

**RESILIENCY BUILDING AS A MEANS TO PREVENT PTSD AND
RELATED ADJUSTMENT PROBLEMS IN MILITARY PERSONNEL**

**Donald Meichenbaum, Ph.D.
Distinguished Professor Emeritus,
University of Waterloo, Ontario, Canada**

and

**Research Director of the
Melissa Institute for Violence Prevention
Miami, Florida**

**Chapter to appear in B. Moore and W. Penk (Eds.) Handbook for Treating PTSD in
Military Personnel. New York: Guilford Press.**

Recently, Public Broadcasting System program Frontline presented a documentary, “The Wounded Platoon” which told the story of the men of the Third Platoon, Charlie Company, who returned to Fort Carson, Colorado. (see PBS.org to view this documentary). This 1 hour 26 minute film highlighted the tragic story of the incidence of some 20 suicides and 12 homicidal violent acts by returning soldiers. The intended message is that this is the aftermath that soldiers experience as a result of combat exposure. “This is a normal reaction to an abnormal situation,” as one counselor tells a distressed soldier. One has to wait 1 hour and 18 minutes to hear the rest of the story. At this point in the moving and dramatic account, nine returning soldiers attend the reunion funeral of their squad leader, who died in combat. As the narrator comments in passing, these soldiers are “living productive lives,” pursuing their educations, happily married, raising families, some are still working with the military as instructors. In fact, the PBS website has included pictures of all members of the Third Platoon. One can click on the many faces and learn of their current level of adjustment and resilience.

Their courage, sense of honor, and loyalty is a story that is worth telling and is one that has been supported repeatedly by the research literature. An examination of Table 1, which summarizes illustrative research findings on resilience in returning warriors, raises a challenging question: What distinguishes those soldiers who develop post traumatic stress disorder and related post-deployment adjustment problems (anxiety, depression, substance abuse, aggressive behaviors toward themselves and others, moral injuries, and the like) from those who evidence resilience? Moreover, what are the implications for both preventative resiliency training programs and treatment interventions?

In this chapter, I :

1. Consider the concept of resilience.

2. Examine the research findings on resilient soldiers who endured combat exposure, were prisoners of war and had war-related experiences and consider the lessons learned.
3. Provide an algorithm or formula for what returning warriors have TO DO and NOT DO in order to develop chronic PTSD and related adjustment difficulties and consider the implications for interventions.
4. Consider the efforts to train and bolster resilience in soldiers and their family members.
5. Explore what needs to be included in such well-intended intervention efforts if they are going to prove successful and reduce PTSD and related adjustment difficulties.

This chapter is about “the rest of the story” that the media often do not highlight. It is both a riveting and an uplifting tale.

WHAT IS RESILIENCE?

Resilience has numerous definitions and meanings. It is more than the absence of symptoms. Resilience generally refers to a pattern of adaptation in the context of risk adversity. Resilience has been characterized as the ability to “bounce back” from adversities, “bend, but not break” under extreme stress, handle setbacks, and persevere in spite of ongoing stresses and even when things go awry.¹ Resilience has been characterized as a set of good outcomes that occur in spite of serious threats to adaptation or development and as specific coping skills that are marshalled when faced with challenging situations.

The concept of resilience is often linked with the notion of sustainability, which refers to the ability to continue forward and maintain equilibrium in the face of chronic adversity. Resilience is tied to the ability to learn to live with ongoing fear and uncertainty and the ability to adapt to difficult and challenging life experiences.

Following the exposure to traumatic events, most people readjust successfully. Resilience is more the rule than the exception, more common than rare. Moreover, resilience is not a sign of exceptional strength, but a fundamental feature of normal coping skills, or what Masten (2001) characterizes as “ordinary magic”.

Research has indicated that resilience develops over time and that its expression may be a slow developmental process. An individual may be resilient with respect to some kinds of stressors but not others; in one context or in one area of life but not in others; at one time in life but not at other times (Mancini & Bonanno, 2010; Meichenbaum, 2009a). It is also important to recognize that positive and negative emotions may co-occur, following exposure to traumatic events operating side-by-side, (Lyubomirsky & Della Porta, 2010; Moskowitz, 2010). There are multiple pathways to resilience, with no single dominant factor, or “magic bullet”, that determines it. Rather, resilience-engendering activities need to be “practiced” and “replenished” on a daily basis, like a set of muscles that has to be exercised regularly, so that such coping responses become automatic and incorporated into one’s repertoire. (Muraven and Baumeister, 2000).

The evidence for resilience following trauma exposure is evident in civilian populations as well. Antonovsky (1987), Bonanno (2004), Helgeson et al (2006), Johnson and Thompson (2008), Mancini and Bonnano (2010), Ryff and Singer (2003), and Sawyer et al (2010) review data from Holocaust survivors, bereaved individuals, cancer and HIV/AIDS survivors, torture victims, victims of sexual abuse, or rape, and survivors of terrorist attacks and natural disasters who evidence remarkable resilience. As time passes, some individuals report in retrospect that their lives are somehow improved because of their exposure to a traumatic event. Their resultant outcomes have been characterized as “posttraumatic growth” (Calhoun & Tedeschi, 2006). They report that they have benefited and been transformed by their struggle with adversities. They report such benefits as the development of self-

discipline, increasing their stress tolerance and self confidence, broadening their perspective on life, change in life priorities, improved relationships, and an increased sense of spirituality.

Two prominent examples highlight the widespread incidence of resilience following trauma exposure. Some 50% - 60% of adults in the U.S. are exposed to traumatic events, but only 5% - 10% develop PTSD and related clinical problems (Kessler et al., 1997). Following the September 11 terrorist attacks in New York City, only 7.5% of Manhattan residents evidenced clinical problems, and this rate dropped to less than 1% at 6 months. (Bonanno, 2004). A similar pattern of resilience was evident in residents in London England, following the subway terrorist attack of July 7, 2005. Less than 1% of those who were directly affected sought professional help. Most people, following such attacks, were able to turn to natural social supports and to their faith for comfort, support, and growth (Charuvastra & Cloitre, 2008; Pargament & Cummings, 2010). As Levin (2006, p. 20) observes

“Resilience, rather than pathology should become the standard expectation in the aftermath of trauma.”

What Characterizes Resilient Individuals?

Much research has been conducted to identify the characteristics of resilient individuals who have experienced combat or who have been prisoners of war (Bartone, 1999; Benotsch et al. 2000; Burkett & Whitley, 1998; Erbes et al., 2005; Hunter, 1993; King et al., 1998; Litz, 2007; Satel, 2005; Sharansky et al., 2000; Southwick et al. 2005, Sutker et al. 1995; Waysman et al., 2001; Zakin et al., 2003).

The search for mediating and moderating factors and processes that have contributed to resilience has ranged from the biological heritable underpinnings of resilience. (Haglund et al., 2007; Reich et al., 2010) to the broader social domain (Morgillo-Freeman et al., 2009). The need to incorporate the social context is highlighted by the observation that resilience rests fundamentally on relationships, both the perceived and actually received amount and quality of social supports

(Charuvastra & Cloitre, 2008; Masten, 2001). The degree of social capital and resources available is a critical contributor to the development of resilience and sustainability (Hobfoll, 2002). Thus, the concept of resilience needs to be extended to include resilient families (Hall, 2008; Henderson, 2006) resilient organizations (Denhardt & Denhardt, 2010), and resilient communities (Kretzmann, 2010). The intervention implications of this ecological conceptualization of resilience are considered later.

A favorite pastime for mental health workers is to generate a checklist of behaviors or essential skills that promote natural recovery following trauma exposure and that bolster resilience (e.g., Kent and Davis, 2010; Milne, 2007; Reivich & Shatte, 2002, and see such websites as www.asu.edu/resilience).

Table 2 provides a composite summary of the psychological characteristics or qualities of resilient individuals.

Behaviors That Contribute To The Development of Chronic PTSD and Related Adjustment Problems

PTSD has been characterized as a “disorder of nonrecovery”, as most individuals recover from the aftermath of trauma exposure over time. If 80% or more of returning soldiers evidence resilience and lead productive lives, what factors account for the other 20% evidencing chronic clinical problems (Hoge et al., 2004; Taniellan & Jaycox, 2008), as well as the alarming rate of suicidal behavior (Brenner et al. 2008; Scoville et al. 2007; Staal & Hughes, 2002)? The answer to this challenging question is complex because it involves premilitary factors (e.g. previous vulnerabilities, prior psychopathology, experience of prior trauma events), combat factors, (e.g., multiple deployments, poor combat leadership, absence of unit cohesion, injuries with comorbid disorders), and postdeployment factors (e.g., posttrauma additional stressful life events, homecoming stress, absence of social supports). Elsewhere, I have discussed how these various factors can be incorporated into a Case

Conceptualization Model that informs both assessment and treatment decision making (Meichenbaum, 2009b).

Presently, the focus is on what returning soldiers and significant others in their lives have TO DO and NOT DO in order to develop and maintain chronic adjustment problems. I then consider the implications for resiliency training programs. The list of self-sustaining factors and processes identified in Table 3 is informed by research findings of Ebert and Dyck (2004), Ehlers and Clark (2000), Folkman and Moskowitz, (2000), Harvey and Tummala-Narra (2007), Helgeson et al. (2006), King et al. (1998), Maeraker and Zoellner (2004), Pargament and Cummings (2010); Park and Folkman (1997), Smith and Alloy (2009), and Watkins (2008).

In the same way that there is no one pathway to resilience, there is no particular algorithm that contributes to the persistence of chronic PTSD and related problems. It is the combination of cognitive, emotional, behavioral, social, and spiritual processes that contribute to chronic PTSD and accompanying adjustment problems.

Addressing the Psychological Needs of Soldiers

The U.S. military has a long and successful tradition of implementing programs designed to identify, treat, and prevent war-related stress reactions. Since World War I, the military has implemented the doctrine of Combat Stress Control. At that time, the U.S. Army attached a psychiatrist to each Division with the role of advising command on the prevention of stress casualties and increasing the likelihood of return of soldiers to duty whenever possible.

In this tradition a number of predeployment, deployment, and postdeployment training programs, informational resources, and support agencies have been established (for example, see Military One Source and the Marine Corps website www.manpower.usmc.mil.com.) The Veterans Administration has also developed websites for returning soldiers and their family members designed

to facilitate the transition to civilian life (www.mentalhealth.va.gov) and the RE-SET program (harold.kudler@va.gov). Penk and Ainspan (2009) provide an extensive list of military and community-based programs and resources designed to address stress-related reactions in soldiers and their family members.

The most recent major effort in this tradition is the preventative program BATTLEMIND, developed by the Walter Reed Army Institute of Research led by Colonel Carl Castro (Castro, 2006; www.BATTLEMIND.army.mil). This program is designed to boost resilience before deployment and to help soldiers and their family members adjust to life back home. The warrior is taught that BATTLEMIND is an inner strength for facing fear and adversity in combat and for applying these skills in the transition to civilian life with courage and adaptability. The program includes self-development in four key areas of emotional, social, spiritual, and family well-being. There is a set of training modules implemented at 3 and 6 months following deployment, after the “honeymoon” homecoming period has ended. There has also been a parallel BATTLEMIND set of resilience-enhancing modules for spouses and family members.

BATTLEMIND is an acronym, in which each letter stands for a different set of coping skills that would help soldiers survive in combat but could prove problematic when carried over to life at home. Table 4 provides a description of the 10 specific mental skills and how these strengths in combat could represent a “stuckness” problem when maintained in a civilian setting. The sentence ***“BATTLEMIND skills helped you survive in combat, but they can cause you problems if not adapted when you get home”*** (from *Battlemind training brochure*) is an example of what is called “negative transfer.” In working with members of the National Guard, we have identified what aspects of military life could be “positively transferred” back to civilian life. Table 5 summarizes the acronym H-SLIDER which reflects the character traits and mindset that soldiers bring home from combat. We

have asked returning soldiers to share examples of these characteristics, “strengths,” and lessons learned that can be posted on a website (www.warfighterdiaries.com) that soldiers can download to an iPod. There is an effort to make this website interactive so that soldiers and family members can submit their examples of “signs of resilience.” This is an example of the “rest of the story,” being told by returning soldiers.

The BATTLEMIND and H-SLIDER programs focus on soldiers relearning adaptive civilian habits that facilitate transition while retaining the discipline, safety habits, and mental focus that characterized them in combat. Moreover, returning soldiers could make a “gift” of their ennobling experiences to civilians.

Although the initial results of the BATTLEMIND program have been encouraging, more comprehensive evaluations are warranted. These evaluations have included interventions that compare large and small group Battlemind training versus stress education classes (Adler, Bliese, McGurk, Hoge & Castro, 2009).

Most recently, the urgency for preventative resiliency training has been highlighted by the high incidence of suicides in the military (Brenner et al., 2008; Scoville et al., 2007; Selby et al., 2010). Army Chief of Staff General George Casey Jr. has initiated a “comprehensive soldier fitness program” with a budget of \$120 million. This program is designed to address physical, emotional, social, spiritual, and family needs. This program addresses bringing “mental fitness” up to the level of effort for developing physical fitness and provides soldiers and family members with the skills and attitudes they need to be more resilient (Mash et al. 2011).

What have we learned from the literature reviewed in this chapter that can be applied to improving resiliency training programs and reducing PTSD and related adjustment problems?

Intervention Implications For Resiliency Training Programs

Space limits my full discussion of each of these training implications, so they are enumerated in a training checklist manner.

1. Because resilience develops gradually and varies across response domains and contexts, resiliency training programs need to be implemented across the entire deployment cycle, from predeployment through redeployment. Each phase has its own unique set of task demands that require distinct resilience skills. Anticipatory problem solving, proactive coping efforts, and stress inoculation skills training procedures can be built into the training regimen (Meichenbaum, 2006, 2007).
2. Because the basic building block of resilience is social relationships, family members need to be included from the outset of any training program, and “rear guard” interventions need to be maintained throughout the entire deployment cycle and tailored to whether one is dealing with the family members of active-duty or National Guard members. Israeli studies found that the strongest factor that distinguished between soldiers who were decorated for heroic acts and soldiers who were battle casualties was how many and how well they handled home-front stressors (e.g., “Dear John” letters, sick parent or child, bad debts). Worrying about what was going on back home, distracted soldiers from focusing on the demands of combat (Solomon, Waysman, Neria, Orly, Schwarzwald & Wiener, 1999; Zakin et al., 2003).
3. Because the deployment of resilience is so contextually and ecologically influenced, there needs to be an equal emphasis on creating resilience-engendering organizations and communities.. Any attempts by the military to bolster soldiers’ psychological and mental fitness needs to focus on organizational issues such as removing barriers to and stigma about help-seeking behaviors, reduction of sexual harassment and abuse, provision of support

services, adequate time periods between deployments, reduction of the number of multiple deployments, improved combat leadership, increased level of unit cohesion, and the like. The Mental Health Advisory Team (2008) reported that ***“positive leadership may be the panacea or silver bullet for sustaining the mental health and well-being of the deployed forces” (p. 79)***. Soldiers who became casualties of war were more often committed to battle with strangers, whereas those who proved to be “heroes” fought alongside unit members they knew well, trained with and felt responsible in whom they took special pride and depended upon. High unit cohesion and good leadership that elicits confidence, provides good communication, and instills a belief in the objectives of the mission have been found to nurture resilience. The Marine Corps website provides multiple examples of such organizational features that contribute to resilience, even going back to Julius Caesar’s famous and elite Tenth Unit which wore the Golden Eagle standard insignia. What keeps soldiers in battle and willing to face the fear of death and injury is, above all else, their loyalty to their fellow soldiers. Once again, it is personal bonding that is the backbone of resilience training.

Any resiliency training program needs to be focused upon the various levels of the organization, from the top down (Nash, Krantz, Stein, Westphal & Litz, 2011). Just teaching frontline soldiers a variety of coping skills without changing the organizational supports will have limited benefits. Moreover, community networks of former veterans and others can help returning service members with readjustment.

4. Because soldiers enter the service with varied preexisting vulnerabilities and specific needs (e.g., dual military families, single parents, prior psychopathology, trauma exposure, and the like), there is a need to be able to tailor and individualize resiliency training programs.

Research has indicated that soldiers with low levels of psychological health prior to combat had

2 - 3 times the risk of developing PTSD after deployment compared to those with higher baseline mental health behaviors (King et al., 1998; Southwick et al., 2005).

5. Because research indicates the variety of risk and protective factors and the mechanisms that distinguish resilient individuals (80%) from those (20%) who become combat casualties, there is a need to educate and incorporate these factors into training and treatment and to change the social norm and expectations about the outcome of military service. There is an urgent need to educate the media so they do not “sensationalize” combat casualties. Perhaps in the future PBS Frontline will tell “the rest of the story” about resilience. This educational information about resilience can also be built into assessment and training programs. For example, when soldiers return from combat they presently are assessed routinely on the Post Deployment Health Assessment (PDHA) and then Post Deployment Health Reassessment (PDHRA). I am presently working with the National Guard in developing a computer-based self-assessment checklist of resiliency-enhancing activities in the physical, interpersonal, emotional, cognitive, behavioral and spiritual areas, each accompanied by modeling films of soldiers discussing and demonstrating these coping skills in action. There is a need to build practical measures of resiliency into the military assessment routine. As the adage goes, “What gets measured, gets implemented.” The inclusion of such tools conveys an expectation that resilience is the norm.
6. Because the incidence of PTSD , suicidality and related adjustment problems persist despite the innumerable intervention programs and advice books for returning soldiers and their family members, there is a need for a careful analysis of why these programs are not more effective (i.e., , see programs and books by Armstrong et al., 2006; Drescher et al., 2004, 2009; Fava, 1994; Frankl, 1984; Hall, 2008; Lepore & Smyth, 2006; Litz et al. 2007; Litz & Schlenger, 2009; Lyubomirsky, 2008; Maddi, 1999; Matthews, 2009; Moore & Kennedy, 2010; Reivich

& Shatte, 2002; Seligman et al., 2005; Skovholt, 2001; Slone & Friedman, 2008; Taylor, 2009; Tick, 2005; and many others). The question is why aren't these multiple resources more effective in reaching those who are most high risk? There is a need to make this useful information more accessible and user-friendly. There is a need to conduct a barrier analysis of what gets in the way of implementing resilience-enhancing skills. Research on predictors of combat casualties indicates that it is not the personality characteristics of the individual soldiers but rather the social contextual factors that undermine their implementation (Reich et al. 2010). Moreover, when such resiliency training programs are conducted, there is an explicit need not to just "train and hope" for generalization and maintenance of treatment effects, but to explicitly build into the training regimen explicit guidelines to enhance the likelihood of transfer (*see www.melissainstitute.org for an enumeration of ways to conduct such training programs*).

Finally, when we consider one of the more effective means of treating soldiers with PTSD, namely, cognitive-behavioral therapy (CBT), it is worth concluding with the observation offered by Brewin and Holmes (2003). They propose that CBT interventions do not directly modify negative information in memory; but rather, they influence the relative retrievability of the different meanings in memory. It is the strengthening of positive representations that are in retrieval competition with negative representations that is the major target of cognitive-behavioral interventions. In short, CBT challenges, cajoles, assists, and nurtures the recall and implementation of a different narrative of resilience, of strengths, courage and adaptability that is the norm following trauma exposure. This is the story that PBS Frontline needs to tell and retell.

TABLE 1**ILLUSTRATIVE DATA OF RESILIENCE IN RETURNING WARRIORS**

- Research has continually shown that from the time of World War I, veterans as a group resume normal lives, are less likely to be incarcerated, have higher education and generally achieve more success upon return to the civilian world than do their nonserving peers (Grossman & Christensen, 2007; Reich et al., 2010).
- Following combat exposure, somewhere between 10 and 20% of soldiers may evidence PTSD, depression, anxiety and related problems. But the majority (>80%) do not (Hoge et al., 2004; Litz, 2007; Tanielian & Jaycox, 2008).
- The majority of Vietnam veterans (70%) appraised the impact of their service on their present lives as “mainly positive.” Over 40% of the veterans felt that the war’s influence was still highly important in their lives. (Dohrenwend et al., 2004; Elder & Clipp, 1989; Fontana & Rosenheck, 1998).
- The vast majority of Vietnam veterans were as well adjusted as or even more successful than their nonserving civilian peers (Burkett & Whitely, 1998; Dohrenwend et al. 2006).
- Studies of enlisted service members in Vietnam indicated that 10 to 15% used narcotics, but follow-up assessments back home indicated only an incidence of 1% of continual addictive behaviors (Robins et al. 1974; Burkett & Whitely, 1998).
- In fact, many soldiers report experiencing “combat flow” and enhanced meaning and comradeship (“band of brothers”) as a result of their combat experience. They report feeling an energized focus, full involvement (“in the zone, or groove”, “on the ball”), heightened pride and patriotism as a result of their military experience (Harari, 2008; Schok et al. 2008).

- A study of soldiers and families in Operation Desert Storm found that 62 to 73% of respondents felt that they had readjusted to family life within 1 month after return home; 17% to 21% had readjusted after several months; and only 8 to 17% were still adjusting two years after return (single parents being the largest group) (Caliber Associates, 2007).
- A survey of army spouses indicated that some 58% believed that deployment had strengthened their marriages, that 31% believed it had no effect, and that only 10% felt it had weakened their marriages. (Caliber Associates, 2007; Henderson, 2006).
- Although deployment can be quite stressful, many families report that outcomes of these deployments have included the development of new skills and competences, as well as a sense of independence and self-reliance. (Caliber Associates, 2007; Hall, 2008).
- Children in military families are typically resilient even after experiencing significant trauma and family deaths (Morgillo-Freeman et al. 2009).

TABLE 2

Psychological Characteristics of Resilient Individuals

Experience of Positive Emotions and Regulation of Strong Negative Emotions

Being realistically optimistic, hopeful, able to laugh at oneself, humor, courage, able to face one's fears and manage emotions. Positive expectations about the future. Positive self-image. Build on existing strengths, talents and social supports.

Adaptive Task-Oriented Coping Style

Able to match one's coping skills - - namely direct action present-focused and emotionally palliative-acceptance with the demands of the situation. Able to actively seek help and garner social supports. Having a resilient role model, even a heroic figure who can act as a mentor. Have self-efficacy and a belief that one can control one's environment effectively. Self-confidence. Seeking out new and challenging experiences out of one's "comfort zone" and evidence "grit" or the perseverance and passion to pursue long-term goals.

Cognitive Flexibility

Able to reframe, redefine, restory, find benefits, engage in social problem solving and alternative thinking to adaptively meet changing demands and handle transitional stressors.

Meaning-Making

Able to create meaning and a purpose in life; survivor's mission. Using one's faith, spirituality and values as a "moral compass". Being altruistic and making a "gift" of one's experience. Sharing one's story. Having a general sense of trust in others.

Keeping Fit and Safe

Exercise, follow a routine, reduce risks, avoid unsafe high-risk behaviors (substance abuse, chasing "adrenaline rush" activities)

TABLE 3**“HOW TO” DEVELOP PERSISTENT PTSD and RELATED ADJUSTMENT PROBLEMS**At the Cognitive Level

Engage in self-focused, “mental defeating” type of thinking. Perspective that one has lost autonomy as a human being, lost the will to exert control and maintain identity, lost the belief that one has a “free will.” “See oneself as a victim,” controlled by uninvited thoughts, feelings, and circumstances, continually vulnerable, unlovable, undesirable, unworthy. Use dramatic metaphors that reinforce this style of thinking. “I am a prisoner of the past”, “entrapped”, “contaminated”, “damaged goods”, “a doormat”, “a pariah”. A form of mental exhaustion, mental weariness.

Hold erroneous beliefs that changes are permanent, the world is unsafe, and unpredictable, and that people are untrustworthy. Hold a negative, foreshortened view of the future and the belief that life has lost its meaning.

Engage in self-berating, self-condemnation, self-derogatory “story telling” to oneself and to others (i.e., self blame, guilt-engendering hindsight, biased thinking; anger-engendering thoughts, viewing provocations as being done “on purpose”).

Engage in upward social comparisons, so one compares poorly in one’s coping abilities. Be preoccupied with what others think of oneself. Engage in comparison of self versus others; before versus now; now versus what might have been.

Ruminate repeatedly; dwell on, focus on, brood, pine over losses, “near miss” experiences. Replay over and over one’s concerns about the causes, consequences, and symptoms related to negative affect and losses. Use repetitive thinking cycles (“loss spiral”).

Engage in contrafactual thinking, repeating “If only” statements and asking “Why me” questions for which there are no satisfactory answers.

Engage in avoidant thinking processes of deliberately suppressing thoughts, using distracting behaviors, using substances; avoidant coping behaviors and dissociation.

Have an overgeneralized memory and recall style that intensifies hopelessness and impairs problem solving. Have difficulty remembering specific positive experiences. Memories are fragmented, sensory driven and fail to integrate traumatic events into autobiographical memory or narrative.

Engage in “thinking traps”; for example, tunnel vision as evident in the failure to believe anything positive could result from trauma experience; confirmatory bias as evident in the failure to retrieve anything positive about one’s self-identity or recall any positive coping memories of what one did to survive or what one is still able to accomplish “in spite of” victimization; mind reading, overgeneralizing, personalizing, jumping to conclusions, catastrophizing; “sweating the small stuff;” and emotional reasoning, such as viewing failures and lapses as “end points.”

Evidence “stuckness” in one’s thinking processes and behavior. Respond to new situations in post-deployment settings “as if” one were still in combat (misperceive threats).

At the Emotional Level

Engage in emotional avoidance strategies (“pine over losses”, deny your feelings and the possible consequences).

Intensify your fears and anger.

Experience guilt (hindsight bias), shame, complicated grief, demoralization.

Fail to engage in grief work that honors and memorializes loved ones or buddies who were lost.

Fail to share or disclose feelings, process traumatic memories. Focus on “hot spots” and “stuck points”.

At the Behavioral Level

Engage in avoidant behaviors of trauma-related feelings, thoughts, reminders, activities and situations; dissociating behaviors.

Be continually hypervigilant, overestimating the likelihood and severity of danger.

Engage in safety behaviors that interfere with the disconfirmation of emotional beliefs and the processing (“restorying”) of trauma-related memories and beliefs.

Engage in delay-seeking behaviors. Avoid seeking help. Keep secrets and “clam up.”

Engage in high risk-taking behaviors; chasing the “adrenaline rush” in an unsafe fashion; Put oneself at risk for revictimization.

Engage in health-compromising behaviors (smoking, substance abuse as a form of self-medication, lack of exercise, sleep disturbance that goes untreated, poor diet, dependence on energy drinks, abandonment of healthy behavioral routines).

Engage in self-handicapping behaviors (“excuse-making”), failure-avoidance behaviors.

Use passive, disengaged coping behaviors, social withdrawal, resigned acceptance, wishful thinking, and emotional distancing.

At the Social Level

Withdraw, isolate oneself, detach from others.

Perceive oneself as being unwanted, a “burden”; thwarted belongingness, distrusting others (“no one cares”, “no one understands”. “no one can be trusted”).

Associate with peers and family members who reinforce and support maladaptive behaviors. Put oneself in high-risk situations.

Experience an unsupportive and indifferent social environment (i.e., critical, intrusive, unsympathetic - offering “moving on” statements).

Fail to seek social support or help, such as peer-related groups, chaplain services, or professional assistance.

At the Spiritual Level

Fail to use one’s faith or religion as a means of coping.

Have a “spiritual struggle” and view God as having punished and abandoned one.

Use negative spiritual coping responses. Relinquish actions to a higher power, plead for miracles or divine intervention; become angry with God; demanding.

Experience “moral injuries” that compromise values. Lose one’s “moral compass” and “shatterproof beliefs”, experience a “soul wound”.

Avoid contact with members of religious orders.

TABLE 4
B-A-T-T-L-E-M-I-N-D

- Buddies (cohesion) versus. withdrawal
- Accountability versus controlling
- Targeted aggression versus inappropriate aggression
- Tactical awareness versus hypervigilance
- Lethally armed versus “locked and loaded”
- Emotional control versus anger/detachment
- Mission operational security versus secretiveness
- Individual responsibility versus guilt
- Non-defensive (combat) driving versus aggressive driving
- Discipline versus conflict

Note: From a Battlemind Training Brochure

TABLE 5**H - SLIDER****Warriors' Character Traits and Mindset Brought Home from Combat**

H - - **Honor**, hard work, honesty, hardiness

S - - **Selfless service**, sacrifice, subordinate self to the group. Commitment and accountability to one's comrades, which is more powerful than self-preservation.

L - - **Loyalty**, brotherhood, closeness, commitment to one's unit, "band of brothers", values and traditions of warriorhood, identification with group, service and country.

I - - **Integrity**, "grit", leadership, commitment to a higher cause, patriotism.

D - - **Duty**, dedication, discipline, sense of responsibility to others, commitment to mission, accomplishment, mental focus and learned safety habits; ability to be clear-minded, strategic and alert.

E - - **courage**, **bravery**, **confidence**, **controlled aggression**, **pride**, **adaptability**, **valor**, **knowledge** of how precious and fragile life is.

R - - **Respect**, readiness, responsibility, robustness and resilience.

References

- Adler, A.B., Bliese, P.D., McGurk, D., Hoge, C.W. & Castro, C.A. (2009). Battlemind debriefing and Battlemind training as early interventions with soldiers returning from Iraq: Randomization by platoon. Journal of Consulting and Clinical Psychology, *77*, 928-940
- Antonovsky, A. (1987). Unravelling the mystery of health: How people manage stress and stay well. San Francisco: Jossey-Bass.
- Armstrong, K., Best, S., & Domenici, P. (2006). Courage after fire. Berkeley, CA: Ulysses Press.
- Bartone, P.T. (1999). Hardiness protects against war-related stress in Army reserve forces. Consulting Psychology Journal: Practice and Research, *51*, 72-82.
- Benetsch, E.G., Brailey, K., Vasterling, J.J., Uddo, M., Constans, J.I., & Sutker, P.B. (2000). War zone stress, personal and environmental resources and PTSD symptoms in Gulf war veterans: A longitudinal study. Journal of Abnormal Psychology, *109*, 205-213.
- Brenner, R.A., Gutierrez, P.M., & Cornette, M. M. (2008). A qualitative study of potential suicide risk factors in returning combat veterans. Journal of Mental Health Counselling, *30*, 211-225.
- Brewin, C.R. & Holmes, E.A. (2003). Psychological theories of posttraumatic stress disorder. Clinical Psychology Review, *23*, 339-376.
- Bonanno, G.A. (2004). Loss, trauma and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events. American Psychologist, *59*, 20-28.
- Burkett, B.G., & Whitley, G. (1998). Stolen Valour: How the Vietnam generation was robbed of its heroes and its history. Dallas, TX: Verity Press.
- Caliber Associates (2007). What we know about Army families. (Prepared for the Family and Morale, Welfare, Recreation Command). Fairfax, VA: Author.
- Calhoun, L.G. & Tedeschi, R.G. (Eds). (2006). Handbook of posttraumatic growth: Research and practice. Mahwah, NJ: Erlbaum Associates.
- Castro, C. (2006). BATTLEMIND., Walter Reed Army Medical Center. Washington, DC: WRAIR Land Combat Study Team
- Charuvastra, A. & Cloitre, M. (2008). Social support and posttraumatic stress disorder. Annual Review of Psychology, *59*, 301-328.
- Denhardt, J. & Denhardt, R. (2010). Building organizational resilience and adaptive management. In J.W. Reich, A.J. Zautra & J.S. Hall (Eds.) Handbook of adult resilience (pp. 333-349). New York: Guilford Press.
- Dohrenwend, B.P., Turner, J.B., Turk, N.A., Adams, B., Koenen, K.C. & Marshall, R.D. (2006). The psychological risks of Vietnam for U.S. veterans: A revisit with new data and methods. Science, *313*, 979-982.
- Dohrenwend, B.P., Neria, Y., Turner, J.B., Turse, N., Marshall, R. & Lewis-Fernandez, R. (2004). Positive tertiary appraisals and post-traumatic stress disorder in U.S. male veterans of the war in Vietnam: The roles of positive affirmation, positive reformulation and defensive denial. Journal of Consulting and Clinical Psychology, *3*, 417-433.
- Drescher, K.D., Burgoyne, M., Curran, E., Lovato, L., Carran, E., Pivar, I. & Foy, D. (2009). Issues of grief, loss, honor and remembrance: Spirituality and work with military personnel and their families. In S. Morgillo Freeman, B.A. Moore & A. Freeman (Eds.). Living and surviving in Harm's way. (pp. 437-465). New York: Routledge.

- Drescher, K. D., & Ramirez, G. (2004). Spirituality and trauma. Development of a group therapy module. Group Journal, 28, 71-87.
- Ebert, A., & Dyck, M. (2004). The experience of mental death: The core feature of Complex Posttraumatic Stress Disorder. Clinical Psychology Review, 24, 617-636.
- Ehlers, A., & Clark, D.M. (2000). A cognitive model of posttraumatic stress disorder. Behaviour Research and Therapy, 38, 319-345.
- Elder, G.H. Jr. & Clipp, E.C. (1989). Combat experience and emotional health: Impairment and resilience in later life. Journal of Personality, 57, 310-341.
- Erbes, C., Eberly, R., Dikel, T., Johnsen, E., Harris, I. & Enghdahl, B. (2005). Posttraumatic growth among American former prisoners of war. Traumatology, 11, 285-295.
- Fava, G.A. (1994). Well-being therapy: Conceptual and technical issues. Psychotherapy and Psychosomatics, 68, 171-179.
- Folkman, S., & Moskowitz, J.T. (2000). Positive affect and the other side of coping. American Psychologist, 55, 647-654.
- Fontana, A., & Rosenheck, R. (1998). Psychological benefits and liabilities of traumatic exposure in the war zone. Journal of Traumatic Stress, 3, 485-503.
- Frankl, V.E. (1984). Man's search for meaning: An introduction to logotherapy (3rd ed.). New York: Touchstone.
- Grossman, D. & Christensen, B.W. (2007). On combat: The psychology and physiology of deadly conflict in war and peace. (2nd ed.). Bellville, IL: PPCT Research.
- Harari, J.N. (2008). Combat flow. Military, political and ethical dimension of subjective well-being in war. Review of General Psychology, 12, (253-263).
- Haglund, M.E., Nestadt, J.S., Cooper, P.S., Southwick, S.M., & Charney, D.S. (2007). Psychobiological mechanisms of resilience: Relevance to prevention and treatment of stress-related psychopathology. Development and Psychopathology, 19, 889-920.
- Hall, L.K. (2008). Counseling military families. New York: Routledge.
- Harari, J.N. (2008). Combat flow. Military, political and ethical dimensions of subjective well-being in war. Review of General Psychology, 12, (253-263).
- Harvey, M.R., & Tummala-Narra, P. (Eds.) (2007). Sources and expressions of resiliency in trauma survivors: Ecological theory, multicultural practices. Binghamton, NY: Harvarth Press
- Helgeson, V.S., Reynolds, K.A. & Tomich, P.I. (2006). A meta-analytical review of benefit findings and growth. Journal of Conducting and Clinical Psychology, 74, 797-816.
- Henderson, K. (2006). While they're at war: The true story of American families on the home front. New York: Houghton Mofflin.
- Hobfoll, S.E. (2002). Social and psychological resources and adaptation. Review of General Psychology, 6, 307-324.
- Hoge, C.W., Castro, C., Messer, S., McGurk, D., Cotting, D.I. & Koffman, R.L. (2004). Combat duty in Iraq and Afghanistan, mental health problems and barriers to care. New England Journal of Medicine, 357, 13-22.
- Hunter, E.J., (1993). The Vietnam prisoner of war experience. In J.P. Wilson & B. Raphael (Eds.) International handbook of traumatic stress syndromes. (pp. 297-303). New York: Plenum Press.
- Johnson, H. & Thompson, A. (2008). The development and maintenance of post-traumatic stress disorder (PTSD) in civilian adult survivors of war trauma and torture: A review. Clinical Psychology Review, 28, 36-47.
- Kent, M., & Davis, M. C. (2010). Resilience interventions: The emergence of capacity building

- programs and models of resilience. In J.W. Reich, A.J. Zautra and J.S. Hall (Eds). Handbook of adult resilience, (pp 427-449), New York: Guilford Press.
- Kessler, R.C., Davis, C.G. & Kendler, K.S. (1997). Childhood adversity and adult psychiatric disorder in the U.S. National Comorbidity Survey. Psychological Medicine, *27*, 1101-1119.
- King, I.A., King, D.W., Fairbank, J.A., Keane, T.M. & Adams, G.A. (1998). Resilience-recovery factors in post-traumatic stress disorder among female and male Vietnam veterans: Hardiness, post-war social support, and additional stressful life events. Journal of Personality and Social Psychology, *74*, 420-434.
- Kretzmann, J.P. (2010). Asset-based strategies for building resilient communities. In J.W. Reich, A.J. Zautra & J.S. Hall (Eds.), Handbook of adult resilience (pp. 484-495). New York: Guilford Press.
- Lepore, S.J., & Smyth, J.M. (Eds.) (2006). The writing cure: How expressive writing promotes health and emotional well-being. Washington, DC: American Psychological Association.
- Levin, A. (2006). PTSD not sufficient to explain responses to trauma. Psychiatric News, *41*, 20.
- Litz, B.T. (2005). Has resilience to severe trauma been underestimated? American Psychologist, *60*, 202.
- Litz, B.T. (2007). Research on the impact of military trauma: Current status and future directions. Military Psychology, *19*, 217-238.
- Litz, B.T., Engel, C.C., Bryant, R.A. & Papa, A. (2007). A randomized, controlled proof-of-concept trial of an Internet-based, therapist-assisted self-management for posttraumatic stress disorder. American Journal of Psychiatry, *164*, 1676-1683.
- Litz, B.T. & Schlenger, W.E. (2009). PTSD in service members and new veterans of the Iraq and Afghanistan wars: A bibliography and critique. PTSD Research Quarterly, *20*, 2-8.
- Lyubomirsky, S. (2008). The how of happiness: A scientific approach to getting the life you want. New York: Penguin Press.
- Lyubomirsky, S. & Della Porta, M.D. (2010). Boosting happiness, buttressing resilience: Results from cognitive and behavioral interventions. In J.W. Reich, A.J. Zautra, & J.S. Hall (Eds.). Handbook of adult resilience. (pp. 450-464). New York: Guilford Press.
- Maddi, S.R., (1999). The personality construct of hardiness: Effects on experiences, coping and stress. Consulting Psychology Journal, Practice and Research, *51*, 83-94.
- Maeraker, A., & Zoellner, T. (2004). The Janus face of self-perceived growth. Toward a two component model of posttraumatic growth. Psychological Inquiry, *15*, 41-48.
- Mancini, A.D. & Bonanno, G.A. (2010). Resilience to potential trauma: Toward a lifespan approach. In J.Reich, A.J. Zautra, & J.S. Hall (Eds.) Handbook of adult resilience (pp. 258-280). New York: Guilford Press.
- Mash, W.P., Krantz., Stein, N., Westphal, R.J. & Litz, B. (2011). Comprehensive Soldier Fitness, Battlemind and the Stress Continuum Model: Military organizational approaches to prevention. In J.I. Ruzek, P.P. Schurr, J.J. Vasterling & M.J. Friedman (Eds.). Caring for veterans with deployment-related stress disorders: Iraq, Afghanistan and beyond. (pp. 193-214). Washington, DC: American Psychological Association.
- Masten, A.S. (2001). Ordinary magic: Resilience processes in development. American Psychologist, *56*, 227-238.
- Matthews, M.D. (2009). The soldier's mind: Motivation, mindset, and attitude. In S. Morgillo-Freeman, B.Moore and A. Freeman (Eds.). Living and surviving in harm's way: A psychological treatment for pre-and-post-deployment of military personnel. New York:

Routledge.(pp. 9-26).

- Meichenbaum, D. (2006). Resilience and posttraumatic growth: A constructive narrative perspective. In L.G.Calhoun & R.G. Tedeschi (Eds.). Handbook of post traumatic growth. (pp. 355-368). Mahwah, N.J.: Lawrence Erlbaum Associates.
- Meichenbaum, D (2007). Stress inoculation training: A preventative and treatment approach. In P.M. Lelrer, R.L. Woolfolk & W.E. Sime (Eds.). Principles and practice of stress management. (3rd ed.), (pp. 497-518). New York: Guilford Press.
- Meichenbaum, D. (2009a). Bolstering resilience: Benefitting from lessons learned. In D. Brom, R. Pat-Horenczyk & J. D. Ford (Eds.) Treating traumatized children: Risk, resilience and recovery (pp. 183-192). New York: Routledge.
- Meichenbaum, D. (2009b). Core psychotherapeutic tasks with returning soldiers: A case conceptualization approach. In S. Morgillo-Freeman, B.A. Moore & A. Freeman (Eds.), Living and surviving in harm's way. (pp. 193-210). New York: Routledge.
- Mental Health Advisory Team (2008). MHAT: Operation Iraqi Freedom/Operation Enduring Freedom. Army Medicine Report.
- Milne, D. (2007). People can learn markers on the road to resilience. Psychiatry News, 42, 57.
- Moore, B.A., & Grossman, D. (2009). After the battle: Violence and the warrior. In S. Morgillo-Freeman, B.A. Moore & A. Freeman (Eds.). Living and surviving in harm's way. (pp 302-327). New York: Routledge.
- Moore, B.A., & Hopewell, C.A., & Grossman, D. (2009). After the battle: Violence and the warrior. In S. Morgillo-Freeman, B.A. Moore & A. Freeman (Eds.). Living and surviving in harm's way. (pp 307-327). New York: Routledge.
- Moore, B.A., & Kennedy, C.H. (2010). Wheels down: Adjusting to life after deployment. Washington, DC: American Psychological Association.
- Morgillo-Freeman, S., Moore, B.A. & Freeman, A. (Eds.) (2009). Living and surviving in harm's way. New York: Routledge.
- Moskowitz, J.T. (2010). Positive affect at the onset of chronic illness: Planting the seeds of resilience. In J.W. Reich, A.J. Zautra & J.S. Hall (Eds.) Handbook of adult resilience. (pp. 465-483). New York: Guilford Press.
- Muraven, M. & Baumeister, R.F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? Psychological Bulletin, 126, 247-259.
- Pargament, K.T. & Cummings, J. (2010). Anchored by faith: Religion as a resilience factor. In J.W. Reich, A.J. Zautra, & J.S. Hall (Eds.). Handbook of adult resilience. (pp. 193-210). New York: Guilford Press.
- Park, C.L. & Folkman, S. (1997). Meaning in the context of stress and coping. Review of General Psychology, 1, 115-144.
- Penk, W. & Ainspan, D. (2009). Community response to returning military. In S. Morgillo-Freeman, B.A. Moore & A. Freeman (Eds.). Living and surviving in harm's way. (pp 417-435). New York: Routledge.
- Reger, G.N., & Moore, B.A. (2009). Challenges and threats of deployment. In S. Morgillo-Freeman, B.A. Moore & A. Freeman (Eds.). Living and surviving in harm's way. (pp 51-65). New York: Routledge.
- Reich, J.W., Zautra, A. J., & Hall, J.S. (Eds.). (2010). Handbook of adult resilience. New York: Guilford Press.
- Reivich, K. & Shatte, A. (2002). The resilience factor. New York: Random House.

- Robins, L.N., Davis, D.H., & Nurco, D.N. (1974). How permanent was Vietnam drug addiction? American Journal Public Health, 64, 38-43.
- Ryff, C.D., & Singer, B. (2003). Flourishing under fire: Resilience as a prototype of challenged thriving. In C.L. Keyes & J. Haidt (Eds.). Flourishing: Positive psychology and the life well-lived. (pp. 15-36). Washington, DC: American Psychological Association.
- Satel, S.L. (2005). The mental health crisis that wasn't. Psychiatric Services, 64, 1571.
- Sawyer, A., Ayers, S., & Field, A.P. (2010). Posttraumatic growth and adjustment among individuals with cancer or HIV/AIDS: A meta-analysis. Clinical Psychology Review, 30, 436-447.
- Schok, M.L., Kleber, R.J., Elands, M. & Weerts, J.M. (2008). Meaning as a mission: A review of empirical studies on appraisals of war and peacekeeping experiences. Clinical Psychology Review, 28, 357-365.
- Scoville, S.L., Gubata, M.E., & Potter, R.N. (2007). Deaths attributed to suicide among enlisted U.S. armed forces. Military Medicine, 172, 1024-1031.
- Selby, E. A., Anestis, M.D., & Bender, T.W. (2010). Overcoming the fear of lethal injury: Evaluating suicidal behavior in the military through the lens of the Interpersonal-Psychological theory of suicide. Clinical Psychology Review, 28, 357-366.
- Seligman, M.E., Rashid, T.E. & Parks, A. (2006). Positive psychotherapy. American Psychologist, 61, 774-788.
- Seligman, M.E., Steen, T.A., Park, N. & Peterson, G. (2005). Positive psychology: Empirical validation of interventions. American Psychologist, 60, 410-421.
- Sharkansky, E.J., King, D.W., King, L.A., Wolfe, J., Erickson, D.J., & Stokes, L.R. (2000). Coping with Gulf war combat stress: Mediating and moderating effects. Journal of Abnormal Psychology, 109, 188-197.
- Skovholt, T.M. (2001). The resilient practitioner. Boston: Allyn & Boston.
- Slone, L.B. & Friedman, M.J. (2008). After the war zone. Philadelphia: De Capo Press.
- Smith, J.M., & Alloy, L.B. (2009). A roadmap to rumination: A review of the definition, assessment and conceptualization of this multifaceted construct. Clinical Psychology Review, 29, 116-128.
- Solomon, Z., Waysman, M.A., Neria, Y., Orly, A., Schwarzwald, J. & Wiener, M. (1999). Positive and negative changes in the lives of Israeli former prisoners of war. Journal of Social and Clinical Psychology, 18, 419-435.
- Southwick, S.M., Vythilingam, M. & Charney, D.S. (2005). The psychobiology of depression and resilience to stress: Implications for prevention and treatment. Annual Review of Clinical Psychology, 1, 255-291.
- Staal, M.A. & Hughes, T.G. (2002). Suicide predictions in the U.S. Air Force: Implications for practice. Professional Psychology: Research and Practice, 33, 190-196.
- Sutker, P.B., Davis, J.M., Uddo, M. & Ditta, S.R. (1995). War zone stress, personal resources, and PTSD in Persian Gulf War returnees. Journal of Abnormal Psychology, 104, 444-453.
- Tanielian, T. & Jaycox, L.H. (Eds.) (2008). Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery. Santa Monica, CA: RAND Center for Military Health Policy.
- Taylor, J.B. (2009). My stroke of insight. New York: Penguin.
- Tick, E. (2005). War and the soul. Wheaton, IL: Quest Books.
- Tugade, M.M., & Fredrickson, B.I. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. Journal of Personality and Social Psychology, 86, 120-133.

- Updegraff, J.J., & Taylor, S.E. (2000). From vulnerability to growth: Positive and negative effects of stressful life events. In J.H. Harvey & E.D. Miller (Eds.), Loss and trauma: General and close relationship perspectives. (pp. 3-28). Philadelphia, PA: Brunner-Routledge.
- Watkins, E. (2008). Constructive and unconstructive repetitive thoughts. Psychological Bulletin, 143, 163-206.
- Waysman, M., Shwarzald, J. & Solomon, Z. (2001). Hardiness: An examination of its relationship with positive and negative long term changes following trauma. Journal of Traumatic Stress, 14, 531-548.
- Zakin, G., Solomon, Z. & Neria, Y. (2003). Hardiness, attachment style and long-term psychological distress among Israeli POWs and combat veterans. Personality and Individual Differences, 34, 819-829.

ⁱ This concept of resilience was originally used in material science to refer to the ability of certain materials such as rubber, to withstand compression or expansion, and return to their original shape or position.