growing number of studies since the Iraq/Afghanistan conflicts are further linking psychological ill-health with Mild Traumatic Brain Injuries (mTBI)²² – the frequency of which has risen with the growth in use of high kinetic blast energy weapons such as improvised explosive devices (IED) and roadside bombs. Improved personal protective equipment (PPE or body armour) and vehicle armour combined with improved medical systems has increased the survivability of troops, decreasing battle fatalities but increasing the numbers of wounded and long term disabled veterans²⁸. It has been suggested that up to 33% of US soldiers with a combat injury also had mTBI^{24,29}. Symptoms of mTBI include memory loss, anxiety, nausea, and irritability³⁰. In most cases, symptoms will resolve within days or weeks of the trauma ; however, in a minority (<5%-24%) of cases, symptoms persist. There is high comorbidity between mTBI and PTSD and depression. Among military personnel with mTBI, between 32%-66% also meet the criteria for PTSD, and between 13%-33% of mTBI patients within the military also meet the criteria for depression^{15,31}.

Suicide

The question of whether soldiers and returning soldiers from operational missions are at increased risk of suicide has flourished in the scholarly literature as well as in international media in the recent past^{15,18,27,32,33}. Grossman (2008) cites statistics showing that more US Vietnam veterans committed suicide during their tour of duty and since their return home than were killed by enemy action in theatre. The US military began seeing a sharp increase in suicides amongst their armed forces personnel in 2005, from a baseline rate of around 10.3 per 100,000 persons to approximately 18 per 100,000 persons since 2009³². However, to date, research suggests that there is no higher likelihood of suicide in previously deployed military personnel than in the general population^{14,17}. The latest and possibly largest study on suicide in the military came in the August 2013 edition of JAMA, wherein data from the US Millennium Study were analyzed. Based on data on more than 151,000 US military personnel, this prospective, longitudinal study found that the risk factors for suicide within the US military were male sex and mental disorders, the same as those in the civilian population. Contrary to expectation, none of the military or deployment-related factors (combat experience and deployment length or number) were

associated to suicide risk³². Two exceptions exist thus far: one longitudinal study with Finnish Service personnel amongst whom suicide rates were higher compared to controls in those who had repatriated early³⁰, and one study on Norwegian personnel where suicide rates were higher amongst those who were involuntarily repatriated from the peacekeeping mission³¹.

Homecoming and postdeployment stress

Recent studies confirm that more longitudinal data is needed to determine the long-term implications of deployment²². For example, in a study on Swedish peacekeepers in Bosnia, it was found that those who had experienced traumatic events in Bosnia as well as stressful life events in the post-deployment period reported the poorest mental health; however, the strongest predictor for poor mental health one year later was post-deployment stress³⁴. In US Vietnam veterans, Johnson et al. found that the most significant predictor for PTSD was homecoming stress³⁵. The challenges of post-deployment adjustment have been reported from a host of countries such as Australia, Canada, the Netherlands, UK, and the US (for an excellent overview of this research see³⁶). Indeed, several studies suggest delayed onset of post deployment trauma and ill-health, with some soldiers displaying no symptoms until their release from service³⁷.

Factors associated with positive post-deployment adjustment include good military unit leadership and comradeship; if the individual remains a serving member of the military; and reasonable work place demands³⁶. A number of studies mention the connection between supporting attitudes in family and community and healthy reintegration at home^{12,38}. UK soldiers returning from peacekeeping noted that having people to talk with was a significant factor in dealing with their stress³⁹, while Schok et al. note that in particular, having social support from comrades who have also served is particularly important³⁸.

Factors associated with a potentially more difficult transition include opposite circumstances: a sense of being caught between two worlds, one of which is characterised by poverty and violence; a sense that people at home are not interested in their experiences³⁸; significant anger and disappointment with their service⁴⁰; and a sense that their Service lacked meaning³⁸. As well as adjustment issues, returning soldiers must cope with the everyday stressors of life such as relationships, financial concerns, parenting, and possibly relocating and new roles^{41,42}. This added layer of stress may increase the adjustment difficulties experienced as a result

of deployment. Recently, it has been increasingly forwarded that the discussion on homecoming and post-deployment should also address the impact that operational deployment has on the family of the returning soldier as the long-term negative impact of veterans' PTSD on the health of their partner's mental health has been demonstrated^{23,43,44}.

Non-combat related stress

Current literature almost exclusively deals with psychological ill-health resulting from combat related trauma. Some research focuses on trauma related to 'close range interpersonal violence' and the 'price of overcoming the resistance to killing'⁴⁵; whilst some research addresses the effects of fear, anxiety and trauma related to being proximate to combat, witnessing death and dealing with human remains⁴⁴. However, while the literature often acknowledges other stressors such as separation from family, boredom and isolation, it seldom deals with issues such as frustration, anger, helplessness and feelings of futility – issues that have been suggested to be frequently associated with low threat missions rather than combat operations. Very few studies exist that specifically address the deployment effects of low threat missions^{36,44}. One study²⁹, specifically aimed to determine if non-traumatic stress associated with deployments had an effect on psychological health. This study concluded that non-traumatic stress can have an effect on psychiatric health, co-morbidity, and family and interpersonal relationships; all of which were significant correlates of Service discharge.

Related to non-combat stress is the issue of discrepancy between the soldiers' expectations of their role and the reality of the deployment. American peacekeepers in Macedonia raised concerns about the difference between their training and the actual work of peacekeeping⁴⁶; many found the work 'insufficiently military', or that their training had provided them with unrealistic expectations of what the deployment would hold. Whitworth examined primarily Canadian military peacekeepers and described the way many perceived their peacekeeping deployments as insufficiently military and insufficiently masculine⁴⁷. In summary, more research would be needed to investigate the nature and prevalence of non-combat related stressors, and the impact of non-combat related stress on the health of returning peacekeepers.

Meaningfulness of mission

A perceived sense of meaningfulness of mission is important for how returning veterans deal with their experiences in and from the deployment^{12,35,38}.

Research suggests that for deployed personnel, meaning is associated with a sense of being able to help the people in the communities in which they serve; indeed, many peacekeepers report that their motivation to serve on these missions came from a desire to help others⁴⁸.

Britt¹² found that the belief personnel have of benefiting from their deployment was linked to their sense that their experiences were meaningful. Factors associated with reported meaning included making sense of their situation, the opinions of their friends and family and wider society on their deployment, the relevance they perceived of deployed operations to their work or career, the way military leaders explained the operation, and their ability to find benefit from stressful events.

Schok and colleagues found that Dutch peacekeepers in Cambodia who reported higher levels of trauma were more affected by the poverty they saw, by a sense of injustice of the whole situation, and struggled to find meaning³⁸. Lack of meaning was associated with higher degrees of post deployment stress. Conversely, the former peacekeepers who reported little or no post deployment stress thought their experiences were meaningful and positive, indicated a higher sense of personal strength and self-reliance, as well as a sense of fulfillment in their work in Cambodia. Schok et al. suggest that the struggle to find meaning is the major contributor to post deployment stress, rather than the actual events experienced. Murphy³⁶ also notes the importance of meaningful work post deployment as contributing to post deployment well-being.

Conclusion

Current research on the psychological health of soldiers returning from peacekeeping operations

suggests that in the short-term after homecoming, most fare well. However, less is known of the long-term effects: recent research has demonstrated that the initial post-deployment screen may underestimate the mental health burden of returning soldiers²³. In addition, as mental health problems after deployment have been found to be significantly associated with attrition from the military²⁴, longitudinal studies are of the essence. Longitudinal research comparing mental health and well-being across the deployment cycle at pre-deployment, during deployment and post-deployment, preferably following a cohort of veterans until after their retirement, would be invaluable to provide insight into psychological well-being in peacekeeping soldiers – also after they have taken off their boots.

Further, considering that many of the current multidimensional peacekeeping operations are of a low-threat and non-combat nature, a study focusing on non-combat related stress would be of importance.

Finally, little is known of female soldiers' experiences of returning from peacekeeping missions. Evidence demonstrates a "double jeopardy" for women in the military – women face dangers of being killed or wounded by the enemy but are also facing the risk of sexual violence from their own side⁴⁹. However, few studies on returning soldiers hold a gender perspective, and subsequently little is known on the experience of deployed women^{50,51}. Studies – quantitative and qualitative – on women's experiences both during and post-deployment would be of great importance.

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References

1. Hegre, H., L. Hultman, and H. Nygård. Evaluating the conflict-reducing effect of un peace-keeping operations. in SGIR 7th Pan-European International Relations Conference. 2010.
2. Themnér, L. and P. Wallensteen, Armed Conflicts, 1946-2011. *Journal of Peace Research*, 2012. 49(4): p. 565-575.
3. Doyle, M. and N. Sambanis, International peacebuilding: A theoretical and quantitative analysis. *American Political Science Review*, 2000. 94(4): p. 779-801.
4. Fortna, V.P., Does peacekeeping keep peace? International intervention and the duration of peace after civil war. *International Studies Quarterly*, 2004. 48(2): p. 269-292.
5. Fortna, V.P., Does peacekeeping work?: shaping belligerents' choices after civil war 2008, Princeton: Princeton University Press.
6. Beardsley, K. Peacekeeping and the Diffusion of Armed Conflict across Space and Time. in *International Studies Association*. 2010. New Orleans.

7. Melander, E., Selected To Go Where Murderers Lurk? *Conflict Management and Peace Science*, 2009. 26(4): p. 389.
8. Hultman, L., Keeping Peace or Spurring Violence? Unintended Effects of Peace Operations on Violence against Civilians. *Civil Wars*, 2010. 12(1): p. 29-46.
9. Gowan, R., The Strategic Context: Peacekeeping in Crisis, 2006-08. *International Peacekeeping*, 2008. 15(4): p. 453-469.
10. Call, C.T. and S.E. Cook, On democratization and peacebuilding. *Global Governance*, 2003. 9: p. 233.
11. Litz, B., et al., The stressors and demands of peacekeeping in Kosovo: Predictors of mental health response. *Military Medicine*, 2004. 169(3): p. 198-206.
12. Britt, T. and A. Adler, *The psychology of the peacekeeper: lessons from the field 2003*: Praeger Publishers.
13. Pietrzak, E., et al., Effects of deployment on mental health in modern military forces: A review of longitudinal studies. *Journal of Military and Veterans' Health*, 2012. 20(3).
14. Sareen, J., et al., Is peacekeeping peaceful? A systematic review. *Canadian journal of psychiatry*, 2010. 55(7): p. 464-472.
15. Sundin, J., et al., The impact of the conflicts of Iraq and Afghanistan: A UK perspective. *International Review of Psychiatry*, 2011. 23: p. 153-159.
16. Jacobson, I.G., et al., Alcohol use and alcohol-related problems before and after military combat deployment. *JAMA*, 2008. 300(6): p. 663-675.
17. Kang, H.K. and T.A. Bullman, Risk of suicide among US veterans after returning from the Iraq or Afghanistan war zones. *JAMA*: , 2008. 300(6): p. 652-653.
18. McFarlane, A.C., et al., Mental health in the Australian Defence Force: 2010 ADF Mental Health and Wellbeing Study: Full report, 2011, Department of Defence: Canberra.
19. Mirfin, K.A., *The Psychological Effects of Peacekeeping Service in Bosnia*, in Department of Psychology 2004, Massey University, New Zealand: Palmerston North.
20. Sydney Morning Herald, September 21, 2012.
21. New York Times, August 31, 2012.
22. Ferrier-Auerbach, A.G., et al., Predictors of emotional distress reported by soldiers in the combat zone. *Journal of Psychiatric Research*, 2010. 44(7): p. 470-476.
23. McGuire, A., et al., *Timor-Leste Family Study: Technical Report, 2012*, The University of Queensland, Centre for Military and Veterans' Health: Brisbane, Australia.
24. French, L.M., Preface. *Journal of Head Trauma Rehabilitation*, 2009. 24: p. 1-3.
25. Kang, H.K. and T.A. Bullman, Mortality among U.S. veterans of the Persian Gulf War. *New England Journal of Medicine*, 1996. 335: p. 1498-1504.
26. Duma, S.J., et al., Longitudinal mental health screening results among postdeployed U.S. soldiers preparing to deploy again. *Journal of Traumatic Stress*, 2010. 23(1): p. 52-58.
27. Greenberg, N., et al., The injured mind in the UK Armed Forces. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 2011. 366(1562): p. 261-267.
28. Owens, B.D., et al., Combat Wounds in Operation Iraqi Freedom and Operation Enduring Freedom. *Journal of Trauma- Injury, Infection, and Critical Care*, 2008. 64(2): p. 295-299 10.1097/TA.0b013e318163b875.
29. Wells, T.S., et al., Mental health impact of the Iraq and Afghanistan conflicts: A review of US research, service provision, and programmatic responses. *International Review of Psychiatry*, 2011. 23: p. 144-152.
30. Holm, L., et al., Summary of the WHO Collaborating Centre for Neurotrauma Task Force on Mild Traumatic Brain Injury. *Journal of Rehabilitation Medicine*, 2005. 37: p. 137-141.
31. Sayer, N.A., Traumatic brain injury and its neuropsychiatric sequelae in war veterans. *Annual Review of Medicine*, 2012. 63: p. 405-19.
32. LeardMann, C.A., et al., Risk factors associated with suicide in current and former US military personnel. *JAMA*, 2013. 310(5): p. 496-506.
33. Kuehn, B.M., Soldier suicide rates continue to rise. *JAMA: the journal of the American Medical Association*, 2009. 301(11): p. 1111-1113.

34. Michel, P., T. Lundin, and G. Larsson, Stress reactions among Swedish peacekeeping soldiers serving in Bosnia: a longitudinal study. *Journal of Traumatic Stress*, 2003. 16(6): p. 589-593.
35. Johnson, D., et al., The impact of the homecoming reception on the development of posttraumatic stress disorder: The West Haven Homecoming Stress Scale (WHHSS). *Journal of Traumatic Stress*, 1997. 10(2): p. 259-277.
36. Murphy, P.J., Readiness, Resilience, and Readjustment: A Psychological Investigation of Human Factors across the Deployment Cycle of Contemporary Peace Support Operations, in *School of Psychology 2008*, The University of Adelaide: Adelaide.
37. Gray, M.J., E.E. Bolton, and B.T. Litz, A longitudinal analysis of PTSD symptom course: delayed-onset PTSD in Somalia peacekeepers. *Journal of Consulting and Clinical Psychology*, 2004. 72(5): p. 909.
38. Schok, M.L., R.J. Kleber, and H.R. Boeije, Men With a Mission: Veterans' Meanings of Peacekeeping in Cambodia. *Journal of Loss and Trauma*, 2010. 15(4): p. 279-303.
39. Greenberg, N., et al., Do military peacekeepers want to talk about their experiences? Perceived psychological support of UK military peacekeepers on return from deployment. *Journal of Mental Health*, 2003. 12(6): p. 565-573.
40. Johansson, E., The Role of Peacekeepers in the 1990s: Swedish Experience in UNPROFOR. *Armed Forces & Society* (0095327X), 1997. 23(3): p. 451-466.
41. Smith, B.P., *Stress Solutions. The Officer*, 2010. 86(4): p. 44.
42. Olyan, H., et al. *Solomon Islands Risk Assessment Brief. Country Indicators for Foreign Policy*, 2010.
43. Outram, S., et al., Still living in a war zone: Perceived health and wellbeing of partners of Vietnam veterans attending partners' support groups in New South Wales, Australia. *Australian Psychologist*, 2009. 44(2): p. 128-135.
44. Richardson, J.D., et al., Posttraumatic stress disorder and health-related quality of life among a sample of treatment-and pension-seeking deployed Canadian Forces peacekeeping veterans. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 2008. 53(9): p. 594.
45. Grossman, D., 'Hidden wounds': On killing in combat, in *VFW, Veterans of Foreign Wars Magazine 2003*, Veterans of Foreign Wars of the United States: United States, Kansas City. p. 24-24.
46. Miller, L.L., Do Soldiers Hate Peacekeeping? The Case of Preventive Diplomacy Operations in Macedonia. *Armed Forces & Society* (0095327X), 1997. 23(3): p. 415-450.
47. Whitworth, S., *Men, militarism, and UN peacekeeping: a gendered analysis 2004*: Lynne Rienner Publishers.
48. Jelusi, L., Motivation for Peace Operations. *International Review of Sociology—Revue Internationale de Sociologie*, 2007. 17(1): p. 73-85.
49. Jeffreys, S., Double jeopardy: Women, the US military and the war in Iraq. *Women's Studies International Forum*, 2007. 30(1): p. 16-25.
50. Haskell, S.G., et al., Gender Differences in Rates of Depression, PTSD, Pain, Obesity, and Military Sexual Trauma Among Connecticut War Veterans of Iraq and Afghanistan. *Journal of Women's Health* (15409996), 2010. 19(2): p. 267-271.
51. Woodhead, C., et al., Impact of exposure to combat during deployment to Iraq and Afghanistan on mental health by gender. *Psychological Medicine*, 2012. 1(1): p. 1-12.