

## PSYCHOLOGICAL RESILIENCE: PREPARING OUR SOLDIERS FOR WAR

BY

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USAWC STRATEGY RESEARCH PROJECT

**PSYCHOLOGICAL RESILIENCE: PREPARING OUR SOLDIERS FOR WAR**

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## **ABSTRACT**

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Veterans returning from Iraq and Afghanistan are diagnosed with Post-Traumatic Stress Disorder (PTSD) at an alarming rate. This significantly impacts the combat readiness of our formations and the well-being of our most valuable resource – our Soldiers. The Army has allocated tremendous resources to assist those diagnosed with PTSD – we are reactive in this regard. Commanders at all levels must become more knowledgeable and proactive in developing ways to prepare their formations to deal with adversity during combat operations. Although Commanders are conducting tough and realistic training prior to deployment, the high number of returnees diagnosed with PTSD indicates we are not doing enough. In training it is difficult to replicate the true nature of war; specifically graphic injuries to Soldiers or other traumatic events. The Army must assist commanders by conducting effective mental health screening on Soldiers prior to deploying, provide training that strengthens Soldiers through resilience and exposure, and provide forward mental health support. This paper addresses the issue of psychologically preparing our Soldiers for War; building psychological

resilience. It will also address how the human dimension of leadership can assist in achieving this effect.



## PSYCHOLOGICAL RESILIENCE: PREPARING OUR SOLDIERS FOR WAR

We recognize that we must do more to prepare the force for the psychological demands that come with fighting a protracted, decades-long conflict.<sup>1</sup>

—General George W. Casey Jr.  
Army Chief of Staff

Veterans returning from Iraq and Afghanistan are diagnosed with Post-Traumatic Stress Disorder (PTSD) at an alarming rate. This significantly impacts the combat readiness of our formations and the well-being of our most valuable resource – our Soldiers. The Army has allocated tremendous resources to assist those diagnosed with PTSD – we are reactive in this regard. Commanders at all levels must become more knowledgeable and proactive in developing ways to prepare their formations to deal with adversity during combat operations. Although Commanders are conducting tough and realistic training prior to deployment, the high number of returnees diagnosed with PTSD indicates we are not doing enough. In training it is difficult to replicate the true nature of war; specifically graphic injuries to Soldiers or other traumatic events. The Army must assist commanders by conducting effective mental health screening on Soldiers prior to deploying, provide training that strengthens Soldiers through resilience and exposure, and provide forward mental health support. This paper addresses the issue of psychologically preparing our Soldiers for War; building psychological resilience. It will also address how the human dimension of leadership can assist in achieving this effect.

Since the wars in Afghanistan (2001) and Iraq (2003) began, battalion commanders have faced the difficult challenge of how to psychologically prepare their Soldiers for the adverse conditions of war. This is a monumental task that is easier said

than done. One factor that makes this a difficult task during pre-deployment training is how to replicate the true graphic nature of combat – specifically the traumatic and grotesque injuries to Soldiers and civilians, that are ubiquitous in Afghanistan and Iraq.

For the conventional army units there are training opportunities available for the medical military occupational skills (MOSs) that can assist in creating the effect of psychological resilience. Unfortunately, these training opportunities are very limited for the combat arms MOSs – those Soldiers routinely on the front lines in combat. Over the past several years, it is increasingly evident that commanders need more of these training opportunities to assist in building psychological resilience in Soldiers.

Most Brigade Combat Teams (BCTs) conduct realistic training at home station and at the Combat Training Centers during their Certification Training Exercise prior to their deployment to Afghanistan or Iraq. Although this training prepares Soldiers to execute their assigned tasks in combat – it does not properly prepare them psychologically for all the adversity they face in combat.

Most battalion commanders typically have only two options available to psychologically prepare their Soldiers for combat – show graphic videos and photos of injuries sustained from catastrophic events (car bombs, Improvised Explosive Devices (IEDs), etc.), and to have combat experienced leaders talk to Soldiers about the horrors they experienced in combat and what Soldiers could expect to observe.

In April 2007, 1<sup>st</sup> Battalion, 38<sup>th</sup> Infantry Battalion (Stryker), deployed to Iraq confident they had done enough to prepare their Soldiers for the adversities of combat.<sup>2</sup> A few months later, two individuals (NCO and Soldier) in the battalion were killed by a

courtyard IED. The non-commissioned officer (NCO) was the heart and soul of the company and the Soldier was a role model to his peers.

The popularity of the two individuals killed coupled with the nature of the injuries they sustained, had a tremendous psychological impact on the entire company. Several individuals to include a platoon sergeant (combat veteran) were eventually diagnosed with PTSD. Over the next thirty days the entire company appeared shell shocked and they were excessively cautious in all their missions and actions. They were not the same confident and motivated company that deployed a few months earlier.

Most recently, National Geographic's feature length documentary, "Restrepo", chronicled the deployment of a platoon of U.S. Soldiers at a remote 15-man combat outpost in Afghanistan's Korengal – a highly contested area. The platoon made contact with the enemy during a patrol and suffered casualties – one Soldier was killed and two wounded. Staff Sergeant (SSG) Larry Rouble's death left the team visibly shaken and one individual on the verge of a mental breakdown. SSG Rouble was considered a "super stud" and the best NCO in the platoon – to the Soldiers he was an invincible leader.<sup>3</sup>

When SSG Rouble was killed, many individuals started reacting catastrophically – believing if he was killed – they could all be killed. They gave the impression they all felt vulnerable at that point.<sup>4</sup>

Fortunately, in both cases described above, good leadership intervened and the units overcame the tremendous sense of loss and adversity. In both cases, great company leadership and the leader's style, actions, and location on the battlefield were demonstrated to have a significant psychological impact on Soldiers to help them

collectively overcome the adversity. However, while the unit remains very responsive in all their missions, giving the impression of a combat ready unit, for those diagnosed with PTSD – the battle was just beginning.

#### Post -Traumatic Stress Disorder (PTSD)

The Army continues to be an all volunteer force and despite almost eleven years of continuous conflict, young men and woman continue electing to serve their country. It is imperative we provide them the best training available to prepare them for the rigors of combat and reduce the risk for them from leaving combat with psychological injuries.

Post -Traumatic Stress (PTS) is the normal reaction to extraordinary circumstances.<sup>5</sup> Post -Traumatic Stress Disorder (PTSD) is the medical condition that develops when PTS adversely impacts normal activities of one's daily life and lasts for more than a month.<sup>6</sup> PTSD does not discriminate and even the savviest combat veterans are at risk when repeatedly exposed to traumatic events in combat. According to a RAND survey of veterans who have returned from Afghanistan or Iraq, an estimated 300,000+ or 18.5 percent of those deployed since 2001 now have PTSD or major depression.<sup>7</sup> This study also estimated that of the 1.64 million individuals who had deployed to Iraq as of October 2007, 14 percent are currently affected by PTSD.<sup>8</sup>

Even more alarming is the rise in the number of suicide deaths linked to PTSD. While on average only 9.1 percent of the suicide deaths between 2005 and 2009 had been diagnosed with PTSD, this percentage has steadily increased from 4.6 percent in 2005 to 14.1 percent in 2009.<sup>9</sup> The Vice Chief of Staff of the Army (VCSA), General Peter W. Chiarelli, is leading the Army's tireless efforts in combating PTS, PTSD, and the high rate of suicide in the Army. The best resources and medical care are being amassed to assist our returning veterans.

Only about half of the veterans who currently need treatment for PTSD seek it, and 30 percent of those in need of treatment receive only minimally adequate care.<sup>10</sup> The Army's senior leaders and commanders at all levels must match the tremendous effort being applied in treating those diagnosed with PTSD with an equally effective and ambitious training strategy in preventing it. Since the rate of PTSD continues to climb and about half of those who need treatment do not seek it, we must be more proactive on the other end of the spectrum – prevention.

Realistic programs and training focused on the psychological aspects of combat must be expedited to the field. Fortunately there are recently developed programs to assist commanders in preparing their units for combat. These programs and training should assist commanders in training Soldiers by strengthening them through resilience and exposure. Then and only then can we significantly increase the chances of developing a psychologically resilient force ready for combat.

#### Historical Examples of Screening, Building Resilience, and Leadership

History provides several examples of how great leaders and armies built psychological resilience in their forces. The Spartans used screening and resilience training to prepare their Soldiers for combat. Alexander the Great epitomized how leadership can help create a psychologically resilient force.

The formula of screening Soldiers prior to combat and building strength through resilience and exposure existed thousands of years ago. The movie “300” ignited the warrior ethos in many of us because of the heroic actions of Leonitis and his Spartans during the battle of Thermopylae in 480 B.C. Despite facing overwhelming odds against the Persian Empire, the Spartans were superbly led, fought bravely, and gave the appearance of a combat ready and resilient force. Their barbaric methods for creating a

resilient force would not find acceptance today, however, it provides a historical example of how this affect was achieved.

The process of becoming a Spartan began at birth where the newborns were screened and inspected by an elder. Any infant with noted imperfections that could impact completion of Spartan training was dealt with in a cruel manner – they were thrown from the cliff of Mount Taygetus to die on jagged rocks below.<sup>11</sup> When boys reached the age of seven, they were placed in military camps where they would live, train, and learn to kill.<sup>12</sup>

Camp life was tough and the boys learned military skills, discipline, and toughness – they were fed insufficiently and taught to conceal pain. These tasks reveal their method for strengthening and building resilience. As the boys got older, they were exposed to increasing levels of violence to prepare them for battle. This included blood and guts – strengthening through exposure.

In their early teens the young boys engaged in war games using wooden swords and spears without tips. On several occasions these war games were deadly and some boys were killed. This was acceptable as it prepared the youth for battle and for seeing their comrades killed in action.<sup>13</sup> When the young Spartans neared the age of 18, they were presented their final test – a “rites of passage”. Each teen was tasked to kill a Helot (slave) without getting caught. Although the art of evasion was the main emphasis in this task, the act of killing added the final preparation for war.<sup>14</sup>

Alexander the Great was considered a “heroic leader.” He lived in a heroic society and always led from the front in combat. He motivated his men in combat by enduring the same hardships as them. The knowledge that he was risking his life with

theirs was enough to ensure that the whole Army fought with energy equal to his.<sup>15</sup>

Alexander was wounded eight times in combat; four slight, three serious and one nearly fatal. His men knew that he lived no better than they did, woke earlier, worried worse and suffered wounds more frequently than any of them.<sup>16</sup> Through this leadership style he was successful throughout his campaigns of building an Army that was psychologically resilient.

Although the nature of war has changed significantly over the years, the method of preparing an Army for combat remains relatively unchanged. Screening Soldiers prior to combat, strengthening through resilience and exposure, and providing outstanding leadership is as relevant in the contemporary operating environment (COE) of today as it was for the Spartans.

### Mental Health Screening

The United States military began psychological screening in the early 20<sup>th</sup> century. During World War I, the Army Alpha and Beta tests and psychiatric interviews were used to screen the massive influx of military recruits needed to fight the war.<sup>17</sup> At that time the personality and estimated intellectual functioning of each potential recruit were assessed, and recommendations were made regarding suitability for military service and service specialties. The decisions that were made largely reflected the belief that psychiatric symptoms and illnesses indicated a “weak personality”; individuals with psychoneurotic illnesses were not normal and thus were not capable of marshaling the psychological defenses needed to serve during war.<sup>18</sup>

Over time experts viewed these screening processes as excessive and ineffective in accurately predicting resilience to the stresses of war and resulted in the substantial loss of potential recruits. After World War II psychiatric screening methods

were modified to focus on identifying and disqualifying only those with gross psychiatric disorders.<sup>19</sup>

The 1998 Defense Authorization Act, which Congress passed in 1997 in response to the large number of Soldiers diagnosed with Gulf War Syndrome, required the Secretary of Defense to conduct pre-deployment and post-deployment medical examinations (including an assessment of mental health) to accurately record changes in the medical condition of service members during their deployment.<sup>20</sup> The mental health screening process has improved over time and now includes physical and psychological pre-deployment screening, post-deployment screening, and another screening three to six months post deployment.

In 2007, the Eisenhower Army Medical Center institutional review board approved a study to assess the effectiveness of a systematic method of pre-deployment mental health screening to determine whether screening decreased negative outcomes during deployment in Iraq's combat setting.<sup>21</sup> The study compared 10,678 Soldiers from three screened combat brigades and 10,353 Soldiers from three comparable unscreened combat brigades. The results were conclusive on the benefits of pre-deployment mental health screening.

After 6 months, Soldiers in screened brigades had significantly lower rates of clinical contacts than did those in unscreened brigades for suicidal ideation (0.4% compared with 0.9%), for combat stress (15.7% compared with 22.0%), for psychiatric disorder (2.9% compared with 13.2%), as well as lower rates of occupational impairment (0.6% compared with 1.8%), and air evacuation for behavioral health



reasons (0.1% compared with 0.3%).<sup>22</sup> This study demonstrated a feasible system for screening Soldiers and coordinating mental health support during deployment.

Major General Patricia Horoho, Army Deputy Surgeon General, stated, “We’re excited about what this study shows. It is the first direct evidence that a program is effective in preventing adverse behavioral health outcomes.”<sup>23</sup>

The conventional Army uses these mental health screening assessments to screen Soldiers prior to deployment, however the Special Operating Forces (SOF) have taken these assessments one step further. They use these assessments to either select or eliminate potential candidates from joining their ranks.

*Navy Sea, Air, Land (SEALS)*. Navy SEALs are one of the most elite forces in the world and are frequently on the frontlines of combat whether in the sea, air, or on land. Each member must be physically and mentally tough to endure the adversities they face each mission. They have the luxury of hand selecting the best Sailors and officers to join their ranks and recently developed a screening process to assist them in this task. The Navy SEALs faced a dilemma with a high attrition rate in the Basic Underwater Demolition School (BUDS) – basic training for Navy Seals.

BUDS is a course consisting of 100 students which normally had an attrition rate of 75 percent.<sup>24</sup> Due to the high Operational Tempo and demands for this elite force, the Navy had to make a decision on how to produce more operators; either double the size of the class or develop more effective procedures to screen candidates and determine who was more likely to succeed in this austere environment. After three years of developing and validating a screening process, the end result was the Computerized Special Operations Resiliency Test (CSORT).<sup>25</sup>

According to Commander Eric G. Potterat, Head Psychologist, Naval Special Warfare Group 1 (West Coast SEALs), “The best way to predict an individual’s future behavior in an adverse situation is to look at past behavior and how he navigated through adversity.”<sup>26</sup> The CSORT is a 45 minute assessment tool that is trait based rather than state based. A trait based test is much more stable than state based because over time the results are less likely to change (even over several years).

The benefit of the test is that it identifies candidates who do not possess the ability to use desired techniques to overcome adversity. These individuals will not be selected to attend BUDS. The assessment revolves around four performance strategies/techniques.<sup>27</sup> If a candidate is already using these four techniques he has a high probability of being able to control the Human Stress Response. The four techniques assessed are visualization, arousal control, goal segmenting, and self talk.

Upon completion of the CSORT assessment, candidates are categorized in three separate groups; red zone, yellow zone, and green zone. Candidates who fall in the red zone did not demonstrate the desired techniques needed to handle adversity and have a 97 percent chance of failing BUDS – they are not invited to attend. Candidates in the yellow and green zone demonstrate a greater ability to control their Human Stress Response and overcome adversity. They are invited to attend BUDS, however, there is continued attrition throughout the course. Since the development of CSORTS, the graduation rate increased from 25 percent to between 35-40 percent.<sup>28</sup>

*75<sup>th</sup> Ranger Regiment.* The Army’s elite 75<sup>th</sup> Ranger Regiment at Fort Benning, Georgia takes a similar approach as the Navy SEALs in identifying resilient Soldiers.

Like the Navy SEALs, the Ranger Regiment has the luxury of hand selecting the best of the best to join their ranks.

The tool the Rangers use to screen potential candidates is the Ranger Assessment and Selection Process (RASP). According to Regimental Psychologist, Captain Clayton T. Manning, the key factors they look for in candidates are traits that encompass and develop natural born resiliency – these are characteristic of the typical Ranger personality.<sup>29</sup> The purpose of this process is to ensure each candidate meets or exceeds the Regimental standards for mental aptitude, moral character, and physical fitness.

The most important part in the RASP is the full psychological evaluation.<sup>30</sup> The process normally takes 4-8 hours depending on the candidate. Each candidate is administered multiple personality assessments, an intellectual assessment, background history check, and security screening. Another important aspect of this assessment is the full clinical interview with the psychologist. Only candidates in RASP 2 (NCOs and officers) receive the full clinical interview. The junior enlisted candidates are administered a group interview, however, individuals are selected to conduct full clinical interviews if the psychologist observes behavior inconsistent with the Ranger standards.<sup>31</sup>

The screening processes used by both the Navy SEALs and Ranger Regiment have been instrumental in these elite units maintaining psychologically resilient formations where cases of PTSD are rare.<sup>32</sup> The Army should consider using assessments similar to the CSORTs and RASP, on new Army recruits to eliminate

those who do not possess the traits necessary to maintain sound mental health and resiliency when faced with the adversities of a combat environment.

### Strengthening Soldiers through Resiliency Training

The past decade of protracted war has increased the stress and strain on our Soldiers and it is significantly impacting their performance, their readiness, and – in many cases their personal relationships.<sup>33</sup> It is a fact that fear in combat is common and that combat impacts every Soldier mentally and emotionally.<sup>34</sup> Tools and programs are available to teach Soldiers how to think about adversity and become more resilient. Another benefit of providing this type of resiliency training to the entire force is that it may reduce, and even eliminate, the stigma attached to seeking mental health care. Only 25-40 percent of Soldiers with mental health problems get help because of this stigma.<sup>35</sup>

*Comprehensive Soldier Fitness (CSF) Program.* The Army established the CSF in late 2008. However, the benefits of the CSF program have been slow to reach the field as the organization formed and assessed their resources and capabilities. The program has recently gained significant momentum and the Chief of Staff of the Army (CSA), General George W. Casey Jr. made it one of his top priorities. The Department of Defense and members of Congress have allocated approximately \$125 million toward this endeavor.<sup>36</sup>

The CSF was established to increase the resilience of Soldiers and families by developing their strengths in all important domains: emotional, social, spiritual, family, and physical. CSF marks a new era for the Army by comprehensively equipping and training our Soldiers, family members, and Army Civilians to maximize their potential and face the physical and psychological challenges of sustained operations.<sup>37</sup>

CSF is a true prevention model, aimed at the entire force, which will enhance resilience and coping skills, enabling individuals to grow and thrive in today's Army.<sup>38</sup> According to General Casey the Army is moving beyond a "treatment centric" approach to one that focuses on prevention and on the enhancement of the psychological strengths already present in our Soldiers. CSF is a "strengths-based" resiliency program that shows promise for our workforce and its support network so our Soldiers can "be" better *before* deploying to combat so they will not have to "get" better *after* they return.<sup>39</sup>

There are four pillars to the CSF program that assist in building resiliency in our forces; The Global Assessment Tool, Self Development Modules, Institutional Resiliency Training, and Master Resiliency Trainers. Resiliency training will be incorporated at all Training and Doctrine (TRADOC) Schools and training curriculums. According to BG Rhonda Cornum, Director, CSF, Soldiers at every level will ultimately learn how to adapt to difficult situations using tools and knowledge learned from resiliency trainers.<sup>40</sup> The training will be progressive and sequential and assist Soldiers whether deployed or at home station.

Enhanced resilience, achieved by a combination of specific training and improved fitness in the five domains of health, decreases post-traumatic stress, decreases the incidence of undesirable and destructive behaviors, and leads to a greater likelihood for post-adversity growth and success.<sup>41</sup>

The Army goal is to have a Master Resilience Trainer (MRT) in each battalion and as of February 15, 2011, more than 3,253 leaders have trained at the University of Pennsylvania.<sup>42</sup> The Army must increase allocations to the MRT course to include more slots for the Army National Guard. Based on current allocations, the program is training

one MRT for 14,370 Guard troops.<sup>43</sup> The goal of one MRT per battalion must apply to the National Guard and Army Reserve if we are serious about building psychological resilience throughout the force

There is an assessment program inherent in CSF program that will test the effectiveness of this training. The Army must diligently and proactively study the role and impact of this program to ensure it achieves the intended effect – psychological resilience for our Soldiers.

*Battlemind Debriefing and Battlemind Training: Reverse Engineering.* The Army must leverage the intervention methods that are working to produce post-traumatic growth during post-deployment and consider using these methods during pre-deployment. Post-Traumatic growth is the positive personal changes that result from the struggle to deal with trauma and its psychological consequences.<sup>44</sup>

Research conducted after military conflicts has shown that deployment stressors and exposure to combat result in considerable risks of mental health problems, including PTSD, major depression, substance abuse, impairment in social functioning and in the ability to work, and the increased use of health care services.<sup>45</sup> Symptom reports increase during the first few months following return from combat deployment and it is estimated that between 20-30 percent of U.S. military personnel report significant psychological symptoms 3-6 months after their return home.<sup>46</sup>

Several researchers from the Walter Reed Army Institute of Research and the Medical Research and Materiel Command, conducted research to determine the efficacy of different types of post-deployment early intervention on psychological health.

The results demonstrated that brief early interventions are potentially more effective with at-risk occupational groups.<sup>47</sup>

For this study, the researchers compared different early interventions with 2,297 U.S. Soldiers following a year long-deployment to Iraq. The platoons were randomly assigned three different intervention methods; standard post-deployment stress education, Battlemind debriefing, and small and large group Battlemind training. Standard Stress education involved traditional stress management strategies. Battlemind debriefings consisted of a type of psychological group debriefing adapted for this study which encourages “the team to share and talk out their emotional responses”.

Battlemind training (small and large groups) is based on findings from WRAIR research and uses examples that resonate with Soldiers, focuses on unit cohesion, identifies what peers and leaders can do to help unit members having difficulty with the transition home, and suggests specific actions. It emphasizes safety, relationships, and common physical, social, and psychological reactions to combat.<sup>48</sup>

Results from a four month follow-up with 1,060 participants showed those with high levels of combat exposure who received Battlemind debriefings, Small Group Battlemind, and Large Group Battlemind Training reported fewer post-traumatic symptoms than those in the standard stress education.<sup>49</sup> This included fewer post-traumatic symptoms such as depression, sleep problems, and lower levels of stigma.

This early post-deployment intervention is encouraging and appears more beneficial than the standard stress education normally received. The question is can Battlemind Debriefing and Battlemind Training produce similar results for Soldiers prior

to deploying? The Army must stay proactive in seeking preventative measures in safeguarding our Soldiers from mental health issues.

*Hardiness Assessment and Training.* Hardiness is a pattern of attitudes and skills that provides the courage and strategies to turn successful circumstances from potential disasters into growth opportunities.<sup>50</sup> The initial research linking hardiness with resilience included supervisors, managers, and decision-makers at Illinois Bell Telephone (IBT). After going through a 46% reduction in force from 26,000 employees to 14,000, data showed that two-thirds of the sample population struggled significantly while the other one-third actually thrived under these circumstances.<sup>51</sup>

The study found that one-third of resilient employees were characterized as high in hardiness attitudes of commitment, control, and challenge. Those high in commitment believed that, whatever the circumstances, it is best to stay involved with the people and events going on around you.<sup>52</sup> Those high in control believed that it is always best to struggle to have an influence on outcomes, even if that is problematic.<sup>53</sup> Those high in challenge believed that change is normal, and an opportunity to learn from the resulting experiences, positive or negative, so as to deepen one's understanding and wisdom about living.<sup>54</sup>

The results of this study also suggested that hardiness is learned and prompted the development of a hardiness training program. Hardiness training is generally conducted over several weekly sessions and results were impressive. The program is based on a workbook that includes coping, socially supportive interactions, and self-care exercises, plus a procedure for using the feedback from these efforts to deepen hardiness attitudes.<sup>55</sup>



In the past 25 years, hardiness has emerged as a set of personal characteristics that help people turn stressful circumstances from potential disasters into opportunities for enhanced performance, leadership, conduct, health, and psychological growth.<sup>56</sup> These personal characteristics can assist Soldiers in dealing with adversity pre-deployment, during deploying, and post-deployment. A 1999 study of military personnel in stressful conditions (e.g., combat and peace-keeping missions) found clear evidence that the higher the hardiness attitudes prior to mission, the lower likelihood of post-traumatic stress or depression disorders in response to life-threatening stresses in military engagements abroad.<sup>57</sup>

This study also found that hardiness attitudes emerged as the best predictor of transformational leadership, also known as charismatic leadership, over the 4 - year training of cadets at the United States Military Academy (USMA).<sup>58</sup> Other studies in fields outside the military provide insight into how to prepare Soldiers for combat.

Training with Combat Sport Athletes who compete in close quarters combat parallels that of a Soldier preparing for combat. Michael Gervais, Pinnacle Performance, uses Emotion Awareness and Regulation Training to prepare athletes for close quarters combat. He contends that in the arena of mixed martial arts (MMA) and boxing, the emotion of fear is a primary concern.<sup>59</sup> It is well accepted that the Autonomic Nervous System, and more accurately the Sympathetic Nervous System (SNS) is activated upon the appraisal of a “threat to survival,” otherwise known as the “fight or flight” response (e.g., tunnel vision, auditory exclusion, and the loss of fine and complex motor control).<sup>60</sup>

Gervais also contends that the degree and duration of the physiological effects of the SNS activation are moderated by the perception of threat, which is mitigated by the

particular emotional intelligence factors captured by subscales of the Emotional Quotient Inventory.<sup>61</sup> His work with boxing and MMA academies found that subscales of Stress Tolerance, Flexibility, Problem Solving, Optimism, Assertiveness, and Self-Regard are of particular applied relevance for combat sports athletes.<sup>62</sup>

Although combat in the ring during a MMA match and combat on the battlefield have much different potential consequences, the emotional intelligence factors are equally beneficial to both combat sports athletes and Soldiers.

### Strengthening Soldiers through Exposure

Fear in combat is common and combat definitely exposes the reality of death. However, fear and anxiety are reduced in combat when Soldiers engage in actions derived from their training experiences.<sup>63</sup> Over two-thirds of Silver Star recipients reported increased fear as a battle progressed.<sup>64</sup> While mental health professionals can assist commanders in strengthening through resilience; it is the commander's job to ensure their units conduct tough and realistic training that exposes their Soldiers to the conditions of battle.

Commanders can make a significant difference in strengthening their Soldiers through exposure by creating training environments that resemble the battlefield. Conducting live-fire exercises using man-shaped targets and including Initiative-Oriented training can achieve this effect. Commanders must also expose Soldiers to the carnage of combat to include blood and guts – Live-Tissue Training.

*Universal Human Phobia.* In order to properly train and prepare Soldiers for combat, we must understand that most participants in close combat are scared to death. Once the bullets start flying, and combatants slam “head-on” into the “universal human phobia,” they stop thinking with the forebrain (that portion of the brain which

makes us human) and start thinking with the midbrain (the primitive portion of our brain which is indistinguishable from that of an animal).<sup>65</sup>

In conflict situations this primitive, midbrain processing is observed in the existence of a powerful resistance to killing one's own kind – this is a key factor in human combat. General S.L.A. Marshall conducted numerous post combat interviews in WW II and concluded that only 15 to 20 percent of the individual riflemen in WW II fired their weapons at an exposed enemy Soldier.<sup>66</sup> Key weapons such as crew served weapons and flame throwers were almost always fired by their crews. Firing also increased if a nearby leader demanded the Soldier fire, however if no one was watching, the majority of individual combatants throughout history appear unable or unwilling to kill.<sup>67</sup>

In 1946, a revolution in combat training enabled Soldiers to overcome the resistance to killing. Army marksmanship training was changed from firing at target's with bull's eye to using man-shaped silhouette pop-up targets that fell when hit.<sup>68</sup> These silhouetted targets were believed to de-condition soldiers to the act of killing by using a psychological process known as "operant conditioning." By pairing both the firing of the weapon with the image through operant conditioning, the reduction in the fear response that influences the primitive, midbrain processing of a frightened human being is achieved.<sup>69</sup>

This revolution in combat training and basic conditioning technique increased the rate of fire to approximately 55 percent in Korea and around 95 percent in Vietnam.<sup>70</sup> By understanding these basic psychological concepts, commanders can continue to

conduct live-fire exercises throughout pre-deployment training to condition their Soldiers for combat regardless of MOS.

*Initiative-Oriented Training.* There is conclusive evidence for training that incorporates all of the components of Initiative-Oriented Training: environmental physical stressors, such as the sights, sounds, and smells of the battlefield; cognitive mental stressors, such as ambiguity, unpredictability, and sensory overload/deprivation; and an environment conducive to unleashing subordinates' initiative.<sup>71</sup> The need for this type of training is reflected in operational, leadership and combat stress doctrine and is substantiated by numerous studies and the reflections of combat veterans.<sup>72</sup>

*Live-Tissue Training (LTT).* LTT involves the purposeful wounding of anesthetized and unconscious animals (hogs, sheep, etc) that are meant to replicate the wounds Soldiers most often receive in combat; wounds from bullets and bomb fragments.<sup>73</sup> Medics and front-line troops maintain that this training provides the best preparation to save lives.<sup>74</sup>

During the 2<sup>nd</sup> Brigade, 2<sup>nd</sup> Infantry Division's (Stryker Brigade Combat Team) lessons learned conference, Soldiers requested more advance training due to the severity of the wounds they encountered. The SBCT recommended allowing more Soldiers to attend the Brigade Combat Team Trauma Training (BCT3) with 68Ws (Combat Medics) to assist with the "shock factor" of seeing blood on the battlefield for the first time.<sup>75</sup> In 2007, Major General Gale S. Pollock also testified to Congress about the benefits of LTT.<sup>76</sup>

LTT is a highly controversial and sensitive practice. People for the Ethical Treatment of Animals (PETA) and other animal rights groups contend it is inhumane

and unnecessary in this high-tech age with sophisticated mannequins and other simulators. Commander Brian Schumacher, the 1<sup>st</sup> Marine Division's top medical officer, stated after his Marines completed the training that, "As much as simulators are good, they don't capture the reality of true-life situation the way this training does. You can't replicate the visceral feeling with a simulator."<sup>77</sup>

LTT appears successful in treating casualties leading to medics and combat lifesavers becoming better prepared due to the training. It also appears to assist in the "shock factor" by exposing Soldiers to the blood and guts prior to combat. Unfortunately, no scientific data or study supports the successes of LTT – other than feedback from Soldiers who conducted the training.

*The Graphic Novel as a Combat Primer.* The Navy Health Research Center recently developed and began distributing a graphic novel, "The Docs" in response to studies that showed Navy corpsmen (medics) with a high degree of post deployment psychological strain. The target audience is corpsmen (age 18-24) deploying for the first time, however the book has utility for returning veterans.<sup>78</sup>

The book is an easy read of 200 pages and written in comic book style with drawings and captions that depict graphic wounds and a wide range of emotions. The language used echoes that commonly used by military personnel to include profanity – intentionally added to provide realism.<sup>79</sup> In part one, "Saying Goodbye," the book effectively captured the stress a deployment can have on a family – especially on the eve of a deployment.<sup>80</sup> Greg Goldstein, program manager for Marine Corps Combat & Operational Stress Control said, "This is not an instructional manual. It's an easy way to share information: a quick read, relevant, and realistic."<sup>81</sup> This book is an effective tool

to assist commanders in strengthening Soldiers through exposure – especially new and inexperienced Soldiers.

### The Human Dimension of Leadership.

Leadership can be a combat multiplier in preparing Soldiers for adversity prior to or during combat. Good leadership is linked to higher Soldier morale and cohesion and to fewer mental health problems.<sup>82</sup> A recent study conducted by researchers revealed that leadership styles help units perform well in simulated combat situations.<sup>83</sup>

Two styles of leadership, Transactional contingent reward and transformational, when used in combination, are good predictors of simulated Army platoon unit performances during times of high stress and uncertainty, according to a study on leadership styles and performance.<sup>84</sup> Transactional contingent reward leadership uses recognition and rewards for goals as motivating forces for its members. Transformational leadership builds personal and social identification among its members with the mission and goals of the leader and organization.<sup>85</sup>

The researchers examined 72 light infantry rifle platoon leaders and sergeants to see how these two leadership styles predicted their units' potency, cohesion and performance. A total of 1,594 Soldiers participated in a two-week combat simulation that included 11 missions – defense, movement to contact, and attack.<sup>86</sup>

In this study, both forms of leadership used by platoon leaders and sergeants brought potency, cohesion in the platoons, and success in the simulated training exercise and both appear necessary for good performance. According to the researchers, transactional contingent reward leadership establishes clear standards and expectations of performance, which builds the basis for trust in a leader.<sup>87</sup>

Transformational leadership builds on these initial levels of trust by establishing a

deeper sense of identification among followers with respect to the unit's values, mission, and vision.<sup>88</sup>

Fear in combat is common and one of the ways leaders help mitigate this fear is by admitting and joking about fear – to release tension.<sup>89</sup> There are numerous historical examples of great leaders using humor or their presence on the battlefield to minimize the fear in Soldiers.

General Eisenhower excelled in this capacity during World War II and epitomized how leadership can assist in creating psychologically resilient Soldiers. He spent about a third of his time visiting Soldiers during the War and routinely walked the lines, talking to Soldiers about their civilian life.

On one occasion he talked with a Soldier who, like Eisenhower, was a farmer. When the Soldier told Eisenhower he would get thirty – five bushels of wheat to the acre, Eisenhower replied, “Well, when the war is over I’m coming to you for a job.”<sup>90</sup> He would normally finish talking to a Soldier by saying, “Do me a favor, will you? Go and finish this war fast, so I can go fishing.”<sup>91</sup>

Eisenhower would speak to an entire formation using a loud speaker from his jeep emphasizing their importance by telling them they were the men that would win this war. He would say, “It is a privilege to be your commander.”<sup>92</sup>

On another occasion prior to the attack in Normandy, Eisenhower encountered a Soldier walking along the bank of the Rhine River. The Soldier looked depressed prompting Eisenhower to inquire how the Soldier was feeling. The Soldier replied, “General, I’m awful nervous because I was wounded two months ago and just got back from the hospital yesterday. I don’t feel so good.” Eisenhower comforted the Soldier

telling him he was nervous too. Eisenhower said, “But we’ve planned this attack for a long time and we’ve got all the planes, the guns, and the airborne troops we can use to smash the Germans. Maybe if we just walk along together to the river, we’ll be good for each other.”<sup>93</sup> There was always a pattern and purpose for Eisenhower’s visits and the Soldiers had a sense of gratification whenever he was around.

### Recommendations

Commanders must take ownership in building psychological resilience in their units. Each Commander needs to take responsibility and become more knowledgeable about this endeavor and educate all leaders in the unit. An effective way to educate leaders is by conducting Officer Professional Development (OPDs), Non-Commissioned Officer Professional Development (NCOPDs), and Leader Development sessions that include both officers and NCOs. The certified Battalion Master Resilient Trainer can assist the commander in developing and instructing these sessions.

Battlemind debriefings, Small Group Battlemind, and Large Group Battlemind have resulted in post-traumatic growth in Soldiers during intervention after redeployment. The Army should commission research on a random sample of Soldiers prior to deploying, similar in scope to the original test, and incorporate these techniques to determine if this post-deployment intervention has utility during pre-deployment.

The Comprehensive Soldier Fitness Program is preparing Soldiers to deal with adversity. However, the hardiness assessment and training is relevant to the military as a force multiplier in assisting commanders in building psychological resilience in their units. The Army should commission a study to determine the effectiveness of including hardiness training on a select population of Soldiers.



Live-Tissue Training assists commanders with providing the “shock factor” to Soldiers seeing blood and guts for the first time during this training. This training is controversial in part because no study has been conducted to support what commanders and Soldiers are saying – the training is effective and prepares Soldiers by exposing them to graphic wounds prior to combat, and by increasing their ability and proficiency in providing medical care to wounded Soldiers on the battlefield. The Army should commission a study to determine if LTT is beneficial to Soldiers prior to deploying to combat.

Mental Health Screening in some form was utilized by armies throughout history to determine which Soldiers were fit for combat duty but just as importantly, to determine who “was not” fit for combat duty. The Army should consider using Mental Health Screening with new recruits, similar to the Navy SEALs, to identify Soldiers with the desired traits to thrive under the adversity and mental trauma of combat exposure, as well as, identify those who already have pre-existing mental health issues.

### Conclusions

In the past, commanders struggled to find training events that assisted in creating psychological resilience in their formations – resources were extremely limited. The Army now has many resources available to assist commanders in this endeavor – these resources must be a top priority. Although the mental health professionals can assist in creating psychologically resilient Soldiers, it is the Commander’s responsibility to achieve this effect. Commanders can make a difference by understanding how to build a psychologically resilient force.

Commanders must be proactive during pre-deployment in providing their Soldiers the training and skills needed to cope with the adverse conditions of combat. Mental

Health Screening is essential and research has shown that when done correctly, it can significantly reduce mental health issues with Soldiers. Commanders must leverage and ensure resiliency training benefits those they lead.

Although the War in Iraq has officially ended, operations in Afghanistan continue. Commanders must utilize all the assets available during pre-deployment in preparing their Soldiers for the adversities in combat – these skills will also assist them in their personal lives. The combination of effective Mental Health Screening, Strengthening through Resilience and exposure, and outstanding leadership can produce the desired effect we want – psychologically resilient formations and a leader who knows how to build a psychological resilient unit.

## Endnotes

<sup>1</sup> George W. Casey Jr., “Comprehensive Soldier Fitness: A Vision for Psychological Resilience in the U.S. Army,” *American Psychologist*, Vol. 66, no. 1, 1-3 (January 2011): 3.

<sup>2</sup> I Commanded 1<sup>st</sup> Battalion, 38<sup>th</sup> Infantry Stryker (SBCT) during this deployment and this insight is based on my personal experience and observation of this event.

<sup>3</sup> National Geographic Entertainment, *Restrepo: One Platoon, One Valley, One Year*, Feature-Length Documentary.

<sup>4</sup> Ibid.

<sup>5</sup> United States Army, *Health Promotion, Risk Reduction, Suicide Prevention, Report 2010*, Interactive Edition, 26.

<sup>6</sup> Ibid.

<sup>7</sup> Terri Tanielian and Lisa H. Jaycox, “Stop Loss: A Nation Weighs the Tangible Consequences of Invisible Combat Wounds,” (Rand review Summer 2008): <http://www.rand.org/publications/randreview/issues/summer2008/wounds1.html> (accessed February 12, 2011).

<sup>8</sup> Ibid.

<sup>9</sup> United States Army, *Health Promotion, Risk Reduction, Suicide Prevention, Report 2010*, 26.

<sup>10</sup> Tanielian, "Stop Loss," 1.

<sup>11</sup> Will Durant, *The Story of Civilization: The Life of Greece* (New York: Simon and Schuster, 1939), 81.

<sup>12</sup> The History Channel, *Last Stand of the 300. The Legendary Battle of Thermopylae*, DVD

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> John Keegan, *The Mask of Command* (New York, NY: Penguin Group, 1987), 90.

<sup>16</sup> Ibid., 58

<sup>17</sup> McGuire F, "Army Alpha and Beta Tests of Intelligence" *Encyclopedia of Intelligence*, vol 1. Edited by Sternberg RJ (New York, NY: Macmillan, 1994), 125-129.

<sup>18</sup> Ibid.

<sup>19</sup> Christopher H. Warner et al., "Effectiveness of Mental Health Screening and Coordination of In-Theater Care Prior to Deployment to Iraq: A Cohort Study," *American Journal Psychiatry in Advance* (January 18, 2011): 1

<sup>20</sup> Bob Brewin, "Pre-deployment Health Screening Reduces Behavioral Problems, Study Shows: Broken Warriors Examining the Invisible Wounds of War," January 21, 2011, [http://www.nextgov.com/nextgov/ng\\_20110121\\_1012.php?oref=topstory](http://www.nextgov.com/nextgov/ng_20110121_1012.php?oref=topstory) (accessed February 15, 2011).

<sup>21</sup> Warner et al., "A Cohort Study," 1.

<sup>22</sup> Ibid., 7.

<sup>23</sup> Brewin, "Pre-deployment Health Screening Reduces Behavioral Problems, Study Shows".

<sup>24</sup> CDR Eric G. Potterat, U.S. Navy, Head Psychologist, Naval Special Warfare Group 1 (West Coast SEALs), interview by author, December 21, 2010.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>28</sup> Ibid.

<sup>29</sup> CPT Clayton T. Manning, U.S. Army, Regimental Psychologist, 75<sup>th</sup> Ranger Regiment, interview by author, December 16, 2010.

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> Casey, "Comprehensive Soldier Fitness," 1.

<sup>34</sup> Walter Reed Army Institute of Research U.S. Army Medical Research and Materiel Command, *10 Tough Facts About Combat: What Leaders Can Do To Mitigate Risk and Build Resiliency* (Washington, DC: WRAIR Land Combat Study Team).

<sup>35</sup> Ibid.

<sup>36</sup> Casey, "Comprehensive Soldier Fitness," 1.

<sup>37</sup> *The United States Army Home Page, Comprehensive Soldier Fitness*, <http://www.army.mil/csf> (accessed February 15, 2011).

<sup>38</sup> Ibid.

<sup>39</sup> Casey, "Comprehensive Soldier Fitness," 1.

<sup>40</sup> SFC Manuel Torres-Cortez, "Army Master Resilience Training Course Provides Valued Instruction," March 29, 2010, linked from *The United States Army Home Page* at "News Front Page," <http://www.army.mil/-news/2010/03/29/36520-army-master-resilience-training-course-provides-valued-instruction/>

<sup>41</sup> *Comprehensive Soldier Fitness*, <http://www.army.mil/csf>

<sup>42</sup> Casey, "Comprehensive Soldier Fitness," 1.

<sup>43</sup> Michele A. Hovland, Reintegration of National Guard Soldiers with Post-Traumatic Stress Disorder, Strategy Research Project (Carlisle Barracks, PA: U.S. Army War College, March 18, 2010), 16.

<sup>44</sup> Richard G. Tedeschi and Richard J. McNally, "Can We Facilitate Posttraumatic Growth in Combat Veterans?", *American Psychologist*, vol. 66, no. 1 (January 2011): 19.

<sup>45</sup> Charles W. Hoge et al., "Combat Duty in Iraq and Afghanistan, Mental Health Problems, and Barriers to Care," July 1, 2004, linked from *The New England Journal of Medicine*, Vol. 351, no 1, <http://content.nejm.org/cgi/content/full/351/1/13> (accessed February 15, 2011)

<sup>46</sup> Ibid.

<sup>47</sup> Amy B. Adler et al., "Battlemind Debriefing and Battlemind Training as Early Interventions With Soldiers Returning From Iraq: Randomization by Platoon," *Journal of Consulting and Clinical Psychology*, vol. 77, no 5, 928-940 (June 9, 2009): 1.

<sup>48</sup> Hoge et al., "Combat Duty in Iraq and Afghanistan,".

<sup>49</sup> Alder et al., "Battlemind Debriefing and Battlemind Training": 936.

<sup>50</sup> Salvatore R. Maddi, "Relevance of Hardiness Assessment and Training to the Military Content," *Military Psychology*, 19: 1 (August 11, 2010): 61.

<sup>51</sup> *Ibid.*, 62.

<sup>52</sup> *Ibid.*

<sup>53</sup> *Ibid.*

<sup>54</sup> *Ibid.*, 63.

<sup>55</sup> *Ibid.*, 67.

<sup>56</sup> *Ibid.*

<sup>57</sup> *Ibid.*, 65.

<sup>58</sup> *Ibid.*, 66.

<sup>59</sup> Michael Gervais, *Emotion Awareness and Regulation Training With Combat Sport Athletes*, (American Psychology Association 2009 Convention Presentation)

<sup>60</sup> *Ibid.*

<sup>61</sup> *Ibid.*

<sup>62</sup> *Ibid.*

<sup>63</sup> Walter Reed Army Institute of Research U.S. Army Medical Research and Materiel Command, "10 Tough Facts About Combat,".

<sup>64</sup> *Ibid.*

<sup>65</sup> Dave Grossman, "On Killing II: The Psychological Cost of Learning to Kill," *International Journal of Emergency Mental Health* 3 (3) (2001): 138.

<sup>66</sup> *Ibid.*, 139.

<sup>67</sup> *Ibid.*

<sup>68</sup> *Ibid.*

<sup>69</sup> *Ibid.*

<sup>70</sup> *Ibid.*

<sup>71</sup> James C. Larsen, *Initiative-Oriented Training*, Masters of Military Art and Science (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, June 5, 1998), 46.

<sup>72</sup> *Ibid.*

<sup>73</sup> Mark Walker, "Marine Corps Lifts Veil on 'Live Tissue Training' North County Times, August 2009, [http://www.nctimes.com/news/local/military/article\\_9a50803f-b16c-53cc-a073-37e445bd4847.html](http://www.nctimes.com/news/local/military/article_9a50803f-b16c-53cc-a073-37e445bd4847.html) (accessed December 21, 2010)

<sup>74</sup> Ibid.

<sup>75</sup> Craig R. Andrews, Lessons Learned Division, "Trip Report for 2/2 Stryker Brigade Combat Team (SBCT), Joint Base Lewis-McChord, After Action Review Collection," memorandum for Chief, Concepts and Requirements Division, Directorate of Combat and Doctrine Development, U.S. Army Medical Department Center and School, Fort Sam Houston, TX, August 30, 2010.

<sup>76</sup> On March 27, 2007 Major General Gale S. Pollock testified to the 110<sup>th</sup> Congress that, "To date, more than 17,000 Combat Medics received training in Medical Simulation Training Centers that use computerized mannequins that stimulate human response to trauma. Use of live-tissue training best simulates the challenges and stress of stopping actual bleeding.

<sup>77</sup> Walker, "Marine Live Tissue Training," 4.

<sup>78</sup> Tony Perry, "The Graphic Novel As A Combat Primer," Los Angeles Times, October 22, 2010.

<sup>79</sup> Ibid.

<sup>80</sup> The Naval Health Research Center, (Heidi Kraft, Russ Peeler, and Jerry Lawson), *The Docs: A Graphic Novel* (United States: RTI International, April 2010), 29.

<sup>81</sup> Perry, "The Docs: The Graphic Novel".

<sup>82</sup> Walter Reed Army Institute of Research U.S. Army Medical Research and Materiel Command, "10 Tough Facts About Combat,".

<sup>83</sup> Bruce J. Avolio and Bernard M. Bass, *Leadership Styles That Use Rewards and Shared Values Help Platoons Perform Well In Simulated Combat Situations: Implications for Leadership Training in the Military*, Journal of Applied Psychology, vol. 88, no. 2 (2003): 1

<sup>84</sup> Ibid.

<sup>85</sup> Ibid.

<sup>86</sup> Ibid.

<sup>87</sup> Ibid.

<sup>88</sup> Ibid.

<sup>89</sup> Walter Reed Army Institute of Research U.S. Army Medical Research and Materiel Command, "10 Tough Facts About Combat,".

<sup>90</sup> Edgar F. Puryear Jr., *American Generalship, Character is Everything: The Art of Command* (Presidio Press, 2000), 78.

<sup>91</sup> Ibid.

<sup>92</sup> Ibid.

<sup>93</sup> Ibid., 78-79.

