



**Post-Traumatic Stress, Resilience and Post Traumatic Growth (PTG):
What are they? How do they relate? How do they differ?
How can we advance PTG?**

In the scholarly literature on trauma, three important concepts inform how we prevent, respond to and assist Service members exposed to war-related trauma and their families. To assist the MFLN-FT team in planning, this fact sheet describes each concept, how they relate to each other, and how they differ. Approaches to prevent and intervene in PTSD are then described.

Post-Traumatic Stress Disorder (PTSD)

Post-traumatic stress has been described as an injury to the psyche caused by traumatic experiences or events. A 2016 study simulated the incidence of PTSD among veterans over the next 10 years (Ghaffarzadegan et al, 2016). The researchers predicted that an estimated 10 percent of veterans would experience PTSD and that on average; it takes 40 years to address the psychiatric consequences of war.

The recovery and treatment process for PTSD will depend on the severity of the trauma and one's previous history with trauma. When exposed to trauma, most people experience a range of reactions but will recover from the initial symptoms without treatment (Horn et al., 2016). People diagnosed with PTSD do not see a decrease but an increase in their symptoms over time if left untreated (NIMH, 2016).

Trauma that leads to PTSD include: war or combat; natural disasters; car or plane crashes; terrorist attacks; sudden death of a loved one; rape; kidnapping; assault; sexual or physical abuse; and childhood neglect.

The medical model of PTSD is based on the concept of "life-threat" trauma (a single event) that elicits an unconditioned fight, flight or freeze response. This kind of trauma is often effectively treated with exposure therapies.

There are two other traumatic situations in military contexts that can lead to the development of PTSD. The first is cumulative "wear-and-tear" in stressful situations over time, often seen in those with multiple deployments to a war zone. The second includes situations that involve moral injury when one either participates in or observes killing or other atrocities. These two challenges appear to require different approaches that are not readily available in current treatment protocols (Litz, 2014).

Four groups of symptoms characterize PTSD (NIMH, 2016):

1. Re-experiencing the traumatic event (e.g., nightmares; flashbacks)
2. Avoidance and numbing (e.g., avoiding thoughts, feelings and places related to the trauma)
3. Hyperarousal and reactivity (e.g., sleep problems; easily startled)
4. Negative thoughts and mood changes (e.g., negative thoughts about oneself; distorted feelings of guilt)

One source described PTSD (Helpguide.org, n.d.) as follows:

A normal response to trauma becomes PTSD when you are stuck.

After a traumatic experience, the mind and body are in shock. However, as you make sense of what happened and process your emotions, you come out of it. With PTSD, however, you remain in psychological shock. Your memory of what happened and your feelings about it are disconnected. In order to move on, it's important to face and feel your memories and emotions. (Helpguide.org)

In the military and other contexts, PTSD may develop over time after being exposed to trauma. Individuals who show pre-clinical symptoms or problems after a traumatic event may experience some of the symptoms that cause impairment but are not clinically diagnosed with PTSD. Although it is not full-blown PTSD, these cases may show significant impairment and require some level of intervention. The risk of developing PTSD increases if one's pre-clinical symptoms are left unaddressed (Litz, 2014; Schnurr, 2014).

Resilience

Resilience is often described as a personal attribute that may allow one to remain relatively unchanged by a traumatic event (Bensimon, 2012). A resilient individual typically maintains relatively stable levels of psychological and physical functioning during and after the traumatic event. Resilience has also been described as an "outcome pattern" following a traumatic event that is "characterized by a stable trajectory of healthy psychological and physical functioning" (Bonanno et al., 2011). In general, it needs to be noted that research on resilience in relation to trauma and war is relatively recent and there are not agreed upon definitions of resilience.

In general, people who are able to weather traumatic events without developing serious symptoms of PTSD are described as "resilient." They exhibit a hardiness in the face of difficult situations.

Bensimon's (2012) three definitions of resilience provide a framework for thinking about Service members and their families in regards to resilience:

1. **Recovery** or adaptation after trauma when one returns to their pre-trauma state. The words "bouncing back" or "bouncing forward" after adversity describe this kind of resilience. One may show some minor symptoms of PTSD but the symptoms do not surpass normal levels. As noted above, even minor symptoms may require therapeutic attention.
2. **Resistance** to developing destructive behavioral patterns due to the trauma. One resists changes caused by the traumatic event and maintains their psychological balance as they adjust to it. (Caution: this does not mean that PTSD is preventable per se and that those who develop it are flawed. It is meant to show that some personality types are better situated to resist trauma.)
3. **Reconfiguration** or using cognitive processing to rebound and change. This overlaps with Post Traumatic Growth (more below).

Southwick et al. (2015) and Litz (2014) note that resilience is neither a static nor a simple construct. For example, one can be resilient in occupational life but demonstrate stress behaviors in family life. Bonanno et al. (2011) also cited research that shows resilience results from many different factors and not from a few dominant factors. This fact sheet primarily describes resilience as it applies to individuals. Resiliency can also be applied to families, organizations, communities, the military, and societies (Southwick et al, 2015).

Post-Traumatic Growth

R. G. Tedeschi (2011) and colleagues at the University of North Carolina developed the concept of post-traumatic growth (comes out of the area of positive psychology) and have conducted research on it as a prevention and an intervention strategy for PTSD. PTG occurs when an individual exposed to trauma experiences growth beyond their pre-trauma condition.

Several key concepts are integral to post traumatic growth. The first focuses on the challenge to one's core beliefs about the world after a traumatic event. This challenge can result in opportunities for both stress and growth. Studies of post traumatic growth and PTSD show that the greater the challenge to core beliefs the more likely there will be post traumatic growth. The trauma itself does not cause post traumatic growth but is caused by the cognitive work to deal with the psychological impact of trauma (Morgan et al, 2017).

This latter idea leads to the second key concept of rumination. There are two styles of rumination. The first is considered "intrusive," which involves thinking that leads to greater distress. The second style is a "deliberate" process focused on understanding and problem solving. Intrusive rumination after trauma is associated with a greater likelihood of PTSD whereas deliberate is more highly associated with PTG. The style of ruminations matters for diagnosis and treatment of PTSD and for encouraging PTG.

A study by Morgan et al. (2017) on PTSD, PTG and satisfaction with life in military veterans found both intrusive and deliberate rumination were present in PTSD and PTG. However, there was a stronger relationship with PTG when veterans engaged in deliberate rumination or cognition work to deal with the aftermath of trauma. The authors cautioned that both PTSD and PTG can be present at the same time, and that one can experience growth even when highly distressed.

PTG (Tedeschi, 2011) is exhibited in five domains:

1. A feeling that new opportunities and possibilities came out of the traumatic experience
2. A change in one's relationships including closer relationships with some people and possibly a greater connection with those who suffer
3. An increased belief in one's strengths – "If I could survive this, I can face anything."
4. An increased appreciation for life
5. A significant change in one's belief system and greater spirituality

PTG doesn't promote that trauma is good but that trauma is an inevitable part of life and likely military service in a war zone. PTG does not occur for everyone who experiences trauma and PTSD; it is not realistic to expect all Service members who suffer from PTSD to experience growth out of trauma.

Approaches for Preventing and Treating PTSD

The military, researchers and clinicians have directed resources to research both preventing and treating PTSD with the intent of increasing resilience and PTG. One area of research focuses on psychologically-based programs that address preventing and treating PTSD. The other area is studying pharmacological-driven solutions for treating PTSD.

Psychologically-Based Programs

In their review of resilience research, Horn et al. (2016) identified these psychosocial factors that have been found by researchers to be associated with resilience in adulthood: cognitive reappraisal and other emotion regulation skills; the ability to face fears and not be overwhelmed; problem solving skills and task orientation; physical activity; humor; and the ability to access and mobilize social capital and support. The majority of these factors can be taught and learned by Service members and veterans as a way to prevent PTSD and to treat those who are suffering with it. These same factors are also associated with promoting PTG.

The U.S. Military has already developed several programs designed to build resilience in active duty members. The program most frequently referenced is the Army's Comprehensive Soldier Fitness program, which utilizes principles of Positive Psychology to make the most of personal strengths and attitudes often found in resilience

people. Service members focus on their personal strengths and learn how to nurture positive emotions, supportive relationships, and find meaning in adversity.

For veterans suffering from PTSD, the same social psychosocial factors can also be enhanced through intervention programs. Individuals with PTSD are not often labeled resilient but as noted by Southwick et al. (2015), resilience falls upon a continuum. Theoretically, one can move towards more resilience by maximizing these factors. Most intervention efforts to date that foster resilience and PTG have focused on cognitive reappraisal of events, greater social support, physical exercise, positive emotions, finding meaning in adversity, and gaining purpose from traumatic events.

One such program is the resilience skills intervention called *Goal-Directed Resilience in Training (GRIT)* program (Kent et al., 2015). GRIT targets the life skills related to goal directed actions that reflect an individual's values and common humanity with others. The person experiencing extreme adversity learns to manage the symptoms of PTSD while at the same engaging in goal-directed behaviors. As a result, he or she builds their self-efficacy to reduce symptoms, and promote positive emotions and cognitive abilities. In a randomized-control trial of GRIT, participants showed improvement on PTSD symptoms and well-being factors.

Other novel treatment programs have emerged over the last decade and with further study have the potential to improve prevention and treatment of PTSD:

- “Life skills education” that teaches problem solving and decision making along with emotion regulation strategies (GRIT is an example).
- Meaning-making activities that help the individual integrate trauma into his/her philosophy or purpose in life.
- The practice of mindfulness that teaches one to stay in the present moment and notice sensations, feelings and thoughts.
- Yoga that helps one integrate physical activity with mindfulness of the body. It is often paired with mindfulness meditation.

All the strategies that can be employed to promote PTG. These can be done alone or in concert with treatment for PTSD. However, an individual needs to have a certain amount of cognitive functioning to promote PTG. Service members and veterans with traumatic brain injury or substance use problems would likely not benefit until these conditions are addressed.

Pharmacological Solutions to PTSD

Horn et al. (2016) review research studies that examined the impact of PTSD on hormonal, genetic and immune functioning. Research in this area is emerging and is viewed as a potentially treatment option either alone or in concert with psychosocial interventions.

Summary

In summary, PTSD will continue to be an issue for a significant number of active duty Service members and veterans into the future. Resilience and PTG both are implicated in preventing and recovery from PTSD. Both psychological and pharmacological approaches are demonstrating efficacy for the prevention and treatment of PTSD. Overall, a comprehensive model of intervention and treatment is needed that addresses the co-occurrence of PTSD and PTG. This model includes: understanding trauma; enhancing emotion regulation skills; telling one's story; connecting this story to the five PTG domains; and developing life principles to address future challenges (Tedeschi, 2011).

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