CHAPTER THREE

POST TRAUMATIC CREATIVITY: CREATIVITY INSTRUCTION FOR POST-TRAUMATIC GROWTH

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Abstract

The chapter will include four scenarios that describe participant experiences in the programs, how creativity helped them process negative life circumstances and events as a form of coping, and the positive perceptions they came to have of a challenging life event. In addition, this chapter will give insights into the creativity instruction, tools, and activities used in both courses, a discussion of cultural influences on participants, recommendations for others interested in implementing Post Traumatic Creativity programming, and future research directions for the fields of PTG and creativity.

Introduction to Post Traumatic Growth

What is meant by post traumatic growth? Post-traumatic growth (PTG) is a psychological variable first investigated by psychologists Richard Tedeschi, PhD, and Lawrence Calhoun, PhD, in the mid-1990s. They set out to explore the process by which people who had experienced negative, adverse, or traumatic life events in the past feel they experienced positive changes after the event occurred.

Traumatic events, at their essence, are characterized as events that are disruptive, viewed with a negative valence, and overwhelm the ability to cope (Tedeschi & Calhoun, 1995). Some characteristics which define traumatic events, from Tedeschi & Calhoun's perspective, include lack of control over the event, the degree to which it creates long-lasting problems, are shocking, out of the ordinary, and include irreversible changes (Tedeschi & Calhoun, 1995).

Tedeschi & Calhoun (1995) estimate that about 50% of people who experience traumatic events end up experiencing post traumatic growth as a result of it. While this is a promising finding, they also acknowledge that other people may experience psychological distress regarding the traumatic event for the rest of their life (Tedeschi & Calhoun, 1995).

Tedeschi and Calhoun identify some of the negative psychological repercussions following traumatic events are shock, disbelief, psychological numbness, and intrusive thinking (1995). Beyond those effects Carstensen & colleagues, also identified that "the experience of negative life events is associated with poor mental health and well-being, and stress vulnerability models generally assume that exposure to negative life events is a broad risk factor for the development of anxiety, depression, functional disorders, and psychosis" (2020, para. 1)

Given the cross-cultural prevalence of adverse life events including war, disease, famine, drought, and natural disasters, PTG research and theory is extremely salient. The mission of the authors of this chapter is to increase the prevalence and magnitude of PTG experienced within global populations through creativity instruction.

Contributing Factors to PTG

There are four factors which contribute to the likelihood that an individual will experience PTG. The first is a challenge to core beliefs, or "the degree to which a traumatic or stressful event causes people to reevaluate their assumptive worlds, including beliefs about themselves, other people, the future, and the world" (Tedeschi & Calhoun, 2004, p. 11).

The second factor that contributes to PTG is rumination, which consists of reexamining the traumatic event and related issues as a means of processing. In the PTG literature, rumination is broken into 2 types. The first type of rumination is intrusive rumination. Intrusive rumination is defined as "unwanted thinking that happens without the person wanting it and it is likely to be distressing", and is "likely for most trauma survivors soon after the event" ((Lindstrom, Cann, Calhoun & Tedeschi, 2013, p. 53). The second type of rumination explored in PTG literature is deliberate rumination, which is defined as "intentional reexamining of the traumatic event and related issues as a means of processing" (Lindstrom, Cann, Calhoun & Tedeschi, 2013). Deliberate rumination can include reflecting on events, trying to understand them, reminiscing, trying to find solutions to life problems, and thinking about possible positive repercussions of the event.

The third factor is disclosure, defined as discussing one's reactions to, and the negative and positive consequences of, the highly stressful event (Lindstrom, Cann, Calhoun & Tedeschi, 2013).

The fourth factor involves socio-cultural influences, defined as "the degree to which themes of growth are culturally available to the individual" including "platforms such as television, internet, newspapers and through friends or family report positive changes resulting from difficult experiences" (Lindstrom, Cann, Calhoun & Tedeschi, 2013, p. 53).

Of these four factors, the two that are most strongly linked with experiencing PTG are the *challenge to core beliefs* and *rumination*. The relationship between PTG and rumination can be simply stated. PTG is more likely to occur "for individuals who move away from intrusive rumination and enter into more deliberate ruminative processing as time since the event increases" (Tedeschi & Calhoun, 2004). In regards to the challenge to core beliefs, a metaphor can be highly helpful to understand the psychological processes at work.

PTG & Cognitive Rebuilding

Calhoun and Tedeschi are particularly fond of introducing the metaphor of an earthquake to describe the relationship between the challenge to core beliefs and PTG.

If one thinks of a city before an earthquake strikes, this is similar to one's worldview preceding a traumatic event. This "pre-earthquake city", or "pre-traumatic event cognitive landscape", is known as the assumptive world, which includes everything an individual thinks or believes about the way that the world functions.

When a traumatic event occurs that is stressful enough to shake these core beliefs about the assumptive world, it is experienced as a psychologically seismic event. In the case of an earthquake within a city, buildings that were not sufficiently prepared for an earthquake may collapse completely. In the same way, cognitive structures, such as thoughts and beliefs held about the world, may collapse due to the experience of a traumatic event.

Post Traumatic Growth does not occur directly as a result of this cognitive collapse. As previously noted, the negative psychological effects of traumatic events can be debilitating. The real opportunity presented by the collapse of cognitive structures is to rebuild an assumptive world that is stronger and less likely to collapse due to a future traumatic event. In the case of an earthquake within a city, the rubble of poorly built structures will be cleared, and more structurally sound and resilient structures will be built which are far less likely to collapse during a subsequent earthquake. In the same way, cognitive rebuilding creates cognitive worlds that are more resistant to being shattered. This is done primarily through the process of rumination, whether deliberate or intrusive. The results of this rebuilding are experienced as growth (Calhoun & Tedeschi, 2004).

Measuring PTG

In order to measure PTG within clients, Tedeschi & Calhoun developed the Posttraumatic Growth Inventory (PTGI), which is a psychological instrument for assessing the positive outcomes reported by individuals that have experienced traumatic events. A factor analysis in 2008 revealed 5 distinct domains measured by the PTGI (Tedeschi & Calhoun, 2004).

The first domain of PTG is Relationships with others, which "arises from the realization that the support of other people is necessary and from the resulting sense of increased closeness in relationships" (Tedeschi & Calhoun, 2004, p. 5).

The second domain is new possibilities in life, which occur when the traumatic event leads to "new options previously not considered, including the discovery of a new life path" (Tedeschi & Calhoun, 2004, p. 5).

The third domain is personal strength, which springs from the traumatized person realizing they are stronger than previously thought due to survival of the ordeal" (Tedeschi & Calhoun, 2004, p. 5).

The fourth domain is Spiritual growth, the degree to which a traumatic event results in "increased faith in a higher power and thus a greater understanding of spirituality" ((Tedeschi & Calhoun, 2004, p. 5).

The fifth domain is appreciation for life, which "manifests as a revision of life priorities and a new appreciation for life's preciousness" (Tedeschi & Calhoun, 2004, p. 5).

The 5 domains for measuring PTG are salient as one seeks to develop creativity instruction programs that can enhance the prevalence and magnitude of PTG in global contexts.

Creativity and Processing Traumatic Events

One of the most pressing questions related to creativity and PTG is the following: can creativity be used to enhance PTG in individuals? While specific studies that relate to creativity and Post Traumatic Growth have been limited to connecting increased self-reported creativity and post traumatic growth following a traumatic life event, there is a strong theoretical foundation that indicates that creative behaviors and creativity thinking skills can contribute to PTG.

One of the more promising ways that creativity is conceptually related to PTG is that different types of creative behavior promote cognitive processing and are correlated with many facets of well-being (Acar et al., 2021). This indicates that creativity may be a beneficial form of deliberate rumination whose well-being effects can help the cognitive rebuilding associated with PTG.

Creativity can be a powerful coping mechanism in times of extreme stress. One study conducted by Kapoor & Kaufman, 2020). In 2020 examined the ways that creativity was being used as a positive coping mechanism during the COVID-19 global pandemic. In addition to relatively low cognitive effort tasks, such as baking, they recounted the positive psychological, health, and well-being benefits of engaging in a more cognitively engaging creative behavior such as writing (Kapoor & Kaufman, 2020).

Pennebaker and colleagues (1997) have conducted extensive research investigating the positive health and well-being benefits of developing a regular writing practice. Impressively, they found a strong correlation between regular free writing (a technique where one writes for half an hour at a time with no prompt) and better health outcomes such as reduced physician visits and increased immune functioning.

In addition, Kapoor & Kaufman linked the practice of writing regularly to coherence, or "being able to make sense of one's life, as opposed to seeing the past as being a series of random and chaotic events" (2020, para. 6). They cite research which found writing expressively several times a week about personal, emotional topics, and that included some element of narrative led to notable improvements in physical and mental health (Pennebaker, 1997; Pennebaker & Beall, 1986; Pennebaker & Seagal, 1999).

That individuals are able to "make sense" of their life indicates that writing helps enhance cognitive processes that alter perceptions of the way that one sees past events. Thus, a theoretical link exists between writing and the cognitive rebuilding and meaning-making processes that induce PTG.

Furthermore, there is evidence that visual art creation can help individuals express and process traumatic experiences at a non-verbal level. A literature review connecting public health and well-being and the arts found that "Art helps people express experiences that are too difficult to put into words" (Stuckey & Nobel, 2010, p. 255). One case study explored the ways that "artistic self-expression might contribute to maintenance or reconstruc-

tion of a positive identity", finding that "art filled occupational voids, distracted thoughts of illness; improvements in flow and spontaneity, expression of grief, positive identity, social networks" (Stuckey & Nobel, 2010, p. 256). This provides strong theoretical evidence that art can help facilitate positive identity construction, which is one of the key goals of PTG, as well as improved relationships with others, which is also a domain of PTG measured in the *Post Traumatic Growth Inventory.*

In addition, a literature review of neuroscientific studies regarding art therapy, concluded that art therapy "offers a non-threatening way for clients to access and express their trauma, creating a corrective experience in the brain" (Perryman, Blisard & Moss, 2019, p. 80) In other words, by engaging in environments and activities that are psychologically safe for processing one's traumatic experiences, neurological functioning can become more normative.

Given this strong evidence that cognitive process is enhanced by writing and non-cognitive processing is enhanced by visual art creation, and both are beneficial to one's health and well-being, it is also likely that there exists the same connection between these creative behaviors and PTG. Furthermore, it is also likely that other forms of creative behavior not explored in this chapter that facilitate self-expression would also likely be related to PTG.

Likewise, creativity thinking skills, such as divergent thinking, and creative thinking preferences are related to different facets of well-being (Acar at al. 2021, Puccio, Mance & Murdock, 2010). Divergent thinking is defined as the ability to come up with novel alternatives to a challenge. Due to the fact that one of the domains of measuring PTG is "new possibilities", or the ability to envision and see new possibilities for one's life, there is a logical connection between one's divergent thinking abilities and ability to see new possibilities for one's life. Therefore, it is possible that instruction in creativity thinking such as divergent thinking may help facilitate this domain of PTG. Thus, the integration of instruction of creative behavior and creativity thinking skills is theoretically linked to enhanced PTG outcomes.

Post Traumatic Creativity: Creativity Instruction for Post-Traumatic Growth

Post Traumatic Creativity, as defined by the authors of this chapter, is creativity instruction focused on fostering increased adoption of creativity behaviors and creativity thinking skills as a way of inducing greater PTG prevalence and magnitude within the global population.

Instruction of creative behavior is focused on learning and applying skills associated with creative behaviors that allow for cognitive processing and rebuilding following a traumatic event, thus inducing PTG.

Instruction of creativity thinking skills, such as divergent and convergent thinking, is intended to help with learning, adaptation, and habitualization of creativity thinking in order to induce PTG. Since divergent thinking skills are explicitly dedicated to generating new ideas for life's challenges, so too can divergent thinking skills be used to think of positive repercussions of adverse events as well as new possibilities for one's life moving. It is theoret-

ically possible that the ability to generate new alternatives through divergent thinking can increase one's ability to re-create and sustain a worldview that is less likely to be shaken by traumatic events, thus contributing to PTG.

The authors of this chapter have led two creativity instruction courses in two diverse, global contexts, both of which produced anecdotal evidence linking creative behavior, thinking skills, and the presence of PTG.

Cross-Cultural Application of Creativity Instruction

The first cross-cultural application of creativity instruction took place in 2019 in Yangon, Myanmar - a country in Southeast Asia with a history of harsh dictatorial governance. Participants in this course (40) ranged in age from 16 to 40 years old with approximately half being female and half being male. All participants lived within the city limits and of lower income and social standing. Few had post-secondary educational experience. Additionally, no participant in this course had previously had any formal creativity training, and all disclosed symptoms of depression, anxiety, and/or general distress as a result of living under the dictatorship.

The second course was delivered throughout the 2021-2022 school year with a population of 6th grade English and Language Arts students located in an eastern suburb of Syracuse, New York. Roughly half the participants (50) were girls and half (50) were boys ranging in age from 11 to 12 years old. All came from upper-middle class or upper class families and had recently returned to full-time in-person learning following the Covid19 pandemic. Additionally, most had disclosed suffering from symptoms of depression, anxiety, or general distress in response to the pandemic and its consequences.

Though the programs provided instruction in different types of creative behaviors, the course in Myanmar delivering a course in Visual Art through painting, and the Syracuse, NY class receiving instruction in writing, we found that some participants showed signs of positive perceptions of negative life events.

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