

BRIGHTER LIGHT AT THE END OF THE TUNNEL: A CONCEPTUAL REVIEW OF POSTTRAUMATIC GROWTH (PTG)

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Abstract

In the past centuries, the scientific literature in the field of mental health mainly focused on the negative consequences of traumatic events such as posttraumatic stress disorder (PTSD). More recently however, increasing interest has been turned to the features of resilience and the possibility of positive transformation after experience of trauma. Empirical evidence increasingly suggests that traumatic experiences can be 'catalysts' for positive change, leading to the concept of Posttraumatic Growth (PTG). Defined as the positive transformation that occurs from the struggle with trauma, PTG has been reported to buffer the negative effects caused by distress and depression. Thus, fostering PTG in individuals who experience adversity can help promote their resilience and total psychological wellbeing. Being a relatively new concept in the area of positive psychology, there is the need for more understanding of this phenomenon. Therefore, this paper presents a critical discussion of the concept of PTG including its definition, conceptualization, theoretical framework and measurement as well as its clinical applicability.

Keywords: Traumatic events, PTG, Posttraumatic Growth, Positive Transformation, resilience

Introduction

Although the early scientific literature in the field of mental health was dominated by abnormality and negative consequences of traumatic experiences, the idea that major life challenges faced by human beings can bring transformation in highly positive ways, is ancient. In the mid-20th century, several scholars such as Viktor Frankl, Gerald Caplan, Carl Jung, and Irvin Yalom described this experience of positive transformation in their various writings. More recently, increasing interest and attention have been turned to the features of resilience and the possibility of positive consequences after experience of trauma (Chioyenda, 2021; Tedeschi & Calhoun, 2004; Klingberg, 2001).

The change in perspective to mental health

was sparked by a handful of studies that appeared in the late 1980s and early 1990s reporting positive changes in victims of traumatic events such as rape (Burt & Katz, 1987), bereavement (Edmonds & Hooker, 1992; Bower et al., 1998), war, natural disasters and chronic ailment (Affleck & Tennen, 1996). The idea of personal development as a result of an individual's response to adversity was initially referred to in number of different ways, including "transformation of trauma" (Calhoun & Tedeschi, 1989), "positive psychological change" (Yalom & Lieberman, 1991), "stress-related growth" (Park et al., 1996), "benefit finding" (Affleck & Tennen, 1996), "perceived benefits" (McMillen et al., 1997), and "adversarial growth" (Linley & Joseph, 2004). Interest in

how trauma can be a catalyst for positive changes continued to increase till when the concept of Post-traumatic Growth (PTG) was formally introduced by Richard Tedeschi and Lawrence Calhoun in 1995.

Tedeschi and Calhoun's (1995) Post-traumatic Growth (PTG) has emerged as the most dominant concept in the literature depicting positive transformation after traumatic experience (Papadopoulos, 2007). Through their research, Tedeschi and Calhoun (1995) found that for some survivors of trauma, the crisis causes a powerful shift in their ways of thinking and beliefs which forces them to adopt new ways of seeing themselves, their relationships and their world. Posttraumatic growth proved to be popular and became the descriptor for a field of inquiry attracting international attention from researchers, scholars and practitioners (Calhoun & Tedeschi, 2006; Joseph & Linley, 2005; Weiss & Berger, 2010). Over the past years it has developed into one of the flagship topics for positive psychology (Seligman, 2011). This paper describes the concept of posttraumatic growth (PTG), its conceptual and theoretical foundations, as well as its measurement and clinical applicability.

Definition

To properly understand posttraumatic growth, it is important to first understand the term trauma. When it was first introduced in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM III), trauma was defined as a catastrophic stressor that was outside the range of usual human experience. Incidents such as car accident, natural disaster, death of a loved one,

exposure to violence, and even painful divorce are considered variations of traumatic experience (APA, 2000). Individuals who experienced these traumatic events could develop symptoms that meet the diagnostic criteria for Post Traumatic Stress Disorder (PTSD).

According to Tedeschi and Calhoun (1995, 1996), the term posttraumatic growth describes both the process of development of positive changes in the struggle with trauma, and the positive outcomes themselves. Post-traumatic growth is therefore not about returning to life before the trauma; but rather, it is about building greater strength, flexibility and creating positive change that can come from rebuilding life after trauma. Tedeschi and Calhoun (2004, p.1) caution that growth does not occur as a result of trauma; rather, as the result of an individual's "struggle with highly challenging life circumstances" in the aftermath of trauma. Positive change, however, does not imply an absence of distress or negative experiences from trauma (Chiofenda, 2021). Rather, an individual can simultaneously be "more vulnerable" and "yet stronger," demonstrating that loss can result in important gains (Tedeschi & Calhoun, 2004, p.2).

Since its conceptualization in the mid-1990s, scholars have used different phrases to describe the concept of Posttraumatic Growth (PTG) including "positive legacy of trauma" (Tedeschi & Calhoun, 1996), "brighter light at the end of the tunnel" (Heffner, 2022), "unexpected gift of trauma" (Shiro, 2023) etc. The idea is that as we recover from trauma, we integrate a deeper

understanding of the self with new psychological tools and come out the other end more psychologically healthy than before the trauma took place. Instead of recovering to the state before traumatic experience, PTG involves the development of a higher, healthier psychological state.

Post-traumatic growth can be illustrated through the metaphor of the shattered vase. Supposing you accidentally knock down a treasured vase and it smashes into tiny pieces. Do you try to put the vase back together as it was? Do you collect the pieces and discard them in the garbage bin and consider it a total loss? No! The best and wisest thing to do is to pick up the beautiful coloured pieces and use them to make something new – such as a colourful mosaic. That is the situation with Posttraumatic Growth. When adversity strikes, people often feel that at least some part of them – be it their views of the world, their sense of themselves, their relationships – has been smashed. Those who try to put their lives back together exactly as they were remain fractured and vulnerable. But those who accept the breakage and build themselves anew become more resilient and open to new ways of living and enjoying their lives. These changes do not necessarily mean that the person will be entirely free of the memories of what has happened to them, the grief they experience or other forms of distress, but that they live their lives more meaningfully in the light of what happened.

Domains of Post-Traumatic Growth

Those who experience PTG, according to Tedeschi and Calhoun (1996), often report experiencing growth in one or more of the five ways listed below:

1. Appreciation of Life: Since trauma can bring one face-to-face with mortality, it can create a greater appreciation for life. It can help people savour and treasure the moments they have and not take them for granted. This type of appreciation is more than an intellectual understanding but is rather experienced through greater mindfulness and an ability to be more present focused in someone's daily activities.

2. Improved Interpersonal Relationships: Social support is a large part of what helps people heal their trauma and thrive in general. People with PTG exhibit increased reliability on others in times of trouble, greater sense of closeness with others, willingness to express emotions to others, increased compassion for others, increased effort in relationships, greater appreciation of how wonderful people are, and increased acceptance about needing others. This ability to be vulnerable, open and seen by others is an important part of PTG.

3. New Possibilities in Life: This involves developing new interests, establishing a new path in life, doing better things with one's life, new opportunities, and an increased likelihood to change what is needed. Since trauma can shatter one's belief and worldview, an organic shift can occur where things that were once meaningful no longer carry the same interests. There can be a shift in values and where one wishes to commit their time and energy into new opportunities and an outlook on life.

4. Spiritual Connectedness: Many trauma survivors report a shift in their spiritual connection. As someone seeks to

understand and heal their trauma, they may begin to develop a deeper sense of connection, sense of love and meaning in their lives that is often spiritual in nature. There is a better understanding of spiritual matters and a stronger religious (or spiritual) faith.

5. Personal Strength and Empowerment: This is marked by a greater feeling of self-reliance, increased ability to handle difficulties, improved acceptance of life outcomes and new discovery of mental strength. Those who experience PTG feel capable of processing difficult emotions in a healthy way. They feel strong as they have tapped into their inner resources that have helped them not just cope but to both feel and process both emotional and physical pain rather than numbing and distracting. There is a sense of empowerment and inner strength that can develop as a result of PTG.

It is important to note that not everyone who goes through PTG experience transformation in all the five areas. Looking at the five areas will help you develop a greater understanding of how PTG really works.

Measuring Post-Traumatic Growth

During the 1990s, a number of measurement tools – mostly self-report psychometric tools were published to assess positive changes after trauma experience. The first such measure was the Changes in Outlook Questionnaire (Joseph et al., 1993), followed by the Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996); the Stress Related Growth Scale (Park et al., 1996), the Perceived Benefit Scale (McMillen & Fisher, 1998), and the Thriving Scale (Abraido-

Lanza et al., 1998). Each of these measures asks respondents to think about how they have changed since an event and to rate the extent of their change on a series of items.

Using such measures of perceived growth, and open-ended interviews, a large number of studies have shown that growth is common for survivors of various traumatic events, including transportation accidents (shipping disasters, plane crashes, car accidents), natural disasters (hurricanes, earthquakes), interpersonal experiences (combat, rape, sexual assault, child abuse), medical problems (cancer, heart attack, brain injury, spinal cord injury, HIV/AIDS, leukaemia, rheumatoid arthritis, multiple sclerosis) and other life experiences (relationship breakdown, parental divorce, bereavement, emigration). Typically 30–70 per cent of survivors will say that they have experienced positive changes of one form or another (Linley & Joseph, 2004).

Post-Traumatic Growth and Resilience

Although Posttraumatic Growth has been conceptualized as a distinct concept from resilience, there exists some controversies between the concepts of PTG and resilience. For instance, Hobfoll et al. (2015) implicitly equate posttraumatic growth with resilience or view it as a superior construct covering resilient outcomes. Westphal and Bonanno (2007) argue that many, if not most people, are resilient in the face of trauma and that resilient outcomes typically provide little need or opportunity for PTG. This is supported by a growing number of prospective studies that have demonstrated that many (often the majority of) people exposed to potentially traumatic events

exhibit a stable resilient outcome trajectory and are significantly less likely to search for meaning following some loss or potential trauma compared to others exposed to the same event.

There is no doubt that some similarities exist between trauma resilience and post-traumatic growth. However, the two concepts are separate and distinct psychological processes. Individuals who are labelled as “resilient” tend to be relatively unaffected by the effects of trauma, at least to a significant degree. In fact, resilient individuals tend to bounce back quickly when faced with adversity (Collier, 2016). The process and outcome of posttraumatic growth is generally seen in people who are not resilient, but rather struggle psychologically following the aftermath of their trauma. In essence, they are trying to survive and not be overtaken by the negative effects of trauma. As individuals begin to reconstruct their beliefs about life, themselves, and others, they come to appreciate the fact that they have become stronger, developed a greater capacity for relating to others, experience immense gratitude, acknowledge new possibilities, and experience spiritual and/or existential growth.

Resilience is a broader construct that includes resistance to, or recovery from, trauma, but does not necessarily entail the transformative outcomes that characterize posttraumatic growth. The term “growth” underscores that the person has developed beyond previous levels of adaptation, psychological functioning, or life awareness. It has a quality of transformation or a qualitative change in functioning (Tedeschi

and Calhoun, 2004, p. 4). It may be that resilience helps us defend against trauma and PTG occurs when we recover and grow after the impact of trauma. In this sense, they may be different, but they are certainly related.

Theoretical Perspective to Post-Traumatic growth

Theoretically, several models have been proposed to explain the construct of Posttraumatic Growth (PTG). Notably among them are the Functional-descriptive Model (Tedeschi & Calhoun, 1995; 2004), the Organismic Valuing Theory (Joseph, 2004; Joseph & Linley, 2005) of posttraumatic growth; and, the Biopsychosocial Evolutionary approach by Christopher (2004) which also adds another view in explaining the construct. These three theoretical perspectives which appear to be the main perspectives underpinning the construct are briefly discussed below.

1. Functional-descriptive Model

According to the Functional-descriptive model developed by Tedeschi and Calhoun (1995;2004), traumatic life events can, and often do result in positive outcomes. The process begins with an experience of a traumatic event, which if sufficiently distressing is said to intensely challenge and destroy the individual's assumptive belief and goals (schemas) resulting in extreme emotional distress. The assumptive beliefs are a set of general notions about the world (eg. that the world is predictable, controllable and benevolent) which guides people's behaviour and interpretation of life events. Traumatic events appear to challenge the validity of the aforementioned core beliefs and cause individuals (trauma survivors) to

question their understanding of the world as well as their place in it. Thus, in an attempt to come to terms with the trauma and alleviate the accompanying distress, the individual automatically and unintentionally engages in ruminations about the trauma. Because the cognitive processes activated by the trauma are usually intrusive and unwanted, the individual begins to adopt various coping strategies (including self-disclosure) and solicit for support from other people to enable him/her manage the emotional distress and reconstruct the damaged assumptive beliefs and goals (ie schemas). Following reduction of some of the emotional distress, the automatic rumination transforms into a more purposeful and intentional reflections about how the event has changed the individual. Where the intentional thinking is generally constructive and focused on finding meaning and benefits as well as reappraisal of the traumatic event, then positive growth is said to have occurred (Tedeschi & Calhoun, 1995). This model describes how traumatic events serves as "seismic" challenges and shatters individuals' prior goals, beliefs, and pre-trauma schema including their emotional distress management capabilities (Tedeschi & Calhoun, 1995;2004). The 'seismic' metaphor (of an earthquake) used by Tedeschi and Calhoun, and other researchers in describing the process of posttraumatic growth characterizes the suddenness and force with which the assumptive beliefs or trauma schema are shattered.

This theory also likens trauma victims' attempt to rebuild their shattered assumptive world while trying to come to terms with the tragic event to the rebuilding efforts people make after an earthquake. Furthermore, the

intentional rumination phase of the cognitive process provides opportunity for individuals who have experienced highly stressful events to think carefully about how they want to rebuild their lives. Thus, by taking into consideration the realities of the circumstance and the knowledge that they have survived the traumatic event and associated distress, individuals may develop adaptive beliefs that are likely to lead to more resilience that enables them to deal with future life challenges effectively. By integrating the positive changes which have occurred into their life narratives, individuals become aware that they have grown in important and meaningful ways (Tedeschi & Calhoun, 1995; 1998), going forward in life. It has been suggested that while some trauma survivors would never wish to recall the circumstances surrounding the traumatic event, many of them recognize that these events changed them in positive ways (Tedeschi & Calhoun, 1995;2004).

2. The Organismic Valuing Process (OVP) Theory

This theory was derived from Joseph's (2004), Person-Centred Theory which proposed that post-traumatic growth occur following a highly stressful life event, because individuals have an inherent tendency to comprehend and integrate their experiences in a meaningful way while striving towards optimal well-being. This theory was considered too narrow in scope, therefore, in order to provide a more comprehensive and sophisticated theoretical framework for explaining the growth phenomenon, the Person-Centred theory was reviewed by Joseph and Linley (2005) to develop a new theory known as the

Organismic Valuing Process (OVP) theory. Although not radically different from the former (Person-centred theory), the Organismic Valuing Process (OVP) emphasizes individuals' inherent ability to know what is important to them as well as the things that are of essence in the fulfilment of their life aspirations. The foundation of the theory is that people are intrinsically motivated to move towards growth following a traumatic experience.

Within the organismic valuing process, three possible cognitive outcomes to the psychological resolution of trauma-related difficulties are suggested (Hollon & Garber, 1988). First, that trauma experiences are 'assimilated', leading to a return to the pretrauma baseline, while at the same time leaving the person vulnerable to future re-traumatization. Second, that trauma experiences are 'accommodated' in a negative direction, leading to psychopathology and distress. Third, that trauma experiences are 'accommodated' in a positive direction, leading to growth because the person has developed his/her world-view in the light of the new traumatic information. These three possible scenarios are illustrated in the following examples: (1) If an individual assimilates the trauma-related experience into their prior beliefs about the world developing the philosophy that, "bad things happen", they can recover from the trauma, but this recovery only returns them back to their pre-trauma level of adaptation and functioning. In this instance, the individual does not grow (or benefit) psychologically from the trauma experience, and thus remain vulnerable to future stressors. (2) If the individual accommodates

the trauma-related information negatively, thus developing the philosophy that, "bad things will always happen and nobody can prevent them from happening, so there is nothing good about life ", he/she may experience greater feelings of hopelessness/helplessness, and a high likelihood to experience post-traumatic stress and /or depression (Janoff-Bulman, 1989). (3) If, however, the individual accommodates the trauma-related information positively and modifies his/her prior world views appropriately with the belief, for instance, that, " bad things happen and life itself is unpredictable, so it should be lived to the fullest", then he/she may experience psychological growth in the aftermath of trauma. This, therefore, imply that alleviation of distress does not automatically guaranty growth, but that alleviation of distress may only facilitate the emergence of growth through positive accommodation , while assimilation may lead to increased vulnerability to future re-traumatization.

3. The Biopsychosocial Evolutionary Model

The Biopsychosocial-evolutionary theory developed by Christopher (2004) posits that when individuals experience trauma, as a normal response, their concepts of self, society, and nature (ie. metaschema) are shattered and reconstituted through an inherited evolutionarily mechanism which takes place simultaneously in the biological, psychological and the social domains leading to learning. Christopher in articulating the core theme of his perspective made a number of overlapping theoretical conclusions. First, that stress is a pre-rational form of biopsychological feedback which reflects

organisms' relationship with its environment. Second, the normal outcome of traumatic stress is growth, rather than pathology. Third, psychopathology is largely as a result of maladaptive or dysfunctional modulation of the stress response. Fourth, that trauma always transforms or increase individuals' biological and psychological levels of functioning. Fifth, the general biological processes governing stress response is universal, but the specific dynamics peculiar to an individual experiencing stress are always a function of his/her unique socio-cultural environment, and psychological makeup. Sixth, the biological factors underlying stable symptoms of psychopathology may change, even as the psychological symptoms remain unchanged. Seventh, that rationality is human's (evolutionarily) most sophisticated stress-reduction behavioural mechanism, and an important strategy for the restoration of trauma victim's psychological health (Christopher, 2004).

Furthermore, the Biopsychosocial-evolutionary theory suggests that the difference between the outcome of the normal day-to-day stress responses and the pathological stress responses seems to be determined by three categories of factors which are capable of converting stress into positive adaptation and development (or growth): First, the individual's (trauma victim) biological health status and ability to make use of available resources to deal with the stressful event. Second, adequacy of the trauma victim's cognitive ability to organize and interpret trauma-related information as well as the capacity to transform stress and anxiety into learning, meaning, and adaptive

behaviour. Third, the complexity, responsiveness, and flexibility of the social relationships available to the trauma victim during the traumatic event which helps to facilitate the reduction of strength of stress arousal.

According to this theory, the extent to which these three factors determine individuals' stress response and outcomes, in turn, depends on the functioning of the neural networks (ie. cognitive schema) and the endocrine system (regulating emotions) (Christopher, 2004). Conclusively, it may be argued that the biopsychosocial-evolutionary perspective's core assumptions that traumatic stress can result to growth, and that psychopathological outcomes may be due to maladaptive modulation of the stress response mechanism seems to align with the main thrusts of the Functional descriptive, and Person-Centred models of post-traumatic growth (Linley & Joseph, 2004).

Empirical Support

A comprehensive review of the literature by Tedeschi, et al. (2018) revealed hundreds of published studies on posttraumatic growth in the psychological and psychiatric literature, as well as many more within the fields of sociology, religion, and others. Much of the literature within psychology utilized the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996; Tedeschi et al., 2017) as a measure of the construct. The PTGI has been translated into more than twenty languages (Tedeschi, et al., 2018), which supports the idea that posttraumatic growth has universal presence.

Studies conducted to ascertain whether the

principles of growth might be useful in therapeutic interventions seem to show encouraging results. For example, Stanton et al. (2002) in a study assigned breast cancer patients to two groups; one of the groups was made to write about the facts of their cancer experience, while the other wrote about their positive thoughts and feelings regarding the experience. Three months later, it was found that those who wrote about positive experiences had significantly fewer medical appointments for cancer-related diseases, than those who were asked to write about the facts of the cancer experience. This appears to suggest that the group of cancer patients who wrote about positive experiences had experienced growth which, arguably translated to low morbidity (positive health outcomes) reflected in fewer medical appointments. This is consistent with another study which showed a link between positive change and lower levels of depression, anxiety, and posttraumatic stress, six months after traumatic life experiences (Linley et al., 2008).

According to a meta-analysis by Wu et al. (2019), about 53% of people exposed to some form of a traumatic event (chronically ill people, war veterans, firefighters, rescuers, etc.) consequently experience at least medium posttraumatic growth, with women reporting higher scores of PTG than men (Hamama-Raz et al., 2020).

Clinical Applications

In view of the existing overwhelming empirical evidence, the relevance of the concept of post-traumatic growth in clinical interventions is no longer doubted. According to Joseph (2009), it is easy for

clinicians working from the perspective of psychopathology to inadvertently overlook or even discourage growth in clients with trauma stress. More often than not, trauma victims (eg. victims of bereavement, accidents, terminal illnesses) are advised by relatives, friends and even professionals to “see the positives” or “concentrate on the good things” whenever they talked about negative aspects of the traumatic event. Such advice may not be helpful because it tends to encourage denial of suffering which may jeopardize the emergence of growth and positive adjustment (Zoellner & Maercker, 2006; Tedeschi & Calhoun, 2004). Therefore, a good understanding and skillful application of the principles of growth which allows clients to find their own specific meanings and interpretations, (rather than mere positive thinking) may be appropriate.

Based on the theoretical fundamentals and principle underlying the concept of posttraumatic growth, clinicians can promote growth for trauma victims by integrating relevant training elements into psychotherapy. Tedeschi and McNally (2011), for example suggest that such interventions may facilitate growth for trauma victims in a number of ways. First, it may enable them find ways to be altruistic and value the learning that had occurred in the aftermath of the trauma as well as the opportunities it has created in their life. Second, making them accept growth without guilt is beneficial to both the trauma survivors and others. Third, assists trauma survivors to adopt the ancient Greek and Roman concept (suggested by Tedeschi and McNally) which views the hero as 'an ordinary' person who experiences 'an

extraordinary' event, survives it, and returns to the everyday world to express an important truth about life.

Some interventions have been used to improve posttraumatic growth (Li et al., 2020), mostly based on the concepts of positive psychology such as psychosocial interventions (Tomita et al., 2017), supportive expression group therapy (Ludolph et al., 2019), behavioral therapy (Yun et al., 2017) and mindfulness-based interventions (Zhang et al., 2017), which have largely achieved beneficial effects, but their effects vary widely. Dehghan et al. (2024) recommended Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) in facilitating post-traumatic growth among children experiencing trauma.

The concept of Posttraumatic Growth introduces a new perspective into psychotherapy, as it imbues the clinicians with a broader understanding of the impact of traumatic events not solely as a negative posttraumatic response, but as potential precursors to positive growth which can be nurtured through relevant psychological interventions (Calhoun & Tedeschi, 2001).

Conclusion

The idea of post-traumatic growth has become one of the most exciting topics in modern psychology because it changes how we think about psychological trauma. Psychologists are beginning to realise that post-traumatic stress following trauma is not always a sign of disorder. Instead, post-traumatic stress can signal that the person is going through a normal and natural emotional struggle to rebuild their lives and

make sense of what has befallen them. Sadly, it often takes a tragic event in our lives before we make such changes. Survivors have much to teach those of us who haven't experienced such traumas about how to live. Remember, what does not kill us makes us stronger!

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