

EXPLORING THE ROLE OF RELIGIOUS COPING IN NATURAL DISASTER
SURVIVORS IN THE BAHAMAS

by

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ABSTRACT

Life is filled with a myriad of stressors individuals must navigate to maintain physical and emotional wellness. Some life stressors can be more devastating than others, such as natural disasters. Specific regions, including the Bahamas, have experienced destructive natural disasters such as hurricanes and record-breaking superstorms in the last few decades. Consequently, citizens are exposed to significant amounts of distress due to the devastation caused by these natural disasters. How one copes and one's level of resilience plays an integral role in managing such turbulent times. Religion can be a valuable resource for those facing traumatic circumstances. The focus of this study is to explore how Bahamians experience the burden of natural disasters, their resiliency, and the role religion plays in coping with the aftermath of such disasters. This study's mixed-methods approach combines quantitative correlational and qualitative-phenomenological research designs gathering data from 140 participants through a trauma survey, a resilience scale, and brief Religious Coping scale (brief RCOPE). Phenomenological analysis was used to build the lived experiences of 13 participants who have experienced a natural disaster within the last five years to gain a more in-depth understanding of these variables. Based on the findings, individuals who engage in positive religious coping possessed lower levels of traumatic stress. Individuals who engaged in negative religious coping possessed higher levels of traumatic stress. Furthermore, individuals who scored high in religiosity also showed high levels of resilience during and after experiencing a natural disaster. These findings imply that efforts should be taken by clinicians, related professionals, and the church to promote positive religious coping and religiosity, which can result in the promotion of resilience and

discourage negative religious coping, possibly resulting in a reduction of traumatic stress of individuals who experience natural disasters.

Keywords: religious coping, resilience, Bahamians, natural disasters

Copyright Page

Dedication

I would like to firstly dedicate this study to my savior, Jesus Christ, who has allowed me this amazing opportunity to pursue this degree and gave me the ability to bring it to completion. It was through His amazing grace and strength I am able to achieve this goal.

To my family, whose support provided me with what I needed to get through those difficult moments. I appreciate your willingness to allow me the space and time needed to do this work. Thank you!

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CHAPTER 1: INTRODUCTION TO THE STUDY

Introduction

Many people who experience natural disasters report feeling emotions such as fear and terror (Phillips et al., 2019; Rubin et al., 2019). During the disaster and the aftermath, how one copes has a significant impact on one's personal and psychological well-being. There are many ways in which individuals cope when faced with distress. One's coping style may be defined as the thoughts and behavior used to manage the demands caused by the distressing circumstance (Rubin et al., 2019). Some of the general types of coping strategies include problem-focused coping, social support, emotion-focused coping, meaning making, and religious coping. The use of religion as a coping strategy has been implicated in recovery following a variety of disasters and has been reported as being an important resource for many people coping with trauma, such as natural disasters. Religion helps individuals trust God during stressful times, which can reduce psychological pressure and serve as a means to address the challenges and stressors of life that are inevitable (Fariddanesh & Rezaei, 2019; García et al., 2017). Throughout scripture, there are numerous instances in which individuals engaged in religious coping to address distressing situations (*New King James Bible*, 1982, Genesis 7; Genesis 19:31-37; Numbers 16:30-35). Faith in God's strength and this faith in action can be helpful to individuals during distressful times, aid in building resilience, and maintain well-being.

Some individuals engage in dysfunctional coping strategies, which include avoidant behaviors. This may include emotionally detaching from others and rejecting help; self-destructive behaviors such as substance use and abuse; and negative emotional behaviors

such as negative talk and self-blame. Others may engage in problem-focused coping that involves removing the root cause of the stressor, which is not helpful in a situation where removal of the stressor is out of the individual's control (i.e., natural disasters). Another coping strategy is emotion-focused coping, which may be helpful in uncontrollable situations such as natural disasters. This strategy does not provide a long-term solution, however. It may also have negative effects as it allows a delay in the individual dealing with the problematic issue. However, current research does not provide a clear understanding of whether specific types of distressing situations and the associated coping strategies are beneficial to all cultural groups (Rose et al., 2017; Sohrabizadeh et al., 2018).

Background

There has been significant research conducted on the positive impact of religiosity on mental health with attention to religious coping strategies. Strong religious beliefs can reinforce religious coping mechanisms, which can be used during times of distress. These coping mechanisms can reduce the impact of stress, enhance coping skills in stressful times, and increase individuals' resilience in times of disasters. Religious coping can have positive effects on individuals' abilities to successfully navigate through natural disasters as well as the period immediately following. Coping methods play an integral role in managing times of distress and returning to a sense of normalcy in an appropriate time frame (Counted, 2019; French et al., 2020; Mohammadinia et al., 2018; Pantaleao & Ohannessian, 2019; Szcześniak et al., 2020). Religious coping has been reported as a major form of coping in times of distress regardless of one's religious or cultural affiliation and may reduce the chance of developing mental health issues (Ahles et al., 2016). Recent studies have shown religious coping can serve as a protective factor regarding mental

health status (Jocson et al., 2018; Molock et al., 2016; Simpson, 2020). Religious coping in individuals may be effective in reducing the burden associated with experiencing a natural disaster and the aftermath. Individuals have reported religious/spiritual coping helped them feel grounded, calm, and resilient in times of distress (Ahles et al., 2016; Ozcan et al. 2021; Park et al., 2019).

The scriptures have been used to provide guidance, peace, comfort, and assurance through distinct coping methods during distressing times. Throughout the Bible clear instructions are given on coping during distressing times. Individuals are encouraged to consider it pure joy when they are faced with trials or distressing situations because such experiences produce perseverance (*New International Version*, 1973/2001, James 1:1-3). The Bible goes beyond giving instructions only, but also provides examples through the lives of many individuals who faced and overcame distress. Moses, Naomi, Noah, Jacob, and Silas, among others, experienced trauma, crisis, and immense grief, yet persevered through their distressing situations because of their faith in God. The Epistles written by Apostle Paul chronicled his experiences of extreme adversities and provide clear perspectives on coping with suffering (*New International Version*, 1973/2001, 2 Corinthians). The keys to coping that apostle Paul presents include identifying and accessing God's strength despite personal weakness, faith in practice builds resilience, and the internal benefits of altruism (*New International Version*, 1973/2001, Ruth 1-4; Proverbs 11:25; Corinthians 12:8-10). These keys to coping during distressing times form the biblical foundation for this study.

Despite the advantages of religious coping, strong evidence in several studies show religion may not provide positive effects regarding coping in times of distress for some

individuals (Bryan et al. 2016; Mahamid & Bdier, 2021). These individuals tend to see the disasters as punishment from God or a higher power based on their religious affiliations, age, gender, and culture. These conflicting results indicate further attention should be given to the development of effective coping skills and resilience. Current findings are still unclear regarding whether specific types of distressing behaviors and the associated interventions are applicable to all cultural groups (Bryan et al. 2016; De Berardis et al., 2020; Mahamid & Bdier, 2021; Rose et al., 2017; Simonič & Klobučar, 2017). Few studies have examined the effects of religious coping in individuals during distressing times across cultures, specifically non-Western cultures such as Caribbean nations like the Bahamas. Therefore, there is a need to extend current research on the role of religious coping of Bahamians and its relationship with psychological well-being during and after experiencing a natural disaster (Abu-Raiya et al., 2019; Fariddanesh & Rezaei, 2019; Sarizadeh et al., 2020). The experiences of the selected population assisted in providing an understanding of the lived experiences and the religious coping strategies of participants based on themes in the data.

The Bahamas has a population of just over 450,000 and is made up of 700 islands, reefs, and cays with 30 inhabited islands. Like other small island nations in the Atlantic region, the Bahamas rely heavily on tourism and agricultural economies, which can be directly affected by disasters. Over the last few decades, natural disasters, including Atlantic hurricanes, have increased in frequency and severity, specifically in small island developing states, which includes the Bahamas (Shultz et al., 2020). Climate change has been linked to these changes causing these storms to be more destructive to the environment and harmful to the physical and mental health of the population of these small

island nations (Rubin 2019, Shultz et al., 2020). During the 2021 United Nations Climate Change conference (COP26) held in Glasgow, Scotland, leaders of these small island nations made urgent pleas for the reduction of emissions that are contributors to the escalation of global warming. There is ongoing research in support of the debate that as the earth's climate warms, it experiences stronger winds, higher storm surges, and increased rainfall during the hurricane seasons making storms more destructive and costly (Shultz et al., 2020). Hurricanes are intensifying at a more rapid rate resulting in more deadly storms and record-breaking outcomes as seen within the past few years (Table 2).

In 2019, Hurricane Dorian, the most destructive storm to hit this region, devastated two of the three highest populated islands of the Bahamas causing billions of dollars in damage. In addition to the infrastructural damage, the displacement of hundreds of residents has contributed to the psychological scars left behind by natural disasters. These natural disasters can not only be terrifying, but the aftermath of such disasters can also be just as traumatizing as the disaster itself, especially because of the many issues that individuals face following the natural disaster. These include loss of loved ones, resources, and a sense of normalcy. Stressors, such as environmental disasters, can have a negative effect on well-being and can precipitate the development of psychopathology in some individuals, while others are not affected by such stressors (Krause et al., 2017). Yet, there are more factors other than the exposure to such stressors associated with these disasters that determine whether mental health issues develop. These factors include disruption distress, social support, and coping strategies (Abbott et al., 2021).

An individual's coping strategy can have a direct impact on personal well-being. Coping refers to a method used by individuals to manage the demands of their environment

to diminish, master, or endure stress (Lazarus & Folkman, 1984). Individuals tend to use broad coping strategies including religious coping, which can be positive or negative, and nonreligious coping in which individuals engage in adaptive coping such as emotion-focused and problem-focused strategies. How Bahamians have been weathering these physical and emotional storms with the level of resilience that seems to be evident should be explored and understood.

There are several articles that show evidence indicating religious coping correlates with resilience and good mental health in times of distress (Chow et al., 2020; De la Rosa, et al, 2016; Mohammadinia et al., 2018; Pantaleao & Ohannessian, 2019; Phillips, 2019; Szcześniak et al., 2020). Religious coping is defined as an individual's efforts to understand and deal with the stressors of life in a manner relating to the sacred (Pargament, 2011). The term religious includes an individual's connection to a deity or search for sacred meaning of life. It goes beyond the routine of mere church attendance or corporate worship. Religion provides a system of meaning that helps individuals cope with life's stresses, especially those outside their power (Brewster et al., 2016; Britt et al., 2017). Few studies have examined the effects of religious coping in individuals during distressing times across cultures, namely the Bahamas (Garmy et al., 2015; Sarizadeh et al., 2020). In the Bahamas, the regard for the sacred is evident in almost all aspects of its population. The constitution of the Bahamas requires the government to respect Christian values. Prayer is included in all significant official events. It is quite common for government officials and members of parliament to quote religious teachings during presentations in parliament. The question remains whether this is ritualistic or authentic. When it comes to religion, it is rather

difficult to determine whether religious practices originate from habit and tradition or from faith developed from authentic beliefs in God's word and His ability.

More than 70% of the population profess a religion and attend weekly worship services (Bureau of Democracy, Human Rights, and Labor, 2018). This question of ritualism or authenticity is worthy of attention among Bahamians because the constitution of the Bahamas provides freedom of religion and forbids infringement of freedom of religion. However, to observe Christian rituals is more of a cultural observance rather than a belief system. For many years most businesses and sporting facilities were closed on Sundays leaving church attendance as one of the few options for gathering. Therefore, it is not clear how the aforementioned religious practices and viewpoints aid in assisting individuals in developing effective coping strategies that are necessary during times of distress to aid in the return to a state of normalcy at an acceptable rate.

The theory of religious coping is not rooted in religious thoughts initiated because of a disaster, nor is it limited to mere church attendance or a regard for spirituality. It is the process of spiritual discovery and develops into an integral part of the fabric of one's being (Pargament, 1997). There is a stark difference between those who pray because they are instructed to pray and those who engage in prayer because of their belief in the power and results of prayer. Therefore, exploring how this difference applies to Bahamians and other non-Western cultures, and how they develop, engage, and benefit from coping strategies need to be understood. A clearer understanding of the term religious in these cultures may assist in the process of understanding how they experience the burden of natural disasters and the role religion plays in coping and building resilience in the aftermath of such disasters.

Problem Statement

Although disasters are indiscriminate in whom they affect, the populations most vulnerable to Atlantic hurricanes and natural disasters are those in low population-island states like the Bahamas (Shultz et al., 2020). Experiencing natural disasters can be distressing and terrifying, causing intense physical and psychological damage to individuals. Natural disasters can cause significant loss resulting in considerable social and economic hardships for the individuals experiencing the disasters. The immense extent of such disasters can produce disastrous situations that abruptly disrupt the daily patterns of their lives. These individuals tend to find themselves in incredible states of helplessness and in dire need of medical, food, clothing, and shelter assistance (Makwana, 2019). The distress is intensified for individuals with lower incomes who may not have the necessary resources to prepare for a natural disaster or recovery from one due to limited or no insurance. On a communal level, natural disasters can result in increased death rate, acute injuries, as well as long-term physical, emotional, and financial consequences. Other disruptions caused by natural disasters tend to include widespread human, material, economic, or environmental losses, which exceeds the ability of the affected community to cope using its own resources.

The level of impact on the individual, family, and community and the intensity of distress during the aftermath can be substantial. The coping strategies that these groups engage in differ by cultures and countries. It is still unclear whether current findings, which use results from samples of other populations, particularly Western cultures, are applicable to non-Western populations, specifically, the population used in this study. A religious coping measure, the Brief RCOPE, has been extensively used among Western cultures

(Pargament et al., 2000). Trauma caused by natural disasters is experienced differently across cultures and reactions vary, raising the question of whether this type of trauma is interpreted in one culture as in another culture. In Pakistan where an estimated 97% of the population is Muslim, a study was conducted in which findings revealed 72% of the participants reported religious coping by requesting God to forgive their sins and 5% used more adaptive strategies such as talking with others or future planning (Feder et al., 2013). Similar results were found in a sample of Salvadoran earthquake survivors who attributed the earthquake to God's punishment for the evil behavior of man and a sample of earthquake survivors in L'Aquila, Italy whose general response included feelings of being punished or abandoned by God. How a culture experiences, responds to, and copes with trauma is unique (Simonič & Klobučar, 2017). There may be similarities in the five key religious functions identified by Pargament, which include meaning, control, comfort, intimacy, life transformation and spirituality, intimacy and spirituality, and life transformation even though it is not clear whether current measures, interventions, or theories are applicable cross-culturally (Pargament et al., 2000).

Recent research has highlighted the increasing number of natural disasters, specifically in small-island nations like the Bahamas (Fuhrmann et al., 2019; Klotzbach et al., 2021; Shultz et al., 2020). Yet there is limited research available regarding what signifies religious coping in times of natural disasters in non-Western populations, specifically the Bahamian population, whether these findings have cultural implications, and how individuals use religion to cope with the burden of distress caused by natural disasters. Since studies of religious coping among individuals tend to include participants from developed nations, namely Western cultures, such findings do not provide significant

understanding of religious coping across non-Western cultures and island nations like the Bahamas. Such results indicate further attention should be given to the exploration of effective coping skills across cultures.

Pargament's theory of religious coping has been entrenched in the study of religion and coping and has provided an effective measuring tool of religious coping with major life stressors (Pargament et al, 2011). Even though Pargament has highlighted the importance of cultural shaping of religious coping, cultural variables have not been adequately addressed. Therefore, there is a need to examine the influences of cultural ideals, values, practices, and beliefs on religious coping and resilience. It is crucial for this gap in literature to be filled, which can provide an understanding of this phenomenon across varying non-Western cultures.

Purpose of the Study

The purpose of this mixed-method study is to explore how Bahamians experience the burden of natural disasters and the role religion plays in coping with the disaster and aftermath of such disasters. Specifically, this study aimed to evaluate whether religious involvement of Bahamians improves their psychological well-being while experiencing a natural disaster and resilience during the aftermath of the disaster experienced in the Bahamas.

Research Questions and Hypotheses

Research Questions

Research Questions

RQ1: How does positive religious coping affect psychological well-being during and after experiencing a natural disaster?

RQ 2: How does negative religious coping affect psychological well-being during and after experiencing a natural disaster?

RQ 3: Is there a significant relationship between religion and resilience in Bahamians who experience a natural disaster?

RQ 4: How do Bahamians describe the role religion plays in their experience of natural disasters?

Hypotheses

Hypothesis 1: Participants who possess higher positive religious coping scores will have lower traumatic stress scores after experiencing a natural disaster and its aftermath.

Hypothesis 2: Participants who possess higher negative religious coping scores will have higher traumatic stress scores after experiencing a natural disaster and its aftermath.

Hypothesis 3: Participants who possess higher religiosity scores will have higher resilience scores after experiencing a natural disaster and its aftermath.

Assumptions and Limitations of the Study

Prior to performing the data analysis, assumptions related to Pearson's r correlations were tested, which included normality, lack of extreme outliers, and linearity. Data was evaluated for missing variables. Individuals tend to accurately recall traumatic experiences sometime later, and it is assumed that this robust sample provided reliable lived experiences of natural disasters and the aftermath. The instruments selected to measure the variables have demonstrated significant psychometric properties in recent studies showing strong internal consistency and, in some cases, have yielded Cronbach's alphas of .89 and .91; and

a test-retest reliability coefficient of .87 (Gras et al., 2020; Gras et al., 2019; Guarnizo-Guzmán et al., 2019; Lima et al., 2012; Niyonsenga et al., 2021; Sveen et al., 2016).

There are some limitations to mention in this study. The current Covid-19 pandemic environment dynamics posed a challenge in the data collection process, namely limited access to in-person interviews. Therefore, the option for virtual interviews was selected to ensure adherence to all safety protocols. There is a chance that there may be a lack of generalization to other Caribbean countries due to the qualitative nature of this study. Yet, the aim of this study is to focus, specifically on the Bahamian population. Little research has been performed on the psychological effects of such disasters on individuals in this region. Limited data is available regarding the coping strategies implemented by this region during natural disasters and the aftermath of such disasters (Miles et al., 2017). Therefore, there is a need to conduct this study. The results should provide an understanding of how Bahamians describe their experience of natural disasters, the role religion plays in this experience, and how religious coping affects their psychological well-being during and after this experience.

Theoretical Foundations of the Study

Coping research focuses on an exploration of individuals' capacity to deal with the circumstances of life and can be construed as a continuum that extends beyond the management of stress and adaptation to the attaining of goals. It can be understood as a multidimensional process and a multi-system series of events continuing over the course of a lifespan. While stress and coping may be considered one of the most widely researched areas, the delivery of a clear definition of coping as it relates to functionality in terms of human adaptation is still unclear. Pargament (1997), like other psychologists, has

conceptualized coping as the continuing process of managing distressful situations. He further described coping as “a transactional process, a process of exchange and encounter between the individual and a situation within a larger milieu” (p. 84). This multidimensional process involves the cognitive, behavioral, and spiritual dimensions of an individual’s functioning. Lazarus and Folkman (1984) developed what is considered the most influential theory of stress and coping. These theorists defined coping as cognitive and behavioral efforts used to address stressful situations. Lazarus and Folkman’s coping theory and Pargament’s religious coping theory provide a theoretical framework for this study.

The Bible also provides relevant perspectives on coping through distressing situations. There are a number of disastrous situations recorded in the Bible beginning with the great flood, which was the first recorded natural disaster, the destruction of Sodom and Gomorrah, and the earthquake that killed Korah and almost 250 men (*New King James Bible*, 1982, Genesis 7; Genesis 19:31-37; Numbers 16:30-35). The Apostle Paul in his writings demonstrates that a firm belief in Christ’s strength, even in light of the believer’s weakness, can yield successful endurance during difficult circumstances (*New King James Bible*, 1982, 2 Corinthians). This form of coping is not possible through mere church attendance. Apostle Paul insists that there must be a firm belief in God’s ability to help the believer overcome the toughest adversities. The view should be placed on the strength that God provides to build the endurance necessary when facing times of crisis.

During these distressing times, it is imperative for individuals to understand the importance of perseverance in each situation. In his writings, Paul asserts that faithfulness to God is crucial in the midst of suffering during distressing times if individuals are to fulfill their life assignments (*New King James Bible*, 1982, 2 Corinthians 12:8-10).

Therefore, Christians should engage in positive religious coping during trials. Such engagement should be seen as a Christian character or a virtue that can produce resilience, an essential part of the believer's life especially in times of distress.

Definition of Terms

The following is a list of definitions of terms that are used in this study.

1. *Coping Theory* - A constantly changing cognitive and behavioral effort to manage specific external and internal demands that are appraised as taxing or exceeding the resources of the person (Lazarus and Folkman, 1984).
2. *Five Key Religious Functions* – meaning, control, comfort, intimacy and spirituality, and life transformation (Pargament, 2000).
3. *Natural Disasters* - adverse events due to natural Earth processes including hurricanes, tornadoes, floods, earthquakes, tsunamis, or super storms (Rubin et al., 2019).
4. *Negative Religious Coping* – An insecure relationship with God, a tenuous and ominous view of the world, and a religious struggle to find and conserve significance in life (Pargament et al., 1998)
5. *Positive Religious Coping* - A secure relationship with God, a belief that there is a greater meaning to be found, and a sense of spiritual connectedness with others. (Pargament et al., 1998).
6. *Religious Coping Scale (Brief RCOPE)* – The Brief RCOPE is a 14-item instrument of religious coping with major life stressors that is used to measure positive and negative aspects of religious coping (García et al., 2021; Pargament et al., 2011, Xu, 2016).

7. *Religious Coping Theory* - an individual's efforts to understand and deal with the stressors of life in a manner relating to the sacred, which canvases a variety of religious thought, emotions, and behaviors expressed to manage stressful and difficult situations (Pargament, 1997).
8. *Religiosity* - faith concepts referring to ritual, institutional, or codified spirituality that is culturally sanctioned (Harris, Howell, & Spurgeon, 2018).
9. *Resilience* - Positive adaptation in the face of adversity; mitigates the negative effects of stress and promotes lifelong physical and mental wellbeing (Phillips et al., 2019),
10. *Traumatic Stress* - A normal reaction to an abnormal event. Usually, symptoms get better with time, but people with more intense symptoms may need professional help (American Psychological Association, 2019).

Significance of the Study

Natural disasters have caused significant damage to countries known as small-island states, which includes the Bahamas. There is a need to address the psychological challenges faced by those affected by disasters. Research shows religion appears to be of particular importance to individuals facing natural disasters and its strength is rooted in many cultures, such as the Caribbean, including the Bahamas (Park et al., 2019). There is a need to expand investigations to determine the effects of positive coping of individuals who live in natural disaster-prone areas. Additionally, there is a need to address cultural implications to contribute to the existing literature in this area (Park et al., 2019). While each culture may respond to natural disasters differently, religious coping has been shown to be a resource in times of distress irrespective of an individual's religious or cultural affiliation.

Engaging in religious coping may reduce challenges that can lead to the development of various types of mental illnesses. Findings from current research suggest that individuals who engaged in religious coping during and after a distressing time, experienced a level of calm and enhanced resilience that aided in returning to a sense of normalcy in a timely manner (Ozcan et al., 2021).

The focus of this study is to explore how Bahamian individuals experience the burden of natural disasters and the role religion plays in coping with the aftermath of such disasters. The expectation is that this analytical approach will increase the understanding and dynamics of strategies used by individuals to cope in distressing times from the perspective of religious individuals in this region. Findings from this study provided information illuminating the importance of addressing and examining the results of religious coping during disasters. The result of this explorative research can set the stage for stakeholders to discuss measures, policies, initiatives, and interventions that may be used in evidence-based psychotherapy, counseling, and spiritual help for individuals who experience the ravages of natural disasters. Therefore, addressing religious coping in Bahamians is a significant area of study that can substantially contribute to existing literature.

Summary

Over the last few decades, natural disasters have increased in frequency and severity in countries including the Bahamas (Shultz et al., 2020). Such disasters have caused unimaginable damage, and repairs can cost billions of dollars. Additionally, natural disasters are events that can result in psychological challenges and stressful conditions (Park et al., 2019). Displacement and infrastructural damage have contributed to the

psychological scars left behind by natural disasters (Rubin et al., 2019). Along with the distressing and terrifying experience of natural disasters, the aftermath of such disasters can be traumatizing as well (Rubin et al., 2019).

Research suggests that religion is an important resource for many individuals coping with trauma, such as natural disasters (Counted, 2019). It is quite common for individuals to use religious coping, actions connected to God, or belief in a higher power to deal with stressful experiences after disasters. Even though there are significant theoretical insights into the benefits of religious coping, limited research is available regarding what signifies the religious coping in this population (Sohrabizadeh et al., 2018). Little research is available on whether these findings have cultural implications. This is especially important for cultures in which religion is deeply rooted. While religion may seem to be a bedrock in the foundation of these cultures, whether individuals use or benefit from religious coping during and after a natural disaster is yet unknown.

The results of this study should provide additional insight into how Bahamians use religious coping and its effects on their well-being. Religion appears to be a particularly important strength rooted in many cultures such as the Caribbean. Therefore, as investigation continues to determine the effects of positive religious coping, it is imperative to address cultural implications to contribute to the existing literature (Park et al., 2019). The expectation was that this mixed-method approach will assist in enhancing the understanding and dynamics of religious strategies of Bahamians with a specific focus on and the perspective of religious Bahamians (Counted, 2019). It was further expected that religious coping will serve as a resource that promotes psychological well-being during and after natural disasters (Morgan et al., 2017).

CHAPTER 2: LITERATURE REVIEW

Overview

Natural disasters can significantly affect individuals physically, financially, and psychologically. There are specific regions, such as the Atlantic Basin, that have experienced increasing destructive natural disasters that have exposed citizens living in these areas to significant amounts of distress. This includes small island nations of which the Bahamas is a part. How these individuals living in these nations cope, and their level of resilience contribute to their returning to a sense of normalcy after experiencing a natural disaster. Current literature suggests that there is a myriad of ways in which individuals cope when facing traumatic events. Some individuals engage in the use of positive coping styles while others engage in negative coping styles to aid in finding meaning after experiencing a natural disaster. This chapter reviews the literature most relevant to this study.

Description of Search Strategy

Specific and extensive literature search of peer-reviewed journal articles, books, and internet articles was conducted to investigate current research on the use of religious coping during and after traumatic experiences and natural disasters such as hurricanes, tsunamis, earthquakes, and extreme floods. A literature review was conducted, which yielded a significant number of research articles that were used to support the literature review segment. Most of the sources used to provide information for the literature review came from peer-reviewed journals published within the last five years. However, earlier published material provided key foundational and theoretical support. This content provided a review of scientific literature as well as a good understanding of previous research conducted on the topic of this research. Articles used in the literature review came

from journals published in a number of countries to examine cultural views of religious coping strategies and how individuals from non-Western countries cope with natural disasters. These searches yielded an insignificant number of research articles that examined the effects of religious coping in individuals during distressing times across cultures, namely Caribbean countries.

Literature was gathered from online databases, including PsychINFO, MEDLINE, PsycNet, PsycARTICLES , and EBSCOhost. Terms used in the search included *coping with natural disasters in the Caribbean, RCOPE in the Bahamas, Bahamians religious coping, Caribbean natives religious coping, and RCOPE in the Caribbean*. A cross-search of the key words *religious coping, coping strategies, psychological well-being, natural disasters, and cultural coping* was conducted. This search yielded a number of research articles that were used to support the literature review segment. A Biblical search was conducted for information for the Biblical foundations of this study using online Biblical databases and websites including BibleGateway, Bible Study Tools, and Blue Letter Bible. Terms used in the search include *trials, perseverance, faith, disasters, and endurance*.

Review of Literature

An Overview of Natural Disasters

The United International Strategy for Disaster Reduction (2009) defines disaster as a serious disruption of the functioning of a community or society. Natural disasters include adverse events due to natural Earth processes such as hurricanes, tornadoes, floods, earthquakes, tsunamis, or super storms. These disasters are considered a global problem of a complex nature. Most of these natural disasters are also unpredictable and rapid (Ekanayake et al., 2013; Rubin, 2019; Shultz, 2020). Climate change has been linked to the

recent changes in Atlantic hurricane behavior resulting in storms that are more destructive to the built environment and vital infrastructure. As a result, thousands of individuals experience immense losses with significant subsequent social and economic hardships. Furthermore, the magnitude of such disasters can create catastrophic situations that suddenly disrupt the daily patterns of life. This disruption can be so devastating that it plunges individuals into an unimaginable state of helplessness and suffering resulting in immense medical, food, clothing, and shelter needs. Communities facing natural disasters can experience increases in death rate, and acute injuries, as well as long-term physical, emotional, and financial consequences. This disruption caused by natural disasters tends to result in widespread human, material, economic, or environmental losses that exceed the affected individual's ability to cope using their own resources (Makwana, 2019). According to the Ministry of Emergency Management of National Disaster Reduction Center of China report (2020), all communities across the world could potentially be threatened by a disaster.

The World Health Organization reported that natural disasters impact around 160 million people and kill almost 90,000 people worldwide (Rubin et al., 2019). These natural disasters can have an immediate impact on the physical, biological, and social environment, which includes the destruction of property as well as disruption to and loss of human lives. The aftermath of these storms is becoming more deadly as well as destructive and has been proven to be harmful to the physical and mental health of these populations (Fuhrmann et al., 2019; Rubin et al., 2019). Consequently, global citizens residing in areas that are prone to natural disasters are exposed to tremendous amounts of distress. Each year countries in this region are recording more storms making landfall with stronger intensity

(Tables 1 & 2). In 2019 alone, the world's major natural disasters affected over 95 million people and a total of 11,694 natural disaster related deaths were recorded. The report further revealed that worldwide, direct economic losses valued at \$121,856 billion were reported within this period. Furthermore, the National Oceanic and Atmospheric Administration of the USA (NOAA) reported that in 2017, the United States alone experienced a total of 16 separate disaster events with a cumulative cost of over \$300 billion.

In 2018 Hurricane Florence produced rainfall in some parts of North Carolina that exceeded 30 inches, setting a new state record. The previous record was 24 inches caused by Hurricane Floyd in 1999 (Klotzbach et al., 2021). In 2019, Hurricane Dorian, packing winds of over 185 miles per hour, made landfall. This historic category 5 storm was recorded as a super storm causing tremendous devastation to nations along the Atlantic Basin. The record-breaking 2020 hurricane season produced 30 named storms and demolished existing records as Tropical Storm Edouard formed as the earliest 5th named Atlantic storm on record (Klotzbach et al, 2021; Shultz et al., 2020). Hurricane Laura, which was the 7th named storm to make landfall in the continental U.S. in 2020, broke the record of six recorded in 1886 and 1916. This storm made landfall with winds of 150 mph, which was stronger than Hurricane Katrina in 2005. Elsa made landfall in 2021 and was the fifth named storm of that Atlantic hurricane season. Elsa became the earliest fifth named Atlantic storm on record, breaking the record set by Edouard in 2020. The NOAA's Climate Prediction Center records show that 2021 was an above-normal Atlantic hurricane season having produced 31 named storms, including seven hurricanes (NOAA, 2021). Furthermore, 2021 was the third most active year on record as it relates to named storms,

marks the sixth consecutive above-normal Atlantic hurricane season, and the first year to record two consecutive hurricane seasons exhausting the list of 21 storm names. The year 2022 was another above-normal Atlantic hurricane as predicted by Dr. Phil Klotzbach and the Colorado State University Tropical Meteorology Project (Resilience Accelerator, 2022). Many of the small island nations that are affected by these storms are concerned by such predictions and experiences and continue to look to the United Nations and other stakeholders to assist in the fight to relieve the burden caused by the effects of natural disasters in this region.

Hurricanes in the Bahamas

Hurricanes are considered the most violent storms on Earth (NOAA, 2021). Atlantic hurricanes have been steadily increasing in occurrence and intensity. Island nations like the Bahamas tend to be low in population with agricultural economies and rely heavily on tourism as the main source of revenue (Rubin, 2019; Shultz, 2020). Multiple storms have resulted in significant damage across the Bahamas, mostly from storm surge and high winds within the past several decades. The Bahamian Archipelago is vulnerable to these systems due to its location in the climatological path of storms that originate in the Atlantic basin. The damage caused by natural disasters can be extensive, and repairs can take a long time and cost billions of dollars, yet the Bahamian people remain resilient even after experiencing much devastation and loss.

Within the last forty years, there has been a significant increase in the number of storms and the intensity of these storms in the Bahamas (Table 1). From 1980 to 1990, there were no hurricanes recorded that made landfall in the Bahamas. Between 1991 to 2000, four hurricanes made landfall and during the period 2001 and 2010, four hurricanes

made landfall. With the intensification of global warming, nations in this region are experiencing this intensification in the increase in the number of storms. The Bahamas is included in this group. The number of hurricanes doubled between 2011 to 2022, with eight hurricanes making landfall within this period when compared to the previous period. This is even more alarming because during 2011 to 2022, there were the same number of hurricanes making landfall in this region as the previous 30 years combined (1980 to 2010). Regarding intensity, there were only two category 5 storms recorded between 1980 to 2000, a 20-year period. However, between 2001 to 2022, there were nine category 4 or 5 storms to make landfall in the Bahamas. More notably, out of the eight storms recorded between 2011 to 2022, five of them were either category 4 or 5 (Table 2). These increases in frequency and intensity translate to intense physical, financial, and psychological distress to individuals in this region.

Table 1

Hurricanes in the Bahamas Between 1980 - 2022

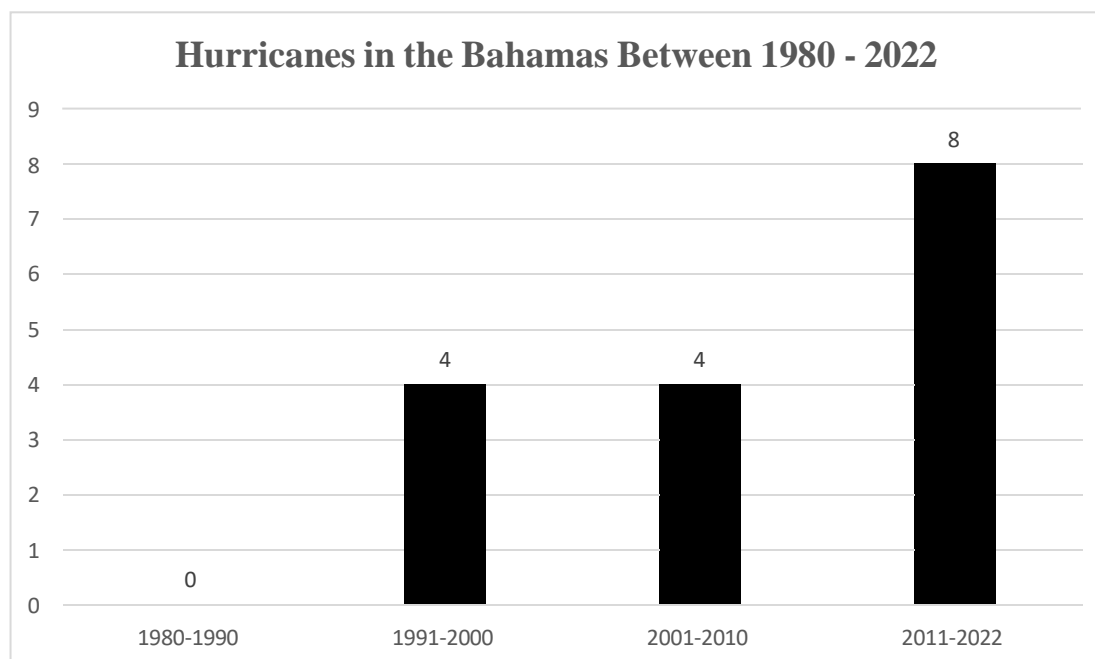
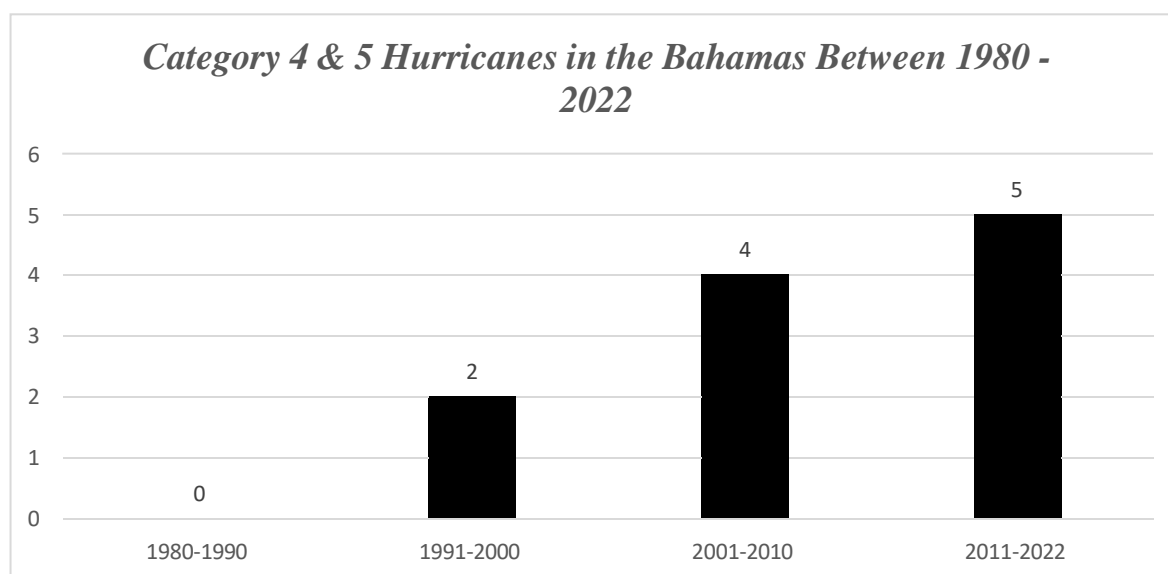


Table 2

Number of Category 4 & 5 Hurricanes in the Bahamas Between 1980 - 2022



In 2019, the Bahamas experienced the first ever super storm: Hurricane Dorian. With wind speeds exceeding 185 miles per hour, Hurricane Dorian (Category 5) was the fifth Atlantic hurricane in this region to make landfall as a Category 4 or 5 storm over four consecutive seasons (Shultz et al., 2020). This super storm was preceded by hurricane Joaquin (Cat. 4) which made landfall in 2015, hurricane Matthew (Cat. 4), which made landfall in 2016, followed by Irma and Maria in 2017 (Cat. 5), and Michael in 2018 (Cat. 5) (Fuhrmann et al.; 2021; Shultz et al., 2020). While much attention is given to the infrastructural damage that these storms cause, not much attention is given to the emotional damage caused by these storms and the aftermath.

A disaster is not an isolated issue. To a large extent, disasters and mental health are related. Such disasters not only have physical consequences but affect other domains such

as psychological and psychosocial dimensions. The stress caused is inevitable and can affect individuals' mental health. Losses caused by these destructive storms are harmful to the mental health of the populations most vulnerable to Atlantic hurricanes, especially residents of small-island states like the Bahamas. The aftermath of such disasters has an immense impact on the socio-economic and mental state of victims (Makwana, 2019; Shultz, 2020). However, most interventions tend to focus on the socio-economic condition with little attention given to coping strategies.

Coping with Stressful Events

The psychological distress experienced during and after a natural disaster tends to be rooted in the need to protect against the loss of objects, social roles, and personal characteristics. The inability to protect one's housing, possessions, employment, relationships, time, monetary investments, and self-confidence can have a negative psychological effect on individuals. In many regions, disasters tend to be measured by the cost of social and economic damage. However, the effects of these damages cannot be compared to the emotional suffering individuals experience post-disaster (Makwana, 2019; Petrucci, 2012). The unpredictability of disasters can leave victims in a state of shock resulting in increased rates of depression and anxiety due to loss of loved ones, loss of resources, and loss of routine.

Death of loved ones further complicates the mental stability in individuals who experience natural disasters. This is especially true if the deceased was the major breadwinner, responsible for childcare, or made other major contributions to the family. It can leave the victim in a state of vulnerability because the loss deprives the individual of a sense of love, security, attachment, and belongingness (Makwana, 2019). Furthermore,

factors including the displacement of the family, loss of a loved one, socio-economic loss, environmental loss, lack of mental preparedness for the disaster, disruption in the family bond, lack of social support, and negative coping skills lead to the psychological vulnerabilities of the sufferers. This stressful experience disturbs the routine life of the victims along with loss of individuals, families, and communities.

Individuals and families experiencing natural disasters can face a loss of identity by losing employment and other work in which they may have been engaged. The stress brought on by such disasters may lead to the development of various psychological symptoms such as acute stress following the traumatic experience, overwhelming stress, feelings of grief and sadness for an extended period, substance dependency, and adjustment issues. Such symptoms tend to affect the appropriate functioning of individuals and the community (Petrucci, 2012). How one copes plays a significant role in the return to normalcy after experiencing a natural disaster and the aftermath.

Individuals' coping styles play a paramount role in their level of happiness. Effective coping can be vital to ensuring wellbeing and can serve as an interactive process in aiding individuals in responding to stressful stimuli. A number of empirical studies have shown that specific methods used in coping during negative life events play an integral role in determining the outcome of these events (Fariddanesh & Rezaei, 2019; Lazarus & Folkman, 1984; Pargament, 2011; Taheri et al., 2013). The use of more efficient approaches in dealing with stress may result in increased recovery rates. One's coping strategy can affect the level of his or her vulnerability against stressors.

Individuals' coping acts as a stabilizing factor that can help maintain psychosocial adjustment during traumatic periods. When a concerted effort is expressed to explain the

dynamics of the coping process, it reveals how the conscious strategies used by individuals encountering stressful or upsetting situations is understood (Del a Rosa, 2015; Sinding-Bentzen, 2019). According to the coping theory, individuals' behavior is understood best as a dynamic process of interaction between the individual and life situations all happening within a larger socio-context. This theory emphasizes the active role individuals play in interpreting and responding to major life stressors.

Coping Theory

Earlier theorists focused on two coping responses during the 1960s and 1970s: *emotional-focused* coping and *problem-focused* coping (Del a Rosa, 2015). The emotion-focused coping strategies focus on regulating emotional disruptions resulting from stressful situations (Ashai, 2021). Problem-focused coping strategies attempted to solve, minimize, or manage the effects of the distressing situations. A decade later, research expanded the coping process to the incorporation of situational factors, which included the cognitive appraisal of distressing situations (Lazarus & Folkman, 1984). It further expanded to environmental factors, which included financial resources, support networks, and education (Del a Rosa, 2015). As the interest in the understanding of the coping process increased, there were attempts to incorporate personal and situational explanations as well.

The general view of coping is a process through which individuals seek to understand and manage personal and situational demands in their lives. Lazarus and Folkman (1984) are considered the most prominent theorists in the field of stress and coping. Their theory focuses on how individuals interact with stressful life situations that they face within a larger social context (Abu-Raiya, 2021; Sinding-Bentzen, 2019). According to the coping theory, individuals are focused, goal-oriented, and are constantly

seeking to attain valued goals and their life's purpose. How people appraise and cope with stressful or traumatic life events as it relates to their goals and aspirations during distressing times is what is most significant. If individuals perceive these stressful periods as challenging or threatening, they employ a variety of cognitive and behavioral strategies to conserve or preserve their most important values, including physical, financial, and psychological (Abu-Raiya, 2021). They seek coping strategies to assist them in adapting to their current circumstances while mitigating the adverse effects of the distress.

Religious Coping Theory

The consensus in existing literature is that since general coping theorists as well as researchers had, for the most part, neglected the religious dimension, Pargament developed a theory of religious coping in which religious coping was defined as an individual's efforts to understand and deal with the stressors of life in a manner relating to the sacred (Abu-Raiya, 2021; Fort et al., 2017; Pargament, 2011). This coping theory canvases a variety of religious thoughts, emotions, and behaviors expressed to manage stressful and difficult situations. During and after a crisis or traumatic experience, research indicates that one's spirituality, which includes their relationship with God or a higher power, plays a vital role in assisting victims in returning to a state of normalcy within an acceptable time frame.

In times of distress brought on by natural disasters, religion is an important resource for individuals coping with natural disasters (Fort et al., 2017; Sleijpen et al., 2017; Sohrabizadeh et al., 2018). Individuals use religion as a coping mechanism in recovery following a variety of disasters and tend to turn to religion in times of crises. An example of this is seen in the West, namely America, during the earthquakes in 1811 and 1812, when church membership increased by 50% in Midwestern and Southern states. More recently, it

was reported that church attendance increased at a faster rate in New Zealand in the Christchurch region after the 2011 Christchurch earthquake in comparison to the remaining four regions. However, the theory of religious coping is not rooted in religious thoughts initiated as a result of a disaster, nor is it limited to mere church attendance or a regard for spirituality (Pargament, 1997). It is the process of spiritual discovery that begins with a personal awareness of the sacred and develops into an integral part of the fabric of one's being. By increasing knowledge, as well as engaging in building a relationship with, and gaining experiences relating to God, religion, and spirituality, one develops methods of religious coping that preserve the sacred when faced with distress. It is this level of religious engagement that contributes to resilience during and following distressing and traumatic events (Pargament, 2011; Xu, 2016).

Religion is seen as a search for significance in the sacred and spirituality as a search for the sacred; with the sacred, in this regard, referring to divine beings, higher powers, God, or transcendent reality (Pargament, 1997). It also includes other aspects of life that take on divine-like qualities either by being perceived as connected to the divine or having sacred qualities (Abu-Raiya et al., 2010). A stronger religious orientation may more likely result in a greater use of and benefit from religious coping. Religious coping theory considers religion as more than a type of defense but rather an integral part of the coping process aiding in a maintenance of significance. This is seen in a number of studies, one of which revealed the coping strategies most stated were one's faith, prayer, and gaining strength from God (Koenig & Peterson, 1988). Other studies showed that this stronger religious orientation is deeper than mere church attendance (Koenig et al., 1998). Multiple studies revealed results showing hospitalized intrinsically religious individuals found a

reduction in remission time when compared to individuals who engaged in merely church going (Pargament, 2011). Religion also reduced depression risk measured by cortical thickness, while frequency of church attendance had no effect on the thickness of the cortices (Miller et al., 2014). The function of religious coping is to help the individual in discovering meaning, garnering control, acquiring comfort from closeness with God, achieving closeness with others, and transforming life. Yet, religious coping approaches may be negative or positive, which may be based on the security of an individual's relationship with and/or view of God (Xu, 2016). Pargament's (1997) *combined religious moderator-deterrent model* suggests that religious coping increases and continues to protect the religious individual as the level of stress rises. Furthermore, the relationship between religious coping, stress, and adjustment depends on a number of factors including type of religious coping, group, outcome, and the distressing issue. Not all forms of religious coping are helpful. Some types of religious coping may be more hurtful with the capacity to exacerbate the effects of stress making difficult situations even worse. There are two patterns of religious coping: positive religious coping and negative religious coping. It is important to understand the effects of positive as well as negative coping when used during distressing times.

Positive religious coping skills have been considered helpful in aiding those suffering from various physical and psychological challenges, namely as a result of traumatic events (Abu-Raiya et al., 2010; Fort et al., 2017; Pargament et al., 2000). This type of religious coping method indicates what appears to be a secure relationship with God with a belief that there is a greater meaning of the distressing circumstance, as well as a sense of spiritual connection with others. Burkner et al. (2005) conducted a study with 81

end-stage lung disease patients to determine the best predictors of depression, anxiety, and disability between religious coping (RC) and non-religious coping (NRC) strategies. The results of this study supported previous studies that demonstrated that the best predictors of psychological distress and disability are negative coping styles, not the adaptive styles. The RC subscale, Punishing Reappraisals, was a strong predictor of the outcome factors in five out of six regressions, which is consistent with Pargament's (1997) review that the punishing reappraisal tends to always be associated with poorer outcomes. In this instance, the individual commonly sees the stressor being a punishment from God for sin.

Religious Coping Promotes Resilience

There has been significant research conducted on the positive impact of religiosity on mental health with attention to religious coping strategies (Ahles et al., 2016; Mahoney et al., 2014). Many people find that religion provides a system of meaning that helps them cope with life's stressors, especially those outside their power. Additionally, there is growing evidence indicating religious coping correlates with resilience in times of distress (Brewster et al., 2016; Britt et al., 2017; Chow et al., 2020). Resilience is necessary in the process of returning to a sense of normalcy after experiencing distressing times. Stressors, such as environmental disasters, can have a negative effect on well-being and can precipitate the development of psychopathology in some individuals, while others are not affected by such stressors (Eisenstadt et al., 2020; Krause et al., 2017). Growing research shows that spiritual well-being can increase individuals' resilience in disasters (Mohammadinia et al., 2018; Pantaleao & Ohannessian, 2019; Szcześniak et al., 2020). There are a number of articles suggesting that religious beliefs can assist in reinforcing

religious coping mechanisms, which can reduce the impact of stress and enhance coping skills in times of distress (de la Rosa et al., 2016; Estrada et al., 2019).

Biblical Foundations of the Study

How relevant is the Bible in times of distress? Are there examples in the Bible of how to effectively handle stressful situations? What does the Bible teach about coping with trauma? Were natural disasters described in the Bible, and if so, were humans affected? The Bible provides extensive instructions on coping during distressing times. The Apostle Paul, who experienced extreme adversities, provides a clear perspective in 2 Corinthians on how to cope with suffering and remain steadfast in faith while being a witness for Christ.

Strength in Christ

A frequent, yet peculiar key to coping in this passage is the identification of the frailty but invincibility of man - I am weak, yet I am strong (*New King James Bible*, 1982, 2 Corinthians 12:9). Paul acknowledges his weakness but rests in the assurance that he is strong through Christ. Through God he has the capacity to overcome extreme adversities. During distressing times, he does not see himself as a passive victim. Instead, he sees himself as someone who can overcome the toughest of adversities. The apostle understood that distressing times were simply a part of his life's assignment. He knew he would overcome in a manner that could be shared as an encouragement to others. This perspective is in line with the view that the theory of religious coping is not rooted in mere religious thoughts initiated because of a disaster. It can neither be limited only to church attendance or spirituality (Pargament, 1997). There must be a deep understanding of and a connection to God for an individual to benefit from and find the strength that Paul speaks about in this passage.

The joining of the frailty of man and the strength of God is the beautiful partnership that Christians enjoy and can benefit from. The apostle makes it clear that this relationship is essential to the successful execution of one's life assignment including the challenges that come along with such assignments (*New King James Bible*, 1982, 2 Corinthians). This key to coping is evident in Joseph's life. As a servant, Joseph is a slave in Egypt and appears weak against Potiphar, his master. Yet even though he was a slave, Potiphar had to acknowledge that it was evident that the success his house was experiencing was because of the relationship of Joseph and his God. Here Joseph may have appeared weak but was strong because of his faith in God. The same is the case when he is faced with the incident with Potiphar's wife who accused him of sexual assault resulting in Joseph's imprisonment. How did Joseph cope with such levels of distress? He lost his family, was betrayed by his brothers, was sold as a slave, was unfairly accused and, as a result, imprisoned. He found himself in many distressing situations. He drew on the strength of God. He did not focus on the trauma or distress caused by the traumatic situation. As an imprisoned slave, he was fragile and vulnerable, yet invincible through God. What proof was there to identify this fact? In Genesis 41:14, Pharaoh called for Joseph. This call changed the trajectory of his life. He was exonerated, elevated, and ultimately reunited with his family. During the disastrous period, Joseph did not focus on the distress, but maintained his faith in God and drew strength from God. Even though he was weak, he was strong because of God's power in him. The coping key, paradoxical identity, which the apostle Paul explains as an individual's understanding of his or her frailty yet invincibility through Christ, is effective whether in trauma, times of distress, or slavery.

Faith in Practice Builds Resilience

The Apostle Paul clarifies in 2 Corinthians that how individuals cope through disastrous situations is essential in maintaining a strong and lasting relationship with Christ (*New King James Bible*, 1982, 2 Corinthians 12:8). Furthermore, one's coping methods determine the rate of return to normalcy and how one effectively navigates through such situations. An important category in this passage refers to how individuals understand faith as perseverance in each situation. Paul maintains that faithfulness to God is essential in fulfilling one's life assignment especially in the midst of suffering during distressing times (*New King James Bible*, 1982, 2 Corinthians 12:8-10). Perseverance or displaying resilience is an essential part of the believer's life. Therefore, engaging of Christians in positive coping in trials should be seen as a Christian character or even a virtue. Job exemplified this in his experience, which could be described as trauma of the most acute nature (*New King James Bible*, 1982, Job 1:13-22). During this period of his life, Job experienced loss of all of his income, resources, and assets. According to scripture, within a short space of time, he learned that all of his children and their families were killed. Job also experienced physical sickness (*New King James Bible*, 1982, Job 2:7). The level of physical and emotional distress experienced by Job may not be easily imaginable. Yet the scripture states that through all of this, Job did not charge God foolishly but maintained his faith in God (*New King James Bible*, 1982 Job 1:22). Job's faith is seen in action throughout the entire passage. There are other faithful men and women of God whose faith in practice was evident in their coping during distressing times. David, the psalmist, experienced many distressing situations during the process of becoming king. Yet, it was not his effort or discipline that he depended on, but the power of God and his faith in this

all-powerful God. It is this power that the Apostle Paul alludes to in 2 Corinthians which David used to overcome afflictions (*New King James Bible*, 1982, 2 Corinthians 12:8-10).

Internal Benefits of Altruism

The apostle Paul focused on the basic principle of Jesus, which is love. This is not a love of self but a love for others. Throughout 2 Corinthians and other passages written by this apostle, his focus and that of his colleagues was the welfare of others, particularly during times of suffering. However, during times of disasters when there are shortages of resources and energy, it may seem unwise to behave altruistically. Yet it is during distressing times, including disasters, responding to these adverse situations altruistically by focusing on the welfare of others is the Christian way. This form of altruistic coping in an individualistic world is essential during times of crisis because altruistic behaviors improve the welfare of the recipient as well as provide immediate internal reward of the performer (Hu et al., 2016; Irani, 2018 Wang et al., 2020). The Bible explains this concept stating that by refreshing others, one becomes refreshed (*New International Version*, 1973/2001, Proverbs 11:25). The Bible records several disastrous situations beginning with Noah's experience of the first recorded natural disaster, the destruction of Sodom and Gomorrah, and the earthquake that killed Korah and 250 men (*New King James Bible*, Genesis 7; Genesis 19:31-37; Numbers 16:30-35). There are many Bible characters who experienced trauma, crisis, and immense grief including Moses, Noah, Jacob, and Silas. Naomi lost her husband and two sons. Yet, like many of the other Bible characters, she maintained her faith in God, persevered, and mentored her daughter-in-law (*New International Version*, 1973/2001, Ruth 1-4).

It is these Biblical foundations upon which this study is built. The Bible gives clear guidance regarding perseverance through difficult situations. Believers are not exempt from trials, distressing situations, and circumstances. The apostle Paul admonishes his readers to recognize that they are strong in Christ and can overcome the most extreme experiences. A strong faith in God's ability, love and care for his people builds the resilience needed in times of distress. Resilience allows individuals to return to a sense of normalcy in an appropriate time frame after experiencing a crisis or a time of distress. This can enable them to assist others who may not possess the ability to do so. In addition, it provides an opportunity for altruistic coping, which benefits both the performer and the recipient.

Summary

The increase in natural disasters in countries known as small-island states, which includes the Bahamas, highlights the need to address the psychological challenges faced by those affected by disasters (Shultz et al., 2020). Research shows that religion appears to be of particular importance, and its strength is rooted in many cultures, such as the Caribbean, of which the Bahamas is a part. Therefore, there is a need to expand investigations to determine the effects of positive coping of individuals who live in natural disaster-prone areas. Additionally, it is imperative to address cultural implications to provide the needed contribution to the existing literature (Park & Mills, 2019). Religious coping has been shown to be a resource in times of distress irrespective of an individual's religious or cultural affiliation. Engaging in religious coping may reduce the chance of developing various types of mental illnesses (Park et al., 2019).

Current research has not provided a clear understanding of whether specific types of distressing events and the associated interventions are applicable to all cultural groups.

Furthermore, limited empirical evidence exists that distinctly determines whether the risk and protective considerations associated with increased distress are consistent across cultures. Few studies have examined the positive effects of religious coping during distressing times across cultures. Studies show that religious coping and religiosity among a few non-Western cultures practicing Islam, Buddhism, and Christianity exhibited higher levels of resilience (Chow et al. 2020; Ghorbani et al., 2017; Jocson et al., 2018). These studies were conducted in countries such as Iran, Malaysia, and other Latino cultures. However, very little data could be found on Caribbean cultures. There were other findings that were rather contradictory in nature. Other studies have shown that the use of religion may not result in psychological well-being (Morgan et al., 2017; Simonič & Klobučar, 2017; Sohrabizadeh et al, 2018). Religious beliefs can have a negative effect on the psychological well-being of individuals who experience natural disasters. These individuals tend to see the disasters as a repayment for wrong doings. There is a need to extend current research on the role of religious coping during and after experiencing a natural disaster. Findings from this research are expected to contribute to existing literature by providing information that will add to the understanding of the importance of addressing and examining the results of religious coping, especially in countries prone to experiencing continuous and escalating natural disasters (Shultz et al., 2020). Furthermore, findings can be used in evidence-based psychotherapy, counseling, and spiritual help for individuals who experience the burdens of natural disasters.

CHAPTER 3: RESEARCH METHOD

Overview

This chapter outlines the research methodology and procedures of the study, specifically the research hypotheses, participants, research design, instrumentation, data collection, and data analysis. This mixed design study is designed to gain a deeper understanding of the influence of religious coping strategies on the psychological well-being of Bahamians who have experienced a natural disaster. The expectation was that this approach will increase the understanding of the use of religious coping strategies and resilience of Bahamians who have experienced devastating natural disasters from the perspective and reflections of religious Bahamians in this region (Counted, 2019).

Research Questions and Hypotheses

Research Questions

RQ1: How does positive religious coping affect psychological well-being during and after experiencing a natural disaster?

RQ 2: How does negative religious coping affect psychological well-being during and after experiencing a natural disaster?

RQ 3: Is there a significant relationship between religion and resilience in Bahamians who experience a natural disaster?

RQ 4: How do Bahamians describe the role religion plays in their experience of natural disasters?

Hypotheses

Hypothesis 1: Participants who possess higher positive religious coping scores will have lower traumatic stress scores after experiencing a natural disaster and its aftermath.

Hypothesis 2: Participants who possess higher negative religious coping scores will have higher traumatic stress scores after experiencing a natural disaster and its aftermath.

Hypothesis 3: Participants who possess higher religiosity scores will have higher resilience scores after experiencing a natural disaster and its aftermath.

Research Design

This mixed method approach combines quantitative-correlational and qualitative-phenomenological research design to allow for the identification of relationships among variables and the gathering of exploratory data. A mixed method approach is appropriate for this study because it allows the researcher to present a study that will provide a more comprehensive and contextual understanding of collected data from a population that has not been adequately represented in previous or current literature.

Quantitative analysis was conducted to explore the relationship between religious coping and resilience in the face of experiencing trauma. While a number of studies have shown that individuals who practiced various religions exhibited higher levels of resilience, this study provided statistical data using this sample to contribute to existing literature (Chow et al., 2020, Ghorbani et al., 2017; Jocson et al., 2018). Pearson r correlations were used to evaluate bivariate relationships between religiosity, resilience variables, traumatic stress, and religious coping variables. Bivariate correlation using a sequential multiple

regression analysis to test the null hypothesis was used. The purpose of this correlation research was to explore bivariate relationships among variables. Bivariate correlations (r) were used to assess the relationships between all pairs of variables.

The qualitative design selected for this research study as a part of the mixed design was phenomenology. Qualitative inquiry utilizes an emergent design and focuses on the lived experiences and meanings of the selected participants (Creswell, 2013; Forrest-Bank & Dupper, 2016). A significant purpose for conducting qualitative research is to allow silenced voices to be heard. Qualitative research focuses on human's subconscious operating system. It intricately weaves the unique human experience, gut instinct, and personal perspectives of subjects into the data collection process. The human experience that is based on observation can produce interesting answers and allow the research to follow up with more interesting questions (Skinner et al., 2000). This methodological paradigm aimed to approach a phenomenon on its own terms while considering the researchers' values and perspectives. It was anticipated that this will result in research that is a blending of the researchers' perspectives and the participants' lived experiences (Simonič & Klobučar, 2017). This method was appropriate for describing the complex religious coping strategies of participants who are confronted by a range of natural disasters in relation to the researchers' reflexivity (Counted, 2019).

Phenomenological analysis was used to build the lived experiences of participants who have experienced a natural disaster within the last five years. This analytical approach was expected to increase the understanding and dynamics of religious strategies from the perspective and reflections of religious individuals in this region. This analytical method allowed for the description of commonalities between participants as they experienced the

shared phenomenon and uncovered the authentic essence of the phenomenon (Creswell, 2013).

Participants

The quantitative portion of this study had a sample of 140 participants. Cohen's formula was used to calculate the minimum sample size. A 5% confidence interval or margin of error with a confidence level of 95% have been used by previous studies of this nature in order to obtain statistically significant results. Therefore, for this study the margin of error was set at $\pm 5\%$ with a confidence level of 95% to obtain statistically significant results. The effect size was based on Cohen's statistical power analysis (Cohen, 1992). Subjects were invited to participate virtually from the Global United Fellowship (GUF) and National Emergency Management Agency (NEMA). GUF is a global religious organization comprising of 1,400 churches and organizations in 42 countries, which includes the Bahamas. GUF represents a cross-section of business, organizations, and churches including those who fall in the categories of apostolic, charismatics, and independent churches. Twenty-one of these churches are in the Bahamas. NEMA is the emergency management agency responsible for reducing the loss of life and property within the Commonwealth of The Bahamas. This agency aims to do this by ensuring that adequate preparedness and mitigation measures, and response and recovery mechanisms are established to counteract the impact of natural, man-made, and technological hazards (NEMA, 2022). These groups were chosen to obtain a cross-section of the population. The inclusion criteria consisted of experiencing a natural disaster in the Bahamas within the last five years and having a willingness to participate in the study. Additionally, all participants

were citizens or residents of the Bahamas for at least five years, 18 years old or older, and fluent in English.

It is recommended that qualitative sample sizes are large enough to permit the unfolding of a new understanding of the phenomenon under study, yet small enough so the intimate analysis of qualitative data is not excluded (Vasilieiou et al., 2018). The qualitative portion of this study had a sample size of 13 participants. This portion of participants were included to gather individual stories and aided in building an understanding of experiencing and coping with the effects of a natural disaster. Previous studies have recommended qualitative studies require a minimum sample size of at least 12 to reach data saturation (Braun & Clarke, 2016; Fugard & Potts, 2015; Guest, Bunce, & Johnson, 2006). The inclusion criteria consisted of experiencing a natural disaster in the Bahamas within the last five years and having a willingness to participate in the study. Additionally, all participants were citizens or residents of the Bahamas for at least five years, 18 years old or older, and fluent in English. Participants were individually asked open semi-structured interview questions (Appendix B). A general description of the investigated experience was built through empirical phenomenological analysis (Counted, 2019).

Study Procedures

Participants were selected from a purposive sample in this mixed method design study. Approval was sought and received from the leadership of the selected institutions to access the participants (see Appendix E). Participants participating in the quantitative portion were asked to complete consent forms via the provided link. Once participants clicked the hyperlink within the email, this action took them to the online survey, the first page was the consent document, which contains additional information about the research

(Appendix C). Once they read the consent form, they were instructed to click the link for the survey to proceed. This action indicated that they have read the consent information and would like to take part in the survey. Following completion of this form, all other measures were presented. They were asked to complete demographic questionnaires and all other measures to provide quantitative data (Appendix A).

At the conclusion of the survey, participants were presented with the opportunity to decide if they would like to participate in the interview segment as well. Participants who chose to were provided with an opportunity to continue with the survey and to participate in the interview. At this point, further explanation was given regarding participation along with an option to opt out or to continue. Once a selection was made to continue, this action served as consent to participate in the interview section. Participants were then given an option as to how they would like to be contacted to set up the interview date and time. The researcher contacted the participants based on the selected form of communication to set a time and date for the interview. All interviews were done online via zoom or skype due to current Covid-19 protocols. Interview questions were open-ended along with other open-ended interview questions that were incorporated as needed based on the respondent's initial answers. Individuals participating in the qualitative portion provided stories that were expected to allow them to describe the role religion plays in their experience of natural disasters and to assist in providing an understanding of how religious coping affects their psychological well-being during and after this traumatic experience.

The interview sessions lasted approximately 30 minutes and were conducted within an 8-week period. All interview sessions were recorded and transcribed verbatim prior to data analysis. Themes were gathered to provide a report of the lived experiences of

participants. The key themes were coded and selected through a detailed scrutiny of each script using Nvivo software. The study received approval from the institutional review board of Liberty University (Appendix D).

The records of this study were kept private and deidentified. Published reports will not include any information making it possible to identify a subject. Research records are stored securely, and only the researcher has access to the records. Data collected as part of this study may be shared for use in future research studies or with other researchers. If there is a reason for the data collected from the participants to be shared, no information identifying them will be shared. Participants' confidentiality was protected by excluding all identifying information and assigning a specific identification code. Interviews were conducted in a location where others could not easily overhear the conversation. Data was stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted. Interviews were recorded and transcribed. Only the researcher has access to these recordings.

Instrumentation and Measurement

Demographic Information. The Demographic Questionnaire is a 13-item instrument that consists of open-ended questions and forced-choice items that request information about the descriptive nature of the participants.

Religiosity. The Duke University Religion Index (DUREL) is a five-item self-report scale that was used to assess levels of intrinsic religiosity (IR) (Koenig & Bussing, 2010). The IR scale is measured using items that show the degree to which one has integrated religion into one's life. Participants were asked to respond to five statements about religious belief or experience by selecting one of five responses ranging from

definitely not true to *definitely true*. According to Chow et al. (2020), the scale has a high internal consistency with Cronbach's alpha ranging from 0.78 to 0.91.

Traumatic stress. PTSD Checklist for DSM-5 (PCL-5) with Criterion A. The PCL-5, which was used to measure symptoms of traumatic stress, is a 20-item self-report checklist of PTSD symptoms based closely on the DSM-5 criteria that assesses the 20 DSM-5 symptoms of PTSD (The International Society for Traumatic Stress Studies, 2022). It contains five subscales of four clusters of PTSD symptoms including intrusive symptoms, avoidance symptoms, negative changes in cognition and mood, and alterations in arousal and activity. This instrument has been modified to address trauma caused by natural disasters specifically. Total scores range from 0 – 80 with higher scores indicating greater trauma symptomatology. This measurement has demonstrated significant psychometric properties in recent studies showing a strong internal consistency reliability ranging from 0.827 to 0.926 (Lima et al., 2012; Mat Salleh et al., 2021; Niyonsenga et al., 2021; Sveen et al., 2016).

Resilience. Connor-Davidson Resilience Scale (CD-RISC). The CD RISC was used to quantify the level of resilience of participants. This instrument is a 25-item 5-point Likert scale measurement that assesses resilience rating from 0 to 4, higher scores indicating greater resilience. This measurement was selected because previous findings regarding internal consistency have yielded Cronbach's alphas of .89 and .91 and a test-retest reliability coefficient of .87 (Gras et al., 2020; Gras et al., 2019; Guarnizo-Guzmán et al., 2019).

Religious coping. Brief RCOPE. The Brief RCOPE is a 14-item brief measure of religious coping that examines methods of positive religious coping and negative religious

coping. It is a 4-point Likert-type rating scale that includes responses to items such as stronger connection with God, and what I did for God to punish me. The scale is separated into two sections: positive and negative. Positive and negative sections of the scale are scored separately with higher scores on the positive section of the scale indicating use of positive religious coping and higher scores on the negative section of the scale indicating use of negative religious coping. Regarding internal reliability, Mohammadzadeh & Najafi (2016) reported alphas of .93 and .88 for positive religious coping and negative religious coping, respectively.

Open-ended Interview Questions. The questions were developed by the researcher for the purposes of this study. These questions involve asking about participants' experiences during and after the natural disaster to gain a better understanding of the role religious coping plays in their experience of natural disasters. These questions were created to extend beyond the reach of quantitative findings by providing an understanding about the lived experiences of participants and their religious coping strategies. The data collected from this process provided a clearer understanding of religious strategies from the perspective of religious Bahamians in this region. Data from the interviews was recorded and transcribed into Nvivo data analysis software.

Norwell (2019) states that it is crucial to conduct qualitative research in a rigorous and methodical manner to yield the most meaningful and useful results. When engaging in thematic analysis, trustworthiness can be parallel to quantitative research by the criteria of credibility, transferability, and dependability. Credibility addresses the fit between the respondent's view and the researcher's presentation of that view. To address this criterion, the technique of triangulation to provide an external check on the research process was

conducted. The decision to conduct a mixed-method design and to use a large sample size provided rich descriptions so that those who seek to transfer the findings can judge transferability. To ensure dependability, the researcher ensured that the research process was logical, traceable, and clearly documented. The researcher created a clear audit trail by keeping proper records of raw data and transcripts. The criteria of credibility, transferability, and dependability were achieved, resulting in the researcher achieving confirmability. This criterion is concerned with establishing that interpretations and findings of the researcher are clearly derived from the data presented by the researcher.

Operationalization of Variables

Religious Coping - this independent variable is operationally defined as the Brief RCOPE assessed levels of positive religious coping and negative religious coping.

Resilience - this dependent variable is operationally defined as scores on Connor-Davidson Resilience Scale, which measures levels of resilience.

Religiosity - this independent variable is operationally defined as the Duke University Religion Index (DUREL) assessed levels of intrinsic religiosity (IR). Higher scores on the DUREL show higher levels of IR.

Traumatic stress - this dependent variable is operationally defined as scores on PCL-5 with Criterion A, which measures symptoms of traumatic stress.

Data Analysis

To evaluate bivariate relationships between the religious coping variable and traumatic stress variable, Pearson r correlations were used to examine Hypotheses 1 and 2. This correlational analysis explored the relationship between religious coping and traumatic stress after experiencing trauma. Hypothesis 1 states that participants who possess higher

levels of positive religious coping may have lower levels of traumatic stress after experiencing a natural disaster and its aftermath. Hypothesis 2 states that participants who possess higher levels of negative religious coping may have higher levels of traumatic stress after experiencing a natural disaster and its aftermath. The dependent variable was operationally defined as scores on PCL-5 with Criterion A, which measures symptoms of traumatic stress. The independent variable was operationally defined as the Brief RCOPE assessed levels of positive religious coping and negative religious coping.

To evaluate bivariate relationships between the religiosity variable and resilience variable, Pearson r correlations were used. This analysis explored the relationship between religiosity and resilience in the face of trauma. Hypothesis 3 stated that there was a positive correlation between the variables of resilience and religiosity in Bahamians coping with a natural disaster and its aftermath. The dependent variable is operationally defined as scores on Connor-Davidson Resilience Scale, which measures levels of resilience. The independent variable is operationally defined as the Duke University Religion Index (DUREL) assessed levels of IR. Higher scores on the DUREL show higher levels of IR.

For the qualitative analysis, the interview transcripts were transcribed and analyzed using the interpretative phenomenological analysis (IPA) approach to produce an understanding and insight into the personal experiences and religious coping of participants. The interview transcripts were analyzed to identify emerging themes so that there can be an adequate conceptualization of the relations and levels of themes informing participants' experiences. Data from the recorded and transcribed interviews were inputted into Nvivo data analysis software to assist in the organization of analysis. The key themes were coded and selected through a detailed scrutiny of each script using Nvivo software.

The transcripts were reviewed to ensure that the main themes are effectively conveyed (Counted, 2019; Simonič & Klobučar, 2017).

Overarching themes emerged once a line-by-line inspection of each participant's interview script was completed (Counted, 2019). The transcripts were reviewed to ensure that the more common themes were reserved while the poorly described themes were excluded. The IPA design approach was aimed at interpreting the participant's phenomenology. Therefore, this analysis assisted in providing an understanding about the lived experiences and the religious coping strategies of participants based on emergent themes in the data. To achieve credibility, triangulation strategy was used (Sohrabizadeh et al., 2018).

Delimitations, Assumptions, and Limitations

There may be a lack of generalization to other Caribbean countries due to purposive sampling. However, the findings may be beneficial in beginning the process of understanding how non-Western cultures develop, engage, and benefit from religious coping strategies, as well as how individuals from these cultures experience the burden of natural disasters and the role religion plays in coping and building resilience in the aftermath of disasters. There is also the chance the effects of social desirability may influence participants' responses causing them to respond in a manner to make a positive impression on the research by portraying their faith in a positive light. Even if special care is taken to reduce the desire to make such an impression, there may still be a possibility that social desirability effects may exist. The interview questions were self-generated and do not necessarily have any psychometric data as they were created to gain deeper understanding into the lived experiences of the individuals experiencing the disaster.

Summary

Individuals who experienced natural disasters described the experience and the aftermath as traumatizing. During the disaster and the period after the disaster, how one copes is of great significance. Research suggests that religion is an important resource for many individuals coping with trauma, such as natural disasters (Counted, 2019). It is quite common for individuals to use religious coping, actions connected to God, or belief in a higher power to deal with stressful experiences after disasters. Even though there are significant theoretical insights into the benefits of religious coping, limited research is available regarding what signifies the religious coping of the Bahamian population being studied (Sohrabizadeh et al., 2018). The results of this mixed-method study provided an understanding of whether religious coping has effectively contributed to the well-being of Bahamians who experience a natural disaster and its aftermath. With the increased number of natural disasters faced by Bahamians over the past decade, it is imperative to understand the role religious coping plays in the resilience of this population. Quantitative analysis was conducted to statistically compare the influence of religious coping on resilience in the face of experiencing trauma. Qualitative analysis was conducted to gain insight into the lived experience of these individuals to gain a deeper understanding of the role religion plays in coping during and after a natural disaster.

Religion appears to be a particularly important strength rooted in many cultures such as the Caribbean. Pargament (1997) elucidates that the theory of religious coping is not rooted in religious thoughts initiated because of a disaster, nor is it limited to mere church attendance or a regard for spirituality. It is the process of spiritual discovery and develops into an integral part of the fabric of one's being. Therefore, there is a need to

explore how Bahamians develop, engage in, and benefit from coping strategies. It is imperative to gain a clearer understanding of what is meant by being religious in these cultures. Then the process of understanding how they experience the burden of natural disasters and the role religion plays in coping and building resilience in the aftermath of such disasters can begin.

Phenomenological analysis was used to build the lived experiences of participants who have experienced a natural disaster within the last five years. The expectation was that this analytical approach will assist in enhancing the understanding and dynamics of religious strategies from the perspective and reflections of religious Bahamians in this region. It was predicted that religious coping will serve as a resource that promotes psychological well-being during and after natural disasters (Counted, 2019; Morgan et al., 2017).

The current study focused on the influence of coping methods of Bahamian individuals during and after natural disasters. The focus of this research was geared towards providing a level of specificity and measurability that cannot be accomplished using quantitative research alone (Shidur, 2017). Qualitative research focuses on the human's subconscious operating system. It intricately weaves the unique human experience, gut instinct, and personal perspectives of subjects into the data collection process. As information is revealed through the interview process, the researcher may see the need to follow up with more interesting questions (Skinner et al., 2000). Statistics may provide the preferred results for many. However, the human experience should not be ignored or dismissed. It differs as it relates to perception and perspective of experiences. This variability when entered in a database may result in more in-depth and accurate

conclusions. These conclusions may be beneficial to all major stakeholders related to the area of research (Skinner et al., 2000).

CHAPTER 4: RESULTS

Overview

The purpose of this mixed-method study was to explore how Bahamians experience the burden of natural disasters and the role religion plays in coping with the disaster and aftermath of such disasters. Specifically, this study aimed to evaluate whether religious involvement of Bahamians improves their psychological well-being while experiencing a natural disaster and resilience during the aftermath of the disaster experienced in the Bahamas. This chapter provides an analysis of the collected data. The quantitative correlational analysis is presented first, which is followed by the qualitative-phenomenological analysis. The study's purpose, overview, data collection process, and research questions were provided.

Research Questions and Hypotheses

This mixed-method study examined the following quantitative and qualitative research questions:

1. How does positive religious coping affect psychological well-being during and after experiencing a natural disaster?
2. How does negative religious coping affect psychological well-being during and after experiencing a natural disaster?
3. Is there a significant relationship between religion and resilience in Bahamians who experience a natural disaster?
4. How do Bahamians describe the role religion plays in their experience of natural disasters?

To answer these research questions, three hypotheses were tested:

1. Participants who possess higher positive religious coping scores will have lower traumatic stress scores after experiencing a natural disaster and its aftermath.
2. Participants who possess higher negative religious coping scores will have higher traumatic stress scores after experiencing a natural disaster and its aftermath.
3. Participants who possess higher religiosity scores will have higher resilience scores after experiencing a natural disaster and its aftermath.

Descriptive Results

Quantitative Phase

For this phase of the study, 212 participants were recruited. Eligibility for participation required that participants be 18 years or older, experience a hurricane while living in the Bahamas within the last five years, be a citizen or resident of the Bahamas for five years or more, and be fluent in English. Of the 212 participants recruited, 72 did not fully complete the survey or some responses were invalid. A total of 140 participants completed the survey and were used in the analysis.

Characteristics of Participants

There were 95 participants who identified as female (71.2%) and 45 identified as male (28.8%; Table 3). The researcher would have preferred to have a more equivalent representation of genders. However, this representation supports Bodhisane and Pongpanich (2019) claim that females were more likely to participate in research than males. The married participants represented 42.9% of the total participants and 38% of

participants indicated an income within the B\$30,001 - B\$60,000 range. Additionally, 90.4% of the population identified as Black, 6.4% as Caucasian, and 3.2% as other. The largest religious group represented was Evangelical ($n = 46$), next were Baptist ($n = 34$) with the lowest number identifying as Methodist ($n = 4$).

Demographic data showed the sample largely represented the population in the Bahamas. A majority of participants identified as Black ($n = 126$; 90%), and under 10% identified as Caucasian or other. According to World Atlas (2022), the largest ethnic community in the Bahamas is Afro-Bahamians representing 90.6% of the population. The white ethnic group in the Bahamas represents 7.1% of the population. The largest number of participants reported being married ($n = 60$; 42.9%), 52 participants indicated that they have never been married (37.1%), 22 were divorced, and 6 widowed. These statistics are somewhat similar to those recorded by the Bahamas Department of Statistics Labor Force Survey (2019), which reported 45% of the Bahamian population as married or in a common law relationship (long-term cohabitation recognized in this culture as closely related to marriage) and 36% as never been married.

According to World Population Review (2022), statistics in the Bahamas revealed Baptists account for 35% of the population, followed by Anglican (15%), Roman Catholic (13%) and Pentecostal (8%). The data collected reflects a slightly different allocation with the largest percentage of participants identified as Evangelicals (38.6%) when asked about their affiliation with a religious denomination. Just over 27% identified as Baptist, 11% as Anglican, 9.3% Catholic, and 4% Methodist, with 17.1% choosing no religious affiliations.

The data collected appeared to be similar to the statistics of the population that are recorded. Other data similarly reflect statistics recorded in the Bahamas.

The average salary of employed Bahamians was recorded as \$50,320 by Bahamas National Statistical Institute (2019) in the 2019 Household Income and Expenditure Report. This is considered average and can be compared to the average salary of Americans. According to the U.S. Census Bureau, the median income in 2021 was \$70,784. This income margin can require an average of \$20,000 in taxes. In the Bahamas, there are no income tax, federal tax, or similar taxes that are required in the US. There is, however, a 10% value added tax on goods and services. Therefore, the average salary in the Bahamas is quite comparable to that of the US citizens average salary.

Based on the collected data, the largest number of participants recorded their income in the category \$30,001 - \$60,000 representing just over 30%. Almost 16.4% fell in the category of income of \$60,0001 - \$100,000, 13.6% fell within the \$15,000 - \$30,000 category, and 14.3% in the under \$15,000 category. The 2019 Household Income and Expenditure Report (Bahamas National Statistical Institute, 2019) indicates that 78% of Bahamians are employed either full-time or part-time. The data collected show that the sample of participants' employment status is similar to that of the general population. Ninety-three participants stated that they were either full-time or part-time workers, representing 74.4% of individuals surveyed.

Table 3*Characteristics of Participants (N = 140)*

Demographic Information	N (%)	Mean (SD) Range
<i>N=140</i>		
Sex		
Male	45 (32.2)	
Female	95 (67.8)	
Marital status		
Married	60 (42.9)	
Divorced	22 (15.7)	
Never married	49 (39.2)	
Widowed	6 (4.3)	
Annual Income		
< \$15,000	20 (14.3)	
\$15,001 -\$30,000	19 (13.6)	
\$30,001 -\$60,000	44 (31.4)	
\$60,001 -\$100,000	23 (16.4)	
> \$100,000	4 (2.9)	
Prefer not to answer	30 (21.4)	
Race/Ethnicity		
Caucasian	10 (7.1)	
Black/African American	126 (90.0)	
Other	4 (2.9)	
Religion		
Anglican	13 (9.3)	
Baptist	38 (27.1)	
Catholic	7 (5.6)	
Evangelical	54 (38.6)	
Methodist	4 (2.9)	
Other	24 (17.1)	
Employment Status		
Unemployed	15 (10.7)	
Employed/Full-time	87 (62.1)	
Employed/Part-time	16 (11.4)	
Self-employed	22 (15.7)	

Descriptive Statistics for Study Instruments

Table 4 displays descriptive statistics for the instruments used. The mean score on DUREL scale was 19.97 (range of scale 0 – 27) with a standard deviation of 6.9. The mean

score for the CD-RISC scale was 69.1 (range of scale 0 – 100) with a standard deviation of 19.4. The mean score on the PCL-5 was 17.4 (range of scale 0 - 80) with a standard deviation of 19.4. The Positive Religious Coping subscale of the Brief-RCOPE mean score was 21.9 (range of scale 0 - 28) with a standard deviation of 6.9. Mean scores on the Negative Religious Coping subscale was 11.7 (range of scale 0 - 28) with standard deviation of 6.1.

Table 4

Study Instruments

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Religiosity	140	5.00	27.00	19.97	6.94992
Resilience	140	16.00	97.00	69.08	19.37961
Traumatic Stress	140	.00	79.00	17.36	19.40150
Positive Religious Coping	140	7.00	28.00	21.86	6.93295
Negative Religious Coping	140	.00	28.00	11.69	6.08582
Valid N (listwise)	140				

Study Quantitative Findings

To evaluate bivariate relationships between the religious coping variable and traumatic stress variable, Pearson r correlations were used to examine Hypotheses 1 and 2:

1. Participants who possess higher positive religious coping scores will have lower traumatic stress scores after experiencing a natural disaster and its aftermath.

2. Participants who possess higher negative religious coping scores will have higher traumatic stress scores after experiencing a natural disaster and its aftermath.

This inferential method was used to explore the relationship between religious coping and traumatic stress after experiencing trauma. Hypothesis 1 states that participants who possess higher levels of positive religious coping may have lower levels of traumatic stress after experiencing a natural disaster and its aftermath. Hypothesis 2 states that participants who possess higher levels of negative religious coping may have higher levels of traumatic stress after experiencing a natural disaster and its aftermath.

The correlations between self-report measures can be found in Table 5. The positive religious coping total score was negatively correlated with traumatic stress total score ($r = -.68, p < .01$), positively correlated with religiosity ($r = .83, p < .01$), and positively correlated with resilience total score ($r = .74, p < .01$). The negative religious coping total score was positively correlated with traumatic stress ($r = .75, p < .01$).

Table 5*Two-Tailed Correlations Among Study Variables (N = 140)*

		Religiosity	Resilience	Traumatic Stress	Positive Religious Coping	Negative Religious Coping
Religiosity	Pearson Correlation	1	.747**	-.711**	.832**	-.726**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001
	N	--	140	140	140	140
Resilience	Pearson Correlation	--	1	-.710**	.738**	-.717**
	Sig. (2-tailed)	--		<.001	<.001	<.001
	N	--	--	140	140	140
Traumatic Stress	Pearson Correlation	--	--	1	-.676**	.750**
	Sig. (2-tailed)	--	--		<.001	<.001
	N	--	--	--	140	140
Positive Religious Coping	Pearson Correlation	--	--	--	1	-.626**
	Sig. (2-tailed)	--	--	--		<.001
	N	--	--	--	--	140
Negative Religious Coping	Pearson Correlation	--	--	--	--	1
	Sig. (2-tailed)	--	--	--	--	
	N	--	--	--	--	--

** . Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 1: Participants who possess higher positive religious coping scores will have lower traumatic stress scores after experiencing a natural disaster and its aftermath.

Hypothesis 2: Participants who possess higher negative religious coping scores will have higher traumatic stress scores after experiencing a natural disaster and its aftermath.

A multiple regression analysis was conducted to explore the predictive relationship between religious coping method and traumatic stress. The predictors were positive religious coping and negative religious coping with the criterion variable being traumatic

stress. Assumptions of linearity across the predictor and criterion variable pairs, homogeneity of variance, and the absence of multicollinearity were met. Visual inspection of a histogram, scatterplot, and P-P plot determined normality of residuals was approximated (Figures 1, 2, 3).

Figure 1.

Scatterplot Depicting the Correlation Between Positive Religious Coping and Traumatic Stress.

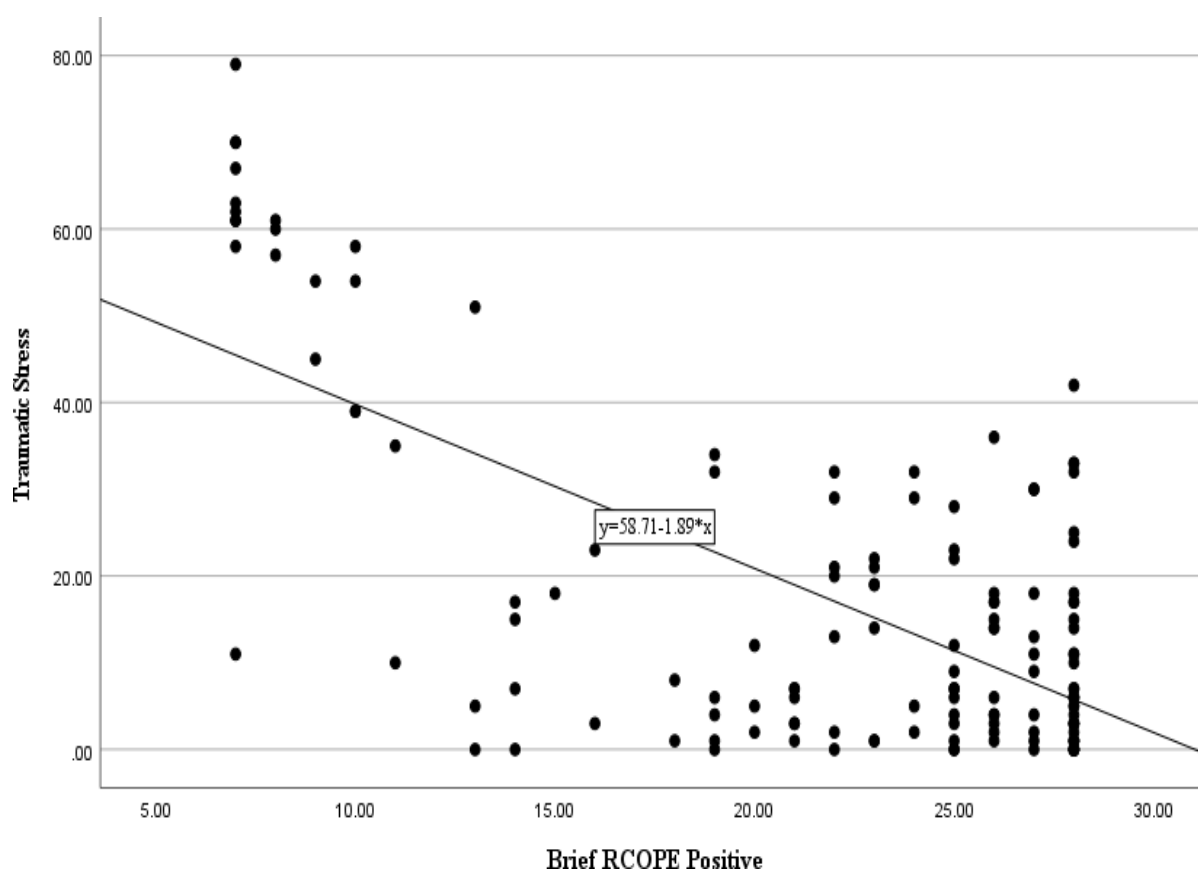


Figure 2

Scatterplot Depicting the Correlation Between Negative Religious Coping and Traumatic Stress.

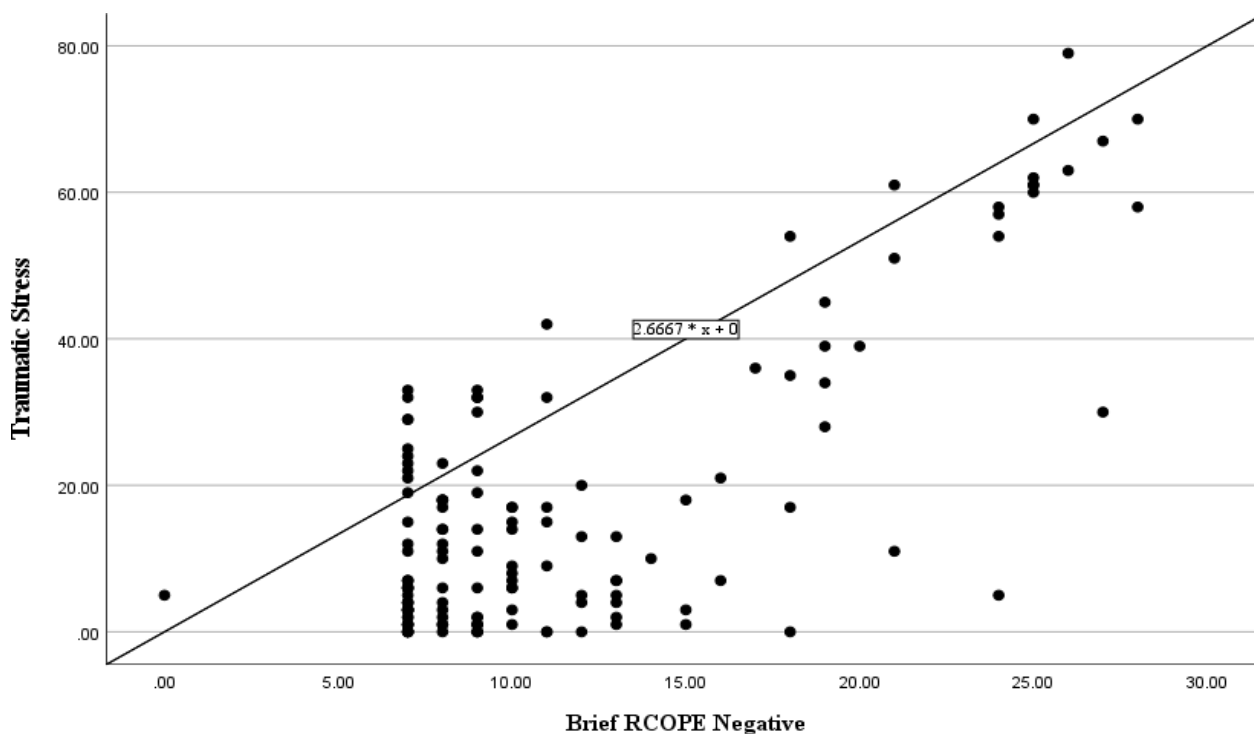


Figure 3

Histogram of Frequency/Regression Standardized Residual of Traumatic Stress Scores

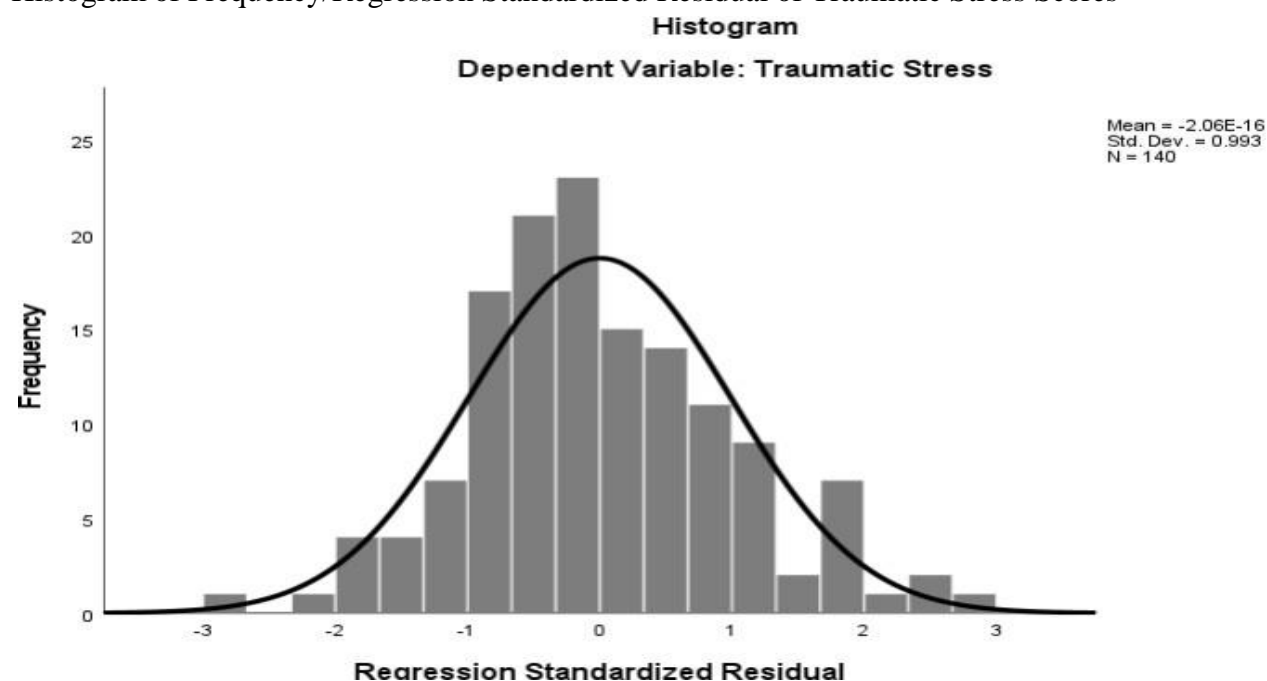
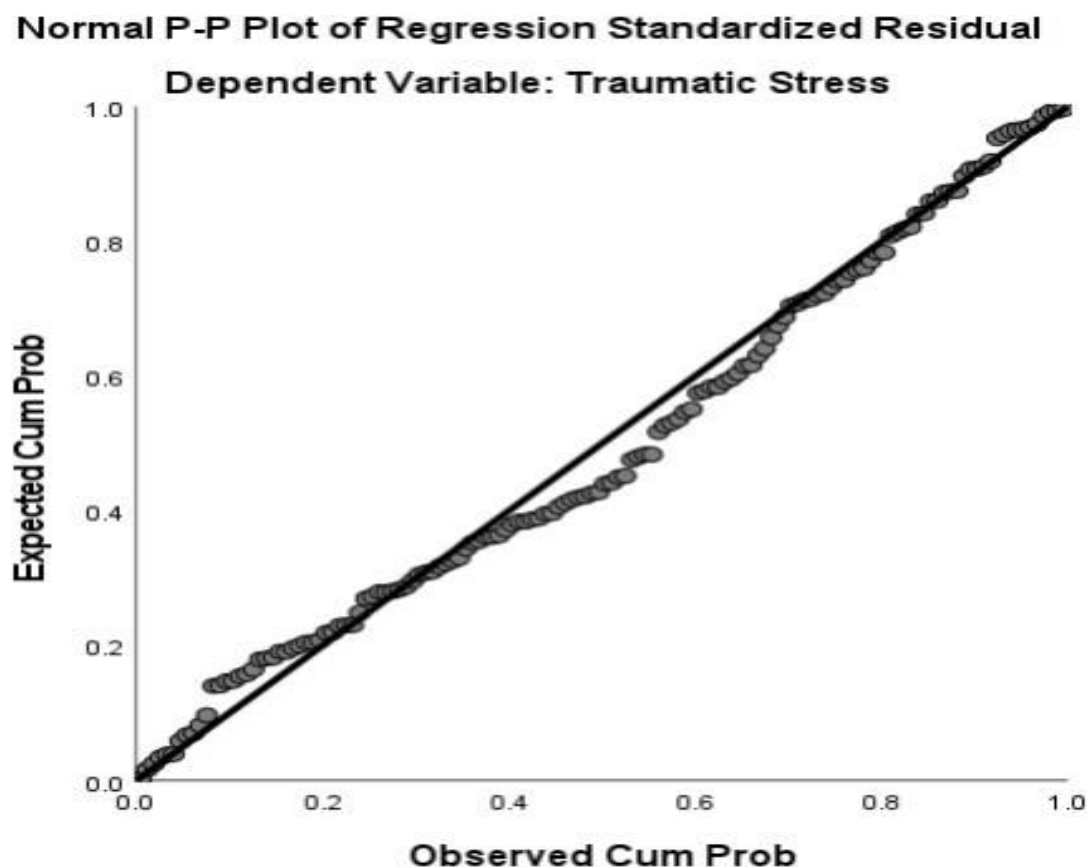


Figure 4

Normal P-P Plot of Residuals of Traumatic Stress Predicted by Brief RCOPE



Results were significant for the model, $R^2 = .633$. adjusted $R^2 = .628$. $F(2,137) = 118.164$. $p, < .001$, and indicated that religious coping accounted for approximately 63% of the variance in participants' traumatic stress. Both positive religious coping and negative religious coping were highly significant for predicting traumatic stress. These results support both hypotheses and findings from other studies (Chow et al., 2020; De la Rosa, et al, 2016; Mohammadinia et al., 2018; Pantaleao & Ohannessian, 2019; Phillips, 2019; Szcześniak et al., 2020). Table 6 shows the results from the standard regression analysis and the indices demonstrating the relative strength of positive religious coping and negative religious coping predictors.

Table 6

Summary of Multiple Regression Analysis Traumatic Stress

	B	Std. Error	Beta	t	Sig.
1 Constant	18.054	6.017		3.000	.003
Brief RCOPE Positive	-.949	.186	-.339	-5.106	<.001
Brief RCOPE Negative	1.715	.212	.538	8.103	<.001

a. Dependent Variable: Traumatic Stress

The relationship between traumatic stress and positive religious coping is negative (-.95) and based on the t-value (-5.11) and p-value (<.001), it would be concluded that this relationship is statistically significant. Hence, we would say there is a statistically significant negative linear relationship between traumatic stress and positive religious coping. In other words, participants who had higher positive religious coping scores had lower traumatic stress scores. According to Hypothesis 1, it was predicted that participants who possess higher positive religious coping scores will have lower traumatic stress scores after experiencing a natural disaster and its aftermath. Therefore, based on the results, the null hypothesis can be rejected, and it can be concluded that engaging in positive religious coping can significantly contribute to lower levels of traumatic stress in Bahamians experiencing a natural disaster and its aftermath.

The relationship between traumatic stress and negative religious coping is positive (1.72) and based on the t-value (8.1) and p-value (<.001), it would be concluded that this relationship is statistically significant. Hence, we would say there is a statistically significant positive linear relationship between traumatic stress and negative religious coping. In other words, participants who had higher negative religious coping scores had

higher traumatic stress scores. According to Hypothesis 2, it was predicted that participants who possess higher negative religious coping scores will have higher traumatic stress scores after experiencing a natural disaster and its aftermath. Therefore, based on the results, the null hypothesis can be rejected, and it can be concluded that engaging in negative religious coping can significantly contribute to the higher levels of traumatic stress in Bahamians experiencing a natural disaster and its aftermath.

Beta values for positive and negative religious coping were calculated and examined. Positive and negative religious coping yielded Beta coefficients of $-.339$ and $.538$, respectively. Variables made a statistically significant unique contribution; both were less than the .05 Sig. value (positive religious coping and negative religious coping $< .001$).

Hypothesis 3: Participants who possess higher religiosity scores will have higher resilience scores after experiencing a natural disaster and its aftermath.

Pearson r correlations were used to evaluate bivariate relationship between the religiosity variable and resilience variable. This analysis explored the relationship between religiosity and resilience in the face of trauma. Religiosity total score was positively correlated with resilience ($r = .747, p < .01$). Table 7 shows the results from the standard regression analysis and the indices demonstrating the relative strength of religiosity as a predictor. Religiosity was also highly significant for predicting resilience.

Assumptions of linearity across the predictor and criterion variable pairs, homogeneity of variance, and the absence of multicollinearity were met. Visual inspection of a scatterplot determined normality of residuals was marginally approximated (Figures 5).

Figure 5

Scatterplot Depicting the Correlation Resilience and Religiosity

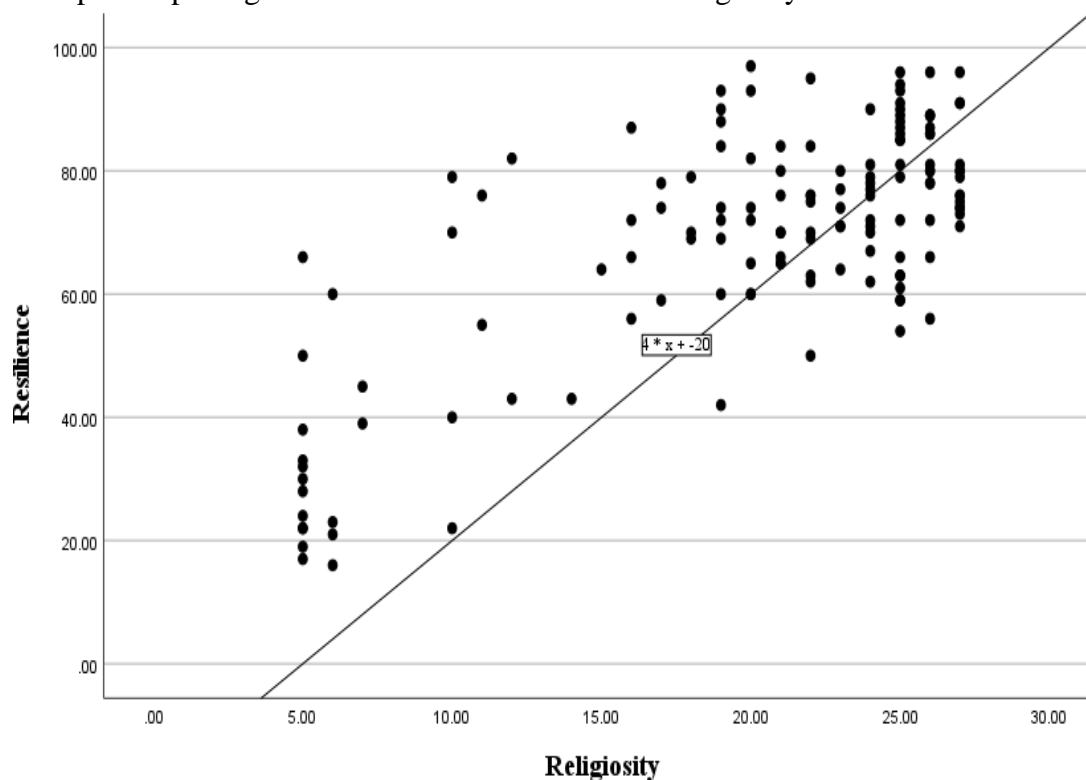


Table 7

Summary of Multiple Regression Analysis Resilience

	B	Std. Error	Beta	t	Sig.
Constant	27.498	3.338		8.238	<.001
Resilience	2.082	.158	.747	13.185	<.001

a. Dependent Variable: Resilience

Results were significant for the model, $R^2 = .557$. adjusted $R^2 = .554$. $F(1,138) = 173.852$. $p < .001$ and indicated that religiosity accounted for approximately 55% of the variance in participants' resilience. Religiosity was significant for predicting resilience. These results support hypotheses and findings from other studies (Chow et al., 2020; De la

Rosa, et al, 2016; Mohammadinia et al., 2018; Pantaleao & Ohannessian, 2019; Phillips, 2019; Szczesniak et al., 2020).

Study Qualitative Findings

The main aim of this portion of the study was to provide a greater understanding of the lived experiences and religious coping strategies of individuals who experienced a natural disaster in this region. Participants were identified (IN1 – IN13) based on the order in which they were interviewed. Participants were asked how the disaster impacted specific areas of their lives. These areas include their view of life and the future, mental health, loss, religion/spirituality, and connection to God. Emergent themes were divided into three broad categories: impact, resilience, and altruism from the data identifying areas in which the participants' lives have been impacted by the disasters.

Demographics

The interviews began with participants answering demographic questions that provided background information. The results of these questions are found in Table 8. Participants included 13 adult Bahamian citizens or residents ranging in age from 24 to 66 years old ($M = 47.9$) who lived in the Bahamas within the last five years. They were all fluent in English and experienced a natural disaster in the Bahamas within the last five years. Participants were predominantly female ($n = 8$, 61.5%). All participants self-reported as Christians with the largest percentage reported as Evangelical ($n = 4$, 30.8%), three participants reported as Methodist, two as Baptist and Catholic each, and one as Anglican and Non-denominational each. Specific demographic data were not intentionally collected

to maintain anonymity. However, during the interviews, personal information was disclosed regarding family, marital status, and employment.

Table 8

Qualitative Participant Demographics

Participant	Sex	Age	Religion
IN1	M	57	Evangelical
IN2	F	36	Methodist
IN3	F	49	Baptist
IN4	F	39	Baptist
IN5	M	63	Evangelical
IN6	F	55	Evangelical
IN7	M	46	Catholic
IN8	M	65	Evangelical
IN9	F	29	Methodist
IN10	F	66	Non-Denominational
IN11	F	58	Catholic
IN12	M	24	Anglican
IN13	F	36	Methodist

Interview and Analysis

RQ 4: How do Bahamians describe the role religion plays in their experience of natural disasters?

Participants were initially invited to participate in a quantitative survey; they had the option to voluntarily be a part of the qualitative phase, which included an interview if they engaged in religious coping. The interviews ranged from 25 to 30 minutes long and were recorded with each participant's consent. All interviews were recorded electronically. Data from the interviews was recorded and transcribed into Nvivo data analysis software. Each recording was transcribed and analyzed for emerging codes, themes, concepts, and similar quotes. As the scripts were analyzed, themes emerged. The themes were presented based on the frequency with which they were identified in the participants' scripts. Thematic analysis of open-ended interview questions illuminated how participants were impacted by the disaster they faced and the methods they used to cope with and overcome the disaster. The emergent themes were divided into three broad categories: Impact, Resilience, and Altruism.

To ensure that this stage of the research was conducted in a manner to achieve trustworthiness, the technique of triangulation was used to provide an external check on the research process. The research process was logical, traceable, and clearly documented to ensure dependability. The intentional steps to achieve credibility, transferability, and dependability resulted in the achievement of confirmability, ensuring that the findings were clearly derived from the data that was presented by the researcher.

Impact

Participants were asked how their lives have been impacted by the disaster. Impacts were described as ways in which the disaster affected participants' lives. Three main themes emerged from the data identifying areas of the participants' lives affected by the

disaster: strength of their faith, faith in God's word, and mental stability. These themes are discussed as they were expressed during the interviews.

Stronger Faith. Many participants expressed their views of how the disaster affected their view of God, their relationship with God, and their spirituality. Most participants noted that their faith was increased rather than strained as a result of the disaster. Many talked about how they witnessed miraculous experiences that must be attributed to God's hand amid the storm. A 58-year-old female (IN11) recalled her experience during the storm:

I watched as the roof caved in and the walls blew away one by one. My family and I had to shelter in one of the downstairs bathrooms where the door flew off. That is when we realized that most of our house was gone. The miraculous thing was that the walls of the bathroom where we were all in did not cave in. Every room was damaged except where we were. I [have] more trust in God than ever before and my faith is stronger. [I] live one day at a time with not much thought about storing up things for tomorrow. It was not our strength that caused us to survive but God who brought us out.

A 57-year-old male (IN1) gave his experience of how he and his family survived during the most difficult moments of the storm:

I am convinced that if it were not for God's hands, literally, my family and I would not have made it through the storm. There were many people who died from the storm surge when it crashed into their homes and flooded it. Many were carried away by the huge waves. When the surge came and the waves crashed into my door, it started to fly open. I grabbed it and shut it and held it closed. At the moment, it

seemed sensible and logical. But looking back I realized that in the natural it was pretty senseless...I knew my strength could not hold a door closed against such a strong force much less for hours as the storm passed. It must have been God actually holding the door or strengthening my arms because it kept the flood waters from flooding my house and my door from flying off. Many died because of drowning, but we were all spared.

According to a 29-year-old self-employed female [IN9] said her faith did not diminish, instead it grew stronger as she experienced the disaster.

My faith in God is now very strong, I know beyond a shadow of a doubt that I could have been in the number of those who are missing or who were confirmed dead. Actually, I know that it is only by the grace of God that we are still here to tell this story and that the portion of the roof where we were did not fly off of the house when the roof came off the rest of the house.... in those moments when the storm was most fierce. As a matter fact, I would say [my faith] is much stronger.

The majority of those interviewed made it clear that it was through God's strength they were able to survive such a dangerous ordeal. They attributed the seemingly miraculous occurrences to the saving of their lives.

Faith in God's Word. When questioned about how they coped during the disaster, with the loss they experienced after the disaster, and how they were able to move on, many individuals highlighted the significance of faith as a contributor to their overcoming the disaster. These participants attributed their calm emotional state to their intentional focus on God's word by recalling scripture verses of deliverance. Faith in God's word was mentioned as an important component in enduring the most difficult moments of the

disaster. Faith in God's word was defined as participants' reliance on their understanding of God's ability to deliver from His word. This was portrayed by individuals in their recalling scriptures about others who were in similar situations and were delivered by the hand of God. Focusing on the ability and strength of God to deliver His people in times of distress provided the faith to withstand what they were facing. A 58-year-old [IN11] retired female shared her method of coping by stating that she focused on God knowing that He would get her and her loved ones out of the storm and that He would see them to the end of the storm. A 66-year-old retired female [IN10] mentioned that it was her trust in God's ability that helped her and her faith in Him helped her to cope during the most difficult moments. "I know that prayer changes things, that brought me peace....talking with Him [God] and focusing on His word." There were some participants who admitted that initially, the loss was hard to deal with. A 55-year-old pastor's wife [IN6] said she experienced moments of intense fear and concern for her family, especially her 10-month-old grandson who was with her at the time of the storm. "I knew that God was able to deliver us, but for the first moments, I was truly afraid and would even say that I was initially terrified. It was my husband's words of comfort and quoting of scriptures that brought me back to myself and I started feeling more confident. It [the fear] did not go away, but it was not as intense."

Mental Stability. Participants were questioned about the state of their mental health during and after experiencing the disaster. The major consensus was that their mental health was not affected. They attributed this to their belief that God was able to bring them out of the storm. A small number of individuals mentioned that they experienced depressive thoughts, while others said they were not affected at all [IN4, 7, 11, 12]. According to [IN6] the pastor's wife, her mental health was affected somewhat immediately following

the storm when she realized that her family had lost everything. “I was depressed for a time....how could I help anyone if I have nothing left, these were my thoughts. [Also] how will we rebuild? A friend of mine, who is also a pastor’s wife and a certified counselor, called me every day following the disaster. Her words of comfort and encouragement helped me to get over my depressive thoughts. It is good to have positive people around at these times.” An elder of the church [IN7] mentioned that he experienced no mental issues. “My thoughts were directed to Him [God] and that was my peace and comfort.”

Resilience

Participants reflected on and discussed how they have been able to cope with and ultimately overcome the disaster as well as what the scene was like immediately following the disaster. High level of resilience was evident in many of the participants throughout the interviews. Resilience was defined as participants’ ability to overcome the adversity that caused distress and return to a sense of normalcy. Two primary themes emerged from the collected data identifying ways participants found comfort during the most intense moments of the disaster and immediately following the disaster. Themes are presented in the order of salience as described by individuals participating.

Prayer. When asked where they found comfort during the disaster, participants stated that they found comfort through praying and singing worship songs. The most common theme identified in response to this question was prayer. Prayer was defined as talking to God, thanking God, and partitioning God. Eleven of the 13 participants stated that they found comfort during the storm by praying. They all said that during the most

intense moments, they prayed. Participant **IN5** stated that he could hear that roof being torn off in one portion of his home.

The sound of the wind became louder and louder as the roof and walls were being torn off. I prayed, Lord, I just need you to put your finger on the roof where we are, and I know it will not blow off. Just then, the portion of the roof just above us that was lifting off, stopped lifting off. The storm continued to rage, but the roof of that portion did not come off. [Even] though prayer for me is automatic, I do not know where that prayer came from in my mind, but I am glad I prayed it.

One participant [**IN6**] stated that she tried to pray, but because of the chaos, it was difficult. “I tried to pray but everything was happening so fast, the walls were caving in, we had to run to find shelter, then swim to safety in the dark. I remember saying, oh Lord, please help us. But that was it. I believe God heard and answered my simple prayer, even though I was more focused on surviving and fighting to stay alive.”

Devastation and Resilience. Participants were asked to describe the aftermath of the disaster and its impact. Many people used the words: warzone [**IN2**], chaos [**IN4 IN11**], devastation [**IN2,4,6,7,11**], total destruction [**IN11**], and a movie scene [**IN2**] to describe what their surroundings looked like immediately after the disaster. In describing their emotions, words such as shock, survival, and disbelief were used to describe their initial response. A 36-year-old female [**IN2**] said, “Afterwards, all I could say is devastation. Every home was affected; either completely destroyed or missing [part of the structure], or terribly damaged.” Participant **IN6** described the scene after the storm, “...total devastation; we all were in a dreamlike state most of the time; total numbness...” When describing how she was able to return to normalcy, a 39-year-old female [**IN4**] said her

knowledge of scripture kept her focused after the storm. “I used my faith in God...He gives, and He takes away. He can restore. He is the one who originally provided everything and [He] will provide it again.” Participant **IN6** stated that God protected her mentally. “It was enough to send the average person insane. But God...and focusing on God protected my mental state...that’s how I was able to bounce back quickly.”

Altruism

Participants were asked about the activities they engaged in following the disaster and how their perspective of life was affected by the disaster. Many participants indicated that they engaged in assisting others who were in need. They focused on the needs of others rather than their needs and attributed such altruistic behavior to assisting them in coping with their distress. Many of them indicated that they no longer view life from a perspective of self as most important but from a perspective that is others focused. Altruism is defined as participants’ attitudes of caring for the needs of others without gaining anything in return.

Focused on Helping Others. Participants were asked what activities they engaged in immediately after the disaster. Many of the responses centered around helping others with their needs since there were limited basic resources such as water and food immediately after the disaster. Individuals explained that the act of helping others was a means of overcoming their loss. Others were defined as those who were in the shelters or other gathering spots and had been affected by the disaster in some way. Many participants stated that they engaged in cooking, serving, and cleaning up the shelters and places where survivors gathered. A 57-year-old pastor [**IN1**] said he offered counseling services and prayed with survivors. “There were many distressed people around who had just lost loved

ones or everything they owned. Most were in a state of shock, while others seemed lost or angry. I offered what I was able to do and that was counseling and praying for those who were open to it.”

A 65-year-old male owner [IN8] of a newly restored clinic shared how he tended to the injured. He stated that he had lost his home and clinic during a previous storm. However, he had just had a shipment of supplies come in that were purchased for the reopening of the clinic that had been destroyed by a hurricane two years prior. He shared, “At the last minute I decided to store them in another one of my businesses. That structure was not badly damaged, so I was able to use those supplies to assist the many injured people.” Those who served acknowledge that they were so busy helping others, they did not have time to focus on their loss.

A 29-year-old female business owner [IN9] said that helping others gave her days immediately after the disaster a sense of normalcy. “At least I had somewhere to go and something to do rather than stressing over what I lost. For a time, that made me feel better...I think it was the routine of it all...[helping others] made me feel better.” This mirrors the apostle Paul's focus on the basic principle of Jesus, which is love for others. The Bible promises that if you engage in refreshing others, you will become refreshed (*New International Version*, 1973/2001, Proverbs 11:25).

New Perspective. Many of the participants acknowledged that the disaster affected their lives and changed their perspective of life and the future. Perspective is defined as how the participants view life. A larger percentage of participants indicated that they no longer view the world as they did prior to experiencing the disaster. They expressed that

their focus is more others-focused rather than materialistic-focused. A 49-year-old female (IN3) stated that her life was completely changed and shared her view:

The disaster gave me a new perspective of life. After losing all my possession, I am less materialistic. I no longer put emphasis on what I have or the things that I own. I am more focused on building stronger relationships with my family and other individuals rather than storing up 'stuff.' Building relationships and helping people have now become my ultimate focus.

A 51-year-old male (IN1) recalled the trauma of witnessing the death of family and friends during the disaster and the change in perspective he experienced:

After seeing so much loss of life, I am more thankful for life than I have ever been. I am so appreciative to be alive. I am far more focused on the wellbeing of others. [I am] more grateful for the smaller things. [I am] more appreciative of the simple things in life. I am not interested in acquiring much stuff as before, I guess [I am] less materialistic.

A 46-year-old male (IN7) shared how his perspective changed and his outlook on life has positively shifted: "[I] don't value material things as much as I previously did. Instead I take each day as a blessing. [I] now realize how important it is to do your best daily because it could be your last. [Focusing on] family is important and priority over all else including material things."

The new perspective for many seems to be love for others rather than self. Even with the extensive loss of belongings, businesses, and loved ones, the participants displayed a new resolve to behave altruistically. This form of altruistic coping during traumatic events

is essential and tends to improve the welfare of those who engage in this practice (Hu et al., 2016; Irani, 2018; Wang et al., 2020).

Summary

This chapter provided an analysis of the quantitative and qualitative data collected. Quantitative analysis was conducted to determine the relationship between religious coping and traumatic stress to determine whether there was a relationship between these variables. The number and intensity of natural disasters faced by Bahamians over the past decade has increased; therefore, it is imperative to understand the role religious coping plays in the lives of individuals of this population. The findings revealed a statistically significant inverse relationship between traumatic stress and positive religious coping. Participants who possessed higher positive religious coping scores had lower traumatic stress scores, resulting in the rejection of the null hypothesis.

The findings also revealed a statistically significant positive relationship between traumatic stress and negative religious coping. Individuals who possessed higher negative religious coping scores also had higher traumatic stress scores, resulting in the rejection of the null hypothesis. Furthermore, the relationship between religiosity and resilience is positive showing a statistically significant positive linear relationship between these two variables, resulting in the rejection of the null hypothesis.

Qualitative analysis was conducted to gain insight into the lived experience of the participants of this population to gain a deeper understanding of the role religion plays in coping during and after a natural disaster. With the increase of natural disasters faced by Bahamians over the past decade, it is imperative to understand the role religiosity plays in the resilience of this population. The interview questions were structured to provide an

account of participants' experiences during and after the natural disaster to gain a better understanding of the role religiosity plays in their experience of natural disasters. The questions were created to extend beyond the reach of quantitative findings. The results provided an understanding about the lived experiences of participants and their religious coping strategies. The data collected from this process presented a clearer understanding of religious strategies from the perspective of religious Bahamians in this region.

Participants attributed their faith in God's word as their ability to cope with the disaster that they faced. Most of them expressed that their faith became stronger rather than diminished after experiencing the disaster. A number of individuals said that they were not affected mentally by the disaster and confessed that their belief and trust in God's ability was responsible for the calm they experienced. Prayer was the theme that emerged as a source of comfort for individuals who were interviewed. They expressed that the disaster that they experienced was quite intense. However, the severity of the disaster and the fact that their lives were spared brought about a new perspective for many of the participants. Participants used a number of words to describe how they coped during this distressing time that included, but were not limited to, prayer, faith, trust, scripture, and God (Appendix G). Many of them engaged in helping others immediately following the disaster and stated that this was instrumental in their returning to a state of normalcy within an acceptable time frame.

CHAPTER 5: DISCUSSION

Overview

The purpose of this mixed-method study was to explore how Bahamians experience the burden of natural disasters and the role religion plays in coping with the disaster and aftermath of such disasters. Specifically, this study aimed to evaluate whether religious involvement of Bahamians improves their psychological well-being while experiencing a natural disaster and resilience during the aftermath of the disaster experienced in the Bahamas. The research literature reveals that religion is an important resource for individuals coping with natural disasters (Fort et al., 2017; Sleijpen et al., 2017; Sohrabizadeh et al., 2018). With the increase in amount and intensity of natural disasters in the Atlantic Basin of which the Bahamas is a part, there was a need to explore how Bahamians develop, engage in, and benefit from coping strategies. Therefore, the purpose of this study was to gain a clearer understanding of what is meant by being religious in this culture and how these individuals experience the burden of natural disasters and the role religion plays in coping and building resilience in the aftermath of such disasters.

Summary of Findings

Research Question One

The first research question in this study was “How does positive religious coping affect psychological well-being during and after experiencing a natural disaster?” It was hypothesized that participants who possess higher positive religious coping scores will have lower traumatic stress scores after experiencing a natural disaster and its aftermath. This hypothesis was supported, and a negative association was found between positive religious

coping and traumatic stress variables. A multiple regression analysis revealed that positive religious coping was highly significant for predicting lower levels of traumatic stress.

This finding replicates previous research that demonstrated negative relationships between positive religious coping and traumatic stress (Fort et al., 2017; Sleijpen et al., 2017; Sohrabizadeh et al., 2018). Researchers found that residents who experienced a variety of disasters and used positive religious coping specifically, demonstrated inverse relationships with traumatic stress and reported that specific factors as a result of positive religious coping reduced the likelihood of high levels of traumatic stress (Abu-Raiya et al., 2010; Fort et al., 2017; Pargament et al., 2000; Pargament, 2011; Xu 2016). Ultimately, individuals who have more protective coping strategies are able to better adapt to distressing situations (Pargament, 2011). In a biblical context, faith in God, His ability, and His word caused God's people to positively approach turbulent circumstances (*New King James Bible*, 1982, Genesis 19 & 41; Ruth 1-4; Numbers 16; Job 1-2; 2 Corinthians 12). Noah, Ruth, Job, and Joseph in the Old Testament and Paul, Silas, and other apostles in the New Testament have all used their faith in God to overcome distressing situations.

Research Question Two

The second research question in this study was "How does negative religious coping affect psychological well-being during and after experiencing a natural disaster?" It was hypothesized that participants who possess higher negative religious coping scores will have higher traumatic stress scores after experiencing a natural disaster and its aftermath. This hypothesis was supported, and a positive association was found between negative religious coping and traumatic stress variables. A multiple regression analysis revealed that negative religious coping accounted for approximately 63% of the variance in participants'

traumatic stress. Therefore, negative religious coping was significant for predicting traumatic stress. Based on these results, individuals who engaged in negative religious coping are more likely to develop traumatic stress. The expected response to experiencing a traumatic experience is the evidence of resilience and the ability to return to a sense of normalcy within an acceptable timeframe. When this does not happen, it creates more complex issues for individuals who would have and continue to experience the physical, emotional, and financial effects of the disaster. It can also be a burden for the community that is already addressing the many needs that are created by disasters. The goal should be to reduce the potential for developing traumatic stress and to increase resilience in traumatized individuals.

The above results are in line with previous research that demonstrated positive relationships between negative religious coping and traumatic stress and found that individuals who engaged in negative religious coping specifically, demonstrated a direct relationship with traumatic stress (Eisenstadt et al., 2020; Krause et al., 2017; Pargament, 1997; Pargament, 2011; Xu, 2016). Ultimately, individuals who have fewer protective factors are unable to successfully adapt to distressing situations (Xu, 2016). There are many examples in the Bible of individuals whose negative view of and lack of belief in God and His word caused them to experience more distress rather than restoration. Lot's wife, the children of Israel, and Judas' lack of faith and trust in God was evident in the manner in which they faced distressing circumstances (*New King James Bible*, 1982, Genesis 19:26; Numbers 14; Mark 14; Matthew 27). These characters experienced levels of traumatic stress due to their lack of faith in God and His word.

Research Question Three

The third research question in this study was “Is there a significant relationship between religion and resilience in Bahamians who experience a natural disaster?” It was hypothesized that participants who possess higher religiosity scores will have higher resilience scores after experiencing a natural disaster and its aftermath. This hypothesis was supported, and a positive association was found between religiosity and resilience variables. A multiple regression analysis revealed that religiosity accounted for approximately 58% of the variance in participants’ resilience. Therefore, religiosity was significant for predicting resilience.

The results replicate previous research that demonstrated positive relationships between resilience and religiosity showing that resilience in individuals who experienced a traumatic event specifically showed direct relationships with religiosity (Ahles et al., 2016; Brewster et al., 2016; Britt et al., 2017; Mahoney et al., 2014). Additionally, previous studies found that religion encouraged healing and contributed to higher levels of resilience and (Lassi & Mungnaini, 2015; McIntire & Duncan, 2013; Mohammadinia et al., 2018; Pantaleao & Ohannessian, 2019; Szcześniak et al., 2020).

Perseverance or the display of resilience as mentioned in the Bible is a necessary tool of believers. It is a normal occurrence to experience trauma, distress, or crisis throughout life. Many biblical characters who faced distressing situations relied on their religion to effectively navigate through these situations returning to normalcy within an acceptable time frame. Paul, who experienced many distressing situations, advised that resilience is necessary for a successful Christian walk (*New King James Bible*, 1982, 2 Corinthians 12:8-10).

Research Question Four

The fourth research question in this study was “How do Bahamians describe the role religion plays in their experience of natural disasters?” During interviews with participants who engaged in religious coping, themes emerged that fell into three categories, which include impact, resilience, and altruism. The subthemes that emerged include stronger faith in God’s ability, faith in God’s word, prayer, resilience, new perspective, and helping others.

A deeper look into these themes revealed that the use of religious coping aided in participants’ ability to positively navigate through the impact of the disaster, build resilience, and provide help to others in need. All participants reported that their religious beliefs were the main contributor to their high levels of resilience, which was evidenced by their ability to return to normalcy within an appropriate time frame. This result is in line with Pargament’s (2011) views on religious coping that suggests that the process of spiritual discovery begins with a personal awareness of the sacred and develops into an integral part of the fabric of one’s being. Pargament (2011) and Xu (2016) state that it is the action of increasing knowledge, engaging in, building relationship with, and gaining experience relating to God, that aids in individuals developing methods of religious coping that results in high levels of resilience when faced with distressing situations. They suggest that this level of religious engagement contributes to resilience during and after experiencing traumatic events.

In 2 Corinthians, Paul advises that faithfulness to God is paramount in maintaining a successful walk with God especially when believers face distressing times (*New King James Bible*, 1982, 2 Corinthians 12:8-10). An essential part of the believer’s life is

perseverance or the display of resilience. The individuals who participated in this segment of the study expressed similar sentiments. They maintained that it was their faith in God's ability and His word that allowed them to display high levels of resilience during and after experiencing a natural disaster.

Discussion of Findings

This mixed-method study was aimed at exploring how Bahamians experience the burden of natural disasters and the role religion plays in coping with the disaster and its aftermath. It was the goal of the researcher to evaluate whether religiosity of Bahamians improves participants' psychological well-being while experiencing a natural disaster and resilience during the aftermath of the disaster experienced in the Bahamas. Post-hoc results examining the relationship between religiosity and resilience found this association to be statistically significant. Additionally, the relationships between both types of religious coping and traumatic stress were statistically significant in this sample of Bahamians.

Based on findings from previous and current studies, participants who endorsed low levels of positive religious coping and high levels of negative religious coping had higher levels of traumatic stress and lower levels of resilience. These results are in line with previous and current studies that suggested that religious coping, whether negative or positive, plays a significant role in levels of resilience and traumatic stress in individuals who experience a natural disaster.

Factors highlighting methods of resilience were identified in the qualitative results of the study. Faith in God's ability, trust in His word, and prayer along with altruism were described by participants as sources of coping during the disaster and the aftermath. Participants described how they relied on religious beliefs to assist them in overcoming the

disaster and returning to a sense of normalcy. Religious beliefs appear to be a significant factor in developing resilience. Therefore disaster interventions should consider identifying ways to encourage individuals' faith and helping individuals use their faith in maximizing their ability to overcome natural disaster.

Implications

The findings from this mixed method study have a number of implications for the mental health and other related fields. The findings suggest that religious coping is a strong predictor of traumatic stress. This implies that efforts should be taken to promote positive religious coping and discourage negative religious coping, which could result in a reduction of traumatic stress of individuals who experience natural disasters in this region.

Community leaders, disaster response teams, clinicians and similar mental health professionals who work with survivors of traumatic events in the Bahamas can benefit from an understanding of the role played by religious coping in helping individuals find positive meaning in traumatic experiences. These groups can provide individuals in this region with the necessary tools to properly navigate the trauma that may accompany such devastating storms with the hope of them returning to a sense of normalcy within an acceptable timeframe. The church can also benefit from this understanding and provide means to increase individuals' faith, instruct believers to use their faith in times of distress, and promote a lifestyle of faith and faith-based practices that would aid in the building and maintenance of the levels of resilience needed by individuals who face devastating circumstances.

Recent articles have highlighted the increasing number of natural disasters in countries like the Bahamas (Fuhrmann et al., 2019; Klotzbach et al., 2021; Shultz et al.,

2020). While there is limited research available regarding what signifies religious coping in times of natural disasters in Caribbean populations, specifically the Bahamian population, the current study provides the genesis to understanding how individuals use religion to cope with the burden of distress caused by natural disasters in this population.

The results of the qualitative section of this study provides additional insight into how Bahamians use religious coping and its effects on their well-being. Religion appears to be a particularly important strength rooted in many cultures such as the Caribbean. This study will assist in enhancing the understanding and dynamics of religious coping strategies of Bahamians with its specific focus on and the perspective of religious Bahamians. It showed that religious coping served as a resource that promoted psychological well-being during and after natural disasters. The data collected can provide other countries in this region with a framework of exploratory findings, which can guide research in other parts of the region.

Limitations

The current findings may not be generalizable to other ages and developmental stages of life. There is also a chance that there may be a lack of generalization to other Caribbean countries due to the qualitative nature of this study. Yet, the aim of this study is to focus, specifically on the Bahamian population. Additionally, the sample is predominantly female, married, and Evangelical Christians, which might limit the generalizability to people groups who identify differently. There was also the chance the effects of social desirability might have influenced participants' responses causing them to yield to the temptation of portraying their faith in an unrealistically positive light. However, the researcher found that individuals who participated in the interview segment appeared to

be authentic in their responses. A number of them admitted to initially experiencing fear as opposed to focusing on God's ability. Even though special care was taken to reduce the desire to make such an impression, there may still be traces of social desirability, which may result in a positive impression on the research.

The current Covid-19 pandemic environment dynamics posed a slight challenge in the data collection process as it was limited to virtual interviews as opposed to in-person interviews. Nevertheless, the study does have some strengths in regard to its sample, including an average sample size and representation of diverse demographics even if the sample was fairly homogenous in some regard. While there is limited data available regarding the coping strategies implemented by this region during natural disasters and the aftermath, the findings of this study can aid other regions in understanding of how individuals describe their experience of natural disasters, the role religion plays in this experience, and how religious coping affects their psychological well-being during and after this experience.

Recommendations for Future Research

The current study examined the relationship between religious coping and traumatic stress and religiosity and resilience in a sample of Bahamians who experienced a natural disaster within the last five years. This study represented the first known undertaking of this nature in The Bahamas as well as the Caribbean. The hypotheses discussed were supported. Given the increased number and intensity of natural disasters in the Atlantic region, the current findings suggest the need to develop interventions to foster positive religious coping and resilience and alleviate negative religious coping in individuals in this region. Ultimately, individuals who are at risk for negative religious coping should be identified

and supported to reduce its effects. Furthermore, to better understand resilience in times of disasters, it is recommended that future studies utilize a longitudinal research design. This undertaking will allow for the collection and comparison of baseline data with recently collected data providing a more comprehensive understanding of resilience during distressing situations.

Future study with a larger sample size inclusive of other populations in this region will be beneficial in better understanding of the relationship between the stated variables. Additionally, different types of religious coping such as individual and private versus corporate and public prayer, faith, and worship can play a role in the building of resilience. Future research that explores the impact of various types of religious coping on traumatic stress during and after experiencing a natural disaster may improve the understanding of the relationship between religious coping and traumatic stress and religiosity and resilience in individuals in this region who have experienced a natural disaster.

Summary

Current research on how Bahamians and other individuals in this region use religious coping and its effects on their well-being is limited. The present study attempted to bridge the gap in the literature by evaluating the relationship between how Bahamians use religious coping and its effects on the well-being of Bahamians who have experienced a natural disaster within the last five years. The findings suggest that individuals who engage in positive religious coping possess lower levels of traumatic stress. Individuals who engaged in negative religious coping possessed higher levels of traumatic stress. Furthermore, individuals who scored high in religiosity also showed high levels of resilience during and after experiencing a natural disaster.

This research has revealed that religious coping has a significant relationship with traumatic stress and religiosity has a significant relationship with resilience, highlighting the need for disaster research to take a preventative approach to promote resilience and reduce the chance of developing traumatic stress. Attending to symptomology can be helpful but preventing psychological and traumatic distress by building resilience may provide a better response to disasters. A key in developing resilience among communities that are prone to experience natural disasters is to engage stakeholders, community leaders, and policy makers. This can promote empowerment among communities, which is a factor of resilience. Findings from this research can assist in guiding future disaster research projects and responses to help in promoting resilience among survivors. Results from this study can aid stakeholders in implementing related policies and guide important nationwide decisions that will have an impact on this population and surrounding nations in the near and distant future.

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APPENDIX A: DEMOGRAPHICS QUESTIONNAIRE

1. Have you lived in the Bahamas as a citizen or a resident for five years or more?

☐ Yes ☐ No

2. Are you fluent in English?

☐ Yes ☐ No

3. Have you experienced a natural disaster in the last five years while living in the Bahamas?

☐ Yes ☐ No

4. What island did you live on during the disaster and what was the name of the natural disaster?

Island: _____ Disaster name: _____

5. Sex: ☐ Male ☐ Female

6. Age: ☐ 18-25 ☐ 26-35 ☐ 36-45 ☐ 46-55 ☐ 56+

7. What is your racial or ethnic background?

☐ Black ☐ Caucasian ☐ Asian ☐ Hispanic ☐ Other _____

8. What is your religious denomination?

- ☐ Catholic ☐ Anglican ☐ Baptist ☐ Methodist ☐ Other _____ ☐ Non-Christian

9. Marital Status:

- ☐ Married ☐ Single ☐ Divorced ☐ Widowed ☐ Other _____

10. What is your employment status?

- ☐ Employed (full time) ☐ Employed (part-time) ☐ Self-employed
☐ Unemployed

11. Are you currently taking care of children?

- ☐ Yes ☐ No

12. 17. Are you currently taking care of elderly parents?

- ☐ Yes ☐ No

13. Have you ever engaged in self-medicating during stressful times (prompt: alcohol, drugs, cigarettes)?

- ☐ Yes ☐ No

14. What is your annual income?

☐ under B\$15,000 ☐ B\$15,000 - B\$30,00 ☐ B\$30,001 - B\$60,000 ☐ B\$60,001 -
B\$100,000 ☐ over B\$100,00

15. How stressful was the natural disaster for you?

☐ Not stressful ☐ Slightly stressful ☐ Moderately stressful ☐ Very
stressful ☐ Extremely stressful

16. Do you believe that you are still dealing with some negative emotional
consequences from the natural disaster?

☐ Yes ☐ Somewhat ☐ No

APPENDIX B: INTERVIEW QUESTIONNAIRE**Demographics Questionnaire**

1. What island did you live on during the disaster? Name of the disaster

Island: _____ Disaster name: _____

2. Sex: ☐ Male ☐ Female

3. Age: ☐ 18-25 ☐ 26-35 ☐ 36-45 ☐ 46-55 ☐ 56+

4. What is your racial or ethnic background?

☐ Black ☐ Caucasian ☐ Asian ☐ Hispanic ☐ Other _____

5. What is your religious denomination?

☐ Catholic ☐ Anglican ☐ Baptist ☐ Methodist ☐ Other _____ ☐ Non-Christian

6. Marital Status:

☐ Married ☐ Single ☐ Divorced ☐ Widowed ☐ Other _____

7. What is your employment status?

- ☐ Employed (full time) ☐ Employed (part-time) ☐ Self-employed
- ☐ Unemployed

Introductory Questions

1. How would you describe the interesting things about your island? (Prompt: Anything that stands out in your mind)
2. What do you like most about living here? What do you dislike most about living here?
3. What do you find beneficial about living on your island?

Before

4. What did you do when you found out about the imminent natural disaster?
5. What did your family do when they found out about the imminent natural disaster?
(Prompt: Did your spouse/housemate prepare for the disaster?)
6. How would you describe your religious beliefs?

During

7. What thoughts did you have during the natural disaster regarding the cause of the natural disaster?
8. What thoughts did you have regarding the reason you experienced the natural disaster?
9. What role do you think God played in the cause, severity, or outcome of the natural disaster?

10. Where or with what did you find comfort during the disaster? (Prompt: substance abuse)
11. Did your religion/spirituality influence your ability to cope while experiencing the natural disaster? If so, how?

After

12. What do you remember about the days after the natural disaster?
13. What was it like in the aftermath of the natural disaster (e.g., in your home, neighborhood, or with your friends and family members)?
14. Has the natural disaster changed your life? If so, in what ways or what has changed since the natural disaster?
15. What type of loss did you experience?
16. How did you cope with the loss?
17. How has the natural disaster affected your lifestyle or view of the future?
18. How has the natural disaster affected your mental state?
19. Has your experience of the natural disaster influenced your view of religion/spirituality? If so, how?
20. Has the natural disaster or its aftermath affected your connection to God? If so, in what way?
21. How did the people around you express their thoughts about the natural disaster? And what did you think about what they were saying?
22. Is there an unforgettable experience surrounding the natural disaster?
23. Are there any places where you could go to talk about how the natural disaster has affected you and your family (e.g., a church or local organization)? If so, can you tell

me about these places? If not, do you think it would have been helpful to have a place to talk about the natural disaster and what would you have liked to talk about if given the chance?

24. How do you think the information from this interview can be used?

25. Is there anything else that you would like to mention or tell me?

APPENDIX C: STUDY INSTRUMENTS**PCL-5 with Criterion A**

https://www.ptsd.va.gov/professional/assessment/documents/PCL5_criterionA_form.PDF

PTSD Checklist for**DSM-5 (PCL-5) with Criterion A**

Version date: 11 April 2018

Reference: Weathers, F. W., Litz, B. T., Keane, T. M.,
Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). The

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Criterion A [Measurement instrument]. Available

from <https://www.ptsd.va.gov/>

URL: <https://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp>

Note: This is a fillable form. You may complete it electronically.

PCL-5 with Criterion A

Instructions: This questionnaire asks about problems you may have had after a very stressful experience involving a natural disaster. It could be your experience directly, or something you learned happened to a close family member or close friend.

Briefly identify the worst natural disaster (if you feel comfortable doing so):

How long ago did it happen? _____ (please estimate if you are not sure)

Did it involve actual or threatened death or serious injury?

_____ Yes

_____ No

How did you experience it?

_____ It happened to me directly

_____ I witnessed it

_____ I learned about it happening to a close family member or close friend

_____ I was repeatedly exposed to details about it as part of my job (for example,
paramedic, police, military, or other first responder)

_____ Other, please describe

If the event involved the death of a close family member or close friend, was it due to some kind of accident or violence, or was it due to natural causes?

_____ Accident or violence

_____ Natural causes

_____ Not applicable (the event did not involve the death of a close family member or close friend)

Second, below is a list of problems that people sometimes have in response to a very stressful experience. Keeping your worst event in mind, please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4

11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being “super alert” or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

Connor-Davidson Resilience Scale

Directions: Please read each statement and select a number 0, 1, 2, 3 or 4 which indicates how much the statement applied to you. There are no right or wrong answers.

(0), rarely true **(1), sometimes true** **(2), often true** **(3), true nearly**
all of the time **(4) Not true**

1. I am able to adapt as changes occur.	0	1	2	3	4
2. I have one close and secure relationship.	0	1	2	3	4
3. Sometimes fate or God can help me.	0	1	2	3	4
4. I can deal with whatever comes my way.	0	1	2	3	4
5. Past success give me confidence.	0	1	2	3	4
6. I try to see the humorous side of things when I am faced with problems.	0	1	2	3	4
7. Having to cope with stress can make me stronger.	0	1	2	3	4
8. I tend to bounce back after illness, injury, or other hardships.	0	1	2	3	4
9. I believe most things happen for a reason.	0	1	2	3	4
10. I make my best effort no matter what.	0	1	2	3	4
11. I believe I can achieve my goals, even if there are obstacles.	0	1	2	3	4
12. Even when things look hopeless, I do not give up.	0	1	2	3	4

13. In times of stress, I know where to find help.	0	1	2	3	4
14. Under pressure, I stay focused and think clearly.	0	1	2	3	4
15. I prefer to take the lead in problem-solving.	0	1	2	3	4
16. I am not easily discouraged by failure.	0	1	2	3	4
17. I think of myself as a strong person when dealing with life's challenges and difficulties.	0	1	2	3	4
18. I make unpopular or difficult decisions.	0	1	2	3	4
19. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.	0	1	2	3	4
20. I have to act on a hunch.	0	1	2	3	4
21. I have a strong sense of purpose in life.	0	1	2	3	4
22. I feel like I am in control.	0	1	2	3	4
23. I like challenges.	0	1	2	3	4
24. I work to attain goals.	0	1	2	3	4
25. I take pride in my achievements.	0	1	2	3	4

The Duke University Religion Index (DUREL)

(1) How often do you attend church or other religious meetings?

- 1 - Never
- 2 - Once a year or less
- 3 - A few times a year
- 4 - A few times a month
- 5 - Once a week
- 6 - More than once/week

(2) How often do you spend time in private religious activities, such as prayer, meditation, or Bible study?

- 1 - Rarely or never
- 2 - A few times a month
- 3 - Once a week
- 4 - Two or more times/week
- 5 - Daily
- 6 - More than once a day

The following section contains 3 statements about religious belief or experience. Please mark the extent to which each statement is true or not true for you.

(3) In my life, I experience the presence of the Divine (i.e., God) -

- 1 - Definitely not true
- 2 - Tends not to be true

3 - Unsure

4 - Tends to be true

5 - Definitely true of me

(4) My religious beliefs are what really lie behind my whole approach to life

1 - Definitely not true

2 - Tends not to be true

3 - Unsure

4 - Tends to be true

5 - Definitely true of me

(5) I try hard to carry my religion over into all other dealings in life

1 - Definitely not true

2 - Tends not to be true

3 - Unsure

4 - Tends to be true

5 - Definitely true of me

Brief RCOPE

Directions: Please read each statement and select a number 1, 2, 3 or 4 which indicates how much the statement applied to you. There are no right or wrong answers.

- 1 – not at all**
2 – somewhat
3 – quite a bit
4 – a great deal

In times of crisis, trauma, or disaster, I

1. Looked for a stronger connection with God.	1	2	3	4
2. Sought God's love and care.	1	2	3	4
3. Sought help from God in letting go of my anger.	1	2	3	4
4. Tried to put my plans into action together with God.	1	2	3	4
5. Tried to see how God might be trying to strengthen me in this situation.	1	2	3	4
6. Asked forgiveness for my sins.	1	2	3	4
7. Focused on religion to stop worrying about my problems.	1	2	3	4
8. Wondered whether God had abandoned me.	1	2	3	4
9. Felt punished by God for my lack of devotion.	1	2	3	4
10. Wondered what I did for God to punish me.	1	2	3	4
11. Questioned God's love for me.	1	2	3	4
12. Wondered whether my church had abandoned me.	1	2	3	4
13. Decided the devil made this happen.	1	2	3	4
14. Questioned the power of God.	1	2	3	4

APPENDIX D: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER**LIBERTY UNIVERSITY**
INSTITUTIONAL REVIEW BOARD

August 5, 2022

Cherry Ferguson
Brian Kelley

Re: IRB Exemption - IRB-FY21-22-1126 EXPLORING THE ROLE OF RELIGIOUS COPING IN NATURAL DISASTER SURVIVORS IN THE BAHAMAS

Dear Cherry Ferguson, Brian Kelley,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46.104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:

The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

APPENDIX E: LETTER/E-MAIL OF RECRUITMENT

Cherry Ferguson

Email: [REDACTED]

Citizen/Resident of the Bahamas
The Bahamas

Dear Citizen/Resident:

As a doctoral student in the School of Behavioral Sciences at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The purpose of my research is to better understand how Bahamians experience the burden of natural disasters and the role religion plays in coping with the aftermath of such disasters. I am writing to invite eligible participants to join my study.

Participants must be 18 years old and older, have experienced a natural disaster in the Bahamas within the last five years, have been a resident the Bahamas for at least five years, and be fluent in the English language. Participants were asked to complete an anonymous demographic survey and four brief surveys through Qualtrics. It should take approximately twenty minutes for you to complete the survey. At the end of the survey, you will be asked if you would like to participate in an interview to be conducted via Zoom or Skype. It should take approximately thirty minutes for you to complete the interview. Participation in the survey was completely anonymous and no personal, identifying information was collected. However, names and other identifying information was requested as part of the interview, but the information will remain confidential.

To participate, please click here to access the survey:

https://liberty.co1.qualtrics.com/survey-builder/SV_8dYvQE1qLzhK0FU/edit

The first page of the survey is a consent document, which contains additional information about my research. After you have read the consent form, please click the button to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey. At the conclusion of the survey, you will be presented with the opportunity to decide if you would like to participate in the interview as well. If you select yes, you will be provided with details regarding the interview along with an option to opt out or to continue. Once you select the option to continue, you will be asked to e-sign the consent form by providing your name and the date. You will then be given an option as to how you would like to be contacted to set up the interview date and time.

Sincerely,
Cherry Ferguson
Doctoral Student
Liberty University

APPENDIX F: Consent Form (Quantitative)**Consent Form**

Title of the Project: Exploring the Role of Religious Coping in Natural Disaster Survivors in the Bahamas

Principal Investigator: Cherry Ferguson, School of Behavioral Sciences, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 18 years of age or older, have experienced a natural disaster in the Bahamas within the last five years, have been a resident the Bahamas for at least five years, be fluent in the English language, and be willing to participate. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of this study is to explore how Bahamians experience the burden of natural disasters, their resiliency, and the role religion plays in coping with the aftermath of such disasters.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Complete an online survey via Qualtrics that consists of a series of surveys, which will take about 20 minutes.
2. Participate in an interview. At the conclusion of the anonymous survey, you will be given the option to follow a link to another page. On this page you will be asked if you would like to participate in an audio-recorded Zoom or Skype interview. This interview will last approximately 30 minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include the understanding of how natural disasters affect the well-being of residents and the role religion plays in coping with the aftermath of such disasters from a cultural perspective. This is especially important because there is little information available on this topic regarding countries designated by the United Nations as “small-island states”, which includes the Bahamas. The result of this research can be used in evidence-based psychotherapy, counseling, and spiritual help for individuals who experience the ravages of natural disasters.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life. However, it may be possible that some individuals may experience distress from filling out surveys related to traumatic events.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify an interview subject. No names or identifiable information will be associated with the raw data or be required on the consent forms of survey participants. Research records will be stored securely, and only the research will have access to the records.

- Participants' survey responses will be anonymous. Participants' interview responses will be kept confidential through the use of codes.
- The data collected will be stored on a password-protected device that will be secured within a locked cabinet and may be used for future presentations. After three years, all electronic records will be permanently deleted.
- Interviews will be recorded and transcribed. Recordings will be stored on a password-locked computer for three years and then erased. Only the researcher will have access to these recordings.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the survey portion of this study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

If you choose to withdraw from the interview portion of this study, please contact the researcher at the email address included in the next paragraph. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Cherry Ferguson. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. Brian Kelley. He can be reached at [REDACTED].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

[Survey] Before consenting to be a part of the research, please ensure you understand what the study is about. You can print a copy of this document for your records. If you have any questions about the study after you sign this document, you can contact the researcher using the information provided above.

Please indicate below whether you CONSENT or DO NOT CONSENT to be in this study:

- ☐ I Consent
☐ I Not Consent

[Interview] By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record me as part of my participation in this study.

Printed Subject Name

Signature & Date

