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Posttraumatic Growth During COVID-19: A Quantitative Analysis of Individualist and Collectivist Values

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Posttraumatic Growth During COVID-19: A Quantitative Analysis of Individualist and Collectivist Values

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Abstract

The 2019 Coronavirus Disease (COVID-19) pandemic has spurred a major global crisis. Collective trauma is inevitable. Compared to posttraumatic stress, relatively little research has been conducted on posttraumatic growth. This study examined the associations between individualism-collectivism, coping behaviors, and posttraumatic growth in the context of COVID-19. A total of 314 adult participants were recruited to complete a questionnaire on COVID-19 experiences, individualism-collectivism, coping, and posttraumatic growth. Posttraumatic growth was measured globally and across five factors: relating to others, personal strength, new possibilities, appreciation of life, and spirituality. A t-test found no difference in global posttraumatic growth in participants who were primarily individualistic and those who were primarily collectivistic. A one-way multiple analysis of variance (MANOVA) also found no differences in the average values of factors of posttraumatic growth between participants who scored primarily individualistic and those who scored primarily collectivistic. A one-way MANOVA found that there were no significant differences in frequency of use of coping behaviors between primarily individualistic and primarily collectivistic participants. A Pearson correlation analysis found multiple significant positive correlations between the frequency of use of several coping behaviors, factors of posttraumatic growth, and global posttraumatic growth. The coping behaviors with positive correlations were active coping, planning, positive reframing, humor, religion, emotional support, instrumental support, self-distraction, denial, venting, substance use, and self-blame. The strengths of these correlations with global posttraumatic growth ranged from weak to moderate. The

strengths of these correlations with factors of posttraumatic growth ranged from weak to strong. Implications for the counseling field and allied professions are discussed.

Chapter 1: Background and Introduction

In December 2019, health officials in China identified multiple similar pneumonia cases with unknown causes in Wuhan, Hubei Province (World Health Organization, 2020). Investigation began in 2020, and the respiratory illness was found to have been caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease caused by the virus is known as coronavirus disease 2019 (COVID-19). Symptoms of the disease include cough, fever, shortness of breath, and other respiratory and viral symptoms. While some individuals affected experience only minor symptoms, the illness can be severe and deadly in others. In March 2020, the World Health Organization declared COVID-19 a pandemic (World Health Organization, 2020). Across the globe, lockdowns and shelter-in-place initiatives were enforced, travel was restricted, and health systems were strained. In the United States, many businesses closed temporarily or permanently, and states issued governing orders for some or all citizens to isolate and self-quarantine.

As of November 2020, the COVID-19 pandemic has continued, and the world is experiencing a collective crisis. Economic hardship, job loss (Fernandes, 2020), insufficient resources (Dunn et al., 2020; Mareiniss, 2020), isolation, and anxiety (Filbin & Bologno, 2020; Lima et al., 2020) are just a few of the multiple devastating consequences that the pandemic has caused around the world. Some degree of collective trauma is inevitable. Trauma-informed care and cultural competence are prominent focuses in the counseling field and other helping professions, and are perhaps more valuable than ever. Most research on trauma focuses on the negative effects following adverse events, such as posttraumatic stress (Galea et al., 2005; Jin et al., 2014), while

relatively little research has been conducted on the potential positive effects (Jin et al., 2014). Additionally, most treatments of trauma focus on remediation or the subsiding of undesirable symptoms (American Psychiatric Association, 2013; Jones & Cureton, 2014; Lieberman et al., 2019; Michael et al., 2019; Szeszko & Yehuda, 2019).

An alternative focus of trauma study and treatment is posttraumatic growth. Posttraumatic growth is the ongoing development of positive changes that occur for a person following or during a crisis or trauma (Ekblad, 2015; Morrill et al., 2008; Tedeschi & Calhoun, 2004). Examples of posttraumatic growth include gratitude (Echterling et al., 2018), appreciation of life (Cormio et al., 2015; Jansen et al., 2011), improved interpersonal relationships, perceived emotional strength, and an increased sense of spirituality (Morrill et al., 2008). It is now common knowledge amongst the mental health professions that culture plays a large role in how individuals experience and interpret the world. Cultural characteristics and values, as well as their level of salience, affect how individuals and communities respond to a crisis or trauma (Echterling et al., 2018).

The lack of research on posttraumatic growth may inhibit the use of strengths-based approaches when working with individuals and groups who have experienced crisis or trauma. Studies on the experiences of posttraumatic growth in diverse populations are even fewer in number. The research that does exist, however, demonstrates a common theme of existential growth amongst collectivist cultures (Allen et al., 2016; Cordova et al., 2001; Hefferon et al., 2009; Helgeson et al., 2006; Linley & Joseph, 2004; Ruini et al., 2013). Additionally, the research suggests that strengths-based, egalitarian approaches to addressing trauma can yield greater benefit. This is especially true in cultures where

counseling and psychotherapy are not mainstream, or in cultures that have grown distrustful of health practitioners (Gaston et al., 2016; Hatzichristiou et al., 2011; Sue et al., 2019).

Since much of the research on trauma has been done on Western, individualistic cultures, there is a need to understand how collectivist cultural values may affect reactions to trauma, posttraumatic growth, and coping. Collectivist cultures contain a social pattern where the conceptualization of the self is based on parts of a group, such as a family, community, or country. Individualist cultures contain a social pattern where the conceptualization of the self is independent from the group (Triandis, 2018). Western European countries and the United States tend to be more individualistic, while Asian, South American, and African countries tend to be more collectivistic. Individualism and collectivism can be attributed to cultures across the globe. This study addresses the need for culturally competent research by exploring how individualism and collectivism are connected to coping and posttraumatic growth. By focusing on strengths, cultural values, and coping, this research can be used to enhance strengths-based approaches and trauma-informed care, research, and community engagement on a national and international level.

Purpose of the Study

The purpose of this study was to compare posttraumatic growth between those with collectivistic values and those with individualistic values. This was not for the purpose of competing individualism and collectivism against one another, rather, it was to find the implications for enhancing well-being across the individualism-collectivism spectrum. Additionally, associations between coping behaviors and posttraumatic growth

were explored. The intent was to identify significant quantitative connections and correlations between individualism/collectivism, coping behaviors, and posttraumatic growth. By examining strengths, growth, and behaviors in both primarily individualistic and primarily collectivistic participants, counselors and allied professionals can be provided a foundation of knowledge regarding how COVID-19 is affecting clients and communities. This study can assist counselors and allied professionals in using strengths-based approaches in culturally-diverse clients, groups, or communities in the time of COVID-19 and in other crises.

Research Questions

The study used a quantitative design. Quantitative research offers a level of objectivity, validity, and generalizability that qualitative research is not always able to provide. It also uses fewer resources than qualitative and mixed methods research. Since resources and accessibility were limited, a quantitative method provided the greatest scientific rigor for the lowest cost. The research questions are as follows: 1) Is there a difference in global posttraumatic growth between individuals who are primarily individualistic and those who are primarily collectivistic? 2) Are there differences in factors of posttraumatic growth between individuals who are primarily individualistic and those who are primarily collectivistic? 3) Are there differences in coping behaviors between individuals who are primarily individualistic and those who are primarily collectivistic? 4) Are there correlations between coping behaviors and posttraumatic growth?

Assumptions

The study took place in the United States. It was assumed that the COVID-19 pandemic has caused at least some degree of stress and adjustment in all individuals in the United States, whether individuals are aware of the stress or not. Due to the inevitable changes brought on by COVID-19, it was assumed that all individuals in the United States have also engaged in external and/or internal behaviors to cope. It was also assumed that there are people in the United States who are primarily collectivistic, and also those who are primarily individualistic. The study involved a scale of individualism and collectivism. It was assumed that those who scored stronger on one side of the spectrum were either primarily individualistic or primarily collectivistic in their values and conceptualization of the self. It was also assumed that this scale is appropriate for individuals residing in the United States. Lastly, was assumed that the results would be relevant to the current state of coping and growth of those residing in the United States during the COVID-19 pandemic.

Chapter 2: Literature Review

No person is left unchanged following a crisis or trauma (Echterling et al., 2018). Up to 70% of people who have experienced a crisis or trauma have also experienced related positive changes in at least one major life domain (Jayawickreme & Blackie, 2014; Linley & Joseph, 2004). However, this statistic may vary depending on one's culture. Some ethnic groups are at a higher risk for exposure to trauma and PTSD (Alim et al., 2006; Bernal & Santiago, 2006; Mattar, 2011; Norris & Alegria, 2005; Triffleman & Pole, 2010) and reactions to crisis and trauma are significantly influenced by one's culture (Marsella et al., 1996; Mattar, 2011; Wilson, 2008). Thus, posttraumatic growth must be examined and promoted with cultural context.

Importance of Multicultural Consideration

Different cultures utilize different practices in response to crisis and trauma. These practices are built into responses on individual and systemic levels, and may contrast what many counselors and other helping professionals tend to expect. Individuals immigrating to individualistic nations from collectivist cultures, or who are refugees, may expect these nations to provide social or economic services in times of crisis (George, 2012; Hyndman 2000; Reese 2004; White 2004). When such services are not provided, this can understandably add to the distress of crisis and trauma (George, 2012). The disconnect between Western values and those of collectivist culture can be softened with culturally competent counseling and advocacy services. Working with diverse populations requires an understanding of the philosophies held within the culture, which influence how individuals experience and respond to crisis and trauma.

Criteria for Inclusion in Literature Review

Research on reactions to trauma in diverse cultures, including posttraumatic stress and posttraumatic growth, are included. Research on cultural dynamics of individualism and collectivism, culturally-specific studies, and research into cultural strengths and values are also included. The literature review includes African and African American, Native American, Asian and Asian American cultures, European, and cultures. Reactions to trauma on the community and individual level are included, as counselors and allied health professionals work on a variety of systemic levels. Research on coping with potentially-traumatic experiences and mental health effects of COVID-19 are also included. Lastly, research on clinical applications for promoting posttraumatic growth is included.

Studies involving strictly medical-model approaches to trauma, without strengths-based perspectives included, are excluded. Examples of excluded topics are psychopharmacology, hospitalization, illness, and the pathologizing of crisis and stress responses. The majority of current trauma treatment practices have been based on research on these ideologies, and a plethora of knowledge already exists regarding these conceptualizations of trauma. Additionally, these philosophies towards crisis and trauma risk hindering posttraumatic growth, as trauma survivors tend to be viewed through a lens of sickness and remediation, rather than wellness and strengths-based approaches that may facilitate posttraumatic growth. The exception to this exclusion criteria is the mental health effects of COVID-19, as little research on this exists. Studies conducted before 2000, with the exception of seminal works, were also excluded. This was done to reflect modern cultural competence and to avoid outdated and potentially marginalizing notions of race, culture, and gender.

Concept of Posttraumatic Growth

Positive developments following a crisis or trauma have been discussed long before posttraumatic growth was studied scientifically. Ancient literature, philosophy, and religion discuss growth from hardship. These include Buddhism, Christianity, Islam, and the Greek tragedies (Calhoun & Tedeschi, 2006). The concept of *amor fati*, which is Latin for "love of fate," was coined by Fredrich Nietzsche (1882) and reflects the values of acceptance and growth from suffering. Ancient Stoicism also reflects these values. One Stoic exercise involves an individual imagining a loss or hardship, processing it as if it has happened, and imagining acceptance and growth from it. This exercise was thought to increase gratitude and appreciation for times in the moment, and build appreciation and acceptance despite suffering (Irvine, 2008). Viktor Frankl's logotherapy, a form of existential therapy, developed as a result of Frankl's hardships as a prisoner at the Auschwitz and Dachau concentration camps (Frankl, 1963). Frankl's book, *Man's Search for Meaning*, shares lessons of posttraumatic growth through his hardships. These include examples of reframing, love, gratitude, purpose, and meaning-making (Frankl, 1963). Existential therapies, including logotherapy, have a strong focus on meaning-making and purpose (Frankl, 1966; May & Yalom, 1989; Yalom, 1980). According to Calhoun and Tedeschi (2006), other early leaders in mental health who have discussed the possibility of growth following a crisis or trauma include Yalom (1980), Maslow (1954), Dohrenwend (1978), and Caplan (1964).

The term "posttraumatic growth" was coined by Tedeschi and Calhoun (1995), and their work has had strong seminal importance over the decades. Along with multiple studies, textbooks, and guides (Calhoun & Tedeschi, 2006), they also developed the

posttraumatic growth inventory (PTGI), which has been translated into multiple languages (Tedeschi & Calhoun, 1996), and has been used in a great deal of posttraumatic growth research. The questionnaire has also led the way for other assessments of posttraumatic growth to be developed.

Handbook of Posttraumatic Growth

The Handbook of Posttraumatic Growth (Calhoun & Tedeschi, 2006) is a comprehensive collection and review of posttraumatic growth literature. It contains a plethora of information regarding research, assessment, conceptualization, and clinical practice applications of posttraumatic growth. This section of the literature review explores the information shared in this book.

How Posttraumatic Growth Occurs

Multiple studies have found that, despite the type of trauma, many survivors believe that they have benefited in some way from their crises or traumatic experiences (Calhoun et al., 2000; Calhoun & Tedeschi, 1999; 2006; Tedeschi & Calhoun, 1995). In the handbook, several traits and processes are discussed as being integral for posttraumatic growth. Deliberate rumination and cognitive engagement, resilience, and schema change are recurring themes discussed as part of the process (Calhoun & Tedeschi, 2006). Posttraumatic growth is not the absence of distress or a return to baseline. Posttraumatic growth involves a change in one's worldview that leads to positive developments that were not present before the crisis or trauma (Calhoun & Tedeschi, 2006). To reach posttraumatic growth, one must cope in a way that challenges past schemas and rebuilds new perspectives and experiences (Calhoun & Tedeschi, 1998, 2006; Janoff-Bulman, 1992; Janoff-Bulman & Franz, 1997; Tedeschi & Calhoun, 2004).

Rumination and Cognitive Engagement. While the word "rumination" tends to have a negative connotation in mental health, Calhoun and Tedeschi (2006) explained that its use refers to the word's original definition, "to turn over in the mind" (Calhoun & Tedeschi, 2006, p. 9). Rumination in the context of posttraumatic growth is synonymous with cognitive engagement and is used to represent deliberate cognitive reprocessing in attempts to make sense of the crisis or traumatic event (Calhoun & Tedeschi, 2006; Tennen & Affleck, 1998). This is not to say that all ruminations lead to outcomes of posttraumatic growth. Ruminations can be associated with both distress and growth outcomes (Aldwin et al., 1994; Calhoun & Tedeschi, 1998; 2006; Paton, 1994). Intrusive, automatic ruminations of distress occur in times of crisis and are associated with posttraumatic stress. These ruminations often occur immediately during or following the event. However, individuals have the choice to engage in deliberate ruminations to constructively process the event. Deliberate ruminations are a necessary part of rebuilding one's worldview, challenging past schemas, and building new perspectives. This type of rumination is a necessary component for posttraumatic growth (Calhoun & Tedeschi, 2006). For successful and growth-oriented rumination, one must question and explore their old assumptions and traumatic experiences with intentionality and positive reframing.

Resilience. Calhoun and Tedeschi (2006) described resilience as having three primary definitions used in mental health literature: recovery, resistance, and reconfiguration. Recovery is defined as returning to a normal level of functioning. Resistance is when an individual maintains normal functioning before, during, and after a

stressor. Reconfiguration involves successful adaptation and change in the individual following the stressor (Calhoun & Tedeschi, 2006).

Posttraumatic growth is most similar to the reconfiguration definition of resilience (Calhoun & Tedeschi, 2006). However, reconfiguration can involve both improvements and deficits, whereas posttraumatic growth refers specifically to positive developments (Calhoun & Tedeschi, 2006). A person may successfully adapt to a stressor, but still experience some negative effects from it at the same time as the positive. This person is still resilient according to the reconfiguration definition. The other two definitions of resilience are not quite compatible with the concept of posttraumatic growth. The traits of recovery and resistance involve staying at or returning to a pre-stressor state, whereas posttraumatic growth involves change and development (Tedeschi & Calhoun, 2006). Additionally, the other two definitions of resilience may only exist in theory and not in reality, as no person is completely unchanged following a crisis or trauma (Echterling et al., 2018).

Calhoun and Tedeschi (2006) explained that early and seminal works on resilience are centered on developmental outcomes. Researchers were interested in how some children who grew up in high-risk environments developed into normal-functioning individuals, and others did not (Calhoun & Tedeschi, 2006; Garmezy, 1991, 1993; Garmezy et al., 1984; Rutter, 1985, 1987; Werner & Smith, 1977, 1989, 1992). They also discussed how sometimes resilience can take time to become apparent in those experiencing life stressors, and how the process may unfold slowly over years (Calhoun & Tedeschi, 2006; Masten & Reed, 2002). Optimism (Scheier & Carver, 1985), an adequate social environment (Saegert et al., 2001), relational support (Cohen, 1998; Park

et al., 1996; Weiss, 2004), and strong systemic structures and institutions (Masten & Reed, 2002) have been noted as characteristics and experiences that foster resilience (Calhoun & Tedeschi, 2006).

Schema Change. A schema is defined as the cognitive structure that holds our assumptions, notions, and attributes of a concept or form of stimulus. It also involves the relationships we assume among the attributes (Calhoun & Tedeschi, 2006; Fiske, 2004). The deliberate rumination that Calhoun and Tedeschi discussed, along with the reconfiguration definition of resilience, are what lead to schematic change. Throughout our childhood, we construct our schemas and ideas of the world based on our caregivers' responsiveness to our needs and our experiences (Bowlby, 1969; Calhoun & Tedeschi, 2006; Fairbairn, 1952; Winnecott, 1965). Over time, these become resistant to change, and by adulthood, they tend to be stable and unchanged (Calhoun & Tedeschi, 2006; Fiske, 2004). Crises and traumatic events challenge what we understand about the safety of our world. With this challenge comes the opportunity for change. The engagement and reprocessing of our experiences in a way that deliberately seeks improvement and growth are what lead to the schematic changes that are associated with posttraumatic growth (Bower et al., 1998; Calhoun et al., 2000; Calhoun & Tedeschi, 2006; Tedeschi et al., 2000).

COVID-19 Pandemic

It is vital to review the literature on COVID-19 given the unique and pervasive nature of the pandemic. While the majority of research on COVID-19 is medical, some articles on the mental health and social considerations are already being released. Much is still unknown, but the body of research will continue to grow throughout the crisis.

Psychological Impact of COVID-19

Many psychological consequences have been reported due to the COVID-19 pandemic. These include financial issues (Fernandes, 2020), insufficient resources (Dunn et al., 2020; Mareiniss, 2020), anxiety and depressive symptoms (Filbin & Bologno, 2020; Mucci et al., 2020), grief (Chalk, 2020; Filbin & Bologno, 2020a), traumatic stress symptoms (Jiang et al., 2020). While physical isolation efforts have been deemed necessary to contain the outbreak of the virus (World Health Organization, 2020), the psychological effects of the isolation may lead to a pandemic of acute and posttraumatic stress, depression, sleep disorders, and suicide (Mucci et al., 2020). Mental health services have been reduced in the United States, with most services being carried out via telehealth. Telehealth has become a major resource for addressing physical and mental health needs (Mucci et al., 2020).

In hospitals, one major systemic issue has been a lack of coordination and cooperation between the medical and psychological health systems (Khalaf, 2020). This can lead to misuse of mental health resources, delays in appropriate intervention, and will hinder mental health professionals from improving mental health in those who have been affected by COVID-19 (Duan & Zhu, 2020; Khalaf, 2020). Health care systems can use this crisis as an opportunity to explore the chronic systemic weaknesses that have been in place and improve collaboration between allied professionals. In a sense, there is potential for an institutional version of posttraumatic growth by improving mental health care during the current crisis and those that occur in the future.

Crisis Hotline Data

The crisis intervention hotline Crisis Text Line has been gathering descriptive data on the mental health considerations of texters during the pandemic (Chalk, 2020; Filbin, 2020; Filbin & Bologno, 2020a; Filbin & Bologno, 2020b). Although the data are not statistically analyzed beyond the descriptive, this information still provides some insight into the mental health consequences of the pandemic. In reporting higher or lower instances of experiences on the hotline, statistical significance was not calculated. Statements regarding differences in experiences should not be considered statistically valid.

Stressor and Coping Statistics

In April 2020, 24% of hotline visitors discussed the pandemic, and 67% of hotline visitors expressed an increase in depression and anxiety symptoms since the pandemic (Filbin & Bologno, 2020a). Isolation, grief, sexual assault, emotional abuse, and body image issues have also increased for hotline visitors during the pandemic. Single hotline visitors reported more feelings of loneliness and isolation than non-single visitors. Single hotline visitors also reported sleeping and eating as a coping strategy more often than non-single hotline visitors, while non-single visitors reported watching television, assembling a puzzle, and playing video games more often than single hotline visitors (Filbin & Bologno, 2020a). Asian hotline visitors are also reporting an increase in racial discrimination. Twenty percent of hotline visitors have reported racial discrimination, which is three times higher than the average hotline visitor (Filbin & Bologno, 2020b). Fourteen percent of black/African-American hotline visitors reported the death of a loved one, whereas 8% of general hotline visitors reported this. Forty-six percent of Spanish, Latino, or Hispanic hotline visitors reported financial issues (Filbin & Bologno, 2020b).

Sixty-four percent of hotline visitors over the age of 65 reported a fear of contracting COVID-19, while 72% of hotline visitors between the ages of 25-34 reported the fear of a loved one contracting COVID-19 (Filbin & Bologno, 2020c).

Reports of Resilience

In addition to the negative effects of the crisis, some positive effects have also been reported. Fifty-six percent of hotline visitors have reported seeking therapeutic or crisis services, 34% reported helping friends and family, 32% reported reconnecting with others, and 21% expressed feeling a greater sense of connection with people around the world (Filbin & Bologno, 2020b).

Limitations to Data

As mentioned, further analysis of the descriptive statistics have not been published, and the data provided only contains percentages. Therefore, the statements provided cannot be considered statistically valid, only numerical. Additionally, the data is limited only to those who have used the crisis intervention hotline, and experiences of the general population may differ. The number of hotline visitors that were included in the data collected is unknown, and no comparison to the general population exists. Overall, the information provided has very limited generalizability.

Implications

Despite the limitations of the data shared by Crisis Text Line, inferences can still be drawn. It is clear that the current pandemic is associated with many forms of distress for crisis hotline visitors, however, evidence of posttraumatic growth is also occurring. Social support is vital for thriving and growth following a crisis or trauma (Echterling et al., 2018), which is what many hotline visitors are receiving and giving. To find more

meaningful information, advanced research involving Crisis Text Line and crisis intervention is recommended.

COVID-19 Impacts on Chinese Individuals

Individuals living in China during the COVID-19 pandemic have special considerations apart from the rest of the world. The virus originated in China, and China was the first country to impose a strict nationwide lockdown. Political tensions between some leaders in the United States and China have also risen in response to the pandemic. Jiang et al. (2020) conducted a large study of 6,049 Chinese participants to measure stress and coping due to COVID-19. The PTSD checklist for the DSM-5 was given to measure posttraumatic stress, and the Chinese language version of the Emotion Regulation Questionnaire (ERQ) was given to measure expressive suppression and cognitive reappraisal. Expressive suppression refers to the inhibition of expressive external cues of emotion, and cognitive reappraisal refers to the positive reframing and reprocessing of a traumatic event. Expressive suppression tends to be related to an increase in posttraumatic stress, while cognitive reappraisal tends to be related to a decrease in posttraumatic stress (Boden et al., 2013; Jiang et al., 2020; Moore et al., 2008; Roemer et al., 2001). A regression mixture analysis was conducted, and the model identified three classes based on COVID-19 responses: class one (mild posttraumatic stress), class two (moderate posttraumatic stress), and class three (high posttraumatic stress). The results had shown that young participants, women, and participants with responsibilities and concerns demonstrated a greater vulnerability to posttraumatic stress symptoms. These demographics also had shown more expressive inhibition and less cognitive reappraisal in all three classes of the regression mixture model. Higher posttraumatic stress scores

were more likely to be found in the following groups of participants: older participants, females, participants with higher education, unemployed participants, those with children, those who live alone, those who have healthcare workers as family or friends, those who have more siblings and are younger than their siblings, those who have recently been to Wuhan, and medical workers (Jiang et al., 2020).

Limitations

The researchers explained that the cross-sectional design of the study limits any causal inferences that can be made about the data. They also pointed out that only distress was measured and that they did not study posttraumatic growth. The researchers also noted that the study may be limited to this specific type of trauma related to the COVID-19 pandemic (Jiang et al., 2020).

Implications

The large sample size of this study strengthens its generalization to the Chinese population. The findings for cognitive reappraisal in females differ from what might be expected based on the findings of other studies. Cognitive reappraisal is a large foundational component of posttraumatic growth (Calhoun & Tedeschi, 2006) and females tend to score higher in posttraumatic growth than males (Jeon et al., 2017; Linley & Joseph, 2004). However, in this study, females demonstrated less cognitive reappraisal. Although posttraumatic growth was not examined, these findings could have significant meaning for how posttraumatic growth may appear in females of a collectivist culture. It is possible that posttraumatic growth could manifest differently for females of collectivist cultures compared to individualist cultures. A follow-up study on posttraumatic growth

following COVID-19 in China could provide some strong insight into enhancing well-being amongst Chinese individuals.

Another consideration of cognitive reappraisal is that it is associated with less posttraumatic stress symptoms (Boden et al., 2013; Jiang et al., 2020; Roemer et al., 2001) as well as an increase in posttraumatic growth (Calhoun & Tedeschi, 2006). However, multiple studies have found posttraumatic stress and posttraumatic growth to be positively associated with one another (e.g., Dekel et al., 2012; Levine et al., 2008; Liu et al., 2017; Park et al., 2010; Solomon & Dekel, 2007). This further complicates the relationship regarding posttraumatic stress symptoms and posttraumatic growth, as well as the findings regarding some of the demographics in the study.

Coping Behaviors During COVID-19

Few studies exist on emotional distress during COVID-19. Even fewer exist on posttraumatic growth and coping (Tamiolaki & Kalaitzaki, 2020). In times of isolation, many individuals find themselves engaging in hobbies to cope (Polizzi et al., 2020). These include activities such as reading, television, gardening, and games. This is often referred to as *behavioral activation*. Although some of these tasks may become mundane, finding ways to enjoy life despite hardship is a strong predictor of psychological well-being. It can reduce posttraumatic stress symptoms and has been found to be critical to resilient outcomes and emotional recovery following crisis and disaster (Dekel et al., 2015; Fredrickson et al., 2003; Polizzi et al., 2020). However, little is known on whether behavioral activation coping tasks can produce posttraumatic growth. Although resilience is necessary for posttraumatic growth, there may be other coping strategies that elicit it.

One study on positive developments following the 2003 Severe Acute Respiratory Syndrome (SARS) pandemic found that many people experienced an increase in social engagement and appreciation, with greater care towards friends and family (Lau et al., 2006; Tamiolaki & Kalaitzaki, 2020). Many individuals also found themselves adopting a healthier lifestyle and spent more time relaxing than before the epidemic (Lau et al., 2006; Tamiolaki & Kalaitzaki, 2020). China and Hong Kong were affected the most during the 2003 SARS outbreak (World Health Organization, 2004), and the study was conducted with participants from Hong Kong (Lau et al., 2006). This provides insight into how posttraumatic growth during COVID-19 may appear in people from collectivist cultures.

One article by Killgore et al. (2020) examined resilience and coping during the COVID-19 pandemic. To measure resilience, participants were given the Connor-Davidson Risk Scale (CD-RISC) (Connor & Davidson, 2003) during the first few weeks of the COVID-19 lockdowns in the United States. Participants' scores were compared to normative data for the scale. Results suggested that psychological resilience had decreased. A correlation and regression analysis had shown that lower resilience was associated with greater worry, more insomnia, and greater difficulty coping. Coping behaviors associated with resilience were spending time in the sunshine, exercise, greater family support, greater social support from friends, care and support from a significant other, and prayer (Killgore et al., 2020). This suggests that socially-based, spiritually-based, and health-based coping behaviors may be helpful for posttraumatic growth.

Role of Individualism-Collectivism

A study by Germani et al. (2020) explored how individualism and collectivism are associated with perceived risks and psychological adjustment in emerging adults in Italy during COVID-19. In 2020, during the second week of the national lockdown in Italy, 1,183 emerging adults completed an online survey. Measures of individualism-collectivism, COVID-19 related anxiety, and psychological adjustment were used. These included the Horizontal and Vertical Individualism and Collectivism Scale (INDCOL) (Triandis & Gelfand, 1998), a survey about perceived risks about COVID-19, the Strengths and Difficulties Questionnaire (SDQ) (Goodman et al., 1997), the State and Trait Anxiety Inventory-Y (STAI-Y) State Scale (Spielberger, 1989), and the Perceived Stress Scale (PSS) (Cohen et al., 1983). The results showed that participants showed higher levels of worry for their relatives, followed by generalized social worries, than concerns about themselves. Participants showed anxiety and stress above normal values on the State and Trait Anxiety Inventory-Y (STAI-Y) State Scale, suggesting that emerging adults in Italy were facing issues with psychological adjustment during the lockdown. Regarding individualism-collectivism, higher collectivism was related to higher perceived risks of COVID-19 infection. However, it also predicted lower psychological maladjustment.

Limitations

This study focused exclusively on emerging adults living in Italy, which may not generalize to other ages or cultures. However, an individualism-collectivism scale was used to parse cultural values, improving the cultural generalizability of the study. The study also occurred in the earlier stages of the COVID-19 pandemic. This was a time of abrupt and extreme change to the way of life in Italy. Less was known about the

treatment of COVID-19 and projections for the future were unclear. Therefore, fears surrounding COVID-19 may have been elevated during this time compared to later in the pandemic.

Implications

The study provides insight into how cultural values may play a protective role in mental health during times of crisis. Individuals who reported higher levels of collectivism experienced less psychological distress and better overall adjustment to the COVID-19 pandemic, despite displaying higher levels of concern about COVID-19 infection. Buratta et al. (2020) suggested that those with greater collectivistic values display higher concern for others. Also, the social connectedness of collectivistic values may be a protective factor for psychological maladjustment (Germani et al., 2020). This highlights the benefit of social connectedness and support in times of crisis.

Studies on Posttraumatic Growth

The following includes studies specific to posttraumatic growth. They take place in multiple cultures, both individualist and collectivist. This allows for greater multicultural consideration. While multicultural research on posttraumatic growth is limited, what does exist has important implications.

Secondary Effects in Health Care Workers

Whereas most studies on posttraumatic growth deal with direct trauma, few explore posttraumatic growth regarding secondary trauma. Manning-Jones et al. (2016) researched secondary traumatic stress, vicarious posttraumatic growth, and coping skills amongst social workers, nurses, licensed counselors, clinical psychologists, and physicians. A total of 365 health care professionals were recruited for the study, most of

whom were women living in New Zealand. Participants completed the Secondary traumatic stress scale (STS), the Posttraumatic Growth Inventory (PTGI), the Social Support Scale (SSS), the Self-care Utilisation Questionnaire (SCUQ), and the self-enhancing humor subscale of the Humor Styles Questionnaire. Vicarious trauma exposure was measured by asking participants how many hours, on average, they had worked with trauma survivors. Participants were also asked how many years they had been working in the field. Support from friends and family and self-care showed a small negative correlation with secondary traumatic stress. Humor, self-care, and professional peer support had a small positive correlation with vicarious posttraumatic growth. Social workers yielded the highest secondary traumatic stress and the highest posttraumatic growth scores. Clinical psychologists and counselors reported the highest utilization of coping, while nurses and physicians reported the lowest. However, nurses reported higher levels of peer support than psychologists (Manning-Jones et al., 2016).

Limitations. Since the sample largely consisted of females living in New Zealand, the generalizability is not ideal (Manning-Jones et al., 2016). Other studies have found that females tend to show higher levels of posttraumatic growth (Jeon et al., 2017; Linley & Joseph, 2004), which may affect the findings of the study. Additionally, other allied professionals also come in contact with clients with trauma who were not included in the study (Manning-Jones et al., 2016). Due to the nature of the cross-sectional study, the researchers cannot make causal inferences from the data (Manning-Jones et al., 2016).

Implications

This study has a great deal of contemporary relevance, as health care workers have been working not only with their personal experiences during the COVID-19 pandemic, but also with the experiences of clients and patients affected by it. The collective trauma of the pandemic affects them both directly and vicariously. This study provides strong insight into how health care workers in the U.S. may be able to facilitate their own posttraumatic growth and coping during this time. This study is consistent with others that demonstrate concurrent high levels of posttraumatic stress with posttraumatic growth (Dekel et al., 2012; Levine et al., 2008; Liu et al., 2017; Park et al., 2010; Solomon & Dekel, 2007), which also has important implications for those most affected by the pandemic. The researchers suggested future study with large sample sizes (Manning-Jones et al., 2016).

Posttraumatic Growth in Childhood Sexual Abuse Survivors

A qualitative study by Hartley et al. (2016) interviewed six adult female participants in the United Kingdom who believed that they had experienced growth following childhood sexual abuse from a family member. Participants took an abuse questionnaire regarding their age at the time of the abuse, the length of time that the abuse occurred, the age of the abuser, the abuser's relationship to the participant, a brief description of the abuse, participants' age of first disclosure, and any past or present mental health support received. Participants also took the Psychiatric Diagnostic Screening Questionnaire (PDSQ) to screen for mental health conditions and suicidality. Lastly, participants engaged in an open-ended interview for two to four hours in length. Superordinate themes found were making sense of and understanding abuse in relation to growth, relating to self in a new way and acknowledging the positive, and experiencing

growth through relationships with others. The subordinate themes found were making sense of abuse and past behavior (subcategory: acceptance), talking about the abuse in the context of society, growth in relation to religion, growth in relation to culture, growth as a new emotional experience, having a dream (growth), recognizing the positive and learning to think about self in a new way, growth experienced through relationship with children, and relationship with family of origin (growth and barriers). Some participants experienced growth and mental health distress concurrently (Hartley et al., 2016).

Limitations

The authors discuss that the findings do not have high generalizability, as participants are all similar in age, demographics, and the type of trauma experienced (Hartley et al., 2016). While the qualitative nature of the study allowed for a generous amount of information, the validity of the findings is difficult to verify.

Implications

The superordinate and subordinate categories share the commonality of cognitive reprocessing. This matches other research that suggests cognitive reprocessing is necessary for posttraumatic growth (Calhoun & Tedeschi, 2006). The themes are also similar to those measured in the PTGI and similar to findings of studies that have used the PTGI. This further supports some of the factors that are involved in posttraumatic growth. Some participants experienced mental health distress and growth simultaneously, which is similar to the findings of some studies that suggest posttraumatic stress and posttraumatic growth may be associated with one another.

Communal Coping in Spain, Chile, and Colombia

This study by Wlodarczyk et al. (2016) was a quantitative analysis using a series of one-way ANCOVAs to examine posttraumatic growth and communal coping in Spain, Chile, and Columbia following the 2011 Lorca earthquake. Participants were adults who were directly affected by the earthquake and were recruited by psychologists from an emergency center. The Communal Coping Scale (CCS) and the short-form of the Posttraumatic Growth Inventory (PTGI) were used. Results had shown higher levels of posttraumatic growth in Chile and Columbia than Spain, which the authors attributed to the collectivist cultures of Chile and Columbia. Communal coping strategies were also higher in Columbia and Chile than in Spain. Spiritual coping was found to be higher in Columbia and Chile than in Spain, but all three countries sought social support equally (Wlodarczyk et al., 2016).

Limitations

Although the instruments used in the study show good validity, the authors admitted to using short, easy to administer instruments that may not capture the full picture. The study also does not allow for causal claims of posttraumatic growth. Additionally, there was heightened exposure to the earthquake for Spain and Columbia over Chile. Therefore, the trauma experienced may have been stronger in Spain and Columbia, which might off-set the trauma exposure per sample, and also affect the results. This study was used specifically surrounding one natural disaster and three cultures. Other natural disasters, even other earthquakes, may elicit different trauma effects than this one. Different cultures may also demonstrate different reactions and coping.

Implications

The results suggest that collectivist cultures may have higher levels of posttraumatic growth than individualist cultures. Specific dimensions of posttraumatic growth are not fully discussed, suggesting the need for further exploration. Lastly, the implications of collectivism versus individualism should be further explored.

Posttraumatic Growth Following Incarceration

Vanhooren et al. (2018) completed a qualitative phenomenological case study on a Belgian woman named Diana. Diana, a 35-year-old teacher, was arrested for setting her former significant other's house on fire. She was a first-time prisoner in Belgium. The study followed Diana's growth and progress following existential psychotherapy. Diana received 16 weekly therapy sessions, and a final follow-up interview was conducted 8 months later (Vanhooren et al., 2018).

At the beginning of her sessions, Diana described herself as "bad" (p. 154) and her situation as being "overwhelmed by absurdity" (p. 149). After completing her sessions, the authors stated that Diana had a "stronger ownership over the consequences of her crime," "deeper explorations," and "higher levels of experiencing" (Vanhooren et al., 2018, p. 159).

After 16 sessions, Diana was released from prison and her therapy was terminated. In her eight-month follow-up interview, Diana stated that she began to make some important decisions in her life. She began studying and hoped to become a social worker in the future. The authors stated that Diana was more open with her friends during difficult times, and concluded that her experience of incarceration turned her into a happier, better person (Vanhooren et al., 2018).

Limitations

The generalizability of the study, its limitations, validity and threats to validity, and how or who observed Diana's progress were not discussed.

Implications

Strengths-based approaches, such as humanistic therapies and existential therapy, may help facilitate posttraumatic growth. A theme seen in this study that is seen with others is an increased sense of wisdom and increased social value following a crisis. These dimensions of posttraumatic growth may be common ones across both individualist and collectivist cultures.

Posttraumatic Growth and Difficulty Following Hurricane Sandy

Schneider et al. (2019) examined posttraumatic challenges and developments of individuals affected by 2012's Hurricane Sandy in the United States. In New York City, 1,356 participants were recruited to complete questionnaires regarding posttraumatic growth, demographics, mental health difficulties, and hurricane-related experiences. The study examined associations between posttraumatic growth and mental health difficulties. Mental health difficulties included symptoms of anxiety, depression, and posttraumatic stress disorder. The PTGI was used as a measure of posttraumatic growth. A weighted least-squares regression was used to assess the associations between posttraumatic growth and mental health difficulties. The authors used a post hoc analysis to determine whether anxiety or depression moderated the effect of PTSD on posttraumatic growth (Schneider et al., 2019).

The authors found that all mental health difficulties were associated with greater posttraumatic growth. After statistical adjustment, an increased posttraumatic stress disorder score was significantly associated with an increase in posttraumatic growth.

Higher posttraumatic growth was associated with being non-white, Hispanic, a smoker, and greater exposure to the hurricane

Limitations

As with much of the research on posttraumatic growth, the authors admit that it is not possible to determine whether the association between trauma experiences and growth is causal, and only a correlation can be determined (Schneider et al., 2019). Additionally, this study examined one natural disaster in one community. Findings may appear different in other communities.

Implications

This study demonstrates how posttraumatic growth and posttraumatic stress can occur simultaneously. Additionally, the study found that those from traditionally more collectivist backgrounds (Non-White and Hispanic) yielded greater posttraumatic growth (Schneider et al., 2019), which is consistent with the findings of the Wlodarczyk et al. (2016) study on developments following the Lorca earthquake. This has implications for the level of posttraumatic growth of those with collectivist values versus individualist values.

Resources for Posttraumatic Growth in Young Adult Refugees

Copelj et al. (2017) conducted an interpretative phenomenological analysis of psychological growth and use of resources in young adult refugees living in Victoria, Australia. The analysis was conducted via semi-structured interviews with six participants between the ages of 24-34. Three of the participants were from Bosnia and Herzegovina, and the other three were from Togo, Sudan, and Afghanistan. All six participants experienced pre-migration trauma, stress, and/or loss. The findings yielded

themes of posttraumatic growth in appreciation of life opportunities (hope and optimism, determination and ambition), increase in self-belief (identification of personal strengths, development of positive bi-cultural identity), strengthening of cultural and social connectedness (importance of social support, prioritizing of important life values), and proactivity (engagement with meaningful careers, acceptance) (Copelj et al., 2017).

Limitations

This study explored a very specific population of young adult refugees in Australia, half of which were from Bosnia and Herzegovina. The participants from Bosnia and Herzegovina may have skewed some of the results in the study.

Implications

The themes identified in the study are consistent with those found in posttraumatic growth. They may also reflect the personal or cultural values of the participants. Further research is warranted into the connection between culture, values, and dimensions of posttraumatic growth.

Posttraumatic Stress, Posttraumatic Growth, and HIV Infection

A systematic review by Sherr et al. (2011) examined implications for posttraumatic stress and posttraumatic growth in multiple populations affected by human immunodeficiency virus (HIV) infection. The authors reviewed and coded 33 posttraumatic stress articles and three posttraumatic growth articles. The populations studied in the articles included Swedish individuals, European-Americans and white South Africans, African and African-Americans, Latin-Americans, multiple genders, and multiple co-occurring issues such as substance use and incarceration. The findings suggested that those who have HIV and posttraumatic stress tend to engage in high-risk

behaviors to cope, such as alcohol use and high-risk sexual behaviors. The systematic review also found that multiple studies identified positive behaviors are indicated after a diagnosis of HIV, consistent with posttraumatic growth. One of the studies in their review found that posttraumatic growth and HIV disease status are mediated by optimism and pessimism. Posttraumatic growth and viral load were positively correlated in individuals with low optimism, but negatively correlated in individuals with low pessimism. There was also an association found between posttraumatic growth and depression, alcohol use, and drug use (Sherr et al., 2011). This finding suggests that posttraumatic growth and posttraumatic stress often occur simultaneously.

Limitations

The authors admitted to a lack of research on posttraumatic growth and stated that further research is warranted (Sherr et al., 2011). Additionally, many of the studies included had examined trauma and stress reaction through a pathological lens, which further highlights the need for strengths-based perspectives in trauma research.

Implications

The findings of this review were consistent with the findings of Schneider et al. (2019) and others (Dekel et al., 2012; Levine et al., 2008; Liu et al., 2017; Park et al., 2010; Solomon & Dekel, 2007) in that posttraumatic growth and posttraumatic stress can occur simultaneously and may be positively correlated with one another. This article clearly highlights the need for research in posttraumatic growth. This research demonstrates its presence, while also demonstrating a lack of thorough investigation.

Meaning Discrepancy in Chinese Cancer Patients

Li et al. (2016) examined the relationship between meaning discrepancy and emotional distress, as well as posttraumatic growth and posttraumatic stress, in Chinese cancer patients. The researchers identified the participants as belonging to a collectivist culture. The researchers defined meaning discrepancy as the difference between global meaning that a person attributes to his or her life, and the situational meaning attributed to the cancer. Global meaning takes into account goals and beliefs, however, only beliefs were taken into account for the study. One-hundred and ninety-eight adult participants were recruited and were required to have a cancer diagnosis and be free of any psychiatric diagnosis or visible major disability. A questionnaire on meaning discrepancy was created for the study. In addition to the questionnaire, the PTGI and the Hospital Depression and Anxiety questionnaire were given. Females scored higher on posttraumatic growth than males. The study found that larger meaning discrepancies were associated with lower levels of anxiety and depression amongst participants. In other words, participants that did not equate the situational meaning of their cancer to their global life meaning faired better on anxiety and depression. Posttraumatic growth was also found to have a mediating role (Li et al., 2016).

Limitations

The researchers used a cross-sectional design and discussed that this limits any causal implications. Secondly, only beliefs were examined in the study, rather than goals and beliefs. The authors also admitted that the study has limited generalizability (Li et al., 2016).

Implications

Although some studies have found an association between increased posttraumatic stress symptoms and posttraumatic growth (Solomon & Dekel, 2007; Park et al., 2010; Liu et al., 2017; Levine et al., 2008; Dekel et al., 2012), the study found that posttraumatic growth plays a role in reducing anxiety and depression. It also implied that limiting beliefs of meaning to the traumatic event, rather than overgeneralizing beliefs and meaning, is connected to posttraumatic growth. Perhaps counselors can assess and facilitate posttraumatic growth with clients by exploring both global meaning and situational meaning.

Correlates of Posttraumatic Growth in Korean Americans

Jeon et al. (2017) conducted a study to examine the demographic and individual psychological correlates of posttraumatic growth amongst Korean Americans who have experienced trauma. Two-hundred and eighty-six Korean-American participants aged 21 and older were recruited from health fairs in New York City and the New Jersey metropolitan area. Participants were fluent in Korean language and had experienced at least one traumatic event during their lifetime. Traumatic events included the death of a loved one, divorce or separation, domestic violence, abuse, serious illness, accidents, and other stressors. Data regarding gender, income, education level, marital status, age, living arrangements, religion, levels of acculturation (English proficiency and length of stay in the United States), and time since trauma were collected. Participants also took the PTGI to measure global posttraumatic growth, the Center for Epidemiological Studies Depression scale (CES-D) to measure depressive symptoms, and Wagnild and Young's (1993) Resilience Scale (RS) to measure resilience (Jeon et al., 2017).

The researchers found that posttraumatic growth differed by age, gender, and socioeconomic status (Jeon et al., 2017). No associations were found between posttraumatic growth and marital status, living arrangement, or religion. Females had significantly higher scores of posttraumatic growth than males. Middle-aged participants had significantly higher scores of posttraumatic growth than older participants. Less education attainment was associated with lower posttraumatic growth. Those who scored low on resilience also scored significantly lower on posttraumatic growth compared to those who scored moderate or high. While income between $20,000-$49,000 was associated with lower posttraumatic growth scores, an income of less than $20,000 was associated with higher posttraumatic growth. Participants with less than 10 years since their traumatic experience had lower posttraumatic growth scores. Additionally, those with elevated depressive symptoms showed lower scores of posttraumatic growth (Jeon et al., 2017).

Limitations

Jeon et al. (2017) explained that the types of trauma varied between participants, which may cause variation in posttraumatic growth. Specific depictions of traumatic events were also not examined. The participants were also reported from health fairs, implying that they may have had health problems that could affect findings of posttraumatic growth and generalizability. Lastly, the researchers acknowledged that they could not draw causal inferences from the correlations (Jeon et al., 2017). Another limitation is that only total scores of posttraumatic growth were observed. In addition to a total score, the PTGI measures posttraumatic growth across five factors: relating to others, new possibilities, personal strength, spiritual change, and appreciation of life

(Tedeschi & Calhoun, 1996). Observing only total scores of posttraumatic growth may limit the amount of insight gained from findings. Lastly, the researchers attempted to gain insight into the psychological correlates of posttraumatic growth. However, only depressive symptoms and resilience were measured, limiting the amount of insight gained into psychological aspects related to posttraumatic growth.

Implications

The study provides important findings of how individual differences amongst Korean Americans may be related to posttraumatic growth. Similar to Li et al.'s (2016) study, depressive symptoms were negatively associated with posttraumatic growth, and females scored higher on posttraumatic growth than males. The findings of posttraumatic growth for males versus females seem to be a common finding in research (Linley & Joseph, 2004; Jeon et al., 2017). Although lower education attainment was found to be associated with posttraumatic growth, other marginalized subgroups, such as women and low-income participants, demonstrated higher posttraumatic growth. These groups are intersectional, meaning that the people within these groups have multiple marginalized identities. With the hardships and potential trauma associated with intersectionality, the findings of this study may suggest that intersectionality may yield higher posttraumatic growth as well.

Individualism and Collectivism

What makes individualism and collectivism different is in the values and motivators that these types of cultures hold. People of individualistic cultures tend to be motivated by their own preferences, needs, and goals over the goals of others (Triandis, 2018). They tend to use more logical analysis when exploring the advantages and

disadvantages of associating with others. People of collectivistic cultures tend to be motivated by the goals, needs, and preferences of the group over their own, and emphasize connectedness to the group. While some countries will show a predominance of either collectivism or individualism, traits of both can be found in all countries (Triandis, 2018). Individualism and collectivism should be conceptualized on a spectrum rather than a dichotomy. Every country and culture around the world has people who are *allocentric*, who tend to act and feel the way that collectivists do, and people who are *idiocentric*, who tend to act and feel the way that individualists do (Triandis, 2018).

Characteristics and Values

Research has shown that people who are more individualistic tend to value privacy, individual success, calculation, and autonomy (Hosfede, 2001; Chan & Cheung, 2016; Rinne et al., 2013; Arpaci et al., 2018). People who are more collectivistic tend to value interdependence and harmony, sharing, cooperation, and group success (Hosfede, 2001; Ogihara & Uchida, 2014; Arpaci et al., 2018). Some research has shown a correlation between extraversion and individualism (Kotelnikova & Tackett, 2009; McCrae, 2005; Arpaci et al., 2018), and other research has shown that there are no significant associations between general personality factors and individualism or collectivism (Vogt & Laher, 2009). The social tendencies of those with collectivist values may assist in developing posttraumatic growth, however, the autonomy of those with individualistic values may facilitate the reflective introspection needed for posttraumatic growth.

Collective Posttraumatic Growth and Values in Ethnic Groups

Culture plays an important role in how an individual or group will respond to crisis or trauma (Echterling et al., 2018). Where people of individualistic values tend to conceptualize the self as an individual separate from others, people of collectivist cultures tend to conceptualize the self in relation to the group to which they belong (Triandis, 2018). Therefore, it is important to understand how trauma affects groups that tend to have values that fall on the collectivistic side of the individualism-collectivism spectrum. The following review explores posttraumatic growth on a collective level in various ethnic groups.

African and African-American Cultures

African cultures have long been oppressed by Western and predominately white governments. Amongst African Americans, there is a general distrust of the helping professions that has stemmed from experiences of discrimination, racism, and stigma (Gaston et al., 2016). In Western countries, people tend to lack understanding of African culture, with many people perceiving African countries as being primitive (Sihlongonyane, 2015). However, African cultures have many strengths and rich lessons to offer western cultures. African cultures tend to value spirituality, interpersonal connectedness, purpose, and meaning (Ilmi, 2019). Enhancing these strengths can be used to promote posttraumatic growth. One study by Bentley et al. (2013) found that higher levels of religiosity amongst East African refugees living in the United States reduced PTSD symptoms. Another study by Dibb and Kamalesh (2011) involved semi-structured interviews with Sub-Saharan African women diagnosed with HIV living in the United Kingdom. The study found that following their diagnoses, participants frequently discussed having a greater sense of spirituality, engagement in healthier behaviors,

enhanced meaning and value for life, and new goals and opportunities (Dibb & Kamalest, 2011). For African Americans, research has shown that race-based trauma has a chronic impact on well-being and leads to stress, anxiety, depression, and low self-esteem (Carter et al., 2017; Pascoe & Smart Richman, 2009; Williams & Mohammed, 2009). Validating African American experiences, allowing and affirming self-expression, and empowerment will produce better mental health outcomes (Sue et al., 2019). Strengths-based and solution-focused approaches may be especially helpful for African American males, as problem-focused interventions tend to be the preferred style for counseling services amongst this population (Evans et al., 2016).

Native American Cultures

Native Americans are another ethnic group that has long been oppressed. Native Americans have been reported over the years as having the lowest income, the lowest level of education, and lowest life expectancy of any other ethnic group in the U.S., and many theorists believe that this is tied to the generations of historical trauma (Brown-Rice, 2013; CDC, 2010; Denny et al., 2005). Native Americans have been culturally appropriated, forced to assimilate to White culture, and mocked by mainstream U.S. media for generations (Lobo et al., 2016). Like African and African American cultures, however, Native Americans have many incredible cultural strengths that can be used to promote posttraumatic growth on an individual and systemic level. Native American cultures tend to have strong values in wisdom, thankfulness, kindness, knowledge, community, and endurance (Verbos et al., 2016). Many of these values and traits tend to be associated with posttraumatic growth, and using them when working with Native Americans in a therapeutic or crisis intervention setting can enhance well-being.

Central Asian, East Asian, and Asian American Cultures

Seeking mental health services is often associated with a strong stigma in Asian countries and amongst Asian Americans (Abdullah & Brown, 2011; Aloud & Rathur, 2009; Amer, 2006; Anglin et al., 2006; Ciftci et al., 2012; Erickson & Al-Timimi, 2001; Fung et al., 2007; Youssef & Deane, 2006). Asian Americans are typically viewed as the "model minority," which undermines the marginalization that they experience. Asian American men tend to feel emasculated in U.S. culture, while women are hypersexualized and objectified (Chou & Feagin, 2015). Additionally, when people of Asian cultures seek help in Western countries, there tends to be a disconnect in communication styles. Beyond language basics, Asian cultures tend to use indirect communication styles, while Western cultures tend to be more direct and precise in their communication (Gudykunst, 2001; Kim & Park, 2015). When there is a contrast in communication styles, counselors risk their clients feeling like they are not heard or understood. This highlights the necessity of basic validation, reflective listening, and clarification.

Asian cultures place a strong emphasis on the importance of interpersonal harmony and collectivism (Kim & Park, 2015), and trauma and crisis are often met with meaning-making and spirituality (Allen et al., 2016). One study by Hussain and Bhushan (2013) found that some of the positive experiences following trauma in Tibetan refugees living in India include an improved outlook toward the world and people, an appreciation of personal strengths, and an increase in meaningful intimate relationships, including community and family bonding. Another study by Duan and Guo (2015) had shown that amongst earthquake survivors in China, the Chinese values of relationships, vitality, and

conscientiousness enhanced posttraumatic growth and protected against PTSD. These studies demonstrate how cultural values can be utilized as a strength following crisis or trauma, and suggest that strengths-based interventions can be particularly useful at promoting posttraumatic growth in these populations.

Latin American Cultures

The Latin American population is growing in the United States. Latin American immigrants often face an enormous amount of stress coming to the U.S., and often the journey is traumatic (Li, 2016). In much of Latin America, trauma is referred to as *susto*, meaning a sickness that leads to a loss of the soul. Symptoms of *susto* include fatigue, weight loss, and major depressive symptoms (Kashyap & Hussain, 2018). Latin American cultures are collectivist, and when a crisis occurs, Latin Americans may be more likely to report communal changes (Weiss & Berger, 2006; Wlodarczyk et al., 2017). These communal changes can be a strong asset in promoting posttraumatic growth in Latin Americans. A study by Wlodarczyk et al. (2016) examined posttraumatic growth following natural disasters in Columbia, Chile, and Spain. Using several assessment instruments, posttraumatic growth was measured as being higher in the Latin American countries of Columbia and Chile than in Spain, and this may be tied to greater instances of positive community reappraisal (Wlodarczyk et al., 2016). For those living in the U.S., Latin American communities can be an excellent source of support, however, recent political activities threaten these communities. Counselors have the duty to use their privilege to advocate for these communities and prevent further marginalization.

Mediterranean Cultures

Contemporary issues are having a major impact on the well-being of people living in the Mediterranean region of Europe and Asia. War outbreaks and economic recession have had a negative impact on mental health (Carta et al., 2015). In the 1970s, Italy had a mental health care reform that removed the practice of psychiatric hospitalization. Although this had some positive effects, currently the amount of financial resources allocated to mental health services in Italy is low (Barbui et al., 2018). In Greece, medical and psychological concepts of crisis and trauma are not integrated into the general culture (Hatzichristiou et al., 2011), and there is a shortage of mental health practitioners in Italy (Barbui et al., 2018) and in the Mediterranean regions of Asia and other nearby cultures (Saraceno et al., 2015).

Since mental health services in the Mediterranean may not be as mainstream as they are in Western cultures, inserting oneself into the role of an "expert" and pathologizing trauma is not likely to be beneficial. In Muslim communities, studies show that mental health conditions may be viewed as a punishment from God (Abu-Ras, Gheith & Cournos, 2008; Ciftci et al., 2012; Rassoll, 2000). In Greek culture, research shows that individuals tend to rely on family, friends, neighborhoods, and communities in times of crisis, rather than professional services (Hatzichristiou et al., 2011). A qualitative study on Mediterranean cultural identity and traits by Petruzzellis and Craig (2014) found that cultures in Mediterranean countries tend to be more collectivist, relational, and steeped in ancient traditions and stories. Based on these studies, it may be best for counselors to collaborate with clients in an egalitarian role, empower communities to strengthen existing systems, honor cultural history, and engage in clinical practice from a wellness approach rather than a medical one. The rich traditions and relational

connectedness of Mediterranean cultures can be a strong resource to promote posttraumatic growth.

Coping

Most of the literature on coping deals with typical adjustment or everyday stressors, such as work or school. While these studies may still be somewhat relevant, studies specific to posttraumatic growth and major crisis are more appropriate to my study. The world is not experiencing a typical stressor with COVID-19, but a major crisis.

Surprisingly little research exists on which coping strategies foster posttraumatic growth. The vast majority of research on posttraumatic growth and coping is on illness-related trauma. Multiple studies on coping strategies and posttraumatic growth exist for cancer, brain injury, and heart attack survivors. Longitudinal studies on posttraumatic growth, cancer, and coping found that seeking social support was one of the most valuable coping strategies amongst survivors (Scrignaro et al., 2011; Silva et al., 2012). This is reflective of the communal coping found in Wlodarczyk et al.'s (2016) study of posttraumatic growth following a major earthquake. One study on posttraumatic growth, coping, and brain injury (Rogan et al., 2013) used the PTGI used in many other posttraumatic growth studies, along with Carver's (1997) Brief COPE scale, which measures strategies of coping amongst 14 factors. Coping strategies from the Brief COPE scale were grouped into adaptive and maladaptive. The adaptive group contained the self-distraction, active coping, use of emotional support, use of instrumental support, positive reframing, planning, use of humor, acceptance, and use of religion/spirituality factors. The maladaptive group contained the denial, substance use, venting, behavioral

disengagement, and self-blame factors (Carver, 1997). Cognitive representations, distress, and functional status were also measured. Greater levels of posttraumatic growth were significantly associated with lower levels of distress, higher usage of adaptive coping strategies, and cognitions that reflected control over brain injury treatment. Of all the other variables, the adaptive coping strategies were the only statistically significant predictor of posttraumatic growth (Rogan et al., 2013). A limitation of this is that the involvement of the coping factors (types of strategies) was not studied. Garnefski et al. (2008) studied cognitive coping, personality, and psychological health in relation to posttraumatic growth. Cognitive coping refers to reflective coping skills such as positive reframing and positive reappraisal. Extraversion and conscientiousness were found to have mild positive correlations to posttraumatic growth, with neuroticism having a mild negative correlation. Depressive symptoms were found to have a strong negative correlation to positive well-being, and a moderate negative correlation to posttraumatic growth. Positive well-being also had a moderate positive correlation to posttraumatic growth. Positive refocusing and putting illness into perspective had a mild positive correlation to posttraumatic growth, while positive reappraisal was found to have a moderate positive correlation to posttraumatic growth. The researchers discuss that coping strategies are subject to change, and that the findings can be used to influence coping strategies used (Garnefski et al., 2008). The research on posttraumatic growth and illness may show strong relevance in the time of a pandemic. As social support and positive cognitive coping have been shown to improve posttraumatic growth, these skills can be promoted by counselors and allied professionals to combat isolation and traumatic stress due to grave illness.

Clinical Practices to Promote Posttraumatic Growth

One of the goals of this study is to produce findings that can be applied to counseling and allied professions. Exploring how the current literature supports culturally-competent practice in facilitating posttraumatic growth can provide a good foundation to support the practical implications of the study.

Posttraumatic growth literature demonstrates that many of the strengths already existing in diverse populations are further enhanced following crisis or trauma. Since non-western cultures tend to be collectivist, counselors and allied professionals should address crisis and trauma on both an individual and systemic level. Communities are a valuable resource for multicultural clients, and counselors have the duty to advocate for social justice when these communities are threatened.

One issue with exploring therapeutic applications for posttraumatic growth is that few comparative studies on this topic exist. Some studies have found that what makes counseling successful is the shared attributes between theoretical orientations, such as rapport and therapeutic alliance (Sharf, 2015). Common themes that emerged in the literature for practical application of posttraumatic growth were survivor narrative and meaning-making.

Existential-Humanistic Therapy

Existential-humanistic therapy incorporates exploration of values, creation of possibilities, response to experience (Schneider, 2016), meaning-making, and purpose (Vos et al., 2015). These focuses can fit the needs of clients following crisis or trauma across cultures. Existential-humanistic therapy is one of the various forms of existential therapies, which can be defined as therapies that are based on the philosophies of

existentialists and other similar philosophers, such Heidegger, Sartre, Buber, Tillich, Kierkegaard, and Nietzsche (Cooper, 2012; Vos et al., 2015). Existential therapies, such as existential-humanistic, are under-researched (Corbett & Milton, 2011), however, the research that does exist shows that they can be effective. A meta-analysis conducted by Vos et al. (2015) found that therapies that focused on meaning-making were effective at improving well-being. Research also shows that posttraumatic growth tends to be related to existential dimensions such as purpose and meaning (Cordova et al., 2001; Hefferon et al., 2009; Helgeson et al., 2006; Linley & Joseph, 2004; Ruini et al., 2013).

Meaning-making and purpose are values shared by many diverse cultures. Research shows that posttraumatic growth tends to be related to existential dimensions such as purpose and meaning (Cordova et al., 2001; Hefferon et al., 2009; Helgeson et al., 2006; Linley & Joseph, 2004; Ruini et al., 2013). One study by Powell, Gilson, and Collin (2012) interviewed and administered questionnaires regarding posttraumatic growth to survivors of traumatic brain injury (TBI). Results demonstrated that a high level of purpose was the best predictor of posttraumatic growth (Powell et al., 2012). To understand a clinician's perspective, Keidar (2013) interviewed eight highly experienced psychotherapists to gain an understanding of their experiences with posttraumatic growth in clients who have experienced trauma. Client meaning-making was a common theme witnessed by clinicians, along with the development of affect tolerance, a more positive view and experience of the self and others, enhancement of sexuality, and perceived improvement of priorities (Keidar, 2013).

Narrative Therapy

A theme that is commonly discussed in Calhoun and Tedeschi's handbook (2006) is the changing of narrative. An entire chapter in the handbook was dedicated to how changing the narrative of a person's trauma fosters posttraumatic growth. Neimeyer and Levitt (2001) explained that it is in our nature to gravitate towards stories and narratives. Humans tend to organize knowledge and events in a storied form (Calhoun & Tedeschi, 2006; Hermans, 2002). The narrative following crisis or trauma can be vivid and horrifying, with the emotions and cognitions surrounding it containing despair, terror, helplessness, and distress (Calhoun & Tedeschi, 2006; van der Kolk & van der Hart, 1991). Externalizing the story and reconstructing the narrative to include new cognitions, emotions, and life experiences can foster posttraumatic growth and help the survivor progress forward (Alexander et al., 1989; Calhoun & Tedeschi, 2006; Foucault, 1970).

A study by van Ginneken (2016) explored the narratives of six first-time British female prisoners in a semi-structured interview. A phenomenological analysis was used, and one main theme that emerged is that the crisis of prison disrupted the participants' worldview. Participants expressed feeling betrayed by the justice system, a loss of autonomy, a fear of the unknown, and the shattering of beliefs in a justice-oriented world. Themes of intrusive rumination regarding family and those left behind emerged. One participant explained, "you're thinking about everything" (p. 216). However, the participants were able to reconstruct their identities in a positive manner, and were able to overcome their crisis by focusing on personal development. Participants felt an increased sense of responsibility, self-efficacy, and the ability to cope (van Ginneken, 2016). This example follows the development of posttraumatic growth discussed in the Calhoun and Tedeschi's handbook. Participants experienced a seismic event leading to emotional

distress. While the crisis was occurring, participants engaged in intrusive rumination. Next, participants made a deliberate choice to seek out positive possibilities from the situation and reconstructed their personal narrative. When considering how posttraumatic growth develops, it takes a narrative form. Narrative therapy uses this human tendency to the client's advantage.

Some research has shown that narrative therapy is effective at increasing forgiveness (Nuri & Kazemi, 2012), enhancing life expectancy and happiness (Changizi & Panahali, 2016), depression, eating disorders (McPhie et al., 2007), and improving parent and child conflicts in family therapy (Besa, 1994). It has also been shown to be effective for treating trauma in adults and children. Narrative exposure therapy, which is a cognitive-behavioral approach to narrative therapy, has been found to be especially effective in multiple studies in both individualist and collectivist cultures (Kangaslampi et al., 2015; Neuner et al., 2004; Schaal et al., 2009; Zang et al., 2013). It is evident that narrative therapy helps improve distress, and is likely a good approach at fostering posttraumatic growth.

Discussion

Compared to posttraumatic stress, relatively little research exists on posttraumatic growth. Research on posttraumatic growth specifically started with Tedeschi and Calhoun in the 1990s and has since grown as a concept. Very few studies examine the relationships between posttraumatic growth, culture or collectivism, and coping. No current research to date exists on the connections between posttraumatic growth, coping, and collectivism and individualism in reference to the COVID-19 pandemic.

What does exist suggests that posttraumatic growth may be higher in collectivist cultures (Wlodarczyk et al., 2016), and that seeking social support and connecting with others may be the most effective at facilitating posttraumatic growth (Scrignaro et al., 2011; Silva et al., 2012; Wlodarcyk et al., 2016). However, many of the studies on both coping and posttraumatic growth were cross-sectional and/or used correlation or regression analysis. Causal relationships cannot be claimed in these designs, however, with the strong evidence of an association between one another, it is not unreasonable to consider the possibility of a causal relationship.

There is sufficient evidence to suggest that posttraumatic growth is associated with higher levels of posttraumatic stress (Dekel et al., 2012; ; Levine et al., 2008; Liu et al., 2017; Park et al., 2010; Schneider et al, 2019; Solomon & Dekel, 2007). There is also reason to suggest that posttraumatic stress experiences are part of the posttraumatic growth process (Calhoun & Tedeschi, 2006). When it comes to anxiety and depression, the research is mixed. Some studies have found positive associations (Sherr et al., 2011), and others have found negative associations (Jeon et al., 2017; Li et al., 2016). Research on personality traits and posttraumatic growth also have mixed findings. Females tend to experience greater posttraumatic growth than males (Jeon et al., 2017; Jiang et al., 2020; Linley & Joseph, 2004). Research is warranted on posttraumatic growth in individuals of non-binary genders and who are transgender. With the demographic and coping considerations of posttraumatic growth, it may be possible that social support seeking as a coping skill may mediate the relationships between higher posttraumatic growth in females, those with collectivist values, and those who are extroverts.

Chapter 3: Methodology

For this study, the researcher employed a quantitative, cross-sectional design. While qualitative analysis and mixed methods research can provide richer accounts of participants' experiences, quantitative research has greater scientific rigor and generalizability in the behavioral and social sciences. Quantitative research also uses fewer resources. Quantitative measures were chosen based on the best fit for the research questions. Data was collected using an online QuestionPro questionnaire, a secure and anonymous questionnaire program. The QuestionPro software was chosen because of its availability, convenience, and security.

Data was collected from August 30, 2020, until September 30, 2020. When the study was planned, it was expected that the COVID-19 pandemic would have ended by the time data collection began. During data collection, the number of cases of COVID-19 across the country was still quite high. Businesses were beginning to re-open, however, restrictions were still in place and many businesses remained temporarily or permanently closed. While public transportation and air-travel began to reopen, restrictions were also still in place. Many schools still held classes online, and some of those that re-opened experienced serious consequences regarding the transmission of COVID-19. A vaccine was not expected until late 2021. As of September 30, the number of positive COVID-19 tests since March had increased to 7,231,001. The total number of COVID-19 related deaths was 206,402 (CDC, 2020). The rate of infection was continuing to increase. Although the U.S. had improved its knowledge of safety during the pandemic, the threat was still strong.

Participants

Initially, 379 individuals responded to the survey. However, 65 (17.15%) of these respondents were excluded from the final sample due to missing data. Missing data was defined as missing one or more responses in the subscales used to address the research questions. With this exclusion, the final sample consisted of 314 total adults who all were over the age of 18 years old and lived in the United States. Table 1 summarizes the demographic information.

The age range among the 314 adults was from 18 to 89 years old. The mean age was 38.95 years old (*SD* = 19.09; *Mdn* = 33). Approximately half of the respondents were young and emerging adults (164; 52.9%). Sixty-five respondents (31.6%) were between the ages of 34-49, 33 (20.7%) were between the ages of 50-65, and 50 (13.0%) were over 66 years old. For gender, the majority were female participants (246; 77.8%). For race/ethnicity, the majority of respondents were Caucasian/European-American (248; 77.5%). Twenty-four respondents (7.6%) were Black/African-American, 15 (4.8%) were Asian/Asian-American, 10 (3.2%) were Latin-American/Hispanic, 8 (2.5%) were Middle-Eastern, and 10 (3.2%) were mixed race/ethnicity. No participants identified as solely Native American/Pacific Islander. Also, the majority (262; 81.9%) were born inside the United States, as well as at least one of their parents/guardians. For number of the people (adults and children) living in the household, the greatest percentage of responses were from one to four people (271; 86.3%) in the household. The sample demographics are similar to the demographics of the United States population in several ways. Similar to the sample data, 76.3% of the population are Caucasian, 5.9% of the population are Asian, and 2.8% of the population are mixed race/ethnicity (U.S. Census Bureau, 2019). The median age of adults in the United States is 38.4, which is somewhat

close to the median age in the sample. However, the sample was skewed toward young and emerging adults. Additionally, 86% of the United States population was born inside the United States and the average number of people living in a household is 2.6. However, 13.4% of the U.S. population are Black/African-American, 1.3% are Native American alone, .2% are Pacific Islander alone, and 18.5% are Hispanic/Latin-American (U.S. Census Bureau, 2019). The sample is somewhat representative of the general population. The sample had similar percentages of Caucasian/European-Americans, Asian-Americans, and mixed-race/ethnicity as the general U.S. population, but less Black/African-Americans and no Native American or Pacific Islanders. The sample was also mostly female (77.8%). This is not representative of the U.S. population, which is 50.8% female (U.S. Census Bureau, 2019).

Adults were chosen to minimize risk and ensure autonomy for participation. While cultural diversity is essential to the study, participants were limited to the United States in order to recruit participants with greater similarity in their crisis experiences. Other countries may have had different policies, procedures, and experiences in relation to the pandemic.

Instrumentation

The online questionnaire contained three scales: the Post Traumatic Growth Inventory (PTGI), Kim and Cho's Individualism-Collectivism Scale, and the Brief COPE scale. The questionnaire also included multiple-choice questions regarding race, ethnicity, cultural background, family of origin, age, gender, and pandemic experiences and impressions (Appendix B). Additionally, mental health and self-care resources were

provided with the informed consent form. These resources were provided to support participants during the global pandemic.

Post Traumatic Growth Inventory (PTGI)

The PTGI (Tedeschi & Calhoun, 1996) is a 21-item Likert scale that measures five dimensions of posttraumatic growth: relating to others, new possibilities, personal strength, spiritual change, and appreciation of life. The scale refers to dimensions of posttraumatic growth as "factors." The scale produces a global score and five subscales to measure the five factors. The scale has shown to have utility in measuring the success of coping and growth following crisis or trauma (Tedeschi & Calhoun, 1996). Test-retest reliability has been found to be in the acceptable range (r = .71) (Sears et al., 2003). Scale intercorrelation have been found to range from r = .61 to r = .83 (Tedeschi & Calhoun, 1996). Internal consistency has been found to range from a = .67 to .85 (Tedeschi & Calhoun, 1996). Other studies found that reliability and validity ratings ranged from α = .34 to 1.00, with the majority scoring above .70 (Abdullah et al., 2017; Cadell et al., 2015; Lau et al., 2015; Shakespeare-Finch & Barrington, 2012). However, the subscales have been found to have poor to modest discriminate validity (Taku et al., 2008). The weak subscales are a limitation of this study. The PTGI is provided in Appendix C.

Individualism-Collectivism Scale

The Individualism-Collectivism scale is a brief 13-item measure of individualism versus collectivism consisting of 13 dichotomous items. A positive score indicates primarily collectivistic values, a negative score indicates primarily individualistic values (Kim & Cho, 2011). The scale is based on four factors found to be common to studies on collectivism and individualism: source of identity (Gecas, 1982; Ho & Chiu, 1994;

Hofstede, 1980; Turner, 1999), goal priority (Chen et al., 1997; Church & Lonner, 1998; Ho & Chiu, 1994; Triandis, 1994), mode of social relation (Chen et al., 1997; Ho & Chiu, 1994; Hofstede, 1980; Triandis, 1994; Triandis & Suh, 2002), and norm acceptance (Chen et al., 1997; Ho & Chiu, 1994). Kim and Cho (2011) found acceptable internal consistency reliability, with Cronbach's alpha ranging from .67-.80. This is relatively good, as the researchers also found that other scales of individualism and collectivism tend to have low internal consistency than their measure (Chen et al., 1997; Hui, 1988; Kim & Cho, 2011; Singelis et al., 1995). A limitation of this scale is that it is relatively new, and its initial testing was conducted on a solely Korean sample. This scale was chosen due to its dichotomous measure, brevity, relatively good reliability, and the Kim and Cho's abundant review of related literature. The scale is provided in Appendix D.

Brief COPE Scale

Carver (1997) created the Brief COPE scale as a shortened version of the original 60-item COPE scale (Carver et al., 1989). This 28 Likert-scale item instrument measures 14 factors of coping: active coping, planning, positive reframing, acceptance, humor, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame. Self-distraction refers to behaviors aimed at focusing on matters other than the crisis. Active coping involves attempts to improve or address the situation. Denial is a refusal to acknowledge the crisis. Substance use refers to drinking or drug use as a means to cope. Emotional support entails reaching out to social connections to discuss feelings and emotions. Instrumental support means reaching out to social connections for advice or help with problem-solving. Behavioral disengagement refers to the discontinuation of attempts to cope or

manage the stressors associated with the crisis. Venting entails expressing negative or strong emotions. Positive reframing involves attempts to find positive or optimistic aspects of one's experience. Planning includes strategizing and solution-seeking. Humor involves making jokes about the crisis to cope. Acceptance entails attempting to be content with the situation as it is. Religion refers to using one's spiritual or religious beliefs to cope. Self-blame is self-criticism and guilt for some of the negative consequences that have occurred during the crisis (Carver, 1997).

Each coping behavior is measured with two items. An exploratory factor analysis of the scale yielded nine of the 14 factors with eigenvalues greater than 1.0, which together accounted for 72.4% of the variance in responding. All primary loadings exceeded .4, and 22 of 28 questions were above .6 (Carver, 1997). All alphas exceeded .60 except for venting, denial, and acceptance, which were over .50 (Carver, 1997). While the reliability is not ideal, this scale has been used in many studies that examine coping across professional disciplines (e.g., Mahmoud et al., 2012; Rogan et al., 2013; Sam et al., 2016). The Brief COPE scale was used instead of the full version to increase the response rate of the survey, as a 60-item scale along with two other scales may have led to a decrease in participant motivation or focus. The scale is provided in Appendix E.

Procedures

The sampling method used was a two-step sampling procedure. First, the researcher, colleagues, and personal connections asked for volunteers. The second step was snowball sampling. This sampling strategy has benefits and limitations. Snowball sampling tends to yield a biased sample, as participants tend to have similar characteristics. However, this sampling procedure also helps reach individuals who may

not participate otherwise. This sampling procedure often helps reach unrepresented or marginalized populations (Etikan et al., 2015). This sampling procedure was suitable due to time and resource constraints. It was used to increase diversity in the study and reach populations and groups that the researcher is not a member of. Recruitment materials are provided in Appendix F. A mental health diagnosis of a trauma-related disorder was not a prerequisite, as the potentially-traumatic crisis of the pandemic was the common variable. Participants were required to understand English at an intermediate level.

To promote diversity in the study, the researcher sent the study to over 100 colleagues and personal connections across the country via email and text message. The researcher emailed the survey directly to counseling and psychology listservs (e.g., CESNET; APA Division 17 Counseling Psychology listserv), with one reminder on the listservs two weeks following distribution. The survey was posted by the researcher and shared by personal connections and colleagues on Facebook and LinkedIn social media platforms. Colleagues and other social media connections shared the survey posts as well. The survey was also emailed directly to colleagues and personal connections. The survey was also text messaged directly to personal connections. Colleagues and personal connections were not asked to share reminders about the study. This was done as a courtesy to the personal and professional connections who helped distribute the survey, as it reduced responsibility associated with participant recruitment. No identifying information was recorded in the survey. Data was stored on a locked, secured laptop to which only the researcher had access to. Upon completion of the study, the data was permanently deleted per IRB protocol. The informed consent used with study participants is provided in Appendix A.

Despite limiting the study to the United States, strategies were employed to recruit a participant pool as culturally and ethnically diverse as possible. Residing in the Washington, D.C. metropolitan region, the researcher was able to access many culturally-diverse groups. The researcher also used personal and professional connections to help recruit participants in other culturally-diverse locations in the country, such as Chicago, New York City, and San Diego. While focusing on these locations may have limited the generalizability to the United States as a whole, it may have also increased the number of participants with primarily collectivistic values. The purpose of this study was to examine the associations of individualistic-collectivistic values with coping and posttraumatic growth, and this data collection strategy better fits the purpose of the study.

Analysis

Data was downloaded from QuestionPro and organized onto Microsoft (MS) Excel. The data was analyzed using SPSS software.

Research Question One

The first research question was: is there a difference in global posttraumatic growth between individuals who are primarily individualistic and those who are primarily collectivistic? A t-test was used to observe if a difference existed between global posttraumatic growth in participants who were primarily individualistic and those who were primarily collectivistic.

Research Question Two

The second research question was: are there differences in factors of posttraumatic growth between individuals who are primarily individualistic and those who are primarily collectivistic? A one-way multiple analysis of variance (MANOVA)

was used to investigate if differences existed in the average values of factors of posttraumatic growth (using the PTGI subscales) between participants who were primarily individualistic and those who were primarily collectivistic.

Research Question Three

The third research question was: are there differences in coping behaviors between individuals who are primarily individualistic and those who are primarily collectivistic? A one-way MANOVA was used to investigate differences in coping factors between participants who were primarily individualistic and those who were primarily collectivistic.

Research Question Four

The fourth research question was: Are there correlations between coping behaviors and posttraumatic growth? A Pearson correlation analysis was used and a correlation matrix was examined to explore associations between types of coping behaviors and global posttraumatic growth.

Chapter 4: Results

The purpose of this quantitative study was to examine differences for posttraumatic growth for those with individualistic versus collectivistic values. The study also examined the coping behaviors employed by those with individualistic versus collectivistic values. Lastly, this research was designed to examine relationships between coping behaviors and posttraumatic growth. The following research questions guided this study: 1) Is there a difference in global posttraumatic growth between individuals who are primarily individualistic and those who are primarily collectivistic? 2) Are there differences in factors of posttraumatic growth between individuals who are primarily individualistic and those who are primarily collectivistic? 3) Are there differences in coping behaviors between individuals who are primarily individualistic and those who are primarily collectivistic? 4) Are there correlations between coping behaviors and posttraumatic growth?

The study involved a QuestionPro delivered survey containing demographic questions, COVID-19 experience questions, the Kim and Cho (2011) Individualism-Collectivism Scale, the Posttraumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996), and the Brief COPE Scale (Carver, 1997). The survey was emailed directly to the listservs, with one reminder on the listservs two weeks following distribution. The survey was posted on Facebook and LinkedIn social media platforms. Colleagues and other social media connections shared the survey posts as well. The survey was emailed directly to colleagues and personal connections. The survey was also text messaged directly to personal connections. Colleagues and personal connections were not asked to share reminders about the survey.

The focus of this chapter is to present the results of the quantitative analyses. Microsoft (MS) Excel was used to organize the data, and then SPSS was used for the data analysis. Chapter 4 begins with a description of the demographics of the sample, followed by the results from the t-test, MANOVAs, Pearson correlation analysis, and a review of the correlation matrix. The chapter ends with a summary of the results.

COVID-19 Experiences

Regarding experiences during the COVID-19 pandemic, the majority of participants reported that they had experienced cancellation of important events (242; 77%). The majority of participants reported that they had experienced a sheltered-in-place order/quarantine (213; 68%). Forty-three (13.7%) experienced job loss, 40 (12.7%) experienced a financial crisis/emergency, and 92 (29.3%) experienced a reduction/rationing of resources. Approximately half experienced the closure of local businesses (160; 51.0%). Less than half transitioned to remote work (from in-person work; 134; 42.0%), transitioned to online-schooling of self (from in-person schooling; 131; 40.9%), or reported a COVID-19 illness of a friend or family member (131; 40.9%). Thirty-six (11.5%) experienced the death of a family member or friend due to COVID-19. Thirteen participants (4.1%) had been diagnosed with a confirmed COVID-19 illness, while forty-one participants (13.1%) became ill with a suspected case of COVID-19.

These experiences have notable similarities and differences to those reported in the U.S. population. According to the U.S. Bureau of Labor Statistics (2020), unemployment reached a peak of 14.7% during the pandemic. At the time of data collection, unemployment had decreased to 7.9% (U.S. Bureau of Labor Statistics, 2020). SafeGraph (2020) reported that 43.8% of the population had quarantined or stayed at home during

the pandemic. It is estimated that 9.3% of the U.S. population has been infected with COVID-19 (Center for Infectious Disease Research and Policy, 2020), however, the death rate due to COVID-19 has been challenging to calculate. As of September 30, the number of positive COVID-19 tests since March had increased to 7,231,001. The total number of COVID-19 related deaths was 206,402 (Centers for Disease Control, 2020). The sample had a greater percentage of individuals who experienced shelter-in-place/quarantine. When combining confirmed and suspected cases of COVID-19, the sample may have had a greater percentage of individuals who had become infected with COVID-19 then the general population. However, the sample had a somewhat similar percentage of job loss as the general population.

COVID-19 Beliefs

Table 2 summarizes the responses to six COVID-specific questions among the 320 participants. The majority (227; 72.3%) of respondents believed that the COVID-19 pandemic is highly to extremely dangerous to public health. The majority (240; 76.4%) of respondents believed that the COVID-19 pandemic is moderately to extremely dangerous to their personal health. The majority (271; 86.3%) of the respondents believed that the COVID-19 pandemic is highly to extremely harmful to the United States economy. The majority (251; 79.9%) of the respondents believed that the COVID-19 pandemic is highly to extremely harmful to the global economy. Less than half (137; 82.48%) of respondents believed that the COVID-19 pandemic is highly to extremely harmful to their personal well-being. Over two-thirds (216; 68.8%) of respondents believed that the COVID-19 pandemic is highly to extremely harmful to the general well-being of others. In general, the majority of participants believed the COVID-19 pandemic

to be at least somewhat harmful to public health, the U.S. economy, and the world economy. In general, participants also believed that COVID-19 was less of a risk to their personal health than it was to public health. The lowest levels of threat were perceived for personal well-being. Respondents perceived COVID-19 to be a greater threat overall than some other U.S. surveys have reported.

According to the Pew Research Center (Tyson, 2020), as of July 2020, 67% of U.S. adults view COVID-19 as a public health threat. Additionally, 40% of U.S. adults believed COVID-19 to be a threat to personal health, and 38% perceive COVID-19 to be a threat to personal finances (Tyson, 2020). The level of threat (i.e. moderate, high, extreme) was not specified. Based on the available data, the sample may have perceived COVID-19 to be a greater threat than the general U.S. population perceived it to be.

Is there a difference in global posttraumatic growth between individuals who are primarily individualistic and those who are primarily collectivistic?

An independent sample *t*-test was conducted to address Research Question One to determine whether there is a significant difference in global posttraumatic growth between individuals who are primarily individualistic and those who are primarily collectivistic. A level of significance of 0.05 was used in the independent sample *t*-test. The results are shown in Table 4, with the descriptive statistics shown in Table 3. One-hundred and thirty participants (41.4%) scored primarily individualistic and 184 participants (58.6%) scored primarily collectivistic. Results of the independent sample *t*-test revealed that there was no significant difference in global posttraumatic growth with the COVID-19 pandemic ($t = -0.39$, $p = 0.70$) between participants who were primarily individualistic and those who were primarily collectivistic.

Are there differences in factors of posttraumatic growth between individuals who are primarily individualistic and those who are primarily collectivistic?

A one-way MANOVA was conducted to determine whether there was a significant difference in scores of each of the five factors of posttraumatic growth between participants who were primarily individualistic and those who were primarily collectivistic. A level of significance of 0.05 was used. The results of the one-way MANOVA is shown in Table 6, with descriptive statistics shown in Table 5. A bar chart representing descriptive statistics is shown in Figure 1.

Results of the MANOVA revealed there are no significant differences in the mean scores among the five factors of posttraumatic growth (i.e. relating to others, new possibilities, personal strength, spiritual change, and appreciation for life) for participants who were primarily individualistic and primarily collectivistic ($\lambda = .98$, $F = 1.28$, $p = .27$).

Are there differences in coping behaviors between individuals who are primarily individualistic and those who are primarily collectivistic?

A one-way MANOVA was used to determine whether there was a significant difference in coping behaviors between participants who were primarily individualistic and those who were primarily collectivistic. Fourteen types of coping behaviors were examined, including active coping, planning, positive reframing, acceptance, humor, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame. The scores for each of the 14 coping behaviors were determined by the frequency of coping behavior usage. A level of significance of 0.05 was used. Descriptive statistics are shown in Table 8, and the

results of the one-way MANOVA are shown in Table 9. A bar chart representing descriptive statistics is shown in Figure 2.

Results of the MANOVA revealed there were no significant differences in any of the mean scores of the 14 coping behaviors between participants who were primarily individualistic and those who were primarily collectivistic ($\lambda = .934$, $F = 1.50$, $p = .11$). However, an a priori power analysis had shown that the sample was underpowered.

Are there correlations between coping behaviors and posttraumatic growth?

A series of Pearson correlation analyses were conducted to examine the correlations between the 14 types of coping behaviors and the global score of posttraumatic growth. Table 11 summarizes the results of the Pearson correlation analyses between coping behaviors and global posttraumatic growth, and Table 12 summarizes the results of the correlation analyses between coping behaviors and factors of posttraumatic growth. The most frequently used coping behaviors of both primarily individualistic and primarily collectivistic participants included acceptance (Primarily individualistic: $M = 4.55$, $SD = 1.41$; Primarily collectivistic: $M = 4.78$, $SD = 1.22$), self-distraction (Primarily individualistic: $M = 3.92$, $SD = 1.70$; Primarily collectivistic: $M = 4.02$, $SD = 1.48$), and active coping (Primarily individualistic: $M = 3.50$, $SD = 1.56$; Primarily collectivistic: $M = 3.53$, $SD = 1.66$). The least frequently used coping behaviors included denial (Primarily individualistic: $M = .96$, $SD = 1.30$; Primarily collectivistic: $M = .75$, $SD = 1.26$), behavioral disengagement (Primarily individualistic: $M = .93$, $SD = 1.31$; Primarily collectivistic: $M = .93$, $SD = 1.15$), and substance use (Primarily individualistic: $M = 1.39$, $SD = 1.81$; Primarily collectivistic: $M = 1.27$, $SD = 1.72$). These findings contradict

some evidence that suggests substance use has increased during the pandemic (Clay & Parker, 2020).

Pearson Correlation Analysis for Global Posttraumatic Growth

Results of the Pearson correlation analysis showed that there were significant positive correlations between coping behaviors and the global score of posttraumatic growth for each coping behavior except acceptance and behavioral disengagement. Specifically, the 12 coping behaviors that had significant positive correlations to global posttraumatic growth included active coping (r= 0.32, $p < 0.001$), planning ($r = 0.36$, $p < 0.001$), positive reframing ($r = 0.40$, $p < 0.001$), humor ($r = 0.13$, $p = 0.02$), religion ($r = 0.34$, $p < 0.001$), emotional support ($r = 0.46$, $p < 0.001$), instrumental support ($r = 0.46$, $p < 0.001$), self-distraction ($r = 0.33$, $p < 0.001$), denial ($r = 0.18$, $p < 0.001$), venting ($r = 0.26$, $p < 0.001$), substance use ($r = 0.14$, $p < 0.02$), and self-blame ($r = 0.13$, $p < 0.02$). The significant positive correlations suggest that higher frequency of the above coping behaviors in response to the experiences with the COVID-19 pandemic is associated with higher scores of posttraumatic growth. The strengths of all significant correlations between coping behaviors and global score of posttraumatic growth ranged from weak to moderate.

Correlation Matrix

Results of the Pearson correlation showed that there were significant positive correlations between frequency of coping behaviors and scores on factors of posttraumatic growth. The correlations ranged from weak to strong. The strongest correlation was between religious coping and spiritual change ($r = .73$). The other correlations between religion coping and factors of posttraumatic growth were weak.

Instrumental support had a moderate positive correlation to relating to others (r = .51), as well as moderate to weak positive correlations to each of the other factors of posttraumatic growth. Emotional support also had a moderate positive correlation to relating to others (r = .51), with weak positive correlations to each of the other factors of posttraumatic growth. Of the significant correlations, self-blame had the weakest positive correlations to relating to others (r = .18), new possibilities (r = .12), and appreciation of life (r = .12). Behavioral disengagement was the only coping behavior to show no significant correlation to any factor of posttraumatic growth. The results showed that the degree to which one self-reported the use of certain coping behaviors was associated with the degree to which one scored on certain factors of posttraumatic growth. The results also showed that some coping behaviors had stronger associations with posttraumatic growth than others. See Table 12 for all other significant correlations.

Summary

The purpose of this quantitative, cross-sectional study was to compare posttraumatic growth and coping behaviors between those with collectivistic values and those with individualistic values. An independent sample *t*-test, two MANOVAs, and a series of Pearson correlation analyses were conducted to address the different research questions of this study. For Research Question One, the result of the independent sample *t*-test showed that there was no significant difference in the total score or global posttraumatic growth with the COVID-19 pandemic between participants who were primarily individualistic and those who were primarily collectivistic. For Research Question Two, results of the one-way MANOVA showed that there were no significant differences in the scores of each of the five factors of posttraumatic growth between

participants who were primarily individualistic and those who were primarily collectivistic. For Research Question Three, results of the one-way MANOVA showed that there were no significant differences in coping behaviors between participants who were primarily individualistic and those who were primarily collectivistic. For Research Question Four, results of the Pearson correlation analyses showed that there were significant positive correlations between 12 of the coping behaviors and the global score of posttraumatic growth. The 12 coping behaviors each yielded a weak to moderate positive correlation to posttraumatic growth. There were also positive correlations between coping behaviors and factors of posttraumatic growth, ranging from weak to strong in strength.

Implications of the results of the data analysis are discussed in detail in Chapter 5. Suggestions on how the findings may be applied to the field of counseling and allied health professions and a summary of recommendations for future research are also discussed.

Chapter 5: Discussion

The results of the study revealed no significant difference in global posttraumatic growth during the COVID-19 pandemic between individuals who are primarily individualistic and those who are primarily collectivistic. There were no significant differences in the scores of each of the five factors of posttraumatic growth of relating to others, new possibilities, personal strength, spiritual change, and appreciation of life. There were no significant differences in the average values of factors of posttraumatic growth with the COVID-19 pandemic between participants who are primarily individualistic and those who are primarily collectivistic. Although no significant differences were found in the multivariate analysis of coping behaviors amongst primarily individualistic and primarily collectivistic participants, the descriptive statistics showed that those who are primarily collectivistic showed greater use of emotional support and instrumental support as coping skills in response to the experiences with the COVID-19 pandemic. Lastly, there were significant positive correlations between 12 coping behaviors and global score of posttraumatic growth. There were also multiple positive correlations between coping behaviors and factors of posttraumatic growth. The coping behaviors of denial, substance use, venting, humor, and self-blame each yielded a low positive correlation to posttraumatic growth. The coping behaviors of self-distraction, active coping, emotional support, instrumental support, positive reframing, planning, and religion each yielded a moderate positive correlation to posttraumatic growth. In general, people are coping and growing similarly across the individualism-collectivism spectrum. Additionally, while some coping behaviors seem to be more

helpful than others, it seems that the more individuals actively attempt to cope, the greater the posttraumatic growth.

Posttraumatic Growth Across Cultures

Although some research has suggested that posttraumatic growth might be higher in collectivist cultures (e.g., Wlodarczyk et al., 2016) this study found no difference in global posttraumatic growth between those with primarily individualist values and those with primarily collectivist values. There were also no differences in posttraumatic growth subscales. To summarize, posttraumatic growth across types and levels is similar for participants with individualist and collectivist values.

In the case of COVID-19, it seems that no matter their cultural values, individuals are experiencing similar levels of posttraumatic growth. The finding suggests that these particular values do not play a significant role in posttraumatic growth potential in this context. Additionally, the factors of posttraumatic growth were found to have moderate to strong positive correlations with one another, suggesting that growth in factor is connected to growth in others (see Table 12).

Determining the Level of Posttraumatic Growth

The authors of the Posttraumatic Growth Inventory (PTGI) did not give ranges for low, moderate, or high levels of posttraumatic growth. Therefore, it is difficult to determine the level of posttraumatic growth that the sample is currently experiencing in relation to COVID-19. One article by Holtmaat, van der Spek, Cuijpers, Leemans, and Verdonck-de Leeuw (2017) stated that scores of 45 or lower indicate none-to-low levels of posttraumatic growth, whereas scores over 46 indicate moderate to high levels of posttraumatic growth. The article was not written by the authors of the scale, and the

authors' authority on scale rankings is unknown. Therefore, interpretations regarding the relative level of posttraumatic growth amongst participants must maintain a degree of skepticism.

The findings for this study show that primarily individualistic participants had a mean score of 43.38 (*SD* = 25.5) on the PTGI, and primarily collectivistic participants had a mean score of 44.5 (*SD* = 24.46). These averages are approaching the designated cut-off for moderate-to-high posttraumatic growth, according to Holtmaat et al. (2017), so it may be reasonable to assume that, collectively, the sample is experiencing at least a low level of posttraumatic growth. However, variability is quite high for both primarily individualistic and primarily collectivistic participants, suggesting that some people may be experiencing high levels of posttraumatic growth, while others are experiencing none. My study found positive correlations between certain coping behaviors and posttraumatic growth. Other studies have suggested that posttraumatic stress may be positively associated with posttraumatic growth (e.g., Dekel et al., 2012; Levine et al., 2008; Liu et al., 2017; Park et al., 2010; Solomon & Dekel, 2007), so perhaps stress responses are also associated with the level of posttraumatic growth during COVID-19. Further research into the interaction of posttraumatic stress and posttraumatic growth during COVID-19 is warranted.

Coping Behaviors in Individualists and Collectivists

The results of the MANOVA on coping behaviors used between those who were primarily individualistic and those who reported to be primarily collectivistic found no significant differences. However, the MANOVA was underpowered, and the descriptive statistics did show that those who were primarily collectivistic used instrumental support

and emotional support more frequently than those who were primarily individualistic. This finding is understandable since these are social coping skills, and collectivist cultures tend to strongly value social groups. Except for these two variables, the overall coping strategies of both individualistic and collectivistic respondents were remarkably similar.

Frequency of Coping Behaviors

Observing the descriptive statistics alone can provide some insight into the possible coping behaviors of the general population. Participants across the individualism-collectivism spectrum engaged in very low levels of self-blame, and higher levels of acceptance and self-distraction. It is possible that the coping behaviors have changed as the pandemic has worsened in the later months of 2020. Early in the pandemic, many individuals attempted to cope with humor, making jokes about COVID-19 (Zacher & Rudolph, 2020). As the pandemic has continued, a significant portion of the United States population seems to understand the seriousness of the pandemic.

Influence of Grief

The Kübler-Ross (1969) model proposed that the grief and loss cycle involves the forward movement through five distinct stages: denial, anger, bargaining, depression, and acceptance. With more than a quarter of a million deaths from COVID-19, the U.S. has been experiencing collective grief (Chalk, 2020), which may influence some of the coping behaviors used. It is possible that earlier in the pandemic, more individuals were using denial as a coping behavior. It seems that many in the U.S. have collectively moved through the stages of grief into acceptance. According to national polls of attitudes (https://projects.fivethirtyeight.com/coronavirus-polls/), the share of Americans who are

either “somewhat” or “very” concerned about infection has risen steadily since the virus began rapidly spreading in the U.S. in March.

During the August 30 to September 30 data collection, it appears participants were trying to focus on other actions and situations in an attempt to cope with the reality of COVID-19.

Coping and Posttraumatic Growth

Findings suggest that an increased engagement in most coping behaviors is associated with posttraumatic growth. The higher the use of the coping behavior, the greater the posttraumatic growth. Additionally, the type of coping behavior used is associated with the type of posttraumatic growth experienced. While some coping behaviors often deemed unhelpful had a positive correlation to posttraumatic growth, the study did not look at the negative outcomes of these coping behaviors. Although we cannot make causal claims about the correlation findings, future research should explore whether it is possible that simply attempting to cope can serve as a catalyst for posttraumatic growth in situations such as a global pandemic.

Socially-Based Coping

The coping behaviors with the highest correlations with global posttraumatic growth were emotional support and instrumental support. Both of these coping behaviors involve connecting with others. These results are consistent with findings from Killgore et al. (2020) who found that family and social support predicted resilience during the early weeks of the COVID-19 lockdowns. Social connection is vital during times of crisis (Echterling et al., 2018), and it seems that this not only fosters resilience, but is also associated with posttraumatic growth.

Activity Versus Inactivity

The only coping behaviors that did not lead to growth were acceptance and behavioral disengagement. This finding in the midst of a dangerous and surging pandemic makes sense since both involve a lack of activity. Acceptance involves submission to one's circumstance and behavioral disengagement involves the discontinuation of coping attempts. Although survivors of the pandemic may achieve some form of emotional acceptance in the years ahead, the current circumstances demand actively relying on mitigation strategies of wearing masks, keeping social distance, and regularly washing hands are essential for reducing risks and promoting community well-being. The other coping behaviors involve internal or external activity. Basic coping activity may be a foundational component to posttraumatic growth.

Activity Complexity

The coping behaviors that had a significant correlation with posttraumatic growth yielded either a low or moderate correlation. The coping behaviors that yielded moderate correlations include self-distraction, active coping, emotional support, instrumental support, positive reframing, planning, and religion. Each of these behaviors involves either social support, internal reflection, or predetermined action. They involve greater thoughtfulness and activity complexity than the coping behaviors that yielded a low correlation, such as venting, self-blame, denial, and substance use. They are also healthier behaviors. Although humor as a coping skill may require similar levels of complexity as some of the behaviors with moderate correlations to posttraumatic growth, it yielded a low correlation similar to the less-complex behaviors. It is possible that the ignoring of suffering, lack of internal reflection, and greater impulsivity associated with humor may

interfere with the complexity involved with it. It is important to note that even the less-complex activities were still associated with posttraumatic growth. This may suggest that while general coping activity can yield posttraumatic growth, activities with greater complexity yield greater posttraumatic growth. This is consistent to the theory that posttraumatic growth is a deliberate and reflective process (Calhoun & Tedeschi, 1998, 2006; Janoff-Bulman, 1992; Janoff-Bulman & Franz, 1997; Tedeschi & Calhoun, 2004;).

Healthy Coping

The results showed that healthy coping behaviors had stronger correlations to posttraumatic growth than unhealthy coping behaviors and accounted for greater variance in posttraumatic growth. For example, positive reframing had shown $r^2 = .16$, while substance use had shown $r^2 = .016$ (see Table 11). This suggests that healthy coping behaviors have a more meaningful connection to posttraumatic growth than unhealthy ones. Substance use as a means to cope can lead to substance use disorders, serious physical health consequences (Osborn et al., 2020), and an increased risk for suicide (Esang & Ahmed, 2018). Behavioral disengagement, while seemingly harmless, can potentially lead to feelings of hopelessness, careless health behaviors, and an increased risk for suicide (Horwitz et al., 2018). Respondents reported engaging in relatively low levels of what is often unhelpful or unhealthy coping behaviors, such as substance use and behavioral disengagement. This finding is consistent with some evidence that suggests that alcohol and substance use have increased during the pandemic (Clay & Parker, 2020).

The results at the time of data collection suggested that people across the individualism-collectivism spectrum were attempting to engage in healthier coping

behaviors**.** Increasing mindfulness during the pandemic could improve health-related behaviors during the pandemic, possibly yielding improved physical and mental health outcomes by the time that the pandemic is resolved.

Types of Coping and Types of Posttraumatic Growth

Factors of posttraumatic growth can be understood as different types of posttraumatic growth. Each of the coping behaviors was found to have positive correlations with related types of posttraumatic growth. For example, using religion to cope was found to have a strong positive correlation to spiritual change. The socially-based behaviors of instrumental support and emotional support had the highest correlations to the socially-based factor of relating to others. Positive reframing had the second-highest correlation to appreciation of life following emotional support. Positive reframing also had the highest correlation to new possibilities, which may be due to the enhanced appeal of opportunities when viewed through an optimistic lens. These findings suggest that using strengths and skills already present can potentially enhance these skills and generalize strengths to related domains. This supports the use of strengths-based approaches to mental health.

Justification and Limitations

A power analysis using G*Power software determined that an extremely high number of participants would be needed to meet statistical significance research question three, which examined differences in each of the coping behaviors amongst participants who were primarily individualistic and those who were primarily collectivistic. Given the limited resources, it was unlikely that the researcher would have been able to obtain

enough participants for sufficient power. However, a MANOVA was still the most appropriate analytical choice for the research question.

To make the study most applicable across cultures, individualism and collectivism were examined. Individualism and collectivism apply to all cultures, making this a meaningful way to explore cultural values given the limited resources. Examining global posttraumatic growth and each factor of posttraumatic growth provided greater depth to the study than examining global posttraumatic growth alone. Examining coping behaviors in addition to posttraumatic growth helped explore how coping is connected to individualism-collectivism and posttraumatic growth. Future multivariate research on these topics will further enhance knowledge on COVID-19, coping, posttraumatic growth, and individualism-collectivism.

Methods

First, the study relied on a cross-sectional design, therefore, causal claims cannot be made. Although it is possible that certain coping behaviors can contribute to posttraumatic growth, there are likely multiple contributing variables. Additionally, since the authors of the PTGI do not give low, moderate, and high values of scores for posttraumatic growth, it is challenging to determine the true levels that participants are experiencing. The subscales also have been found to have poor to modest discriminate validity (Taku et al., 2008). The posttraumatic growth scores also had high variability, which suggests outside contributing variables. Levels of posttraumatic stress were not examined, which limits the conclusions we can draw from posttraumatic growth scores, and conclusions regarding the interaction of stress and growth during COVID-19 cannot be made. However, other studies suggest that those with higher levels of posttraumatic

stress also experience higher levels of posttraumatic growth (e.g., Dekel et al., 2012; Levine et al., 2008; Liu et al., 2017; Park et al., 2010; Solomon & Dekel, 2007), so this may also be the case with posttraumatic growth during COVID-19.

Sample

The recruitment procedure used snowball sampling and utilized urban locations with cultural diversity, which may have affected some of the generalizability of the sample to the United States as a whole. Although a good portion of the sample demonstrated primarily-collectivistic values, the sample is mostly white and of European descent. Although some conclusions can be made regarding individualistic and collectivistic values, the sample limits the ability to draw conclusions about specific non-white populations. The findings are also limited to the United States, which inhibits the ability to draw conclusions regarding posttraumatic growth and coping in other countries. Other countries have had different experiences and stressors regarding the pandemic, which may affect coping behaviors and posttraumatic growth. Findings are also limited to adults. Children and adolescents have developmental considerations that likely complicate posttraumatic growth during the pandemic. Pandemic experiences and responsibilities also differ.

Although the sample is representative of the general population in many ways, it may not fully represent Black/African-American individuals due to the lower proportion of these participants. The sample also did not include any Native American or Pacific Islander participants, excluding them from representation. Not enough data was available to compare the proportion of Middle-Eastern participants in the sample to the U.S. population, so the representation of this population is questionable. Studies specific to

Black/African-American, Native American/Pacific Islander, and Middle-Eastern individuals is necessary to gain knowledge in posttraumatic growth and coping in these populations.

Crisis Specificity

Findings are specific to the COVID-19 pandemic. Generalization to other crises may be limited, although some application and insight into posttraumatic growth and coping during other crises is possible. Additionally, the COVID-19 pandemic is continuously evolving and changing. The changing trajectory of the pandemic makes this study time-sensitive. Posttraumatic growth and coping may change as the pandemic continues to evolve and when it has ended.

Based on research, posttraumatic growth can occur during a crisis and is not limited to its completion (Calhoun & Tedeschi, 2006). While some collective trauma has already occurred, the development of trauma and stress may change with time. The study has provided an idea of posttraumatic growth during this specific period of time during the COVID-19 pandemic, and it is likely that posttraumatic growth will change as new developments occur.

Other Major Events and Personal Differences

Multiple other stressful national and international events occurred that may have affected the stress, coping, and posttraumatic growth of some participants. Although the surveys prompted participants to focus on their experiences related to COVID-19, some of these events may have inadvertently affected those experiences. These events include the police killings of Breonna Taylor and George Floyd, the murder of Ahmaud Arbery, the deadly explosion in Beirut, Lebanon, and the political tensions of the 2020 U.S.

presidential election. Mental health history, physical illness, disability, socioeconomic status, and other adverse events may have also influenced coping behaviors and posttraumatic growth. Research regarding reactions to co-occurring crises and other individual conditions can provide greater insight into the variance of posttraumatic growth.

Implications for Counselors and Allied Professionals

The goal of this research was to inform the counseling field and allied professions. It was also to enhance multicultural competence and trauma-informed care. The findings can provide insight into potential client experiences regarding posttraumatic growth and coping behaviors that may be suitable for fostering growth.

Individualism and Collectivism

Although the findings of this study provide some insight into individualistic and collectivistic values, we cannot assume the individualism or collectivism of any person, no matter their cultural background. In fact, this study provided evidence against the stereotype that European-Americans are individualistic. While 77.2% of participants were white/European-American, 57.5% of participants had shown primarily collectivistic values. This finding highlights the necessity of exploring and understanding client values, especially when the client is from a culture that is different from the counselor.

Social Support

Participants who were primarily collectivistic tended to use the social coping strategies of emotional support and instrumental support more frequently than those who were primarily individualistic. The social strengths of collectivism should be used by counselors and allied professionals when working with clients from collectivist cultures.

In general, these social coping behaviors were found to have a moderate positive correlation with posttraumatic growth. They also had the highest correlations to global posttraumatic growth amongst the other coping behaviors. Emphasizing social support can be a useful strategy when working with clients of all cultures.

Barriers to Receiving Social Support

Receiving social support during the pandemic has been challenging. COVID-19 has created major safety concerns regarding socializing in-person. Despite this, one study has shown that most individuals in the United States are not experiencing isolation or loneliness due to social distancing (Luchetti et al., 2020). This is likely due to modern technology that allows individuals to remotely connect with one another in meaningful ways. Counselors and allied professionals can collaborate with clients to create a plan for regularly connecting with friends and family virtually to receive the necessary social support.

Stress and Growth

As mentioned, studies show that those with higher posttraumatic stress tend to yield higher levels of posttraumatic growth (e.g., Dekel et al., 2012; Levine et al., 2008; Liu et al., 2017; Park et al., 2010; Solomon & Dekel, 2007). Some individuals may have experienced more stress during the pandemic than others. Exploring and processing potential posttraumatic growth may be a helpful way to empower and support counseling clients who are struggling with the pandemic. This can be done with clients of all cultural backgrounds.

Fostering Helpful Coping Behaviors

Since coping behaviors involving complex internal or external activity tend to be associated with the highest levels of posttraumatic growth, these can be encouraged as helpful coping strategies for clients. While unhealthy coping behaviors should not be encouraged, understanding and validating other coping strategies may empower clients. As mentioned, it seems that behaviors involving active attempts to cope are associated with posttraumatic growth, even if the association is weak. Exploring potential posttraumatic growth associated with client coping strategies may be a useful strengths-based approach.

Crisis Intervention

COVID-19 will certainly not be the last mass crisis that the United States faces, consequently preparing with knowledge of posttraumatic growth and coping can be used as a preventative tool. Although the findings of this study are exclusive to COVID-19, the findings may have implications for other natural disasters, pandemics, or mass catastrophes. Crisis intervention and disaster relief workers can use these findings to encourage coping behaviors that tend to be associated with greater posttraumatic growth in survivors. Social support is vital during times of crisis (Echterling et al., 2018), and connecting survivors to one another can be used to foster collective coping and posttraumatic growth. Even if survivors are of different cultural backgrounds or hold different cultural values, this social support can be an effective tool for building unity and collective healing.

Suggestions for Future Research

This study is just the beginning of what could be a great deal of research on posttraumatic growth during COVID-19. The findings of this study can be used to inform

later COVID-19 studies continuing years after the pandemic has ended. Many posttraumatic growth studies are conducted long after the traumatic incident. This study was completed in the midst of the ongoing pandemic. If a vaccine and other mitigation efforts lead to a successful resolution of the pandemic in 2021, a follow-up study would be useful.

High-Impact Versus Low-Impact

The variability of posttraumatic growth in the sample was high. Additionally, some participants had experienced a greater impact of COVID-19 than others. Future study comparing participants with high levels of COVID-19 impact to low levels of COVID-19 impact is suggested.

Qualitative Study

To obtain a rich, in-depth understanding of personal experiences, coping, and posttraumatic growth during COVID-19, one should engage in qualitative study. A qualitative study should be done to explore the experiences of diverse individuals during COVID-19. International qualitative study can provide insight into international experiences with COVID-19, as well as inform culturally competent care. The findings of this study can be used to inform the structure of future qualitative studies.

Longitudinal Study

Since the pandemic is still occurring, studies tracking changes in posttraumatic growth, stress, and coping can be conducted as new developments occur. Posttraumatic growth is a continuous process, often occurring over years (Calhoun & Tedeschi, 2006; Masten & Reed, 2002). The development of posttraumatic growth in the years following the pandemic may also be useful in understanding how posttraumatic growth changes and

develops over time, and how individuals are changing and developing as a result of the pandemic.

Stress and Crisis Intervention Study

Stress and traumatic response were not measured in this study. Understanding stress, coping, and posttraumatic growth together in relation to COVID-19 would be quite useful to counselors and allied professionals. Future studies on crisis, trauma, coping, and posttraumatic growth that are population-specific are also important for building cultural competence.

Posttraumatic growth and coping for other major crises would also be useful. Replicating this study in reference to other crises and disasters could provide insight into patterns regarding posttraumatic growth and coping across crises. Including stress response as a part of these future studies would also address the lack of stress and trauma exploration in the current study.

Culture-Specific Study

To enhance knowledge in posttraumatic growth and coping behaviors in diverse populations, studies specific to these populations is necessary. Although this study may be representative of some populations, it did not provide adequate representation to Black/African-American, Native American, or Pacific Islander populations. International study will also enhance cultural competence in posttraumatic growth and coping behaviors.

Conclusion

No matter our values regarding individualism or collectivism, we seem to be coping and experiencing posttraumatic growth in similar ways in the United States. This

highlights our fundamental similarities to one another despite our specific differences. We can grow from our experiences during the pandemic, so long as we actively attempt to do so, and connect to one another for social support. Exercising the skills that we already possess may enhance them further and lead to growth in related domains, which supports the need for strengths-based approaches to mental health. I hope that the findings of this study will influence how we view coping and growth during the pandemic, inform the health and helping professions, and provide the opportunity for further research on posttraumatic growth throughout the pandemic and beyond.

APPENDIX A

You are being asked to participate in a research study conducted by Stephanie Chalk from the Department of Graduate Psychology at James Madison University. The purpose of this study is to explore how culture, coping behaviors, and posttraumatic growth are connected in the context of the COVID-19 pandemic. Posttraumatic growth refers to the positive personal changes or developments that occur during or following a crisis or trauma. The pandemic has affected us all in one way or another, and it is the goal of the researcher to explore responses to the pandemic through a strengths-based perspective. The goal of this research is to enhance the counseling field and allied professions, trauma-informed care, crisis intervention services, future research, and community engagement on a national and international level.

Eligibility

Participants must be at least 18 years old and live in the United States.

Research Procedures

This study consists of a QuestionPro survey. You will be asked to provide answers to a series of questions regarding demographics, personal/cultural perspectives, COVID-19 experiences and opinions, coping skills and behaviors, and perceived personal growth. There are no good or bad, right or wrong answers.

Time Required

Participation in this study will require 25-30 minutes of your time

Risks

The researcher does not perceive more than minimal risks from your involvement in this study (that is, no risks beyond the risks associated with conversations about the pandemic).

Benefits

Potential benefits from participation in this study include an opportunity to reflect and process your own experiences during the COVID-19 pandemic using a strengths-based philosophical lens. Participants may be motivated to further enhance their own growth and self-care upon completion of the survey. Resources for self-care and emotional well-being are provided at the end of this informed consent.

Confidentiality

The results of this research will be included in the researcher's dissertation for completion of the Doctorate of Philosophy (PhD) in Counseling and Supervision from James Madison University. The results will also be used in presentations at professional conferences and be submitted for peer-reviewed journal publication. The researcher retains the right to use and publish non-identifiable data. While individual responses are confidential, aggregate data will be presented representing averages or generalizations about the responses as a whole. No identifiable information will be collected from the participant and no identifiable responses will be presented in the final form of this study. All data will be stored in a secure location accessible only to the researcher. Upon completion of the study, all information will be destroyed.

Participation & Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind. However, once your responses have been submitted and anonymously recorded you will not be able to withdraw from the study.

Questions about the Study

If you have questions or concerns during the time of your participation in in this study or after its completion, or if you would like to receive a copy of the final aggregate results of this study, please contact:

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Questions about Your Rights as a Research Subject:

Dr. Taimi Castle

Chair, Institutional Review Board

James Madison University

(540) 568-7025

castletl@jmu.edu

Resources during COVID-19

- National Suicide Prevention Lifeline (24/7, confidential, free suicide hotline): 1-800-273-8255; suicidepreventionlifeline.org
- Better Help (monthly subscription online counseling): betterhelp.com
- Mindspace Online COVID-19 Support Groups (pay-what-you-can, online support groups for help navigating the COVID-19 crisis): www.mindspacewellbeing.com/programs/online-covid-19-support-group/
- Daily Strength (free, anonymous online support groups and forums for a wide range of topics): dailystrength.com
- Calm app (free and premium-feature meditation and sleep sessions): calm.com

Giving of Consent

I have been given the opportunity to ask questions about this study. I have read this consent and I understand what is being requested of me as a participant in this study. I certify that I am at least 18 years of age. By clicking on the link below, and completing and submitting this anonymous survey, I am consenting to participate in this research.

https://www.questionpro.com/t/AQo68ZhsCj

_____ _____

Stephanie Chalk 6/10/20

This study has been approved by the IRB, protocol # 21-1944.

APPENDIX B

Q1: What is your age? _____

Q2: What is your gender? Please select one.

- Male
- Female
- Non-binary
- Unsure/Prefer not to answer

Q3: What is your race/ethnicity? Please select one.

- Asian/Asian-American
- Black/African-American
- Caucasian/European-American
- Latin-American/Hispanic
- Middle-Eastern (Central Asian or North African)
- Native American/Native-Alaskan
- Pacific Islander
- Other (Please specify): _____
- Mixed race/ethnicity (Please specify): _____
- Unsure/Prefer not to answer

Q4: Were you or at least one of your parents/guardians **born outside** of the United States? Check all that apply.

- Yes, self. Please specify _____
- Yes, at least one parent/guardian. Please specify ____

- No

Q5: What countries/cultural backgrounds/tribes are your ancestors from? Please list all that you have knowledge of. _____

Q6: How many people (adults and children) live in your household? ____

Q7: Please check all of the following experiences you have had during the COVID-19 pandemic:

- COVID-19 illness, confirmed (self)
- COVID-19 illness, confirmed (friend or family member)
- COVID-19 illness, suspected but not confirmed (self)
- COVID-19 illness, suspected but not confirmed (friend or family member)
- Caretaking of someone ill with COVID-19
- Death of a friend or family member due to COVID-19
- Job loss
- Financial crisis/emergency
- Reduction/rationing of resources (i.e. food, toiletries, medications)
- Transitioned to homeschooling/online-schooling of children (from in-person schooling)
- Transitioned to online-schooling of self (from in-person schooling)
- Transitioned to remote work (from in-person work)
- Shelter-in-place order/quarantine
- Closure of local businesses

- Cancellation of important events (i.e. weddings, conferences, fundraisers, baby showers, galas)
- Problems with international travel (i.e. stuck in another country, flight cancellations/changes, isolated quarantine in another country or upon entering the United States)
- COVID-19 related racism (i.e. maltreatment as a Chinese or other Asian-American)
- Spousal/relationship issues
- Other issues due to COVID-19 (please specify): _____

Q8: On a scale of 1-10, how dangerous do you believe the COVID-19 pandemic is to **public** health? (1= not dangerous at all; 10= extremely dangerous) _____

Q9: On a scale of 1-10, how dangerous do you believe the COVID-19 pandemic is to **your personal** health? (1= not dangerous at all; 10= extremely dangerous) ____

Q10: On a scale of 1-10, how harmful do you believe the COVID-19 pandemic is to the **United States** economy? (1= not harmful at all; 10 = extremely harmful) _____

Q11: On a scale of 1-10, how harmful do you believe the COVID-19 pandemic is to the **global** economy? (1= not harmful at all; 10= extremely harmful) ____

Q12: On a scale of 1-10, how harmful do you believe the COVID-19 pandemic is to the general well-being **of yourself**? (1= not harmful at all; 10= extremely harmful) ____

Q13: On a scale of 1-10, how harmful do you believe the COVID-19 pandemic is to the general well-being **of others**? (1= not harmful at all; 10= extremely harmful) ____

APPENDIX C

In response to my experiences with the COVID-19 pandemic…

Q1) I changed my priorities about what is important in life.

- o I did not experience this change
- o I experienced this change to a very small degree
- o I experienced this change to a small degree
- o I experienced this change to a moderate degree
- o I experienced this change to a great degree
- o I experienced this change to a very great degree

Q2) I have a greater appreciation for the value of my own life.

- o I did not experience this change
- o I experienced this change to a very small degree
- o I experienced this change to a small degree
- o I experienced this change to a moderate degree
- o I experienced this change to a great degree
- o I experienced this change to a very great degree

Q3) I developed new interests.

- o I did not experience this change
- o I experienced this change to a very small degree
- o I experienced this change to a small degree
- o I experienced this change to a moderate degree
- o I experienced this change to a great degree
- o I experienced this change to a very great degree

Q4) I have a greater feeling of self-reliance.

- o I did not experience this change
- o I experienced this change to a very small degree
- o I experienced this change to a small degree
- o I experienced this change to a moderate degree
- o I experienced this change to a great degree
- o I experienced this change to a very great degree

Q5) I have a better understanding of spiritual matters.

- o I did not experience this change
- o I experienced this change to a very small degree
- o I experienced this change to a small degree
- o I experienced this change to a moderate degree
- o I experienced this change to a great degree

- I experienced this change to a very great degree

Q6) I more clearly see that I can count on people in times of trouble.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q7) I established a new path for my life.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q8) I have a greater sense of closeness with others.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q9) I am more willing to express my emotions.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q10) I know better that I can handle difficulties.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q11) I am able to do better things with my life.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q12) I am better able to accept the way things work out.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q13) I can better appreciate each day.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q14) New opportunities are available which wouldn't have been otherwise.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q15) I have more compassion for others.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q16) I put more effort into my relationships.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q17) I am more likely to try to change things which need changing.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q18) I have a stronger religious faith.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q19) I discovered that I'm stronger than I thought I was.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q20) I learned a great deal about how wonderful people are.

- I did not experience this change
- I experienced this change to a very small degree
- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

Q21) I better accept needing others.

- I did not experience this change
- I experienced this change to a very small degree

- I experienced this change to a small degree
- I experienced this change to a moderate degree
- I experienced this change to a great degree
- I experienced this change to a very great degree

APPENDIX D

Please place the marker towards the statement you agree with more, based on how strongly you agree.

Q1)

People are defined based on *their own* attributes — Neutral — People are defined based on the attributes *of their social groups*

|-------- -------- -------- -------- -------- -------- --------|

Q2)

People are *independent* of social groups — Neutral — People are *defined* by social groups

|-------- -------- -------- -------- -------- -------- --------|

Q3)

Individuals and groups *can be* separated — Neutral — Individuals and groups *cannot be* separated

|-------- -------- -------- -------- -------- -------- --------|

Q4)

Individual goals are more important — Neutral — *Group goals* are more important

|-------- -------- -------- -------- -------- -------- --------|

Q5)

Individuals behaviors should follow *individual goals* — Neutral — Individual behaviors should should follow *group goals*

|-------- -------- -------- -------- -------- -------- --------|

Q6)

To achieve group goals, individual goals *cannot* be sacrificed — Neutral — To achieve group goals, individual goals *can* be sacrificed

|-------- -------- -------- -------- -------- -------- --------|

Q7)

For group members, individual *rights* are more important — Neutral — For group members, individual *responsibilities* are more important

|-------- -------- -------- -------- -------- -------- --------|

Q8)

At work or play, it is important to *win* — Neutral — At work or play, it is important to *harmonize*

|-------- -------- -------- -------- -------- -------- --------|

Q9)

The source of group success is *competition* — Neutral — The source of group success is *cooperation*

|-------- -------- -------- -------- -------- -------- --------|

Q10)

Groups are better with *competition* — Neutral — Groups are better with *harmony*

|-------- -------- -------- -------- -------- -------- --------|

Q11)

People should follow *free will* Neutral People should follow *group norms and practices*

|-------- -------- -------- -------- -------- -------- --------|

Q12)

When you disagree with others, follow *your opinion* Neutral When you disagree with others, follow *group decisions*

|-------- -------- -------- -------- -------- -------- --------|

Q13)

Within groups, *individuality* is respected Neutral Within groups, *group uniformity* is respected

|-------- -------- -------- -------- -------- -------- --------|

APPENDIX E

Please answer the following questions based on how you have been coping with the COVID-19 pandemic.

1. I've been turning to work or other activities to take my mind off things.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
2. I've been concentrating my efforts on doing something about the situation I'm in.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
3. I've been saying to myself "this isn't real."
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
4. I've been using alcohol or other drugs to make myself feel better.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
5. I've been getting emotional support from others.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount

- I've been doing this a lot

6. I've been giving up trying to deal with it.
   - I haven't been doing this at all
   - I've been doing this a little bit
   - I've been doing this a medium amount
   - I've been doing this a lot
7. I've been taking action to try to make the situation better.
   - I haven't been doing this at all
   - I've been doing this a little bit
   - I've been doing this a medium amount
   - I've been doing this a lot
8. I've been refusing to believe that it has happened.
   - I haven't been doing this at all
   - I've been doing this a little bit
   - I've been doing this a medium amount
   - I've been doing this a lot
9. I've been saying things to let my unpleasant feelings escape.
   - I haven't been doing this at all
   - I've been doing this a little bit
   - I've been doing this a medium amount
   - I've been doing this a lot
10. I’ve been getting help and advice from other people.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
11. I've been using alcohol or other drugs to help me get through it.

- I haven't been doing this at all
- I've been doing this a little bit
- I've been doing this a medium amount
- I've been doing this a lot

12. I've been trying to see it in a different light, to make it seem more positive.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
13. I've been criticizing myself.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
14. I've been trying to come up with a strategy about what to do.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
15. I've been getting comfort and understanding from someone.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
16. I've been giving up the attempt to cope.
    - I haven't been doing this at all
    - I've been doing this a little bit

- I've been doing this a medium amount
- I've been doing this a lot

17. I've been looking for something good in what is happening.

- I haven't been doing this at all
- I've been doing this a little bit
- I've been doing this a medium amount
- I've been doing this a lot

18. I've been making jokes about it.

- I haven't been doing this at all
- I've been doing this a little bit
- I've been doing this a medium amount
- I've been doing this a lot

19. I've been doing something to think about it less, such as watching TV, reading, daydreaming, sleeping, or online shopping.

- I haven't been doing this at all
- I've been doing this a little bit
- I've been doing this a medium amount
- I've been doing this a lot

20. I've been accepting the reality of the fact that it has happened.

- I haven't been doing this at all
- I've been doing this a little bit
- I've been doing this a medium amount
- I've been doing this a lot

21. I've been expressing my negative feelings.

- I haven't been doing this at all
- I've been doing this a little bit
- I've been doing this a medium amount

- I've been doing this a lot

22. I've been trying to find comfort in my religion or spiritual beliefs.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
23. I’ve been trying to get advice or help from other people about what to do.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
24. I've been learning to live with it.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
25. I've been thinking hard about what steps to take.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
26. I’ve been blaming myself for things that happened.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot
27. I've been praying or meditating.

- I haven't been doing this at all
- I've been doing this a little bit
- I've been doing this a medium amount
- I've been doing this a lot

28. I've been making fun of the situation.
    - I haven't been doing this at all
    - I've been doing this a little bit
    - I've been doing this a medium amount
    - I've been doing this a lot

APPENDIX F

Dear potential participant,

I am a PhD candidate in Counseling and Supervision at James Madison University. My dissertation explores coping and posttraumatic growth in the time of COVID-19. Posttraumatic growth refers to the positive personal changes or developments that occur during or following a crisis or trauma. I am asking you to participate in this study. By doing so, I hope that you will be given the opportunity to reflect upon your own coping and growth during this time of crisis. Resources for emotional support and coping are also provided at the end of the informed consent.

The purpose of this study is to explore how culture, coping behaviors, and posttraumatic growth are connected in the context of the COVID-19 pandemic. The results of this study will be used to inform the field of counseling and allied professions, and enhance trauma-informed care and multicultural practice in crisis intervention services.

Please read the informed consent in full before completing the survey. To complete the survey, you will agree with the following statement upon reviewing the informed consent:

“I have been given the opportunity to ask questions about this study. I have read this consent and I understand what is being requested of me as a participant in this study. I certify that I am at least 18 years of age. By clicking on the link below, and completing and submitting this anonymous survey, I am consenting to participate in this research.”

The link to the informed consent and the survey is here:
https://www.questionpro.com/t/AQo68ZhsCj

In addition, I ask that you spread the word about this survey and send the link to anyone that you feel would be interested in participating in this study. This can enhance the findings of the research. Thank you for your consideration and support. Stay well, and let’s hope for better times ahead.

Sincerely,

Stephanie Chalk

PhD candidate in Counseling and Supervision

Department of Graduate Psychology

James Madison University

chalksc@jmu.edu

APPENDIX G

Table 1

Frequency and Percentage Summaries of Demographic Information of Participants (N = 314)

	N	%
Gender		
Male	68	21.5
Female	246	77.8
Age		
Missing data	2	.6
18-33	164	52.2
34-49	65	20.7
50-65	33	10.5
66 and older	50	16.0
Race/Ethnicity		
Asian/Asian-American	15	4.8
Black/African-American	24	7.6
Caucasian/European-American	244	77.7
Latin-American/Hispanic	10	3.2
Middle-Eastern (Central Asian or North African)	8	2.5
Mixed race/ethnicity	10	3.2
Unsure/Prefer not to say	3	1.0
Number of Adults and Children Living in Household		
Missing data	3	1.0
1	48	15.2
2	101	32.1
3	58	18.5
4	64	20.4
5	28	8.9

6	6	2.0
7	3	1.0
8	2	0.6
11	1	0.3
Experiences during the COVID-19 pandemic		
COVID-19 illness, confirmed (self)	13	4.1
COVID-19 illness, confirmed (friend or family member)	131	40.9
COVID-19 illness, suspected but not confirmed (self)	41	13.1
COVID-19 illness, suspected but not confirmed (friend or family member)	65	20.3
Caretaking of someone ill with COVID-19	15	4.7
Death of a friend or family member due to COVID-19	36	11.5
Job loss	43	13.7
Financial crisis/emergency	40	12.7
Reduction/rationing of resources (i.e. food, toiletries, medications)	92	29.3
Transitioned to homeschooling/online-schooling of children (from in-person schooling)	63	20.0
Transitioned to online-schooling of self (from in-person schooling)	131	40.9
Transitioned to remote work (from in-person work)	134	42.0
Shelter-in-place order/quarantine	213	68.0
Closure of local businesses	160	51.0
Cancellation of important events (i.e. weddings, conferences, fundraisers, baby showers, galas)	242	77.0
Problems with international travel	64	20.3
COVID-19 related racism (i.e. maltreatment as a Chinese or other Asian-American)	12	3.8
Spousal/relationship issues	51	16.2
Other issues due to COVID-19	55	17.5

Table 2

Frequency and Percentage Summaries of Responses on COVID-Specific Questions (N = 314)

	N	%
How dangerous do you believe the COVID-19 pandemic is to public health?		
Not harmful at all	0	0
2	6	1.9
3	8	2.5
4	13	4.1
5	29	9.2
6	23	7.3
7	52	16.6
8	66	21.0
9	41	13.1
Extremely dangerous	68	21.7
Missing	8	2.5
How dangerous do you believe the COVID-19 pandemic is to your personal health?		
Not dangerous at all	14	4.5
2	18	5.7
3	32	10.2
4	27	8.6
5	51	16.2
6	40	12.7
7	41	13.0
8	37	11.8
9	17	5.4
Extremely dangerous	27	8.6
Missing	10	3.2
How harmful do you believe the COVID-19 pandemic is to the United States economy?		
Not harmful at all	0	0
2	2	0.6
3	2	0.6
4	2	0.6
5	16	5.1
6	18	5.7
7	39	12.4

8	75	23.9
9	65	20.7
Extremely harmful	92	29.3
Missing	3	1.0
How harmful do you believe the COVID-19 pandemic is to the global economy?		
Not harmful at all	0	0
2	1	0.3
3	4	1.3
4	6	1.9
5	14	4.5
6	32	10.2
7	48	15.3
8	74	23.6
9	56	17.8
Extremely harmful	73	23.2
Missing	6	1.9
How harmful do you believe the COVID-19 pandemic is to the general well-being of yourself?		
Not harmful at all	6	1.9
2	20	6.4
3	24	7.6
4	26	8.3
5	57	18.2
6	39	12.4
7	52	16.6
8	45	14.3
9	20	6.4
Extremely harmful	20	6.4
Missing	5	1.6
How harmful do you believe the COVID-19 pandemic is to the general well-being of others?		
Not harmful at all	1	0.3
2	3	1.0
3	5	1.6
4	10	3.2
5	34	10.8
6	40	12.7
7	61	19.4
8	67	21.3
9	53	16.9

Extremely harmful	35	11.1
Missing	5	1.6

Table 3

Descriptive Statistics Summaries of Global Score of Posttraumatic Growth Between Primarily Individualistic and Primarily Collectivistic

Dependent Variable	Individualism-Collectivism (Category)	N	*M*	*SD*	SE Mean
Global posttraumatic growth (PTG)	Primarily individualistic	134	43.38	25.50	2.20
	Primarily collectivistic	180	44.50	24.64	1.84

Table 4

Independent Sample t-test of Difference of Global Score of Posttraumatic Growth Between Primarily Individualistic and Primarily Collectivistic Participants

Dependent Variable	Levene's Test for Equality of Variances			t-test for Equality of Means					
	Remarks	F	*p*	t	df	*p* (2-tailed)	Mean Difference	SE Difference	95% Confidence Interval of the Difference
									Lower / Upper
Global posttraumatic growth (PTG)	Equal variances assumed	0.11	0.74	-0.39	312	0.70	-1.12	2.85	-6.73 / 4.50

Table 5

Descriptive Statistics Summaries of Scores of Five Factors of Posttraumatic Growth and Average Values of Factors of Posttraumatic Growth Between Primarily Individualistic and Primarily Collectivistic Participants

Dependent Variable	Individualism-Collectivism (Category)	N	*M*	*SD*	SE Mean
PTG - Relating to Others	Primarily individualistic	134	14.43	9.54	0.82
	Primarily collectivistic	180	14.94	9.03	0.67
PTG - New Possibilities	Primarily individualistic	134	9.81	6.62	0.57
	Primarily collectivistic	180	10.11	6.66	0.50
PTG - Personal Strength	Primarily individualistic	134	9.07	5.61	0.48
	Primarily collectivistic	180	8.91	5.45	0.41
PTG - Spiritual Change	Primarily individualistic	134	2.69	2.98	0.26
	Primarily collectivistic	180	2.57	3.09	0.23
PTG - Appreciation of Life	Primarily individualistic	134	7.38	4.24	0.37
	Primarily collectivistic	180	7.97	3.79	0.28
Average posttraumatic growth (PTG)	Primarily individualistic	134	8.68	5.10	0.44
	Primarily collectivistic	180	8.90	4.93	0.37

Table 6

Results of One-way Multiple Analysis of Variance of Five Factors of Posttraumatic Growth Between Primarily Individualistic and Primarily Collectivistic Participants

Multivariate Tests							
Effect		Value	F	Hypothesis df	Error df	*p*	Partial Eta Squared
Intercept	Pillai's Trace	.793	236.03	5.00	308.00	.00	.79
	Wilks' Lambda	.207	236.03	5.00	308.00	.00	.79
	Hotelling's Trace	3.832	236.03	5.00	308.00	.00	.79
	Roy's Largest Root	3.832	236.03	5.00	308.00	.00	.79
Individualism-Collectivism	Pillai's Trace	.020	1.28	5.00	308.00	.27	.02
	Wilks' Lambda	.980	1.28	5.00	308.00	.27	.02
	Hotelling's Trace	.021	1.28	5.00	308.00	.27	.02
	Roy's Largest Root	.021	1.28	5.00	308.00	.27	.02

Table 7

Results of Between-Subjects Effects of Factors of Posttraumatic Growth Between Primarily Individualistic and Primarily Collectivistic Participants

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	*p*	Partial Eta Squared
Individualism-Collectivism	PTG - Relating to Others	20.697	1	20.697	.242	.623	.001
	PTG - New Possibilities	7.152	1	7.152	.162	.688	.001
	PTG - Personal Strength	2.196	1	2.196	.072	.788	.000
	PTG - Spiritual Change	1.246	1	1.246	.134	.714	.000
	PTG - Appreciation of Life	26.887	1	26.887	1.690	.195	.005

Table 8

Descriptive Statistics Summaries of Scores of Coping Behaviors Between Primarily Individualistic and Primarily Collectivistic Participants

Dependent Variable	Individualism-Collectivism (Category)	N	*M*	*SD*
Self-distraction Coping	Primarily individualistic	134	3.93	1.70
	Primarily collectivistic	180	4.03	1.48
Active Coping	Primarily individualistic	134	3.52	1.58
	Primarily collectivistic	180	3.54	1.65
Denial Coping	Primarily individualistic	134	0.93	1.28
	Primarily collectivistic	180	0.76	1.27
Substance Use Coping	Primarily individualistic	134	1.40	1.82
	Primarily collectivistic	180	1.29	1.73
Emotional Support Coping	Primarily individualistic	134	2.93	1.84
	Primarily collectivistic	180	3.53	1.73
Instrumental Support Coping	Primarily individualistic	134	2.31	1.80
	Primarily collectivistic	180	2.87	1.72
Behavioral Disengagement Coping	Primarily individualistic	134	0.92	1.31
	Primarily collectivistic	180	0.94	1.15
Venting Coping	Primarily individualistic	134	2.55	1.65
	Primarily collectivistic	180	2.76	1.48
Positive Reframing Coping	Primarily individualistic	134	3.42	1.83
	Primarily collectivistic	180	3.28	1.66
Planning Coping	Primarily individualistic	134	3.18	1.83
	Primarily collectivistic	180	3.42	1.72
Humor Coping	Primarily individualistic	134	2.70	2.00
	Primarily collectivistic	180	2.46	1.85
Acceptance Coping	Primarily individualistic	134	4.60	1.36
	Primarily collectivistic	180	4.79	1.23
Religion Coping	Primarily individualistic	134	2.40	2.06
	Primarily collectivistic	180	2.28	2.00
Self-Blame Coping	Primarily individualistic	134	1.69	1.71
	Primarily collectivistic	180	1.73	1.62

Table 9

Results of One-Way Multiple Analysis of Variance of Coping Behaviors Between Primarily Individualistic and Primarily Collectivistic Participants

Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	*p*	Partial Eta Squared
Intercept	Pillai's Trace	.957	475.42	14.00	299.00	.00	.96
	Wilks' Lambda	.043	475.42	14.00	299.00	.00	.96
	Hotelling's Trace	22.260	475.42	14.00	299.00	.00	.96
	Roy's Largest Root	22.260	475.42	14.00	299.00	.00	.96
Individualism-Collectivism	Pillai's Trace	.066	1.50	14.00	299.00	.11	.07
	Wilks' Lambda	.934	1.50	14.00	299.00	.11	.07
	Hotelling's Trace	.070	1.50	14.00	299.00	.11	.07
	Roy's Largest Root	.070	1.50	14.00	299.00	.11	.07

Table 10

Results of Between-Subjects Effects for Coping Behaviors Between Primarily Individualistic and Primarily Collectivistic Participants

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	*p*	Partial Eta Squared
Individualism-Collectivism	Self-distraction Coping	.692	1	.692	.278	.598	.001
	Active Coping	.021	1	.021	.008	.929	.000
	Denial Coping	2.265	1	2.265	1.394	.239	.004
	Substance Use Coping	.785	1	.785	.250	.617	.001
	Emotional Support Coping	27.189	1	27.189	8.627	.004	.027
	Instrumental Support Coping	23.511	1	23.511	7.628	.006	.024
	Behavioral Disengagement Coping	.034	1	.034	.023	.880	.000
	Venting Coping	3.175	1	3.175	1.313	.253	.004
	Positive Reframing Coping	1.391	1	1.391	.462	.497	.001
	Planning Coping	4.135	1	4.135	1.339	.248	.004
	Humor Coping	4.439	1	4.439	1.205	.273	.004
	Acceptance Coping	2.828	1	2.828	1.703	.193	.005
	Religion Coping	1.204	1	1.204	.293	.588	.001
	Self-Blame Coping	.130	1	.130	.048	.828	.000

Table 11

Results of Pearson Correlation Analysis of Relationship Between Types of Coping Behaviors and Global Posttraumatic Growth

	Statistics	Global posttraumatic growth (PTG)
Self-distraction Coping	Pearson Correlation	0.33*
	r^2	.11
	p (2-tailed)	0.00
Active Coping	Pearson Correlation	0.32*
	r^2	.10
	p (2-tailed)	0.00
Denial Coping	Pearson Correlation	0.18*
	r^2	.03
	p (2-tailed)	0.00
Substance Use Coping	Pearson Correlation	0.14*
	r^2	.02
	p (2-tailed)	0.02
Emotional Support Coping	Pearson Correlation	0.46*
	r^2	.21
	p (2-tailed)	0.00
Instrumental Support Coping	Pearson Correlation	0.46*
	r^2	.21
	p (2-tailed)	0.00
Behavioral Disengagement Coping	Pearson Correlation	0.07
	r^2	.00
	p (2-tailed)	0.19
Venting Coping	Pearson Correlation	0.26*
	r^2	.07
	p (2-tailed)	0.00
Positive Reframing Coping	Pearson Correlation	0.40*
	r^2	.16
	p (2-tailed)	0.00
Planning Coping	Pearson Correlation	0.36*

	r^2	.13
	p (2-tailed)	0.00
Humor Coping	Pearson Correlation	0.13*
	r^2	.02
	p (2-tailed)	0.02
Acceptance Coping	Pearson Correlation	0.11
	r^2	.01
	p (2-tailed)	0.06
Religion Coping	Pearson Correlation	0.34*
	r^2	.12
	p (2-tailed)	0.00
Self-Blame Coping	Pearson Correlation	0.13*
	r^2	.02
	p (2-tailed)	0.02

*$p \leq .05$, two-tailed.

N = 314

Table 12

Results of Correlation Matrix of Relationships Between Coping Behaviors and Factors of Posttraumatic Growth

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	PTG - Relating to Others	1.00																		
2	PTG - New Possibilities	.75**																		
3	PTG - Personal Strength	.81**	.78**																	
4	PTG - Spiritual Change	.51**	.51**	.53**																
5	PTG - Appreciation of Life	.74**	.76**	.75**	.54**															
6	Self-distraction Coping	.34**	.24**	.33**	.12*	.30**														
7	Active Coping	.28**	.33**	.26**	.21**	.28**	.22**													
8	Denial Coping	.22**	.13*	.19**	.05	.08	.11*	-.09												
9	Substance Use Coping	.1	.18**	.13*	.05	.09	.20**	.06	.20**											
10	Emotional Support Coping	.51**	.37**	.40**	.19**	.41**	.31**	.35**	.11	.1										

11	Instrumental Support Coping	.51**	.37**	.38**	.23**	.38**	.32**	.27**	.18**	.18**	.72**								
12	Behavioral Disengagement Coping	.11	.05	.03	.03	.05	.25**	-.12*	.39**	.21**	.07	.15**							
13	Venting Coping	.29**	.20**	.25**	.09	.20**	.31**	.16**	.20**	.22**	.46**	.51**	.23**						
14	Positive Reframing Coping	.31**	.41**	.35**	.31**	.40**	.27**	.35**	-.03	.15**	.24**	.26**	-.1	.1					
15	Planning Coping	.29**	.38**	.31**	.20**	.37**	.29**	.62**	-.06	.04	.36**	.34**	.04	.24**	.41**				
16	Humor Coping	.13*	.13*	.15**	.00	.07	.21**	.04	.13*	.20**	.11	.16**	.15**	.27**	.20**	.1			
17	Acceptance Coping	.04	.14*	.11	.08	.15**	.15**	.33**	-.29**	-.02	.11*	.1	-.24**	.04	.28**	.36**	.07		
18	Religion Coping	.24**	.23**	.25**	.73**	.29**	.07	.27**	-.01	-.01	.23**	.21**	-.09	.12*	.28**	.20**	-.02	.13*	
19	Self-Blame Coping	.18**	.12*	.06	.03	.12*	.31**	-.02	.18**	.21**	.27**	.34**	.49**	.30**	.06	.13*	.19**	-.16**	1.00

* $p \leq .05$, ** $p \leq .001$

N = 314

APPENDIX H

Figure 1

Mean Values of Factors of Posttraumatic Growth for Primarily Individualistic and Primarily Collectivistic Participants

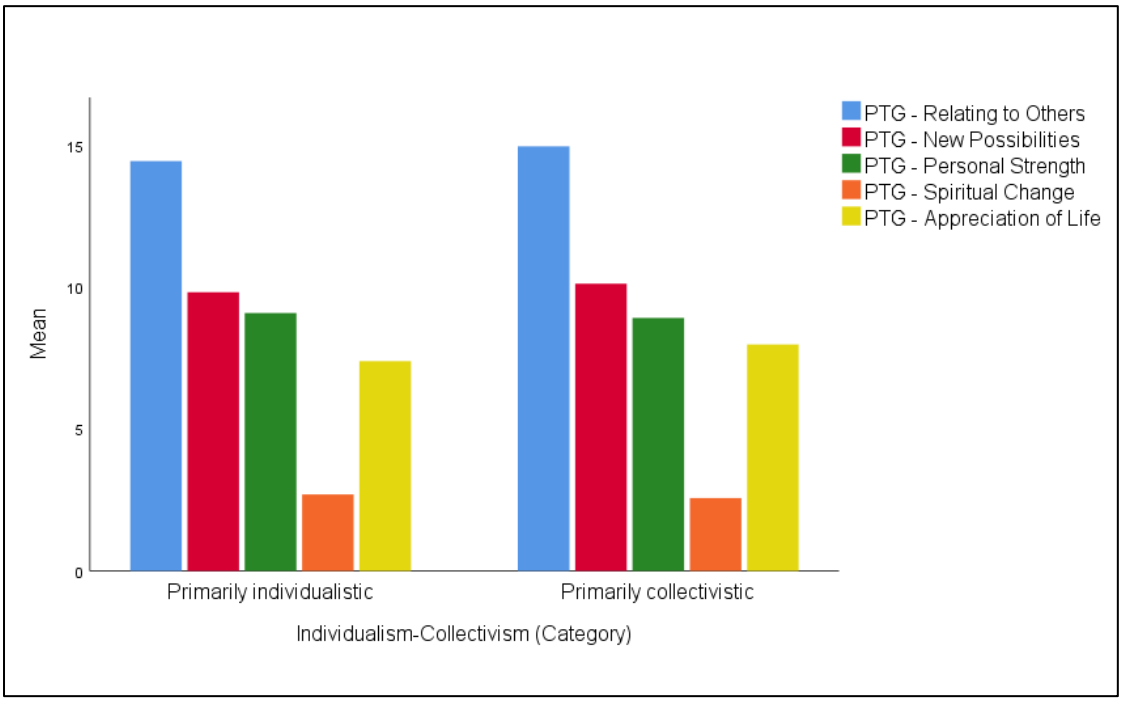
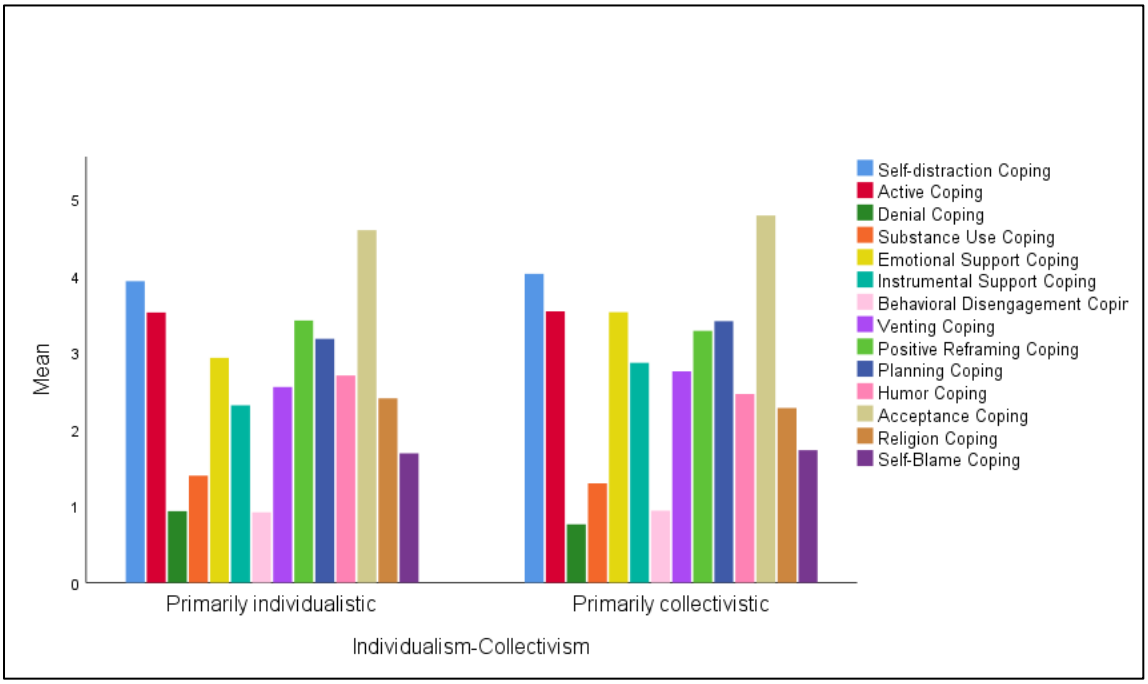


Figure 2

Mean Values of Coping Behaviors for Primarily Individualistic and Primarily Collectivistic Participants



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