

RESEARCH INTO PRACTICE

Resilience and Posttraumatic Growth: Empirical Evidence and Clinical Applications from a Christian Perspective

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The research and psychological literature on resilience (eg. Meichenbaum, 2006, 2009, 2011, 2012; see also Alvord, Zucker, & Grados, 2011; Glicklen, 2006; Graham, 2013; Gonzales, 2012; Neenan, 2009; Reich, Zautra & Hall, 2011; Southwick & Charney, 2012) and posttraumatic growth (e.g., see Calhoun & Tedeschi, 2013; Joseph, 2011; see also Calhoun & Tedeschi, 2006; Helgeson, Reynolds, & Tomich, 2006; Joseph & Linley, 2006, 2008; Park, 2010; Park & Hegelson, 2006; Tedeschi, Park, & Calhoun, 1998; Weiss & Berger, 2010) has mushroomed in the last decade or so. *Resilience* can be defined as “the capacity to adapt successfully in the presence of risk and adversity” (Meichenbaum, 2012, p. 3). It is a broad term that is multidimensional and includes the ability to “confront and handle stressful life events; grow and thrive in the face of challenges and adversities; bounce back and beat the odds; recover from or adjust to misfortune or change; endure traumatic events; maintain a healthy outcome” (Meichenbaum, 2012, p. 3). *Posttraumatic growth* is a related term first coined by Richard Tedeschi and Lawrence Calhoun, to refer to positive changes that people report following experiences of adversity and trauma, leading eventually to more well-being; it has also been called “*benefit-finding, growth following adversity, personal transformation, stress-related growth, and thriving*” (Joseph, 2011, p. 14). This article will briefly review the literature on resilience and posttraumatic growth, and cover research into practice, with a Christian perspective provided.

Empirical Evidence for Resilience and Posttraumatic Growth

Meichenbaum (2012) has recently reviewed much of the empirical evidence and research

literature available on resilience and posttraumatic growth, and it will now be briefly summarized. He first points out that a traumatic event is likely to be experienced by around 20% of the North American population in any one year. About 60% of the population in their lifetime will go through traumatic experiences such as natural disasters, sickness, losses, accidents, and events that victimize them (e.g., rape, sexual abuse, terrorist attacks). Although such traumatic events do affect people who experience them, it is remarkable that research studies show that about 70% of them recover with resilience and only up to 30% of them evidence harmful effects, including developing posttraumatic stress disorder or PTSD and other related problems such as depression, anxiety, and readjustment difficulties. Resilience is therefore more commonplace than perhaps initially expected. Many people have the capacity and coping skills needed to not just go through traumatic events and suffering, but also to grow through them and end up with positive changes and greater well-being and strength. However, resilience with positive emotions and negative emotions often occur together in traumatic experiences or major life crises. Resilience eventually leads to posttraumatic growth or positive change that emerges (typically many months later) after going through significant life crises or trauma.

It usually takes some time for resilience and posttraumatic growth to occur. There are also various pathways to resilience and the following factors influence how effectively people deal with trauma and adversities in their lives (see Meichenbaum, 2012, p. 6):

1. The availability of social relationships as perceived by them, and their ability to avail themselves of social supports.
2. The extent of perceived personal control and use of energies and time on activities and circumstances in which they have some effect.
3. The extent to which they can have positive emotions and control negative affect. Those who daily experience a 3 to 1 ratio of positive emotions to negative emotions tend to be resilient.
4. The ability to function with cognitive flexibility, using problem-solving and acceptance skills, depending on the situation.

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5. The ability to be involved in activities that follow their priorities and values in life and for their future.

6. The type and number of social and emotional resources (guidance, empathy) as well as material resources (financial support) that are available to them.

7. The ability to face life's adversities and trauma, work through them, and share their struggles with others, instead of denying or avoiding negative emotions and pain.

An assessment measure to help one determine where one is growing from being a "victim" to a "survivor" to a "thrivor" in experiencing trauma is called the Post Traumatic Growth Inventory (see Meichenbaum, 2012, pp. 7-8). It is available at cust-cf.apa.org/ptgi/ (see the APA Help Center Post Traumatic Growth Inventory). It is a 21 item inventory that measures the extent to which one experiences personal growth or positive change after going through trauma or adversity, in five domains: relating to others, new possibilities, personal strength, spiritual change, and appreciation of life. Meichenbaum (2012) points out that for posttraumatic growth to occur, the level of posttraumatic stress should not become too long or too intense. There are various strategies and suggestions for facilitating posttraumatic growth and preventing posttraumatic stress from being too intense or prolonged that will be covered later in this article.

Empirical Evidence for Resilience in Returning Service Members and Their Families

The research literature shows that there is empirical evidence for the occurrence of resilience in returning service members and their families (see Meichenbaum, 2012, pp. 11-17). The following are some salient findings:

1. About 70% or the majority of returning veterans are resilient. Most of them do not return with "invisible wounds".

2. Veterans on the whole, from World War I to the present, are well adjusted and living "normal" lives.

3. More positive than negative effects have been reported by veterans of war and peace-keeping missions.

4. The majority of veterans (around 70%) view the effect of their military service on their current lives as "very meaningful" and also highly important, because they feel they have made a great contribution in helping to protect their nation and family.

5. Veterans tend to report that their combat experience has helped them to better cope with adversity, with greater self-discipline, honor, independence, and accomplishment. One example is the finding that 61% of air force personnel shot down, imprisoned and tortured by the North Vietnamese for years, still reported that they had psychologically benefitted from their traumatic experiences.

6. More specifically, Southwick and Charney (2012) found that the 250 American Prisoners of War from the Vietnam War who were imprisoned for up to eight years, with torture and solitary confinement, that they studied, evidenced lower than expected incidence of PTSD and depression, years after they were freed. Southwick and Charney (2012) concluded with the following prescription for a resilient life based on their intensive study of these 250 men (a prescription that has also been found in other research with women who had experienced severe trauma, including sexual and physical abuse): "*establish and nurture a supportive social network; engage in positive thinking and feelings; develop cognitive flexibility; develop a personal 'moral compass' or shatter-proof set of beliefs; be altruistic; find a resilient model in a mentor or heroic figure; learn to be adaptive in facing fears; develop active coping skills; have a sense of humor and laugh frequently; keep fit*" (Meichenbaum, 2012, pp. 12-13).

7. Presently, about 71% of officers and 50% of enlisted military personnel are married, and 42% of all personnel have children, averaging two children for each family, with about 1 million having had a parent deployed. Overall, military families have been found to be remarkably resilient and strong despite the tremendous stresses they face, and they are comparable to civilian families in their physical and mental health.

8. The divorce rate among returning military personnel is lower than that of the general population. The majority of the spouses of such personnel report that their marriages have been strengthened by deployment, with only 10% saying that deployment has weakened their marriages. A survey conducted by the Department of Defense found that 74% of the military spouses reported experiencing personal growth, as well as greater loneliness, anxiety, and stress.

9. Important resiliency factors for families of active duty military personnel include having

access to comprehensive health care, education, regular employment, legal assistance, and services providing social support.

10. Military children have also been found to be generally resilient, even after going through significant losses and traumas. They usually function as well as or better than children of civilians in terms of academic performance, health, and well-being. They also have similar or lower rates of childhood mental disorders, lower rates of juvenile delinquency, less probability of alcohol abuse, and higher grades and IQs compared to children of civilians.

Empirical Evidence for Resilience in Civilian Populations

The research literature also shows that there is evidence for resilience in civilian populations (see Meichenbaum, 2012, pp. 19-23). The following are some salient findings:

1. Most individuals, after experiencing a major natural disaster or a traumatic event such as a terrorist attack, will be upset with a variety of symptoms immediately after the trauma, but they will recover within days to weeks. Although 50%-60% of the adult North American population experience traumatic events, only 5% to 10% of them will develop PTSD and other related psychiatric disorders.

2. Out of the approximately 150 million women in the United States, about 68 million of them will be victimized over their lifetime. Around 25% of them will experience some kind of sexual and physical abuse and/or emotional neglect, and about 12% of them will experience rape. Every 15 seconds, domestic violence will occur. About 38% of women will be victimized more than once. However, only 10% of these 68 million women will have psychiatric problems needing the help of mental health professionals. Most victimized women therefore evidence tremendous resilience.

3. A survey conducted 5-8 weeks after the 9/11 terrorist attack in New York City, found that only 7.5% of adults living in that area developed PTSD. A later study in February, 2002 reported that only 1.7% of the adults surveyed had PTSD, showing that PTSD can be resolved over time, and people bounce back to living more normal lives again.

4. About 58% of Americans believed that there were "benefits" that came out of the 9/11 terrorist attack, including an increase in altruism and kindness, religiousness, increased realization of

the preciousness of life, and greater political awareness and involvement, with a deeper sense of community.

5. The majority of people who have suffered the loss of a loved one through bereavement recover, with up to 75% of them *not* showing any intense distress.

6. About 25% of American youth will experience significant traumatic events by the time they reach 16 years of age. However, research studies have found that one half to three fourths of them show resilience and do not develop psychiatric problems or get involved in criminal activities. Such youth may have higher levels of distress and some symptoms in the first few months following traumatic events but only about 30% of them will continue to have chronic symptoms of distress. The support and encouragement of parents is crucial in helping children and adolescents to adjust well to adversity.

7. Resilience has also been found in non-Westernized countries. For example, after the natural disaster of the 2004 Asian tsunami that led to over one million displacements and 280,000 deaths, the prevalence rate for PTSD among the terribly affected coastal villages of India was found to be only 6.4%. Similarly, in Thailand, after the 2004 tsunami, only 12% of displaced people were found to have PTSD two months later, and only 7% nine months later. The rates of depression and anxiety had also dropped significantly.

The empirical evidence therefore shows that the majority of individuals who have gone through a traumatic event, in whatever form, end up with *resilience*.

Enhancing Resilience: Clinical Applications

Resilience can be enhanced or increased by a number of clinical strategies or applications gleaned from research that can be used in practice, in the following six major areas of fitness (couched in a self-help format) (see Meichenbaum, 2012, pp. 191-196):

1. Physical Fitness. Examples of clinical strategies for enhancing resilience in the physical fitness area include: "take care of my body; exercise regularly; get quality sleep; eat healthy; avoid mood-altering drugs or overuse of alcohol; use healthy coping procedures—engage *nature*; avoid high-risk dangerous behaviors" (Meichenbaum, 2012, p. 191).

2. Interpersonal Fitness. Examples of clinical strategies for enhancing resilience in the

interpersonal fitness area include: “reconnect with social supports; lean on others and seek and accept help; give back and help others; participate in a social network; share my emotions with someone I trust; improve communication skills; be a good social problem-solver; improve my conflict management skills; nurture my relationship with my partner or spouse; overcome barriers to seeking help; use community resources such as websites, telephone hot-lines; use my cultural or ethnic traditions, rituals, and identity as a support aide; find a role model or mentor; use pets to maintain and develop relationships and as a way to manage moods” (Meichenbaum, 2012, p. 192).

3. Emotional Fitness. Examples of clinical strategies for enhancing resilience in the emotional fitness area include “*Ways to Increase Positive Emotions*: cultivate positive emotions (use hobbies and pleasurable activities); make a ‘bucket list’ of emotional uplifting activities and then just do it!; show ‘grit’—ability to pursue with determination long-term goals (*choose hard right over easy wrong*); use positive humor; express gratitude” (Meichenbaum, 2012, pp. 192-193), and “*Ways to Regulate Negative Emotions*: give myself permission to experience and share emotions (feel sad, cry, grieve, become angry); face my fears; engage in constructive grieving (memorialize and honor those who have been lost); share my story and the ‘rest of my story’ of what led me to survive (share lessons learned); journal—use ‘writing cure’; use creative and expressive activities to work through my feelings; enjoy the benefits of self-disclosure; *re-story* my life and share evidence of my *resilience*; use relaxation and mindfulness skills; change my self-talk” (Meichenbaum, 2012, p. 193).

4. Thinking Fitness. Examples of clinical strategies for enhancing resilience in the thinking fitness area include: “be psychologically flexible; use constructive thinking and consider alternative solutions/ pathways; establish achievable goals... realistic expectations; use hope to achieve goals; engage in benefit-finding (search for the silver lining); engage in benefit-remembering; engage in downward comparison (consider those less fortunate); go on a ‘meaning making mission’; engage in altruistic (helping) behaviors; be mindful, ‘mentalize’ and stay in the present; associate with people who share my positive values in life and help me re-author my story; avoid

debilitating guilt and shame reactions; nurture a positive view of myself, others, and the future; create a ‘healing story’” (Meichenbaum, 2012, pp. 193-194).

5. Behavioral Fitness. Examples of clinical strategies for enhancing resilience in the behavioral fitness area include: “develop safe routines; stay calm under pressure; break tasks into doable sub-tasks; avoid avoidance and accept, tolerate, confront and experience traumatic events; improve my ‘people-picking’ skills. Avoid people, places, and things that get me into trouble; take a ‘news holiday’; self-disclose to a trusted person; join a social group that gives my life a sense of purpose; adopt a ‘can do’ attitude; read to find comfort; gather information (visit websites); avoid making things ‘worse’; continue my ‘journey of healing’ and view setbacks as ‘learning opportunities’; use my ‘action plans’ and ‘backup plans’”. (Meichenbaum, 2012, p. 195).

6. Spiritual Fitness. Examples of clinical strategies for enhancing resilience in the spiritual fitness area include: “Use *positive* religious/ spiritual ways of coping; avoid using *negative* religious/ spiritual ways of coping; rekindle *hope*; visit the chaplain or some other clergy person for assistance; use some form of spiritual/ religious devotional activities; participate in a spiritual and religious group; engage in spiritual/ religious rituals; forgive others and forgive oneself; use my spiritual/ religious beliefs and traditions to find comfort and peace of mind; share the spiritual lessons learned from my trauma experiences; address my ‘moral injuries’ and ‘soul wounds’; recognize life is short and commit to living each moment fully and enter a stage of ‘generativity’—give to future generations” (Meichenbaum, 2012, pp. 195-196).

THRIVE: Six Signposts to Facilitating Posttraumatic Growth

Joseph (2011) has similarly described six signposts to facilitating posttraumatic growth (in a self-help format) based on research, that can be applied to practice, following the THRIVE model: 1. **Taking Stock**; 2. **Harvesting Hope**; 3. **Re-authoring**; 4. **Identifying Change**; 5. **Valuing Change**; and 6. **Expressing Change in Action**” (pp. 175-176).

Signpost 1: Taking Stock

The basics of taking stock include: “check that you are physically safe; check that you are getting

medical, psychological, and legal help if you need it; check that you are eating well; check that you are getting enough sleep; stay physically active; make sure you keep pleasurable things in your life, and try to maintain routines as much as possible; practice learning to relax; practice self-compassion; be aware of triggers; avoiding avoidance; observe your reactions without judging; confronting traumatic memories and emotions; connecting with others; tuning in to your emotions; focus on what you can do and build on that; laughter and smiling; learning from the past" (Joseph, 2011, pp. 176-188).

Signpost 2: Harvesting Hope

Exercises for harvesting hope include: "don't underestimate the power of hope; be inspired: look for stories of personal growth; begin to practice hope; use the miracle question; use your social support; look to the future" (Joseph, 2011, pp. 188-193).

Signpost 3: Re-authoring

Re-authoring refers to changing one's mindset from being a victim to being a survivor to eventually being a thriver. Re-authoring traumatic experiences in a way that facilitates posttraumatic growth involves the following strategies: "cultivate the growth mindset; use metaphors; expressive writing" (Joseph, 2011, pp. 194-198).

Signpost 4: Identifying Change

Exercises for identifying change include: "keep a diary of what goes well; you can track your own growth by completing the Psychological Well-Being Post-Traumatic Changes Questionnaire to assess change in six areas of your life: self-acceptance, autonomy, purpose in life, relationships, sense of mastery, and personal growth" (Joseph, 2011, pp. 198-200).

Signpost 5: Valuing Change

Exercises for valuing change include: "gratitude exercise; imagining loss; write your own obituary as you would like it to read" (Joseph, 2011, pp. 202-203).

Signpost 6: Expressing Change in Action

It is essential to translate growth into concrete behaviors or action. It may therefore be helpful to ask: "What things have you done this past week, no matter how trivial they seem, that demonstrate that you are becoming more self-accepting, autonomous, purposeful in your life, focused on deepening your relationships, masterful over your situation, and open to personal

growth? And what things will you do next week that demonstrate these strengths? In this connection, you might find it helpful to think about expressing yourself in new and creative ways through activism, advocacy, and other forms of commitment to personal or social action" (Joseph, 2011, p. 204).

Resilience and Posttraumatic Growth: A Biblical Perspective

The Bible has much to say about suffering (e.g., see Piper & Taylor, 2006; Tada & Estes, 1997; Tan, 2006; Tchividjian, 2012; Thomas, 2002; Tiegreen, 2006) and how we can grow through the trials and tribulations of life (e.g., see Rom. 5:3-5, 8:18, 8:28, 29; 2 Cor. 4:16-18; James 1:2-4; 1 Pet. 4:12-13, 5:10). A biblical or Christian perspective on suffering, including experiencing adversity and trauma, provides much meaning and help that can lead to resilience and posttraumatic growth that is Christ-centered and cross-centered (cf. Phil. 3:10; Heb. 4:15). However, it does not glorify suffering, and God promises that one day, in Heaven to come, there will be no more suffering or pain (Rev. 21:1, 3-5).

Tada and Estes (1997, pp. 232-240) have listed 36 blessings or benefits that can come from God's hand through experiences of hardship and suffering, based on Scripture. They include: "God uses suffering to refine, perfect, strengthen, and keep us from falling; Suffering allows the life of Christ to be manifested in our mortal flesh; suffering teaches us humility; Suffering teaches us that God is more concerned with character than comfort... that the greatest good of the Christian life is not the absence of pain but Christlikeness; Obedience and self-control are learned from suffering; Suffering strengthens and allows us to comfort others who are weak" (Tan, 2006, p. 77). A biblical perspective on posttraumatic growth will therefore emphasize the outcomes of brokenness, humility, and deeper Christlikeness, rather than greater strength and self-confidence. It will focus on God's strength or power being made perfect in out weakness (2 Cor. 12:9-10), and how weakness is the way or key in the Christian spiritual life (Packer, 2013; see also Dawn, 2001) and not self-sufficiency that can lead to pride.

Meichenbaum (2012) has pointed out that the world's major religions such as Christianity, Judaism, Islam, Buddhism, and Hinduism all teach that suffering is part and parcel of life but growth or transformation can be the eventual outcome. Resilience and posttraumatic growth

can therefore emerge from tragedy and trauma including some of the “authentic disciplines” or circumstantial spiritual disciplines such as waiting, suffering, persecution, mourning, and sacrifice (Thomas, 2002), consistent with much biblical teaching (see Tan, 2011, p. 358).

However, a biblical or Christian perspective on suffering goes beyond affirming and emphasizing its potential benefits and blessings. Benefit-finding is *not* the ultimate meaning or end of human suffering. A deeper biblical view on suffering will also focus on knowing God and sharing in the fellowship of Christ’s sufferings (Phil. 3:10) in union and communion with him. Concrete benefits and blessings may not be apparent or clear but God is doing his deeper work of grace in our hearts and lives through redemptive and sanctified suffering, and in so doing reveals his greater glory in and through us (e.g., see Piper & Taylor, 2006; Tchividjian, 2012; Tiegreen, 2006). A biblical perspective on suffering must eventually be Christ-centered and cross-centered, but requiring also the power of His resurrection (Phil. 3:10) and the help of the Holy Spirit as the Divine Comforter and Counselor (Jn. 14:16-17). John Piper has emphasized that “the ultimate purpose of the universe is to display the greatness of the glory of the grace of God”, and therefore, “the ultimate reason that suffering exists... is so that Christ might display the greatness of the glory of the grace of God by suffering in himself to overcome our suffering” (Piper, 2006, p. 89).

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evidence and clinical applications from a Christian perspective. *Journal of Psychology and Christianity*, 38, 283-287. Tan, S. Y. (2018). How and why some therapists are better than others: Empirical evidence and clinical applications from a Christian perspective. *Journal of Psychology and Christianity*, 37, 183-188. Tan. Beyond resilience, posttraumatic growth, and self-care: A biblical perspective on suffering and Christian spiritual formation. In T. Crisp, S. L. Porter, & G. Ten Elshof (Eds.), *Psychology and spiritual formation in dialogue: Moral and spiritual change in Christian perspective* (pp. 104-122). Downers Grove, IL: IVP Academic. Tan, S. Y. (2017). View Posttraumatic Growth Research Papers on Academia.edu for free. It also takes a tour of the different explanatory perspectives on traumatic experiences. It focuses on the different modalities of positive coping with trauma, particularly four: hardiness, resilience, posttraumatic growth, and religious coping. We conducted a review of empirical studies (n=44) on posttraumatic growth in cancer patients. We believe that this study has achieved a significant understanding of hardiness, resilience, posttraumatic growth and positive religious coping modalities, from a theological perspective, which can contribute to the development of new practices of pastoral care, especially in contexts of adversity. Save to Library. *Neuropsychology of PTSD*—Biological, cognitive, and clinical perspectives (pp. 153–177). New York: Guilford Press. Dehon, C., & Scheeringa, M. S. (2006). Garmezy, N. (1991). Resilience and vulnerability to adverse developmental outcomes associated with poverty. *American Behavioral Scientist*, 34, 416–430. CrossRef Google Scholar. Ghosh Ippen, C., Harris, W., Van Horn, P., Guendelman, M., & Lieberman, A. F. (2009). Feasibility and effectiveness of cognitive-behavioral therapy for posttraumatic stress disorder in preschool children: Two case reports. *Journal of Traumatic Stress*, 20, 631–636. CrossRef Google Scholar PubMed. Scheeringa, M. S., Weems, C. F., Cohen, J. A., Amaya-Jackson, L., & Guthrie, D. (2010). Identifying empirical evidence in another researcher's experiments can sometimes be difficult. According to the Pennsylvania State University Libraries, there are some things one can look for when determining if evidence is empirical: Can the experiment be recreated and tested? Does the experiment have a statement about the methodology, tools and controls used? Is there a definition of the group or phenomena being studied? Bias. Empirical, anecdotal and logical evidence should not be confused. They are separate types of evidence that can be used to try to prove or disprove an idea or claim. Logical evidence is used to prove or disprove an idea using logic. Deductive reasoning may be used to come to a conclusion to provide logical evidence. Posttraumatic growth has been defined as the experience of positive psychological change, reported by an individual as a result of the struggle with trauma or any extremely stressful event (Tedeschi, Park and Calhoun, 1998; Tedeschi & Calhoun 2004). Implicit in this concept of growth is the assumption that PTG is more than mere survival, or the resistance of damage from a traumatic experience. And how is posttraumatic growth measured? Currently a range of measures of PTG are used—ranging from validated instruments (such as the Posttraumatic Growth Inventory) through to qualitative interview methods—some less reliable than others (see Linley & Joseph, 2004). Resilience and thriving in response to challenge: An opportunity for a paradigm shift in women's health.