Finding Meaning after Prolonged Trauma: Is the Construct of Post-Traumatic Growth Relevant for Survivors with Elevated Symptoms of Complex Posttraumatic Stress Disorder?

Olivia G. Augustat

Dr. Patricia Kaminski (Faculty Co-Editor)

The ICD-11 (WHO, 2018) has recently identified a distinct type of post-traumatic disorder, Complex Post-Traumatic Stress Disorder (CPTSD) that may occur following such prolonged trauma as childhood abuse, family violence, or other "captive" situations (Hermann, 1986). Importantly, CPTSD was not recognized by the American Psychological Association (APA) in their latest revision of the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5, APA, 2013). Despite the recognition of CPTSD in the ICD-11, a significant gap in the literature exists concerning how individuals with CPTSD effectively cope with their trauma. After analyzing the literature pertaining to post-traumatic growth (PTG) and resilience, we hypothesized involvement in religion and positive reframing as potential pathways for positive reinterpretation of trauma among people with high symptoms of CPTSD. Utilizing the Complex Trauma Inventory (CTI; Litvin, Kaminski, & Riggs, 2017), with an $N = 155$ sample, this study focuses on religious coping, positive reframing, and the rates of PTG of individuals who have high symptoms of CPTSD following prolonged trauma. Applying what is known about PTG in PTSD populations, we hypothesized that PTG would be positively correlated with religious coping (RCS) and positive reframing (PCS), and RCS would also positively correlate with PCS for CPTSD individuals. Our hypotheses were supported. Specifically, RCS had a

positive relationship with PTG ($\Delta R^2 = .107$; $p < .001$); PCS had a positive relationship with PTG ($\Delta R^2 = .107$; $p < .001$); and RCS with PCS ($p < .001$). These results reveal that individuals with CPTSD can experience PTG via specific types of effective coping, providing valuable insight into potential clinical applications with this novel CPTSD population in the U.S.

Introduction to Trauma as a Phenomenon:

The long-term and the short-term ramifications of intense stress is the center of much research within the fields of psychology and medicine (Southwick, Bonano, Masten, Panter-Brick & Yehuda, 2014), as there is a preponderance of people who are a survivors of severe traumatic events (Karam et al., 2014). In the United States, experiencing a potentially traumatic event is common, occurring to an estimated 50% to 80% of American adults once during their lives (Kessler, Sonnega, & Bromet, 1998; Norris, 1992; Ozer, Best, Lipsey, & Weiss, 2003; Portnoy et al., 2018). While traumatic events are less commonly experienced by children, trauma still is projected to have occurred in one out of every three children, with sexual and physical abuse being the leading causes (D'Andrea, Sharma, Zelechoski, & Spinazzola, 2011). Globally, members of the military are exposed to trauma the most, as an estimated 85.6% having been exposed to at least one traumatic event (Brunet, Monson, Liu, & Fikretoglu, 2015).

Delineated as a prolonged or intense period of stress on the individual that strains their psychological resources, trauma is generally a distressing, disturbing and debilitating experience (Tedeschi & Calhoun, 1995). War, natural disasters, life-threatening accidents, sexual assault, the death of a close family member, and terrorism all exemplify traumatic experiences (American Psychological Association, 2010; de la Rosa, Barnett-Queen, Messick & Gurrola, 2016; Dimitry, 2012; Furr, Comer, Edmunds, & Kendall 2010; Mitchell, Goodman, Eisen & Qin, 2011; Masten & Narayan, 2012; Mastens & Ososfsky, 2010; Norris, Tracy, & Galea, 2009;

Ososfsky & Ososfsky, 2013; Tol, Song & Jordens, 2013). Trauma is also not only limited to single catastrophic events. It can also encompass persistent stress—for instance, harassment, bullying, poverty, abusive relationships, unremitting severe weather, child maltreatment and poor or risky workplace conditions (Arnold, Mearns, Oshima, & Prasad, 2014; Evans, Li, & Whipple, 2013; Evans, Hawton, Rodham, Psychol, & Deeks, 2005). The acute strain of trauma puts individuals at risk for diverse physical disorders, such as inflammation, hypertension, and cardiovascular myopathies (Karatoreos & McEwen, 2013; Russo, Murrough, Han, Cherney, & Nestler, 2012; Southwick, Litz, Charney, & Friedman, 2011; Southwick, Vythilingam, & Charney, 2005). Trauma is also a risk factor for phobias, dissociative disorders, eating disorders, suicide, major depression, borderline personality disorder (BPD), post-traumatic disorders, and self-destructive tendencies (Leskin, Kaloupek, & Keane, 1998; Magee, Eaton, Wittchen, McGonagle, & Kessler, 1998; Marshall et al., 2001; Neria, Bromet, Sievers, Lavelle, & Frochtmann, 2002; Ross, Anderson, Fleisher, & Norton, 1991; Schinagle, 2002; Tobin, 1995).

Despite the prevalence and the associated negative effects of trauma, the majority of individuals rebound after trauma and experience a restabilization of their psychological state (Bonanno, Westphal & Mancini, 2011; Tedeschi & Calhoun, 1995). Only an estimated 8% of the general population meet the DSM-IV criteria for post-traumatic stress disorder (PTSD), despite trauma exposure rates ranging up to 90% (Vieweg et al., 2006). In a broad community sample study ($N = 2181$), PTSD affected on average 9.2% of those who had reported a lifetime history of traumatic events (Breslau et. al., 1998). Disseminated across categories, kidnapping, torture, or intense wartime violence puts individuals at the highest risk for PTSD (Breslau et. al., 1998). However, even amongst these categories, recovery back to baseline physiological state pre-trauma still occurs in a majority of people (Krippner & Taitz, 2017). This is not to say that the

individuals who did not qualify for a PTSD diagnosis did not initially experience PTSD-like symptoms or have subclinical symptoms (Breslau, Davis, Anderski, & Peterson, 1991; Kessler, Sonnega, Bromet, Hughes, & Nelson 1995); rather, these individuals had an eventual rebound in their psychological condition (Tedeschi & Calhoun, 2004). This rebound or resilience, while exhibited by most individuals, is not proportionately represented or discussed in trauma literature. It is, therefore, critical that more research concerning the relationship between the different factors that contribute to this resilience post-trauma be conducted (Lazarus, 1999; Lazarus & Folkman, 1984).

Resiliency, Post-Traumatic Growth, and Coping:

Deriving our definition of resiliency from the American Psychological Society—that is, "the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress"—we shall give a brief introduction to resiliency as a phenomenon (2014). Resiliency is a multifaceted subject with complex factors that contribute both to its development and its outcomes (Litz, 2014; Mancini & Bonanno, 2009). Once simplified as being a fixed characteristic (Rutter, 1979), resiliency is now thought to be fluid, modifiable, and affected by external factors (Davidson & Lutz, 2008; Harvey, 2007; Mandleco, 2000; Ungar & Liebenberg, 2013). The diverse protective factors that nurture resilience include, but are not limited to, connectivity to one's culture, community support, school engagement, social support, parental monitoring, self compassion, an internal locus of control, optimism, gratitude, and strength of spiritual belief (Ehret, Joorman, & Berking, 2015; Pejičić, Ristić, & Andelković, 2018; Rajan & Srikrishna, 2018; Robertson, Cooper, Sarkar, & Curran, 2015; Tømmerås & Kjøbli, 2017; Ungar & Liebenberg, 2013; Yu, Liu, & Yue, 2017). On the opposing side, factors that lower resilience (or risk factors) include family conflict, anger, risky behavior, continued stress, external locus of

control, incoherent self-concept, and self-criticism (Christiansen & Evans, 2005; Diehl & Hay, 2010; Ehret, Joorman, & Berking, 2015).

The vicissitude of environmental and internal factors should not be the only consideration when analyzing resilience. The progression of the individual through life is non-static; resilience is thus intrinsically fluid in nature as it is an interactive phenomenon between the individual and the environment (Henning, 2011). Resilience is not binary, either being absent or present. Rather, it is a phenomenon that can change over time in accord with an individual's experiences and progress in life (Southwick, Bonano, Masten, Panter-Brick & Yehuda 2014). The resilience that may have helped an individual at an earlier stage in life, or in another environment, might not be universal (Southwick, Bonano, Masten, Panter-Brick, & Yehuda, 2014). Trauma specifically creates a crisis that prompts the reevaluation of the coping strategies, available resources, and beliefs of the victim (Tedschi & Calhoun, 2004). During post-trauma, novel resilience develops and old forms of resilience are tested, creating an avenue for psychological growth forms.

Trauma's potential to be a catalyst for growth was researched in the early half of the 20th century. The Austrian neurologist, psychiatrist, and Holocaust survivor Viktor Frankl was the first with the realm of psychology to explore how greater meaning and happiness could be derived even in the midst of suffering. In his 1946 book, *Man's Search for Meaning*, he wrote, "We must never forget that we may also find meaning in life even when confronted with a hopeless situation, when facing a fate that cannot be changed. For what then matters is to bear witness to the uniquely human potential at its best, which is to transform a personal tragedy into triumph, to turn one's predicament into a human achievement" (Frankl, p. 112). In the following decades, the study of the psychologically healthy was prominently advanced by Maslow, who stressed the importance of understanding the aspects of human behavior that lead to wellness and

resiliency in crises (Maslow, 1970). Additionally, and in the same time frame, Caplan wrote profusely on how effective coping during a life crisis had the potential to produce psychological development or growth (Caplan, 1964). Later in the 1980s to the early 2000s, the interest in growth's relationship with trauma became more robust, producing terms that describe the phenomena of growth following trauma (e.g., strength from adversity, positive reinterpretation, positive psychological changes, construing benefits, thriving, transformational coping, flourishing, the discovery of meaning, positive emotions, and positive by-products) (Aldwin, 1994; Bower, Kemeny, Taylor, Fahey, 1998; Calhoun & Tedeschi, 1991; Folkman & Moskowitz, 2000; McCrae, 1984; McMillen, Zuravin, & Rideout, 1995; McMillen, Howard, Nower, & Chung, 2001; O'Leary & Ickovics, 1995; Pargament, 1996; Ryff & Singer, 1998; Scheier & Carver 1985; Tennen, Affleck, Armeli, & Carney, 2000; Yalom & Lieberman, 1991). From these descriptors, it is Tedeschi and Calhoun's phrase "posttraumatic growth" that became the modern term for the phenomenon. Specifically, posttraumatic growth (PTG) refers to the "positive psychological change experienced as a result of the struggle with highly challenging life circumstances" (Tedeschi & Calhoun, 1996). This definition figures in the current study.

Understanding the nature of PTG is an important factor in facilitating a pathway to recovery. It is important to acknowledge that PTG is distinct from resiliency. Resiliency is the dynamic ability to recover or to rebound to pre-trauma levels of functioning (Bonanno, Papa, & O'Niell, 2001). It is protective and leads to an increased affinity for coping post-trauma (Kuban & Steele, 2013). In contrast, PTG is an outcome or an ongoing process of specific and successful coping post-trauma (Tedeschi & Calhoun, 2004). PTG specifically is marked by changes post-trauma in behavioral patterns, life outlook, and in overall thought and belief systems (Turner & Cox, 2004). Resiliency has been strongly correlated with PTG (Block & Block, 1980; Lazarus &

Folkman, 1984), suggesting the need to explore the role of resiliency in determining PTG (Bonnnano, 2004). An active way to develop both PTG and resilience is effective coping as, during periods of intense stress or traums, effective coping can serve as a pathway for psychosocial adaption and stabilization (Holahan, Moos, & Schaefer, 1996; Lazarus & Folkman, 1984).

The dynamics of how trauma survivors engage in the coping process is labyrinthine (Heppner et. al, 2006). Categorized as either "emotion-focused" or "problem-focused," the first conceptualizations of the coping process were developed in the 1960's and the 1970's (Heppner et. al, 2006; Lazarus & Folkman, 1984). Problem-focused coping was characterized by attempts to problem-solve, reframe, or to mitigate the impact of the stressor or trauma. In contrast, emotion-focused coping involved affect regulation via fantasy, distractions, and self-preoccupation (Lazarus & Folkman, 1984). This simple model was elaborated on in the 1980's, as the examination of coping was expanded beyond the internal processes to include situational, intrapersonal, and environmental factors (Bolger & Eckernrode, 1991; Lazarus & Folkman, 1984). It is the consolidation of the inner and the external avenues of coping that creates the most complete overview of the process. With awareness of the multitude of pathways and forms coping can take, we will do an overview of the pervasive effects of religion and positive reinterpretation on the well-being of individuals who have experienced trauma.

Spirituality and Positive Reinterpretation:

As religion has been established to be strongly associated with both psychological and physical health, research within the psychological community to establish how religion specifically facilitates greater well being has become a focus (Powell, Shahabi, & Thoreson, 2003). Religion affects individuals via multiple pathways and influences a diverse number of

outcomes. For example, goals, values, attitudes, family dynamics, and childhood environment can be molded by exposure to religion (Emmons & Kneezel, 2005; Pargament, Magyar, & Murray-Swank, 2005; Roccas, 2005; Silderman, Higgins & Dweck, 2005). Religion, or the lack of it, is a defining aspect in the philosophy, world schema, and beliefs about the self of most individuals (Xu, 2016). Broadly, religion is a formative worldview that is generally comprehensive and includes a system of global beliefs, goals, or guides (Silberman & Hansburg, 2005). A prominent aspect of religion is its ability to create a meaning system that aids in the comprehension of phenomena and events (Geertz, 1966; Kotarba, 1983). It is this meaning system that aids individuals in processing suffering, loss, and trauma (Pargament, 1997).

As religion provides a framework of meaning for life experiences, it can serve as a crucial conduit for healthy coping (Koenig, Larson, & Larson, 2001). It can affect how individuals appraise situations, attribute meaning to those appraisals, judge how divergent those appraisals are from their meaning system, and then finally assess the pathways available to relieve the stress produced by the potential divergence (Park, 2005). Religion's role in this process is not polar but graduated, depending on each individual's separate level of religious involvement. When compared to individuals who are not invested in religion, those who find religion an intrinsic part of their world orientation are far more likely to include religion in their coping process. In addition to devoutness, the situation itself will often dictate the extent of religious involvement in the coping process (Pargament, 1997). The strength of religion as a coping mechanism often appears in situations that occur outside of the control of the individual (e.g. the death of a family member, life crises, trauma, and catastrophic events). This phenomenon is thought to occur due to religion's ability to reassure via its meaning system (Dull & Skokan, 1995; Pargament, 1997).

Beyond providing a universal framework of meaning, religion also provides an opportunity for positive reinterpretation during the coping process. Positive reinterpretation is the process where a negative or stressful situation is reappraised in a positive light. In brief, it is finding the silver lining in situations (Cheshire, Barlow, & Powell, 2010). Religion has very direct means of encouraging positive reinterpretation such as prayer, regarding the benevolence of God, seeking divine forgiveness, seeking mutual support from others within the faith, and meditation (Pargament, Koenig, & Perez, 2000). These methods of coping are only concrete representations of the common religious tradition of emphasizing the meaning or the positive growth that can come from suffering. Historically, adversity as a facilitator of positive change has been explored within most major religions.

Within Buddhism, the path to enlightenment is said to lie in acknowledgment of, the growth from, and the ultimate release of human suffering (Young-Eisendrath, 2008). Additionally, Abrahamic religions also emphasize the growth that can arise from trauma. For example in Christianity, suffering that is rewarded with divine grace is frequently exemplified in instances such as the crucifixion of Christ and the tradition of sainthood (Tedeschi & Calhoun, 2004). Judaism also contains this theme, as suffering's metamorphic power is often stressed within the Torah (Valera, 2007). Framing suffering as a tool of Allah, some sects of Islam also contribute to this prevalent theme of the positive reinterpretation of adversity within religion (Bowker, 1970). Being mindful of this contextual narrative of positive reframing within religion, we can form, via religion, a theoretical pathway for post-traumatic growth.

Religion gives individuals a rich traditional and cultural view of the world and supplies the framework necessary to attribute meaning to trauma and, therefore, the potential positively to reinterpret traumatic events. Religion encourages positive or healthy coping after trauma, aiding

the development of post-traumatic growth and the overall resilience of the individual. Understanding the precise nature of this theoretical pathway is of great importance to the community in order to help promote recovery following traumatic events. While researching these topics as a pathway for post-traumatic growth is not entirely novel, it is much needed as there are still gaps in the literature. At this point, we will introduce a population that has been overlooked by the psychological community at large and would benefit from research in this area.

Complex Post-Traumatic Stress Disorder:

As the intensity and extent of trauma are determiners in the severity and the type of symptoms an individual has the risk of exhibiting, it is important that a discrimination is made between those who have experienced acute trauma and those who have experienced prolonged trauma. Acute trauma has historically been the focus of the literature, as terminology to describe trauma and trauma-associated disorders and treatments were first developed in relation to war veterans (Hyams, Wignall & Roswell, 1996). This acute-trauma focus is still reflected in the modern-day terminology and, therefore, in modern-day studies concerning pathways to overcome trauma. PTSD, while a good descriptor for symptoms of acute trauma (e.g., combat, natural disasters, and sexual assault) is not an entirely universal term. Discourse regarding the shortfalls of PTSD as a blanket term began almost immediately after it was first defined in the third edition of the DSM in 1980. Early on, the heterogeneity of those diagnosed with PTSD was noted as well as PTSD's inability to encapsulate the effects and symptoms that prolong trauma can elicit (Herman, 1986; Watson, 1990). Survivors who had experienced prolonged traumatic abuse in childhood often presented symptoms, such as impulsivity, dissociation, substance abuse,

self-mutilation, somatization, revictimization and affective and anxiety disorders that were not contained within the original definition of PTSD (Gelinas, 1983; Goodwin, 1988).

The insufficiency of PTSD as a universal term for all posttraumatic disorders led to the development of a new descriptor, “complex post-traumatic stress disorder” (CPTSD), in the 1990’s to classify these symptoms and create a distinction between individuals who had experienced prolonged trauma and those who had experienced acute trauma (Herman, 1986; Horowitz, 1986; Janoff-Bulman, 1992). However, the DSM-IV did not create a separate diagnosis for CPTSD, instead only expanding the definition of PTSD symptoms to include Disorders of Extreme Stress Not Otherwise Specified (DESNOS) (American Psychiatric Association, 1994), and an assessment aid, the Structured Interview for Disorders of Extreme Stress (SIDES) (Pelcovitz, van der Kolk, Roth, Mandel, Kaplan, & Resick, 1997). This revision of the DSM was not widely used, however, and it contained several psychometric limitations. While the most recent edition of the DSM (DSM-5) revised the definition of PTSD again to include even more CPTSD symptoms, the DSM still did not make CPTSD a distinct diagnosis although CPTSD has specific symptoms arising from a specific source: long-term trauma and abuse (American Psychiatric Association, 2013). Combing all the symptoms under one PTSD diagnosis ignores the differences between PTSD and CPTSD and does not distinguish trauma survivors with different symptom presentations.

Delineations between PTSD and CPTSD:

Defined by the most recent edition of the International Classification of Diseases (ICD-11) considers PTSD a disorder that arises from a horrific, acute, or intensely stressful situation (Maercker et al., 2013; Karatzias et al., 2017). The ICD-11 distinguishes PTSD by three core symptoms: intrusive memories that lead to re-experiencing the traumatic event via flashbacks,

thoughts or dreams, avoidance of situations, places, or things that would trigger memories about the event, and an increase in alertness to potential threats (Ben-Ezra et al., 2018). To be considered PTSD, these symptoms must be impairing and occur for a period of three weeks or more (NIMH, 2020). Comparatively, CPTSD arises from prolonged or multiple exposures to situations such as slavery, captivity, domestic violence, sexual abuse in childhood, or physical abuse (Hyland et al., 2017). The situations are generally defined by their ability to make a victim feel helpless for a long span of time (Badour & Adams, 2015). The exposure to these events must result in an alteration in personality. Those with CPTSD have an overlap with PTSD in regard to the three core symptoms, but also express additional symptoms (Ben-Ezra et al., 2018). Individuals with CPTSD suffer from difficulty regulating affect, negative beliefs about the self, and negative changes or difficulties in maintaining interpersonal connections (Badour & Adams, 2015; Dvir, Ford, Hill & Frazier, 2014). Consistent with PTSD, the symptoms last more than three weeks and significantly impair daily functioning (NIMH, 2020).

Overlooking CPTSD and grouping those with CPTSD into PTSD diagnoses has left an unexplored and disregarded area concerning how individuals with CPTSD cope with their trauma and develop resiliency post-trauma. As individuals who have experienced CPTSD specific trauma are majority women, children, and minorities, this current standard has created a very exclusionary gap (Hyland et al, 2017; Karatzias et al,. 2017). Recently, methods to specifically discern CPTSD have allowed for individuals with CPTSD to be specifically studied. In this study, we will explore the nature of religion as an avenue for healthy coping and the growth in individuals with CPTSD.

Gap in the Literature:

Given the novel ways to define and measure CPTSD and the DSM's history of neglecting CPTSD as a distinct disorder that arises from distinct trauma, a significant gap in the literature exists concerning how individuals with CPTSD effectively cope with their trauma. Research on CPTSD must therefore be conducted to help fill this gap and subsequently aid clinicians and service organizations in supporting individuals with CPTSD. The most effective pathway to recovery for individuals suffering with CPTSD cannot be identified without specific research on what factors contribute to resiliency and eventually PTG among people with CPTSD. To this end, this study will focus on religious coping, positive reframing, and the rates of PTG in individuals who have potentially CPTSD inducing trauma.

Hypothesis:

Applying what we know about PTSD, post-traumatic growth, religious coping, and positive reframing among a sample of trauma survivors with significant Sxs of CPTSD we expect: (a) a statistically significant positive relationship between post-traumatic growth and religious coping; (b) a statistically significant positive relationship between post-traumatic growth and positive reframing; (c) a statistically significant positive relationship between positive reframing and religious coping.

Methods

Procedures and Participants:

After obtaining the approval of the Institutional Review Board, college student participants were recruited. Two modes of recruitment were implemented: (a) seven hundred and eighty-six students in participating UNT psychology classes were recruited through a web-based research program called SONA (Kraha, n.d.) and received varying extra credit points or assignment points according to the instructor's preference; (b) Seven hundred and forty-three

students in non-psychology classes (e.g., Political Science, Chemistry, Biology, Physics, Engineering and Math) were recruited through a brief in-class presentation, supplied the link to the Qualtrics survey and received varying extra credit or assignment points (or an alternative assignment) according to the instructor's preference. All participants received and provided informed consent prior to beginning the survey. A link was provided to participants to the online survey administered via Qualtrics (Provo, UT). The survey took about 30 minutes.

From the various UNT classes, a total of 1,556 students were recruited between 2019 and 2020. From the sample, 15% did not complete the survey (234 participants), 5% stated they had taken the survey at least once before (75 participants), 15% completed at least one segment of the survey too quickly to trust the validity of their responses (236 participants), and 1% were underage and lacked parental consent (10 participants). All of these participants were removed from the dataset, resulting in a total of 1,001 participants used for data analyses. The 1,001 participants were screen for CPTSD scores of two or greater, indicating that their CPTSD scores ranged from symptomatic (2.00 to 2.99) to clinically significant (3.00 and greater) (Litvin, Kaminski, & Riggs, 2017). This achieved an $N = 155$.

Participants in our sample reported every type of trauma listed on the Trauma History Screen (THS). Among the women in the sample, the types of traumas they most commonly listed first as "really bothering" them were being sexually abused as a child (22%) and sexually assaulted as an adult (14%). In total, (38%) reported child sexual abuse and (46%) reported sexual assault in adulthood. The other types of traumatic events experienced most frequently by the women in our sample were the sudden abandonment by a partner or parent (52%), the sudden death of a close family member or friend (51%), and "some other sudden event that made [them] feel very scared, helpless, or horrified" (52%).

Of the 27 men in our sample, 24 specified the types of trauma they had experienced. That The type of trauma most frequently listed first (20%), as well as that most listed overall (100%), was the sudden death of a close family member or friend. The other traumatic experiences men frequently reported were natural disasters (45%), the sudden abandonment by a parent or partner (38%), and "some other sudden event that made [them] feel very scared, helpless, or horrified" (38%).

Seven of our participants identified as gender minorities (e.g., gender fluid, non-binary, transgender). The type of trauma that they most frequently listed first (42%) as well as listed most often overall (71%) was "some other sudden event that made [them] feel very scared, helpless, or horrified." Gender minority participants also frequently reported childhood sexual abuse (57%), sexual assault in adulthood (42%), the sudden death of a close family member or friend (42%), and the sudden abandonment by a partner or parent (42%).

Our participants' religious affiliation broke into the following: Agnostics (13.5%); Atheist (5.8%); Buddhist (2.6%); Catholic (36.1%); Protestant (15.5%); Jewish (.6%); Muslim (2.6%); Spiritual (16.8%); and Other (6.5%). Additionally, the relationship status of sample was predominantly comprised of "Single, not dating," (34.8%), followed by "Single, dating casually," (20%), "Single, but dating seriously," (33.5%), "Living together, engaged," (7.1%), and "Married/Partnered," (3.2%). Of the 155 participants, only 3 were military veterans (1%).

Measures

Demographics:

A standard demographic survey was included in the survey, which contained questions about age, gender, ethnicity, education level, income, sexual orientation, relationship status, and religious affiliation. Participants also indicated if they were a non-veteran, veteran who

experienced direct combat exposure, or veteran who did not experience direct combat exposure. An additional demographics section was also included, which asked questions about mental health history and combat experience (if applicable).

Life-Events Checklist 5 – Measure of Traumatic Experiences:

The Life-Events Checklist 5 (LEC-5; Weathers, Blake, Schnurr, Kaloupek, & Keane, 2013) measured exposure to traumatic events. The LEC-5 has 17 items that cover a range of traumatic events (e.g., exposure to natural disasters; combat exposure; assault). Participants indicated whether the traumatic event had occurred to them, if they had witnessed it, if it happened to someone close to them, if they were exposed to it as part of their job, if they were not sure, or if it did not apply to them. Participants indicated the frequency of the traumatic experiences in the same categories. If participants endorses any of the first four choices, they could meet the traumatic exposure criteria of PTSD and CPTSD. Item examples include "Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)" and "Combat or exposure to a war-zone (In the military or as a civilian)."

Complex Trauma Inventory- CTI:

To identify individuals with CPTSD [symptomatic 'or' clinically significant], the Complex Trauma Inventory (Litvin, Kaminski, & Riggs, 2017) was used. The measure is a 21-item Likert-type scale that tests two second-order factors [i.e. PTSD and Disruption in Self-Organization (DSO)], and is distributed amongst six subscales: i. Re-experiencing (PTSD); ii. Avoidance (PTSD); iii. Sense of Threat (PTSD); iv. Affect Dysregulation (DSO) v. Negative Self-Concept (DSO); vi. Disruptions in Relationships (DSO). CPTSD is determined by adding the severity of PTSD scores to the severity of the DSO scores. The CTI is scored by summing the intensity and the frequency score to produce severity scores. The PTSD items (1-10) and the

Complex item (11-21) are averaged separately, before the PTSD and DSO score are combined and averaged for those respondents who meet criteria for CPTSD. The higher the score, so the higher the severity of the symptoms, implying a heightened exposure to trauma. The scale alpha for CTI-CPTSD was good (α = .825).

Posttraumatic Growth Inventory:

In order to assess PTG amongst our sample, the Posttraumatic Growth Inventory (PTGO; Tedeschi & Calhoun, 1996) was utilized. It consists of 21 Likert scale items that are combined into five subscales: Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life. Subscale alphas range from .67 to .86, and the alpha for the full scale is very good (α = .90) (PTGO; Tedeschi & Calhoun, 1996). For our sample, the alpha for the full scale was consistent with this (α = .941).

The Brief COPE Inventory:

To measure coping, we used the Brief COPE Inventory (Carver, Scheier, & Weintraub, 1989), a Likert-type scale (0-3), 0 = "I have not been doing this at all" to 3 = "I have been doing this a lot." Participants were asked to answer based on how they cope with general stress and trauma-related stress. The Brief COPE measures 14 coping strategies (with two items each to a total of 28 items): self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame. Alpha reliability of the subscales ranged from .50 to .90 (Carver, Scheier, & Weintraub, 1989). For our sample, we use the subscales for religion (α = .835) and positive reframing (α = .693).

Results

Analysis:

To assess hypothesis (a) concerning the relationship between Religious Coping, CPTSD symptoms, and PTG, a multiple regression analysis was performed. The model evaluated the prediction of PTG from the Religious Coping Subscale of the Brief COPE (RCS) and CTI-CPTSD severity scores. Our data met the assumptions necessary for multiple regression analysis. Initial correlations revealed that PTG and CTI-CPTSD severity scores did not have a significant relationship (p = .321) and that CTI-CPTSD severity scores and RCS did not have a significant relationship (p = .312). CTI-CPSTD scores were entered into the model first to control their effect on PTG. After RCS was added in the second step the results of the multiple linear regression analysis showed a statistically significant relationship concerning RCS and PTG. Specifically, the addition of the RCS led to a significant model ($\Delta R^2 = .107$ [$\Delta F\ (1,152) = 18.21$, $p < .001$]). Approximately 11% of the variance in PTG was accounted for by RCS when severity of CPTSD symptoms were statistically controlled [$\beta_{CPTSD} = .051$, $t = .661$, $p = .509$, $\eta^2 = .0025$ and $\beta_{RCS} = .327$, $t = 4.268$, $p < .001$, $\eta^2 = .107$].

With regard to the model summary, a significant change occurs (p <.001) for the CPTSD CTI and RCS model. However, there is only a weak coefficient of determination (R-squared = .108). This implies that the model is not currently strong at predicting the variance present within the sample, but it is still a significant model. Additionally, the adjusted R-square (.097) shows that the model including RCS is a better fit than the original model comparing the CPTSD CTI. RCS is statistically significant (p <.001).

Additionally, to assess hypothesis (b) we performed another analysis by looking at Positive Reframing (PCS), CPTSD individuals, while PTG. CTI-CPSTD scores were entered

into the model first to control their effect on PTG. After PCS was added in the second step the results of the multiple linear regression analysis showed a statistically significant relationship concerning PCS and PTG. Specifically, the addition of the PCS led to a significant model (ΔR^2 = .107 [ΔF (1,152) = 18.21, $p < .001$]). Approximately 16% of the variance in PTG was accounted for by PCS when severity of CPTSD symptoms were statistically controlled [β_{CPTSD} = .038, t = .461, p = .641, η^2 = .0025 and β_{RCS} = .399, t = 5.364, $p < .001$, η^2= .160].

Model (2) though showing that PCS and PTG did have a significant relationship, had a weak R-squared value (.160), again suggesting that the model is not currently strong at predicting the variance present within the sample though it is significant. The model (2) proves to be a better fit than model (1) (Adjusted R-square = .149).

Furthermore, to assess hypothesis (c) we performed a correlation on PCS and RCS. PCS and RCS were significantly correlated with each other (p <.001).

Discussion:

All of our predicted relationships were statistically significant: RCS to PCS ($p < .001$); RCS to PTG ($p < .001$); PCS to PTG ($p < .001$. These conclusions support the research questions which predicted that religious coping and positive reframing would facilitate significant pathways for growth, post-trauma, amongst individuals with CPTSD. This is an important finding showing PTG is possible for individuals with CPTSD, and can be fostered through effective coping mechanisms, such as positive reframing and religious coping.

Interestingly, there is no apparent relationship between the severity of the CPTSD symptoms experienced and PTG, meaning that the potential for growth post-trauma is not necessarily dependent on the severity of symptoms, but rather on how a survivor copes with those symptoms. This follows the pattern seen in PTSD populations, in which positive

perspectives and effective coping predicted PTG (Schuettler & Boals, 2011). The relationships for both RCS and PCS in relation to PTG were positive, indicating that, as use of coping increased, so did growth. This follows the literature on PTG from the broader PTSD population, and indicates that while CPTSD is distinctive from PTSD, it might have dimensions that behave similarly regarding coping and growth.

Looking at both RCS and PCS, the PCS model explained more of the variance in PTG. This could be due the dual nature of religion also being a potential punishing presence in the lives of some individuals, as opposed to being a positive reframing which generally has no negative associations (Kumpasoğlu et al., 2020). However, due the restriction in range with this sample, and the novel exploratory nature of this paper, more research regarding the strength of religion as a coping method following trauma will have to be conducted in the future.

Clinical Applications:

Given the lack of research regarding the CPTSD population, this study has diverse clinical applications. First growth is possible for these individuals when effective coping is utilized, even when CPTSD is severe. Finding meaning post-trauma via religion and positive reframing significantly fosters growth. By promoting therapy techniques that focus on these types of coping, individuals could be furthered on their path to recovery. This is valuable information given the relative lack of literature on CPTSD and how to encourage adaptive outcomes with individuals with CPTSD. Additionally, when working with trauma survivors who already have a religious identity, therapists need not be hesitate to address the role of religious coping in therapy. It is possible that additional positive outcomes may emerge from religious activities and/or the social support of other people in a religious community. While positive reframing is traditionally associated with cognitive therapy, therapists with other therapeutic

orientations may want to incorporate positive reframing into their trauma work. While more research is required before the efficacy of specific interventions is known, helping some survivors to reframe aspects of their lives that are separate from their trauma histories may be beneficial. Second, while CPTSD is distinct from PTSD, it appears that it mirrors PTSD in certain dimensions concerning coping and growth. Although distinct therapy techniques and practices should be ideally developed in the future, this is an indication that there is a crossover concerning the coping techniques encouraged for PTSD and those that should be encouraged for CPTSD therapy.

Future Directions:

Further studies should be conducted regarding this topic specifically exploring the dynamics and components within the positive relationships discovered between RCS, PCS, and PTG in the CPTSD population. While a restriction in range within the current study prevented it, a moderation analysis concerning these factors and PTG would be illuminating. Additionally, this study shows that CPSTD populations can exhibit PTG; thus, further avenues should be explored concerning how PTG arises within CPTSD populations.

Limitations:

The sample utilized might not be generalizable across differing areas, populations or identities, since the sample was collected from a southwestern university in the United States and primarily consisted of white women. Trauma studies conducted on university populations might not reflect the clinical population, given the general higher functioning of college attendees. Data, furthermore, was garnered via self-report surveys. Self-report introduces associated biases such as social desirability into the data.

Conclusion:

There is a significant positive relationship between religious coping, positive reframing, and growth post-trauma. This has implications concerning potential therapeutic approaches for CPTSD individuals and marks a step in the right direction concerning research on CPTSD individuals. Given the large gap in the literature, a suggestion that religious coping and positive reframing could help encourage PTG in these individual is encouraging. CPTSD individuals can experience growth if effective coping mechanisms are enlisted. More research collecting data from larger populations is suggested to continue to explore the precise dynamics of these relationships.

References

American Psychiatric Association. (2010). Diagnostic and statistical manual of mental disorders (6th ed.). Washington, DC: American Psychiatric Publishing.

American Psychiatric Association. (1968). Diagnostic and statistical manual of mental disorders (2nd ed.). Washington, DC: American Psychiatric Publishing.

American Psychological Association (2014). The Road to Resilience. Washington DC: American Psychological Association. http://www.apa.org/helpcenter/road-resilience.aspx

Arnold, Margaret; Mearns, Robin; Oshima, Kaori; Prasad, Vivek. 2014. *Climate and disaster resilience : the role for Community-Driven Development (CDD) (English)*. Washington, DC ; World Bank Group.

Aldwin, C. M. (1994). Stress, Coping, and Development. New York: The Guilford Press

Badour C, Adams T. *Contaminated by trauma: Understanding links between self-disgust, mental contamination, and PTSD*. In: Overton P, Simpson J, Powell P, editors. The revolting self: Psychological and clinical perspectives on self-directed disgust. London, England: Karnac Books; 2015. pp. 127–149

Ben-Ezra, M., Karatzias, T., Hyland, P., Brewin, C., Cloitre, M., Bisson, J., Roberts, N., Lueger-Schuster, B., & Shevlin, M. (2018). Posttraumatic stress disorder (PTSD) and complex PTSD (CPTSD) as per ICD-11 proposals: A population study in Israel. *Depression and Anxiety*. 35. 10.1002/da.22723.

Block JH, Block J. The role of ego-control and ego-resiliency in the origination of behavior. In: Collings WA, editor. *The Minnesota Symposia on Child Psychology*. Vol. 13. Hillsdale, NJ: Erlbaum; 1980. pp. 39–101.

Bonanno, G. A. (2004). Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events? *American Psychologist, 59*(1), 20-28.http://dx.doi.org/10.1037/0003-066X.59.1.20

Bonanno, G. A., Westphal, M., & Mancini, A. D. (2011). Resilience to Loss and Potential Trauma. *Annual Review of Clinical Psychology,7*(1), 511-535. doi:10.1146/annurev-clinpsy-032210-104526

Bonanno, G., Papa, A., & O'Neill, K. (2001). Loss and human resilience. *Applied and Preventive Psychology*. 10. 193-206. 10.1016/S0962-1849(01)80014-7.

Bower, J. E., Kemeny, M. E., Taylor, S. E., & Fahey, J. L. (1998). Cognitive processing, discovery of meaning, CD4 decline, and AIDS-related mortality among bereaved HIV-seropositive men. *Journal of Consulting and Clinical Psychology, 66*(6), 979-986. doi:10.1037/0022-006X.66.6.979

Bowker, J. (1970). Problems of Suffering in Religions of the World, 318 pp. *Theology Today*, *27*(4), 494–495. https://doi.org/10.1177/004057367102700422

Bolger, N., & Eckenrode, J. (1991). Social relationships, personality, and anxiety during a major stressful event. *Journal of Personality and Social Psychology, 61*(3), 440-449. http://dx.doi.org/10.1037/0022-3514.61.3.440

Breslau, N., Davis, G., Anderski, P., & Peterson, E. (1991). Traumatic Events and Posttraumatic Stress Disorder in an Urban Population of Young Adults. *Archives of General Psychiatry,48*(3), 216. doi:10.1001/archpsyc.1991.01810270028003

Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998). Trauma and Posttraumatic Stress Disorder in the Community. *Archives of General Psychiatry,55*(7), 626. doi:10.1001/archpsyc.55.7.626

Brunet, A., Monson, E., Liu, A., & Fikretoglu, D. (2015). Trauma Exposure and Posttraumatic Stress Disorder in the Canadian Military. *The Canadian Journal of Psychiatry,60*(11), 488-496. doi:10.1177/070674371506001104

Calhoun, L. G., & Tedeschi, R. G. (1991). Perceiving benefits in traumatic events: Some issues for practicing psychologists. *Journal of Training & Practice in Professional Psychology*, 5, 45–52

Caplan, G. (1964). *Principles of preventive psychiatry*. Oxford, England: Basic Books.

Carver, Charles & Scheier, Michael & K. Weintraub, Jagdish. (1989). Assessing Coping Strategies: A Theoretically Based Approach. Journal of personality and social psychology. 56. 267-83. 10.1037//0022-3514.56.2.267.

Cheshire, A., Barlow, J., & Powell, L. (2010). The psychosocial well-being of parents of children with cerebral palsy: a comparison study. *Disability and Rehabilitation*. 32:20, 1673-1677, DOI: 10.3109/09638281003649920

Christiansen EJ, Evans WP. Adolescent Victimization Testing Models of Resiliency by Gender. *Journal of Early Adolescence*. 2005;25:298–316.

D'Andrea, W., Sharma, R., Zelechoski, A. D., & Spinazzola, J. (2011). Physical Health Problems After Single Trauma Exposure. *Journal of the American Psychiatric Nurses Association,17*(6), 378-392. doi:10.1177/1078390311425187

Davidson, R. J., & Lutz, A. (2008). Buddha's Brain: Neuroplasticity and Meditation. *IEEE signal processing magazine*, *25*(1), 176–174.

Diehl, M., & Hay, E. L. (2010). Risk and resilience factors in coping with daily stress in adulthood: The role of age, self-concept incoherence, and personal control. *Developmental Psychology,46*(5), 1132-1146. doi:10.1037/a0019937

Dimitry, L. (2011). A systematic review on the mental health of children and adolescents in areas of armed conflict in the Middle East. *Child: Care, Health and Development,38*(2), 153-161. doi:10.1111/j.1365-2214.2011.01246.x

Dull, V. T., & Skokan, L. A. (1995). A cognitive model of religion's influence on health. *Journal of Social Issues, 51*(2), 49-64.http://dx.doi.org/10.1111/j.1540-4560.1995.tb01323.x

Dvir, Y., Ford, J. D., Hill, M., & Frazier, J. A. (2014). Childhood maltreatment, emotional dysregulation, and psychiatric comorbidities. *Harvard review of psychiatry*, *22*(3), 149–161. doi:10.1097/HRP.0000000000000014

Ehret, A. M., Joormann, J., & Berking, M. (2014). Examining risk and resilience factors for depression: The role of self-criticism and self-compassion. *Cognition and Emotion,29*(8), 1496-1504. doi:10.1080/02699931.2014.992394

Emmons, R. A., & Kneezel, T. T. (2005). Giving Thanks: Spiritual and Religious Correlates of Gratitude. *Journal of Psychology and Christianity, 24*(2), 140-148.

Evans, G. W., Li, D., & Whipple, S. S. (2013). Cumulative risk and child development. *Psychological Bulletin, 139*(6), 1342-1396. doi: 10.1037/a0031808. Epub 2013 Apr 8.

Evans, E., Hawton, K., Rodham, K., Psychol, C., & Deeks, J. (2005). The Prevalence of Suicidal Phenomena in Adolescents: A Systematic Review of Population-Based Studies. *Suicide and Life-Threatening Behavior,35*(3), 239-250. doi:10.1521/suli.2005.35.3.239

Folkman, S., & Moskowitz, J. T. (2000). Positive affect and the other side of coping. *American Psychologist, 55*(6), 647-654. doi.org/10.1037/0003-066X.55.6.647

Frankl, V. E. (1984). *Man's search for meaning: An introduction to logotherapy*. New York: Simon & Schuster.

Geertz, C. (1966). *Religion as a cultural system*. In M. Banton (Ed.), Anthropological approaches to the study of religion (pp. 1-46). London: Tavistock.

Gelinas, D. J. (1983). The persisting negative effects of incest. *Psychiatry: Journal for the Study of Interpersonal Processes, 46*(4), 312-332.

Goodwin, J. (1988), Post-traumatic symptoms in abused children. *J. Traum. Stress*, 1: 475-488. doi:10.1002/jts.2490010407

Harvey, M. R. (2007). Towards an ecological understanding of resilience in trauma survivors: Implications for theory, research, and practice. *Journal of Aggression, Maltreatment & Trauma, 14*(1-2), 9-32. doi:10.1300/J146v14n01_02

Henning, P. B. (2011). Disequilibrium, Development and Resilience Through Adult Life. *Systems Research and Behavioral Science,28*(5), 443-454. doi:10.1002/sres.1108

Heppner, P. P., Heppner, M. J., Lee, D.-g., Wang, Y.-W., Park, H.-j., & Wang, L.-f. (2006). Development and validation of a collectivist coping styles inventory. *Journal of Counseling Psychology, 53*(1), 107-125.http://dx.doi.org/10.1037/0022-0167.53.1.107

Herman, J. L. (1986), HISTORIES OF VIOLENCE IN AN OUTPATIENT POPULATION: An Exploratory Study. *American Journal of Orthopsychiatry*, 56: 137-141. doi:10.1111/j.1939-0025.1986.tb01550.x

Holahan, C.J., Moos, R.H. and Schaefer, J.A. (1996) Coping, Stress Resistance, and Growth: Conceptualizing Adaptive Functioning. *In: Zeider, M. and Endler, N., Eds., Handbook of Coping: Theory, Research, Applications*, John Wiley and Sons, New York, 24-43.

Horowitz MJ. Stress-response syndromes: a review of posttraumatic and adjustment disorders. *Hosp Community Psychiatry*. 1986;37(3):241–249.

Hyams KC, Wignall FS, Roswell R. War Syndromes and Their Evaluation: From the U.S. Civil War to the Persian Gulf War. *Ann Intern Med*. 1996;125:398–405. doi: 10.7326/0003-4819-125-5-199609010-00007

Hyland P., Shevlin M., Brewin C. R., Cloitre M., Downes A. J., Jumbe S., … Roberts N. P. (2017b). Factorial and discriminant validity of ICD-11 PTSD and CPTSD using the new International Trauma Questionnaire. *Acta Psychiatrica Scandinavica*, 136, 231–338.

Janoff-Bulman, R. (1992*). Shattered assumptions: Towards a new psychology of trauma*. New York: Free Press.

Karam, E. G., Friedman, M. J., Hill, E. D., Kessler, R. C., McLaughlin, K. A., Petukhova, M., Koenen, K. C. (2013). Cumulative traumas and risk thresholds: 12-month PTSD in the World Mental Health (WMH) surveys. *Depression and anxiety*, *31*(2), 130–142. doi:10.1002/da.22169

Karatsoreos, I. N., & Mcewen, B. S. (2013). Annual Research Review: The neurobiology and physiology of resilience and adaptation across the life course. *Journal of Child Psychology and Psychiatry,54*(4), 337-347. doi:10.1111/jcpp.12054

Karatzias, T., Cloitre, M., Maercker, A., Kazlauskas, E., Shevlin, M., Hyland, P., Brewin, C. R. (2018). PTSD and Complex PTSD: ICD-11 updates on concept and measurement in the UK, USA, Germany and Lithuania. *European journal of psychotraumatology*, *8*(sup7), 1418103. doi:10.1080/20008198.2017.1418103

Kessler, R., Stein, B., & Berglund, P. (1998). Social phobia subtypes in the National Comorbidity Survey. *American Journal of Psychiatry.* doi;155:613–619.

Kessler, R. C., Sonnega, A., Bromet, F., Hughes, M., & Nelson, C. (1995). Posttraumatic Stress Disorder in the National Comorbidity Survey. *Archives of General Psychiatry,52*(12), 1048. doi:10.1001/archpsyc.1995.03950240066012

Koenig, H. G., McCullough, M. E., & Larson, D. B. (2001). *Handbook of religion and health.* New York, NY, US: Oxford University Press.http://dx.doi.org/10.1093/acprof:oso/9780195118667.001.0001

Kojima, H. (2007). Treatment of Depression in Patients with Coronary Heart Disease. *The American Journal of Medicine,120*(9). doi:10.1016/j.amjmed.2006.07.037

Kotarba, J. A. (1983). Perceptions of death, belief systems and the process of coping with chronic pain. *Social Science & Medicine, 17*(10), 681-689.http://dx.doi.org/10.1016/0277-9536(83)90374-X

Kumpasoğlu, G. B., Hasdemir, D., & Canel-Çınarbaş, D. (2020). Between two worlds: Turkish religious LGBTs relationships with islam and coping strategies. *Psychology & Sexuality*, *0*(0), 1–15. https://doi.org/10.1080/19419899.2020.1772354

Kraha, A. (n.d.). Welcome to the UNT Sona Help Page! Retrieved September 28, 2015, from https://sites.google.com/site/sonasystemshelp/

Krippner, S., & Taitz, I. (2017). Psychotherapeutic approaches for post-traumatic stress disorder nightmares. *International Journal of Dream Research*. 10. 101-109. 10.11588/ijodr.2017.2.34713.

Lazarus, R. S. (1999). Stress and emotion: A new synthesis. New York, NY, US: Springer Publishing Co.

Lazarus RS, Folkman S. *Stress, appraisal and coping*. New York: Springer; 1984.

Leskin, G. A., Kaloupek, D. G., & Keane, T. M. (1998). Treatment for traumatic memories: Review and recommendations. *Clinical Psychology Review, 18*(8), 983-1002. doi:10.1016/S0272-7358(98)00039-7

Litz B. T. (2014). Resilience in the aftermath of war trauma: a critical review and commentary. *Interface focus*, *4*(5), 20140008. doi:10.1098/rsfs.2014.0008

Litvin, J. M., Kaminski, P. L. and Riggs, S. A. (2017), The Complex Trauma Inventory: A Self-Report Measure of Posttraumatic Stress Disorder and Complex Posttraumatic Stress Disorder. *JOURNAL OF TRAUMATIC STRESS*, 30: 602-613. doi:10.1002/jts.22231

Pargament, K. I. (1996). Religious methods of coping: Resources for the conservation and transformation of significance. In E. P. Shafranske (Ed.), *Religion and the clinical practice of psychology* (pp. 215-239). Washington, DC, US: American Psychological Association.http://dx.doi.org/10.1037/10199-008

Pargament, K. I. (1997). *The psychology of religion and coping: Theory, research, practice*. New York, NY, US: Guilford Press.

Pargament, K. I., Koenig, H., & Perez, L. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology*. 56. 519 - 543. 10.1002/(SICI)1097-4679(200004)56:4<519::AID-JCLP6>3.0.CO;2-1.

Pelcovitz, D. , van der Kolk, B. , Roth, S. , Mandel, F. , Kaplan, S. and Resick, P. (1997), Development of a criteria set and a structured interview for disorders of extreme stress (SIDES). *J. Traum. Stress*, 10: 3-16. doi:10.1002/jts.2490100103

Polly Young-Eisendrath Ph.D. (2008) The Transformation of Human Suffering: A Perspective From Psychotherapy and Buddhism, Psychoanalytic Inquiry, 28:5, 541-549, DOI: 10.1080/07351690802228864

Maercker, A., Brewin, C. R., Bryant, R. A., Cloitre, M., van Ommeren, M., Jones, L. M., Humayan, A., Kagee, A., Llosa, A., Rousseau, C., Somasundaram, D., Souza, R., Suzuki, Y,. Weissbecker, I., Wessely, S., First, M., & Reed, G. M. (2013). Diagnosis and classification of disorders specifically associated with stress: proposals for ICD-11. *World psychiatry : official journal of the World Psychiatric Association (WPA)*, *12*(3), 198–206. doi:10.1002/wps.20057

Magee, W. J. Eaton, W., Wittchen, h., McGonagle, K., & Kessler, R. (1996). Agoraphobia, Simple Phobia, and Social Phobia in the National Comorbidity Survey. *Archives of General Psychiatry,53*(2), 159. doi:10.1001/archpsyc.1996.01830020077009

Mancini, A. D., & Bonanno, G. A. (2009). Predictors and parameters of resilience to loss: toward an individual differences model. *Journal of personality*, *77*(6), 1805–1832. doi:10.1111/j.1467-6494.2009.00601.x

Mandleco, B. L. (2000). An Organizational Framework for Conceptualizing Resilience in Children. *Journal of Child and Adolescent Psychiatric Nursing,13*(3), 99-112. doi:10.1111/j.1744-6171.2000.tb00086.x

Marshall, R. D., Olfson, M., Hellman, F., Blanco, C., Guardino, M., & Struening, E. L. (2001). Comorbidity, Impairment, and Suicidality in Subthreshold PTSD. *American Journal of Psychiatry,158*(9), 1467-1473. doi:10.1176/appi.ajp.158.9.1467

Masten, A. S., Monn, A. R., & Supkoff, L. M. (n.d.). Resilience in children and adolescents. *Resilience and Mental Health,*103-119. doi:10.1017/cbo9780511994791.009

Maslow, A. H. (1970). Motivation and Personality (2nd ed.). New York: Harper & Row.

Masten, A. S., & Narayan, A. J. (2012). Child Development in the Context of Disaster, War, and Terrorism: Pathways of Risk and Resilience. *Annual Review of Psychology,63*(1), 227-257. doi:10.1146/annurev-psych-120710-100356

Masten, A. S., & Osofsky, J. D. (2010). Disasters and Their Impact on Child Development: Introduction to the Special Section. *Child Development,81*(4), 1029-1039. doi:10.1111/j.1467-8624.2010.01452.x

McCrae, R. R. (1984). Situational determinants of coping responses: Loss, threat, and challenge. *Journal of Personality and Social Psychology, 46*(4), 919-928. doi:10.1037/0022-3514.46.4.919

McMillen, J. C., Zuravin, S., & Rideout, G. B. (1995). Perceived benefit from child sexual abuse. Journal of Consulting and Clinical Psychology, 63, 1037-1043

McMillen, C., Howard, M. O., Nower, L., & Chung, S. (2001). Positive by-products of the struggle with chemical dependency. *Journal of Substance Abuse Treatment, 20*(1), 69-79.http://dx.doi.org/10.1016/S0740-5472(00)00151-3

NIMH » Post-Traumatic Stress Disorder. (n.d.). Retrieved April 8, 2021, from https://www.nimh.nih.gov/health/publications/post-traumatic-stress-disorder-ptsd/index.shtml

O'Leary, V., & Ickovics, J. R. (1995). Resilience and thriving in response to challenge: An opportunity for a paradigm shift in women's health. *Women's Health: Research on Gender, Behavior, and Policy*. I, 121-142.

Osofsky, J. D., Osofsky, H. J., Weems, C. F., Hansel, T. C., & King, L. S. (2014). Effects of Stress Related to the Gulf Oil Spill on Child and Adolescent Mental Health. *Journal of Pediatric Psychology,41*(1), 65-72. doi:10.1093/jpepsy/jsu085

Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychological Bulletin,129*(1), 52-73. doi:10.1037//0033-2909.129.1.52

Neria, Y., Bromet, E. J., Sievers, S., Lavelle, J., & Fochtmann, L. J. (2002). Trauma exposure and posttraumatic stress disorder in psychosis: Findings from a first-admission cohort. *Journal of Consulting and Clinical Psychology, 70*(1), 246-251. doi:10.1037/0022-006X.70.1.246

Norris, F. H. (1992). Epidemiology of trauma: Frequency and impact of different potentially traumatic events on different demographic groups. *Journal of Consulting and Clinical Psychology,60*(3), 409-418. doi:10.1037//0022-006x.60.3.409

Norris, F. H., Tracy, M., & Galea, S. (2009). Looking for resilience: Understanding the longitudinal trajectories of responses to stress. *Social Science & Medicine,68*(12), 2190-2198. doi:10.1016/j.socscimed.2009.03.043

Pargament, K. I., Magyar-Russell, G. M., & Murray-Swank, N. A. (2005). The sacred and the search for significance: Religion as a unique process. *Journal of Social Issues*, *61*(4), 665-687. https://doi.org/10.1111/j.1540-4560.2005.00426.x

Pejičić, M., Ristić, M., & Anđelković, V. (2018). The mediating effect of cognitive emotion regulation strategies in the relationship between perceived social support and resilience in postwar youth. *Journal of Community Psychology,46*(4), 457-472. doi:10.1002/jcop.21951

Portnoy J, Raine A, Chen FR, Pardini D, Loeber R and Jennings JR (2014) Heart rate and antisocial behavior: the mediating role of impulsive sensation seeking. *Criminology*, 52, 292–311.

Powell, L. H., Shahabi, L., & Thoresen, C. E. (2003). Religion and spirituality: Linkages to physical health. *American Psychologist, 58*(1), 36-52.http://dx.doi.org/10.1037/0003-066X.58.1.36

Roccas, S. (2005), Religion and Value Systems. *Journal of Social Issues*, 61: 747-759. doi:10.1111/j.1540-4560.2005.00430.x

Rosa, I. A., Barnett-Queen, T., Messick, M., & Gurrola, M. (2016). Spirituality and Resilience Among Mexican American IPV Survivors. *Journal of Interpersonal Violence,31*(20), 3332-3351. doi:10.1177/0886260515584351

Russo, S., Murrough, J., Han, M., Charney, D., & Nestler, E. (2012) Neurobiology of resilience. *Resilience and Mental Health,*1-29. doi:10.1038/nn.32.34

Sayfan L, Mitchell EB, Goodman GS, Eisen ML, Qin J. Children's expressed emotions when disclosing maltreatment. *Child Abuse & Neglect*. 2008;32:1026–1036.doi:10.1016/j.chiabu.2008.03.004.

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology, 4*(3), 219-247. http://dx.doi.org/10.1037/0278-6133.4.3.219

Schinagle, M. (2002). Recurrent Suicide Attempts, Self-Mutilation, and Binge/Purge Behavior: A Case Report. *Harvard Review of Psychiatry,10*(6), 353-363.

Schuettler, D., & Boals, A. (2011). The path to posttraumatic growth versus posttraumatic stress disorder: Contributions of event centrality and coping. *Journal of Loss and Trauma*, *16*(2), 180–194. https://doi.org/10.1080/15325024.2010.519273

Silberman, I., Higgins, E. T., & Dweck, C. S. (2005). Religion and world change: Violence and terrorism versus peace. *Journal of Social Issues, 61*(4), 761-784.http://dx.doi.org/10.1111/j.1540-4560.2005.00431.x

Silberman, M. and Hansburg, F. (2005), Leading reluctant people. *Leader to Leader*, 2005: 7-10. doi:10.1002/ltl.121

Silverman, A. M., Molton, I. R., Alschuler, K. N., Ehde, D. M., & Jensen, M. P. (2015). Resilience Predicts Functional Outcomes in People Aging With Disability: A Longitudinal Investigation. *Archives of Physical Medicine and Rehabilitation,96*(7), 1262-1268. doi:10.1016/j.apmr.2015.02.023

Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: interdisciplinary perspectives. *European journal of psychotraumatology*, *5*, 10.3402/ejpt.v5.25338. doi:10.3402/ejpt.v5.25338

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*(1), 255-291. doi:10.1146/annurev.clinpsy.1.102803.143948

Southwick S. M, Litz B. M, Charney D, Friedman M. *Resilience and mental health: Challenges across the lifespan*. Cambridge: Cambridge University Press; 2011. doi:10.1080/10673220216228

Furr, J., Comer, J., Edmunds, J., & Kendall, P. (2010). Supplemental Material for Disasters and Youth: A Meta-Analytic Examination of Posttraumatic Stress. *Journal of Consulting and Clinical Psychology*. doi:10.1037/a0021482.supp

Rajan, Anugraha & Romate, J & Srikrishna, G. (2016). Resilience of parents having children with intellectual disability: Influence of parent and child related demographic factors. *Indian Journal of Health and Wellbeing*. 7. 707-710.

Robertson, I. T., Cooper, C. L., Sarkar, M. and Curran, T. (2015), Resilience training in the workplace from 2003 to 2014: *A systematic review. J Occup Organ Psychol*, 88: 533-562. doi:10.1111/joop.12120

Ross, C., Anderson, G., Fleisher, W., & Norton, G. (1991). The frequency of multiple personality disorder among psychiatric inpatients. (1991). *American Journal of Psychiatry,148*(12), 1717-1720. doi:10.1176/ajp.148.12.1717

Rutter M. (1979). *Protective factors in children's responses to stress and disadvantage. In: Kent MW, Rolf JE, editors. Primary prevention in psychopathology: Social competence in children.* Vol. 8. University Press of New England; Hanover, NH: 1979. pp. 49–74.

Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry, 9*(1), 1-28.http://dx.doi.org/10.1207/s15327965pli0901_1

Tedeschi, R., & Calhoun, L. (1995). *Trauma & Transformation: Growing in the Aftermath of Suffering.*Thousand Oaks, CA, US: Sage Publications, Inc. doi:10.4135/9781483326931

Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress, 9*(3), 455-472. http://dx.doi.org/10.1002/jts.2490090305

Tedeschi, R. G., & Calhoun, L. G. (2004). Target Article: "Posttraumatic Growth: Conceptual Foundations and Empirical Evidence". *Psychological Inquiry, 15*(1), 1-18. http://dx.doi.org/10.1207/s15327965pli1501_01

Tennen, H., Affleck, G., Armeli, S., & Carney, M. A. (2000). A daily process approach to coping: Linking theory, research, and practice. *American Psychologist, 55*(6), 626-636.http://dx.doi.org/10.1037/0003-066X.55.6.626

Tobin, D. (1995). Treatment of early trauma and dissociation in eating disorders of late onset. *European Eating Disorders Review,3*(3), 160-173. doi:10.1002/erv.2400030305

Tol, W. A., Song, S., & Jordans, M. J. (2013). Annual Research Review: Resilience and mental health in children and adolescents living in areas of armed conflict - a systematic review of findings in low- and middle-income countries. *Journal of Child Psychology and Psychiatry,54*(4), 445-460. doi:10.1111/jcpp.12053

Tømmerås, T., & Kjøbli, J. (2017). Family Resources and Effects on Child Behavior Problem Interventions: A Cumulative Risk Approach. *Journal of Child and Family Studies,26*(10), 2936-2947. doi:10.1007/s10826-017-0777-6

Turner, d., & Cox, H. (2004). Facilitating post traumatic growth. *Health and quality of life outcomes*, *2*, 34. doi:10.1186/1477-7525-2-34

Valera S. J. (2009). The Meaning of Suffering in the Thought of Abraham Joshua Heschel. *Shofar: An Interdisciplinary Journal of Jewish Studies,26*(1), 169-182. doi:10.1353/sho.0.0002

Vieweg, W., Demetrios, J., Fernandez, A., Wulsin, L., Mohanty, P., Beatty-Brooks, M., Hasnain, M., & Pandurangi, A. (2006). Treatment of Depression in Patients with Coronary Heart Disease. *The American Journal of Medicine.* 567-573. doi:10.1016.2006.02.037

Ungar, M. (2013). Resilience, Trauma, Context, and Culture. *Trauma, Violence, & Abuse*, *14*(3), 255–266. https://doi.org/10.1177/1524838013487805

Ungar, M., & Liebenberg, L. (2011). Assessing Resilience Across Cultures Using Mixed Methods: Construction of the Child and Youth Resilience Measure. *Journal of Mixed Methods Research*. 5. 126-149. 10.1177/1558689811400607.

Watson, C. G. (1990). Psychometric posttraumatic stress disorder measurement techniques: A review. *Psychological Assessment: A Journal of Consulting and Clinical Psychology, 2*(4), 460-469.http://dx.doi.org/10.1037/1040-3590.2.4.460

Weathers, F.W., Blake, D.D., Schnurr, P.P., Kaloupek, D.G., Marx, B.P., & Keane, T.M. (2013a). *The Life Events Checklist for DSM-5 (LEC-5).* Instrument available from the National Center for PTSD at www.ptsd.va.gov

Weathers, F.W., Litz, B.T., Keane, T.M., Palmieri, P.A., Marx, B.P., & Schnurr, P.P. (2013b). *The PTSD Checklist for DSM-5 (PCL-5).* Scale available from the National Center for PTSD at www.ptsd.va.gov.

Xu J. (2015). Pargament's Theory of Religious Coping: Implications for Spiritually Sensitive Social Work Practice. *British journal of social work*, *46*(5), 1394–1410. doi:10.1093/bjsw/bcv080

Yalom I. D., Lieberman M. A. (1991). Bereavement and heightened existential awareness. *Psychiatry,* 54 334–345. 10.1080/00332747.1991.11024563

Yu, N. X., Liu, C., & Yue, Z. (2017). Resilience mediated the association between acculturation and psychological growth in college students from Hong Kong to Guangzhou, China. *Journal of Mental Health,26*(4), 326-333. doi:10.1080/09638237.2017.1294730