Issue Brief

CLAWS

Combat Stress in International Conflict Missions: Protecting Our Soldiers

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Introduction

In the typical Indian Army parlance, a selection for deployment in any of the UN peacekeeping missions abroad is greeted with great joy. Officers celebrate with rounds of parties, at home and in the officers messes that dot the cantonments in India. The jawans celebrate with Rum punch and barakhanas. It gives a much deserved break from the demanding routine and the tough life in deployment areas and in peace time cantonments. The icing on the cake is the Dollar allowance that is authorised on UN deployments varying from $1000 to jawans to about $2500 - $3500 to officers depending on the country where they get deployed. All in all a great opportunity!

Everything looks fine and mostly goes fine. But occasionally the revelry is interrupted. Bad news breaks about loss of life or limb. On 9 April 2013, five Indian UNMISS troops and seven civilian UN employees (two UN staff and five contractors) were killed in a rebel ambush while escorting a UN convoy. The **United Nations Mission in South Sudan** (**UNMISS**) is the newest United Nations mission for the Republic of South Sudan, which became independent on 9 July 2011. One of the dead soldiers was a lieutenant-colonel and one of the wounded was a captain. According to South Sudan's military spokesman, the convoy was attacked by David Yua Yau's rebel forces that they believe are supported by the Sudanese government. Here in lies the problem. Who is a friend and who is a belligerent in foreign land teeming with a variety of rebels in a variety of uniforms and who often operate with backing of legitimate governments? It is difficult to decipher, the Rules of Engagement (ROE) are relatively vague and this at times costs lives.

When the body bags arrive, the family finds it difficult to reconcile to the tragedy. How do prize postings turn into the nightmares? How does it affect the troops waiting for deployment? What about those in the affected mission area itself? What goes on in their mind? How does it impact mission performance?

It is easy to miss these difficult questions in the euphoria of a foreign deployment. They are so far and few and only the top rung of officers and units are selected. The danger lurking in the mission area goes into the background. This is the situation for Indian troops because compared to Indian salaries, the UN package looks quite attractive. Not so for the advanced economies. The Italian government would pay $6000/- as incentive for deployment in Lebanon. After all, which Italian in his right mind would volunteer for the vagaries of a UN deployment in a war torn country.

But the dangers and difficulties faced are more or less uniform to all troops, their countries of origin notwithstanding. The advance countries do much more preparation in pre-deployment phase to ameliorate the situation. The poorer nations mostly don't. Therein lies the rub. The loss of a soldier's life is devastating to their immediate families and their dependents. Was his sacrifice worth it? Could they have been avoided?

There are other less obvious dangers. The venerable TIME magazine 23 July 2012 issue reported that "more US soldiers have killed themselves than have died in the Afghan war". It pointedly asked why the Army can't win the war on suicide.

Combat stress appears to be far more damaging than the physical dangers in the battle area or mission area. It is not so obvious and not so visible and thus tends to get neglected. But its neglect may be costing huge in terms of loss of lives by suicides, poor mental health, breakdown of families and straining the social fabric.

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Combat Stress in ...

The stress of combat can change the way soldiers' brains are wired, resulting in a reduced cognitive function, such as the ability to focus on tasks. Exposure to ''combat stress" - including armed combat, enemy fire, combat patrols and improvised explosive device blasts - affected the structural integrity of the midbrain and its ability to interact with the pre-frontal cortex. The Afghanistan situation is at the extreme end of a spectrum of deployment of combatants in foreign shores with unfamiliar geography, history, social structures and complex security situations. Iraq is another violent example. Of course, there are other mega-deployments that went wary like the long drawn engagement in Vietnam that left a huge impact on the psyche of the soldiers. There are legendary movies like 'First Blood' and 'Rambo', to name a few, that poignantly depict the life after a violent deployment.

According to Julie Krans, a postdoctoral research fellow at the University of New South Wales, exposure to highly stressful situations wasn't just expressed via post-traumatic stress disorder. ''The soldiers may not be suffering a clinical disorder but they are still impairing their daily life," she said. Dr Krans said more attention should be given to the effect of combat stress on cognitive functions such as attention, memory, problem-solving and decision-making.

A research[1] studied a group of NATO soldiers before they were deployed to Afghanistan and compared the results with tests taken six weeks after the troops returned from a four-month stint. The researchers, from Dutch institutions including the University of Amsterdam and the Ministry of Defence, used a range of measures including functional MRI to compare brain changes tied to ''executive functions", which rely on attention and working memory for planning and decision-making. The 33 soldiers who participated were selected from the NATO International Security Assistance Force peacekeeping operation. The researchers used 26 soldiers, who had never been deployed to a combat zone, as a control group.

The results showed reduced activity in the midbrain six weeks after exposure to combat stress. Upon follow-up 18 months later, changes to the connections between the midbrain and the pre-frontal cortex remained, suggesting combat stress may have long-lasting effects on cognitive brain circuitry. Sandy McFarlane, director of the Centre for Traumatic Stress Studies at Adelaide University, said the study demonstrated the need for regular time away from combat zones to allow soldiers' brains to ''re-set". Professor McFarlane said the findings were consistent with similar studies, including an American one that found working memory was adversely affected by exposure to combat.

Such findings are rare and almost absent in the Indian context. Despite a long history of deployments, there are no authentic studies to map the impact of the operating conditions in foreign shores. Thus impact assessment of combat stress relies mostly on the elaborate works in the advanced countries which put much emphasis of mental health and wellbeing of its citizens unlike poorer nations like India which still have to focus on poverty alleviation and fight hunger.

Since World War I, research on stress amongst combat veterans, while lacking in India, has been done mostly by military psychiatrists abroad. They have focused mainly on effective treatment of psychological casualties and their returning back to duty (Jones, 1995). Individual differences in response to extreme combat stress are regarded as a result of pre-existing neuroses or psychopathology (Grinker & Spiegel, 1945; Noy, 1987). In understanding what causes extreme stress reactions to combat, military research studies have put greatest importance on situational factors such as combat intensity and duration. At extreme high end of stress spectrum, as in very intense combat, individual differences in response to stress are minimal. It has been demonstrated that under stress of extreme combat conditions, everyone has a breaking point, though not precisely at same moment.

The Basics Of Combat Stress Any literature review on combat stress would benefit much by tracing how exactly have various forms of disease or ill health, including stress or more specifically combat stress being our subject, been treated over the centuries. The Chinese and the ancient Greeks believed that certain dispositions of character and certain diseases were linked with variations in the nature and appearances of the fluids of the body. The humeral theory[2] of diseases was spread by the writings of Celus (1st Century A.D.) throughout the civilised world. It was held universally till the eighteenth century, and persists in many parts of the world even today. It was replaced in Europe during the nineteenth century by the concept of "diathesis", a view that recognised the link between personal constitution and the tendency to disease, but rejected the role of the body "humors". The same fundamental concept underlies the recognition today of psychosomatic disease.[3]

Stress may be an internal state which can be caused by physical demands made on the body such as disease, exercise, extremes of temperature, professional hazards and so on or by environmental and social situations which are evaluated as potentially harmful, uncontrollable, or exceeding our resources for coping, which adversely affect the physical and psychological well being of a person.[4]

Understanding Combat Stress

The term combat stress is yet to enter the lexicon of the Indian Army. Notwithstanding a long and rich history of deployments in various UN Missions, rarely has the subject been researched and dissected. One reason may have been the benign nature of deployments so far, baring odd violent ones such as in Congo, Somalia and Sudan. The other reason may have to do with sociological backdrop of the Indian male psychology. The acceptance of stress related casualty is considered so un-

manly. Thus rarely the subject is diagnosed in that context. The term stress has been used so loosely, and so many confusing definitions of it have been formulated that it will be most instructive to start out by stating clearly what it is not contrary to some current but vague or misleading statements as under:-[5]

(a) Stress is not nervous tension. Stress reactions do occur in lower animals which have no nervous system. An alarm reaction can be induced by mechanically damaging a denervated limb. Indeed, stress can be produced in cell cultures grown outside of the body.

(b) Stress is not an emergency discharge of hormones from the adrenal medulla. An adrenaline discharge is frequently seen in acute stress affecting the whole body, but it plays no conspicuous role in generalized inflammatory diseases, although they can also produce considerable stress; nor does it play any role in local stress reactions limited to directly injured territories of the body.

(c) Stress is not anything that causes a secretion, by the adrenal cortex, of its hormones, the corticoids. ACTH, the adrenal - stimulating pituitary hormone, can discharge corticoids without producing any evidence of stress.

Post-Traumatic Stress Disorder (PTSD)

If that helps in understanding better the issues related to stress, even more confusing has been the new jargon of PTSD. An Indian Army officer returned home after a particularly dangerous mission deployment in Sri Lanka in 1987. A few years later, having risen to the rank of a full Colonel, he was shot dead by his own soldier while on an inspection round in his battalion. There were rumours that the officer was quite irritable, would get very angry at slightest provocation and dealt harshly with his soldiers. Was this a glaring case of PTSD?

The soldier who committed this fratricide was possibly one of the victims of verbal abuse during one of his bouts of foul mood. However, no such co-relation was ever researched. This gap in understanding the subject may lead to more loss of life, morale and under performance by units. PTSD is the latest in a long series of diagnostic terms used to describe the state of distress associated with being severely upset or traumatized. PTSD can follow a distressing event which is far outside the normal range of human expectation. The event is relived; it just won't go away: "the victim relives sights, sounds or even smells. A 'reminder' incident can start the process off all over again." The pains experienced affect not only the individuals themselves "but all those around them, including fellow officers and subordinates."[6]

Deployments in violent missions such as the Indian Peacekeeping Force in Sri Lanka (IPKF) may have had some severe PTSD on soldiers and officers affecting their mental health and attitudes post-deployment. This may have affected their family life and their progress in career. However, in the absence of any focussed research, such impact will never be known. Notwithstanding these lacunae, the plethora of western research does give meaningful ameliorative measures and these must be tactfully used in the Indian context. Post traumatic stress symptoms can be normal/common signs or warning signs. These signs and symptoms do not necessarily make the soldier a casualty nor does the condition warrant the label of a disorder. This becomes PTSD only when it interferes with occupational or personal life goals. These signs and symptoms sometime occur months or years after the event and may include painful memories and hence needs to be addressed holistically.

Relationship Between Stress and Performance

It stands to reason, then, that stress can affect you and your Soldiers' performance - both positively and negatively. It is already seen that stress can provide the mental and physical stimulation you need to meet a challenge. That can be a good thing - increased stress leads to increased performance. The right amount of stress helps you reach the "zone of optimal performance" shown in Figure 1. But there comes a point at which too much stress, just like too little, makes you unable to perform. This idea is called the Inverted-U Hypothesis.[7] With too little stress or arousal, you may become lethargic or distracted, unable to perform your best. Your reflexes are slow and you don't respond fast enough. Too much stress or arousal, on the other hand, may cause you to freeze up or become paralyzed with fear or anxiety. For example, have you ever had trouble unlocking a door when you were badly frightened? Or, as you are about to take an exam, have you ever felt that you have suddenly forgotten everything you learned that semester?

Fig 1 : Stress vs Performance

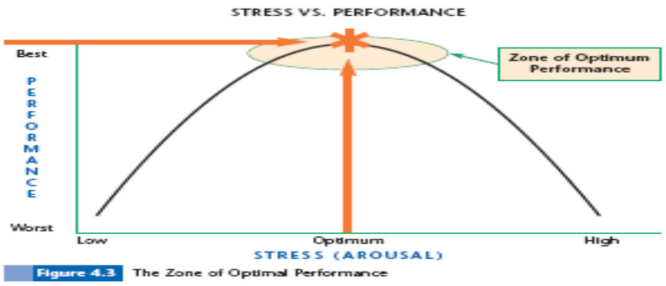

Figure 4.3 The Zone of Optimal Performance

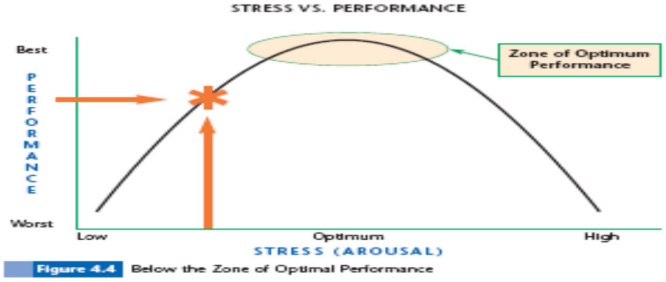

Figure 4.4 Below the Zone of Optimal Performance

... Protecting Our Soldiers

Positive Combat Stress Behaviors

Combat brings out the best and the worst in human beings. The direction, which a combat stress behaviour takes, positive or negative, results from the interaction of the body's reactions and social context in which the stress occurs and the natural stress response of the body (preparing the body for fight or flight). The purpose of good military leadership, discipline, and training is to bring out the best while preventing the worst.

Positive Combat Stress Behaviours include traditional acts and values like vigilance, strength and endurance, sense of confidence and desire for recognition, personal bonding and cohesiveness, sense of purpose, faith in Almighty, spirit-de-corps and heroism. These acts of bravery and heroism develop through a physiological and psychological process, which is dependent on sound and moral leadership, military training and discipline. However, these very processes can also lead to misconduct behaviours under the effects of stress of combat, thereby implying that it is a "double-edged sword", for which commanders have to be aware of.

Conclusion

The subject of combat stress need to be viewed as a performance enhancer rather than a fault-finder. The efforts in this field do bring out organisational weaknesses but the positive impact and its direct contribution in optimising achievement of combat mission is less well understood. While the Indian Army can proudly boast of a solid core of hardy soldiers who can withstand the rigours of combat stress in international deployment missions, it would be useful to study in-depth their long term implications to better protect our soldiers in a long term perspective.

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Notes

1. "Persistent and Reversible Consequences of Combat Stress on the Mesofrontal Circuit and Cognition" Edited by Michael Merzenich, W. M. Keck Center for Integrative Neuroscience, San Francisco, CA, and published in 'Proceedings of the Naval Academy of Sciences of the USA (PNAS) issue September 18, 2012.
2. *Contagion: Historical Views of Diseases and Epidemics* Created by the Harvard University Library's Open Collections Program
3. Evaluating the hopelessness model of depression: Diathesis-stress and symptom components. Spangler, Diane L.; Simons, Anne D.; Monroe, Scott M.; Thase, Michael E. Journal of Abnormal Psychology, Vol 102(4), Nov 1993, 592-600
4. Organizational stress: A review and critique of theory, research, and applications **CL Cooper, PJ Dewe, MP O'Driscoll - 2001 - Sage**
5. Kirsch, Daniel L. and Nichols, Francine. Cranial electrotherapy stimulation for treatment of anxiety, depression and insomnia. Psychiatric Clinics of North America, 36(1):169-176, 2013
6. A Handbook for Family & Friends of Service Members During Pre-Deployment, Deployment and Reintegration by American Institute of Stress - See more at: http://www.stress.org/military/#sthash.
7. The Inverted-U model (also known as the Yerkes-Dodson Law), Robert Yerkes and John Dodson, 1908

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