Analyzing Stress Appraisals, Coping Strategies and Defense Mechanisms of Adults in Jamaica and in the United States: A Cross-Cultural Study

Analyzing Stress Appraisals, Coping Strategies and Defense Mechanisms of Adults in Jamaica and in the United States: A Cross-Cultural Study

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Abstract

The chief aim of this study is to explore coping strategies and defense mechanisms in a cross-cultural manner between American and Jamaican individuals. This study is a comparative analysis of the two groups based on self-report measures, which will provide insight on the stress appraisal and defense mechanisms decision making processes. The Jamaican population is underrepresented in coping and stress research. This study utilized multiple surveys, the Brief COPE inventory to analyze coping strategies, Defense Style (DSQ40) to analyze defense mechanisms, Perceived Stress Scale and Stress Appraisal Measure (SAM) to analyze the individual's stress appraisals, Mini International Personality Item Pool, which is a personality focused measure and a demographic survey regarding age and more importantly nationality. A self-report questionnaire was also included which allowed participants to respond without limitations, providing valuable insight on the thoughts of each participant. All questionnaires are important to gain multidimensional perspectives on the rationale and coping behaviors of each participant. To my knowledge there are no studies currently exploring coping strategies, stress appraisals or defense mechanisms cross-culturally between the United States and Jamaica. This study is the first to explore all three concepts.

Dedication

I dedicate this thesis to my grandmother, Carmen Parchment who is a constant source of support and encouragement through all aspects of my life but more specifically the challenges I faced while conducting and completing my research. Without her this work would not be possible. I would also like to dedicate this thesis to my beloved grandfather Everton Parchment, his unconditional love will forever guide and influence the decisions I make. He taught me the importance of hard work and being passionate about my goals. The strength and faith of my grandparents will always fuel and empower me.

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Chapter I.

Introduction

In 2012 the United States citizens made up the largest group of travelers to Jamaica and Jamaicans are the largest Caribbean descent group in the United States according to the US Census (Ogunwole et al., 2017). Overtime perhaps the accumulated experiences shared between American visitors to Jamaica and vice versa, may influence culture, lifestyle, and overall quality of life. The purpose of this research is to conduct a cross-cultural study analyzing the differences and similarities of stress appraisals, coping strategies and defense mechanisms between American and Jamaican adults. The goal of this study is to broaden research on stress, defense mechanisms and coping strategies across cultures. In comparison to the United States, there is less cultural diversity in Jamaica. The relationship between both countries' population regarding stress is worth exploring.

There are benefits to exploring the differences of coping strategies and defense mechanisms in a cross-cultural manner (Malpass, 1977). Cross cultural studies advance knowledge beyond geographical constraints. The opportunity to analyze behaviors of individuals cross-culturally provides insight on how to effectively program and provide mental health services. Cross cultural psychology studies provide cultural perspectives on diverse human behaviors, which is one of the goals of this study. There is limited research available on the coping and defense behaviors relating to Jamaicans. Most of the coping and stress studies focus on professionals (e.g., nurses, police officers) or students, there is a lack of research that study the average or local populations of Jamaica. More

specifically there is limited research available analyzing defense mechanisms, coping strategies and stress appraisals between Americans and Jamaicans.

Cross-cultural research on stress appraisals, coping strategies and defense mechanism is important for numerous reasons. The main reason is to provide resources that effectively equip mental health professionals across cultures; especially within melting pot societies such as the United States. The American Psychological Association (APA) has provided reports with substantial evidence of a national mental health emergency across America, which may lead to social and health consequences for generations (APA, 2020). The APA recently conducted an online survey between July 26 and August 4, 2021, with actively employed U.S workers in which 59% of participants reported experiencing negative symptoms due to work related stressors, 71% reported feeling tense or stressed during their workday and 45% of adult workers in customer service, entertainment and sales reported mental health issues impeded them from perform their jobs (APA, 2021). Research conducted in local areas of Jamaica in 2013 suggest that about 40% of residents were living with a personality disorder (Hickling & Walcott, 2013). Jamaica has seen yearly 20% increases in individuals who are seeking mental health assistance from 90,000 individuals in 2013 and 2014 to 132,000 individuals in 2016 (Pan American Health Organization, 2019). This increase in visits indicates potential long-term mental health consequences if the proper interventions are not implemented. The results of this comparative study will be beneficial to understanding various stress response and stress appraisals of Americans and Jamaicans, especially since Jamaicans are the largest Caribbean group living in the United States and U.S citizens visit Jamaica more than any other group. Comparing the stress appraisals,

defense mechanism and coping strategies of both groups will provide valuable insight on quality and quantity of stressors. Approximately 792 million people globally lived with a mental health disorder in 2017 (Dattani et al., 2021). More importantly comparative studies can provide insight on complex coping and cognitive decisions of individuals from different backgrounds or culture.

Societal and economic changes caused by the global events such as the coronavirus pandemic have influenced the lives of millions. Many studies have reported an increase in stress due to uncertainty and impacts of the virus. The *Stress in America 2020* survey conducted by the APA (2020) found that 84% of adults who participated reported feeling emotions related to stress; 67% of adults expressed that the problems facing America overwhelm them. A 2020 UNICEF study, *Impact of Covid-19 Challenges on Children and Families in Jamaica* found that negative emotions increased in comparison to before the coronavirus pandemic; more specifically, 41% felt feelings of frustration, 23% were anxious and 57% overate. Bourne et al. (2021) provides substantial evidence which suggests the coronavirus pandemic has worsened the psychological state of Jamaicans. Social isolation and anxiety regarding the pandemic have caused additional strains on mental health, as we see above with the yearly increases in people seeking mental health services.

Mental health disorders are prevalent in Jamaican and American societies (Maloney et al., 2020; APA 2020). Mental illness is overlooked in younger adults, due to societal and social standards of perceived stress (Williams, 2018). Monroe (2008) discussed growing research that suggests negative life stressors play an impactful role in contributing to the development of diseases and psychological disorders. Studies such as

the present one will help to bring awareness to normalizing the experiences of mental illness as well as target the perceptions that mental illness is dangerous or embarrassing. Stigmas relating to mental illness have harmful effects such as lack of social support resources, social isolation, avoid seeking treatment or help, as well as many others. Understanding the American and Jamaican cultural and societal differences and similarities will help to implement suitable mental health interventions and programs. Cross-cultural mental health studies are especially important to guide a melting pot society such as the United States as well as to rectify the stigmas in countries that lack cultural diversity like Jamaica.

Culture influences various aspects of daily life, so it is important to explore how cultural dimensions influence stress and the way individuals perceive and manage those stressors. The Jamaican population is underrepresented in coping and stress research. To my knowledge there are no studies currently exploring coping strategies, stress appraisals or defense mechanisms cross-culturally between the United States and Jamaica. This study is the first to explore all three concepts. The present study is a comparative analysis of two-groups based on self-report measures. Comparative studies provide insight on the behavioral and cognitive stress processes of different groups as well as generate potential explanations for similarities and differences. This study aims to explore the various coping, stress appraisals and defense mechanisms usage of both populations.

Coping Strategies

Coping strategies occur in response to the demands of a particular stressor. These strategies are important to examine when exploring mental health because humans use coping strategies with or without awareness. The preferred coping strategy used is shaped

by the individual's appraisal of the stressor based on cognitive, social, and personal resources. Lazarus and Folkman (1984) identified coping as a series of thoughts and behaviors to manage situations appraised as stressful. In general, coping strategies represent behavioral and mental strategies implemented to minimize or tolerate stress. Understanding the relationships that formulate personal coping strategies is necessary for providing support within various communities, regardless of location or culture. It is also important to understand the propensity for an individual to develop adverse mental health conditions due to stressors affecting them.

Algorani and Gupta (2021) stated that exposure to stress and the way an individual manages it results in the utilization of beneficial or maladaptive coping strategies. According to these authors, beneficial coping strategies are generalized into four main categories emotion-focused coping, problem-focused coping, meaning-focused coping, and social coping. Emotion-focused coping aims to reduce the negative feelings associated with the stressor. Examples of emotion-focused coping include positive rethinking, redefinition of the stressor, seeking emotional support, acceptance of the stressor, focusing on spiritual beliefs (religion), and humor which is the ability to find something to laugh about during a stressful event. Problem-focused coping addresses the stressor causing distress. Some examples of problem-focused coping are planning, active coping. Maladaptive coping mechanisms increases stress such as substance abuse, disengagement, emotion suppression and self-harm. Maladaptive coping strategies are associated with higher rates of psychopathology symptoms and poor health. Meaning-focused coping explores the meaning behind the stressor stressful event. Finding meaning can provide a positive or negative outlook on life, ultimately influencing mental health

and wellbeing. Social coping is also known as support seeking, it is when an individual seeks help from their family or community. Proactive coping is when an individual plans ahead to avoid encountering a stressor, for example preparing lunch at home to avoid waiting on long lines during lunch (Algorani & Gupta, 2021). Stoeber and Janssen (2011) suggest coping strategies differ depending on an individual's level of perfectionistic behaviors. Studying how people cope with stressors is necessary to effectively address mental health concerns.

A coping strategies study by Santarnecchi et al. (2018) found that problem-focused coping was positively correlated with a high quality of life. Martin-Joy et al. (2017) found that adults who experienced adverse childhood events and "low warmth" during childhood engaged in more adaptive coping strategies such as sublimation, humor, and anticipation. Hayward and Krause (2016) conducted a longitudinal study which found older adults engaged in more positive religious coping than any other age group. Aldwin et al. (2011) found adults who engaged in emotion focused coping engaged in less maladaptive coping such as escapism and rumination. Understanding an individual's motivations and influences for using specific coping strategies is important to explore behaviors cross-culturally. Understanding the cognitive and behavioral responses of average individuals will create techniques that actually manage distress while also targeting the source of the distress. If clinicians and other professionals have more insight on the individual developmental influences and process of coping strategies a general guideline can be composed, creating suitable intervention techniques. For example, Aldwin et al. (2021) discusses research suggesting a decrease in coping effort as individuals age, therefore providing older adults with the skills to help them cope as they

age with less effort may be key to providing older adults adequate life extending health care. Interestingly, a twenty-year longitudinal study found that even though coping effort declines among older individuals, coping efficacy generally remained constant throughout aging. Older adults generally reported less stressors and daily hassle in comparison to any other age group (Aldwin et al., 2018).

Research on coping strategies on the Jamaican population is limited, but the available studies provide some valuable insight. Henry-Lee, Bailey, and Gordon-Strachan (2010) conducted a longitudinal study over an eighteen-month period exploring the coping strategies used by individuals seeking preventive health care services in Jamaica. The study found that emotion focused coping was the most used coping strategy, in particular religious coping (e.g., prayer). Problem-solving was the least used coping strategy. Individuals with chronic stressors such as a chronic illness engaged in avoidant coping strategies most frequently. These participants reported being much older and poorer in relation to the other participants. The study also reported avoidant coping strategies may lead to deterioration in overall health because avoidant coping strategies were used over longer periods of time by older participants with chronic conditions. This study analyzed coping in terms of responses to social, economic, and environmental issues. Nelson and Smith (2016) conducted a study among Jamaican police officers found that emotional focused coping was positively correlated with depression and anxiety. Negative characteristics of the job was also associated with depression but not anxiety. Taylor and Chatters (2010) studied American and Caribbean populations, found that 9 out of 10 African Americans and Black Caribbean reported religion and spirituality as an important aspect of their daily lives. They also noted, there is significant evidence of

religious based coping positively influencing health and wellbeing. Understanding the importance of religious based coping strategies cross culturally will promote culturally appropriate and effective mental health treatment.

Coping research is growing in the United States especially due to potential long-term mental health impacts of the coronavirus pandemic. Jenkins et al. (2018) conducted a study with 242 police officers found that active coping strategies including the use of humor, problem-focused solutions and positive reframing helped to better manage work stressors and mitigate symptoms of PTSD. Support seeking was found to decrease depressive symptoms in male officers, there was no correlation for female officers. Maladaptive coping strategies were correlated with new onset of depression. Sisco (2020) found that positive coping strategies helped African Americans build resilience and manage workplace bias related stressors. Honda and Jacobson (2005) in a study of participants from the U.S. found that an individual's coping strategies, ethnicity/culture and presence of support system influenced the use of contemporary and alternative medications (CAM). In the study about 54% of participants reported using CAM. Users of CAM also reported mental health disorders, such as depression and panic disorders. Brantley et al. (2002) conducted a study exploring culture and coping strategies among Caucasian and African Americans at a public teaching hospital found that African American participants used emotion-focused coping strategies more often than Caucasians. The study noted African Americans face community violence and prejudice more than Caucasians. This may explain why African Americans reported frequent use of detachment and seeking religious support coping strategies. These strategies might be the

best for managing stressors related to violence and prejudice. These studies provide insight on how coping strategies impact mental health in the United States.

Defense Mechanisms

Defense mechanisms are important when exploring stress appraisals and coping mechanisms because they provide insight on an individual's psychological behavior. Defense mechanisms are reactions that are deployed during stressful situations (APAe, n.d.). Initially the concept of defense mechanisms was rejected from research psychology for many years. Recent research has revived interests in defenses. Sigmund Freud first discovered there was a relationship between defense mechanisms and psychopathology. (Cramer, 2000). Baumeister et al. (1998) discussed research that suggests defense mechanisms are used in situations that threaten one's self-esteem. For example, Cramer and Block (1998) found that children who present themselves as overly positive are often defending their perceived imperfections and continue to use immature defense mechanisms into adulthood. Cramer (2000) discusses assessing defense mechanisms is a template for understanding stress and may serve as a guide for successful stress management and clinical interventions. Cramer (2000) also noted, assessing defense mechanisms are important to truly understanding the score on self-report measures. This present study utilizes self-report measures to explore coping and stress. Defense mechanisms are included to adjust and observe for defenses, which may account for the influence defense mechanisms play when participants are recording their responses. According to Millon (1984) an assessment of defense mechanism is key for a thorough and accurate behavioral assessment. Vaillant (1992) stated "no mental health status or clinical formulation should be considered complete without an effort to identify the

patient's dominant defense mechanisms" (p. 3). These researchers reinforce the importance of understanding an individual's defense mechanisms when conducting stress research.

There are various types of defense mechanisms, but they can be generalized by four defense styles which are immature, neurotic, image distorting and mature (Ramkissoon, 2014). Mature defense styles include rationalization and anticipation. Successful rationalization finds logical reasoning for the stressor, and anticipation requires the individual to process the stressor in a manner than allows them to respond to appropriately. Anticipation requires the individual to process the stressor ahead of the actual event to reduce the expected stress impact. For example, anticipation may be present in someone who has an important job interview. To mitigate some of the stress caused by going on this job interview the individual might practice their responses to questions they might be asked. By practicing for their interview ahead of time, might help to reduce the stress related to the interview. Mature defense mechanisms also include humor, sublimation, and suppression. Sublimation is the process of directing negative urges to being more productive. For example, someone who is dealing with the stressors of a divorce might channel their emotions into a new hobby or home improvement project. Suppression is a mature defense mechanism because it involves the complex process of compartmentalizing or blocking out emotions to deal with present situations or events. Essentially, the individual consciously minimizes stressors or impulses that are negative. Neurotic defenses include reaction formation, undoing, idealization, and pseudo-altruism which helps an individual to deal with stressors by doing something that opposes the stressor. Image distorting defenses include dissociation, denial, isolation,

splitting and devaluation which is when individuals attribute the stressor to themselves or others ultimately causing negative perception, leading to negative stress appraisals (Ruuttu et al. 2006). Denial is a defense mechanism which involves an individual blocking external stressors by disregarding the reality of the situation (Hovanesian et al., 2009). Immature defenses include passive aggression, autistic fantasy, somatization, displacement, acting out and projection. Projection is a defense mechanism in which an individual attributes their flaws onto another person to satisfy their own ego (Cramer, 2000). For example, a cheating spouse who suspects their partner is being unfaithful. In this situation, the cheating spouse is attributing or projecting his flaws onto their partner. Cramer (2000) also suggested individuals with borderline personality disorder (BPD) tend to engage in immature defenses but engage in more mature defense mechanisms in comparison to individuals with psychoses. Individuals who use image-distorting and immature defense mechanisms aim to avoid dealing with reality (Hovanesian et al., 2009). Ramkissoon (2014) who conducted a study of 493 employees at a university in Jamaica suggests defense mechanisms can potentially provide valuable insight on human behaviors. The study found that employees who use adaptive coping strategies behaved as if they could manage their stressors, used humor and creativity to manage their stress. Maladaptive coping styles were associated with participants who behaved "impulsive and aggressive" (p. 297).

A New York study conducted by Hovanesian et al. (2009) found a strong association between image-distorting defense mechanisms and attempted suicide. The study also suggested the strongest influences for suicidal behavior were how the individuals coped with their stressors. Overall, the study supports the notion that defense

mechanisms are important to explore to create successful targeted treatment plans and programs.

Stress Appraisals

The Theory of Cognitive Appraisal was introduced by Lazarus and Folkman in 1984 explaining there is a mental process individuals partake in when stressors are present. Lazarus described two main factors that influence stress responses. One factor was how threatening or constant the stressor is. The second factor is the individual's mental assessment of their personal resources necessary to eliminate, reduce or tolerate a particular stressor. These factors explain the process of stress appraisals, understanding the consistency of the stressor and how to best mitigate it. Understanding stress appraisals is important when exploring how an individual copes with their stressors. Stress appraisals provide insight on the cognitive processes that determine how impactful a particular stressor is.

Cognitive appraisals are categorized into two stages, primary and secondary. Primary appraisal describes the initial importance and impact of the stressor. For example, if it starts to snow heavily this occurrence might be more stressful for an individual who has to go to work in comparison to an individual who has no plans for the day that require leaving their home. Primary appraisals describes if the stressor is a threat challenge, or harm. To continue with the previous example, depending on how the individual initially perceives the snowstorm is their primary appraisal. One may think the storm is not threatening while another may think the storm may result in harm. These primary appraisals are important in understanding an individual's rationale when stressors are present. Secondary appraisals refer to the feelings related to managing a

particular stressor. An individual's feelings of "I can manage this by myself" or "I won't try to manage this alone because I will fail" both describe secondary stress appraisals.

In this study stress appraisals are used to identify how each group, Jamaicans and Americans perceive particular stressors based on the Stress Appraisal Measure (SAM). SAM is a self-report measure with 28-items. Each item is on a 5-point Likert scale with responses ranging from "Not at all" to "Extremely". The subscales of this measure explore an individual's primary appraisal of future events. The primary subscales include three factors which are threat, challenge, and centrality. Threat refers to the potential harm caused by the stressor. Challenge refers to the anticipation of overcoming the stressor. Centrality refers to the individual's perception of how impactful the stressor is on their overall well-being.

Perceived stress is an individual's feelings regarding a stressor, their perception of the stress. Stress appraisal is the process in which an individual analyzes the stress and their ability to manage it. Stress has been associated with adverse mental and physical health outcomes. Keller et al. (2012) found that high levels of perceived stress correlated with poor mental and overall health. The study found that 33.7% of 186 million U.S adults believed stress negatively affected their health. Enns et al. (2018) conducted a cross-sectional study with participants from a U.S. university found that higher levels of perceived stress correlated with lower level of emotional intelligence. The study also found that higher levels of emotional intelligence correlated with adaptive coping strategies. A study of the mental health wellbeing of doctors and nurses at two hospitals in Kingston Jamaica found that many were unwilling to seek healthcare due to judgment from colleagues, patients, and the overall medical community (Lindo et al., 2009).

Nelson and Smith (2016) conducted a study exploring the stress and coping strategies of police officers in Jamaica found that emotion focused coping strategies and lower support from co-workers were associated with increasing levels of depression. Perceived support is also important to explore within a coping behavioral frame. The study also noted positive job satisfaction correlated negatively with depression. These studies reinforce the importance for future studies that explores an individual's stress appraisals. Understanding cultural influence on stress perceptions is important to analyze how the understanding, expectations and behaviors of a particular culture might differ from others in regard to the intensity of a particular stressor. Individuals of different cultures tend to vary in their stress response and stress appraisals processes. For example, a study conducted by Steffen et al. (2001) found that religious coping was associated with significantly lower blood pressure levels in African Americans but there were no association between blood pressure, religious coping, and European Americans. This study suggests each culture perceives and utilizes religious coping differently which ultimately influences their stress appraisals. Culturally influences are important to create the appropriate solutions to mental health in various areas of care and prevention. Comparative studies on coping strategies help to understand and predict stress processes among different groups.

There is sufficient evidence that suggests experiencing chronic stress has negative effects on physical and mental health. Stressors cause individuals to engage in various coping strategies subconsciously or consciously. The impact of the stressor depends on the individual's appraisal of the stressor (Kiritz & Moos, 1974). When appraising a stressor, two questions must be explored to understand the individual's rationale and

decisions in regard to the stressful situation. The first is, how threatening is the stressor to the individual and the second is, does the individual believe they are capable of managing the stressor. Stone et al. (1999) found in longitudinal study that men with high stress and low levels of social support had higher levels of prostate-specific antigen (PSA) in their blood. PSA is a marker for increased risk of developing prostate cancer which further highlights the relationship between stress and the possibility of disease progression. Lui et al. (2002) found that stress can trigger allergy responses. Monroe (2008) discussed growing research that suggests negative life stressors play an impactful role in contributing to the development of diseases and psychological disorders. Monroe stated stress is a challenge that "disrupt or impair homeostasis" causing psychobiological impacts on an individual's health and well-being (p. 36). Cohen et al. (2007) and Miller et al. (2007) both found evidence that further suggests stress has been found to predict psychological and medical conditions. Anisman (2015) found that a baby can learn to correlate angry voices with stressors due to the impressionable and malleable characteristics of the brain, which can have lasting impacts on brain functioning inevitably influencing coping behavior, stress appraisals and defense mechanisms from early on in the life cycle. Segerstrom and Miller (2004) conducted a meta-analysis of over three hundred studies which found that short-term stress such as a daily hassle increases immune system responses, but long-term stress leads to a decrease in immune system response leading to illness. Together, these findings indicate the importance of understanding an individual's stress appraisals, which is an important component of the present study.

Stress in the United States and Jamaica

In 1979, for the first time the Surgeon General's report included stress as a contributor to serious public health factors. There is evidence which suggests 89.7% of adults in the U.S will experience a traumatic event in their lifetime. In 2017 approximately 80% of Americans reported "symptoms of distress related to stress", this was a 9% increase from 2016 (Everly et al., 2019, p. 4). In 2018 and 2019 the average number of veteran suicides each day was seventeen, in 2016 the average was twenty veterans each day (US Department of Veterans Affairs, 2020). According to the Mental Health Atlas (World Health Organization, 2018), there are approximately 10 psychiatrists per population of 100,000 and the total number of mental health professionals is approximately 867,909 in the United States. Also, there are approximately 271 mental health workers per population of 100,000. Stigmas are prevalent in the United States, perhaps due to the mix of various cultures, societal norms, etc. About 43 million people per year experience a mental illness in the United States. Suicide and depression are ranked as a leading cause of death among men in the U.S. and approximately six million men are affected by depression each year (Chatmon, 2020). Similarly, Parcesepe and Cabassa (2013) found that in the United States there is belief among the general public that individuals with a mental illness is dangerous; appraisal of danger varied by the individual's perception of the mental illness. A 2019 national poll conducted by the American Psychiatric Association found that approximately half of workers were afraid to discuss mental health concerns at work and one in three were afraid of retaliation or judgement for seeking mental health care (American Psychiatric Association, 2019). According to the VA Suicide Prevention Program in 2020 suicide rates increased every

year up until 2018, due to the 2018 implementation National Strategy for Preventing Veteran Suicide plan. A 2020 survey sponsored by Hopelab & Well Being Trust found that 90% of 14 to 22-year-olds experiencing symptoms of depression used the internet or online search engines to better understand their symptoms (Well Being Trust, 2018). A review conducted by Parcesepe and Cabassa (2013) concluded stigmas regarding mental health continue to be a "widespread issue" among adults in the U.S (p. 397). Stigmas contribute to factors that create a barrier for individuals seeking mental health treatments. APA's (2020) *Stress in America 2020* reported a record high increase in the reported stress levels of Gen Z adults. Gen Z adults represent individuals who are 18-23 years old. The study also reported Gen Z adults having higher levels of stress in comparison to all other adults. It is interesting to note, 19% of all adults, 34% of Gen Z adults, 21% of Gen X, 12% of boomers and 19% millennials reported having worse mental health in 2020 than 2019. It is important to acknowledge the reported higher levels of stress to reduce the use of maladaptive coping strategies and defense mechanisms in adults especially in regard to the lack of knowledge relating to long-term impacts of the coronavirus pandemic on mental health. Even though there were record high reported levels of stress in 2020, adults in the United States are still hopeful about their futures. The report also found that 64% of Gen Z adults, 76% of millennials, 71% of Gen X and 72% of boomers reported feeling optimistic about the future. APA's (2021) *Work and Well-being Survey* found that 59% of American workers reported work stress inducing negative emotions such as lack of effort, interest, and motivation. About 44% of participants reported they intend to switch their job within the next year (APA, 2021). According to a Washington Post database approximately 1 in 5 persons who are shot by police officers have a mental

illness (Burke, 2021). The sooner effective mental health measures are implemented within communities the better to the chances for mitigating the effects of decreasing optimism especially within the employed population.

Comparative studies such as the present, will provide insight on the behavioral and cognitive processes of individuals from a Jamaican population and individuals from an American population. Mental health illness in Jamaica is predicted to cost $2.76 billion dollars from 2015-2030, about 20% of the country's GDP according to a report produced by the Pan American Health Organization. It is important to understand how the Jamaican population managers stressors to potential lessen the economic and societal impacts of poor mental health. One of the main differences between both countries is population size. Jamaica is significantly smaller than the United States but there is a relationship between both populations worth exploring due to the fact that Jamaicans make up the largest Caribbean populating in the U.S and U.S citizens are the largest group of tourists in Jamaica in 2018 (Jamaica Tourist Board, 2018).

Stress is a common factor in daily life. Stress is defined as the physiological or psychological response or reaction to internal or external stressors. The term "stress" was first introduced by Hans Selye a medical student in 1926. He noticed patients with a variety of physical pain also had consistent symptoms of no appetite, elevated blood pressure and a loss of ambition (Selye, 1974). Selye described stress as "the rate of wear and tear in the body" (p. 14). He later refined the concept of stress as demands to the body that are caused by nonspecific responses). Stress is very influential in the daily lives of all individuals. To give a brief overview of the sources of stress for majority of Americans, the report found 78% of American adults say their life has been significantly

more stressful due to the coronavirus pandemic, 73% feel money is a source of stress, 66% feel healthcare is a source of stress, 62% feel mass-shootings are a source of stress, 55% feel global warming is a source of stress, 63% feel the U.S economy is a significant source of stress, and 70% of adults say family responsibilities are a significant source of stress. Despite overwhelming sources of stress, it is important to note, 71% of Americans feel hopeful about their future (APA, 2020). Feeling optimistic about the future is suggested by behavioral researchers as a positive contributor to building resilience by challenging negative beliefs with positive ones (Youssef and Luthans, 2007).

Approximately fifteen years after America's first policy in 1979, Jamaica implemented their first mental health policy in in 1994 and the first program for national mental health was introduced in 1997 (World Health Organization, 2005). Important aspect of the policies included integrating mental health as a form of primary healthcare inevitably promoting preventions and treatment plans. The report also noted the country allocates about 5% of its total health budget to mental health related programs and services. Bourne et al. (2021) found that 22% of Jamaican women are severely depressed. There is currently a lack of mental health resources in Jamaica. According to the Mental Health Atlas (World, Health Organization, 2018) there are approximately one psychiatrist per population of 100,000 and the total number of mental health related professionals in Jamaica is 763. Also, there are approximately 26 mental health workers per population of 100,000. The report also noted the prevalence of a severe mental disorder to be 588 per population of 100,000. Hilton et al. (1997) conducted study with 89 physically healthy participants who completed the Psychiatric Assessment Schedule found that the prevalence of psychiatric disorder for women was 36% and 14% for men in Jamaica.

Lowe et al. (2019) found depression to be a significant issue for students on the Mona campus at the University of West Indies in Kingston Jamaica in that 40% of students scored as being clinically depressed. The students all completed the Brief Screen for Depression twice, in their first and again in their second semester. In 2020 the Jamaican Independent Commission of Investigations found that there were twenty-two incidents of police officers shooting mentally ill individuals (Campbell, 2021).

The Country Office Annual Report for Jamaica produced by UNICEF found that the restrictions caused by Covid-19 pandemic has impacted the mental health and increased learning disparities (p.1). These disparities are also caused by social-economic statues as well as access to resources and services. The Ministry of Health reported sixty percent of hospitalized suicide attempts were adolescents under the age of twenty-four. The article suggests violence in the home during COVID-19 mitigated and multiplied mental health impacts. Violence can significantly impact wellbeing, quality of life, academics, and mental health.

There are economic impacts of poor mental health, similar to physical health problems. A study conducted by Bloom et al. (2018) estimated the total cost of macroeconomic impact of noncommunicable diseases and mental health conditions in Jamaica from 2015 to 2030 to be $18.45 billion. This study indicates the economic impacts of mental health conditions over a fifteen-year span. According to a study among nursing graduate students, explored the consequences of stress which include reduction in cognitive processes, impaired coping, and negative academic outcomes (Brown et al., 2016). Brown and colleagues (2016) found that among graduate student nurses in Jamaica, 51% reported being moderately stressed, 23% reported high levels of stress

relating to their final examinations. It is interesting to note, their research projects were not reported to be a source of stress for the students. The study also noted, the more children a student had the higher their levels of perceived stress. Coping strategies are multidimensional, perceived stress is a good measure to explore the human behaviors regarding coping. The study did not discuss specific coping strategies in relation to perceived stress, which would have provided some insight on the students' coping behaviors and whether their presence or absence is contributing to the problems. Nonetheless this study provided insight on stress appraisals.

The present study aims to analyze the stress appraisals between the participants from each group to better under culture differences in regard to personal perception of stress. Based on the reported findings above, this study hypothesized that:

1. Jamaican participants will have higher rates of immature and neurotic defense mechanisms in comparison to U.S participants.
2. U.S participants will be more likely to engage in coping strategies of emotional support and self-distraction, while Jamaican participants will be more likely to engage in religion and humor coping strategies.
3. Jamaican participants will have a higher stress appraisal score. U.S participants will score higher in centrality while Jamaicans will score higher in controllable by self.
4. American participants will score higher in conscientiousness and extraversion, while Jamaican participants will score higher in agreeableness and passive aggression.

The first and second hypotheses are loosely based on Steffen et al. (2001) study which found that religious coping only reduced the blood pressure of Africa-American participants. Similar to the role religion played among Black Americans in Steffen et al.

(2001) findings, I hypothesized that Jamaican participants would engage more often in emotion suppression, humor, and denial than American participants because of the cultural differences between the two countries. When Jamaicans migrate to the United States many are faced with the shock of racism based solely on skin color. Jamaica is less diverse than the United States which results in people who tend to judge others based on occupation, education, and wealth, not exclusively skin color (Macaulay Honors College CUNY, 2023). The present study aims to analyze the various coping strategies used by each group. The third hypothesis suggests cultural differences may be significant in regard to the stress appraisals of each group. Based on the stigma associated with mental health in Jamaica (Bourne et al., 2021). It is important to explore perceived level of stress of both groups to analyzing which group better reframes their stressors. The fourth hypothesis suggests there may be significance between conscientiousness, extraversion, agreeableness, and neuroticism between both groups due to negative stigma surrounding mental health in particularly Jamaica (World Health Organization, 2018).

The result of the present study provides cross-cultural insight on the stress appraisals of Jamaicans and Americans which is important to implement effective mental health programs for various communities, especially melting pot communities such as both groups. The present study did not focus on students or a particular profession like Brown et al. (2016); Jenkins et al. (2018); Lowe et al. (2019); Nelson and Smith (2016). This study did use insight and measures from Brown et al. (2016) and Brantley et al. (2002). African Americans are a large portion of the low-income population in the United States. In particular, African American women visit hospital and medical clinics in the United Stated more than any other group (Brantley et al., 2002). Culture may impact how

a stress in appraised, why a particular strategy of coping is frequently used, and type of defenses used consciously or subconsciously. Currently little research is available exploring the influence of culture and ethnicity on coping strategies, stress appraisals or defense mechanisms. One of the very few studies available Thomas, Hambleton, and Serjeant (2010) explored distress in sickle cell patients between Jamaica and London. The study found that patients in Jamaica reported less general anxiety, lower emotional response to pain, lower levels of perceived pain and felt they had the ability to decrease their negative symptoms in comparison to patients in London. This present study provides comparable insight on coping mechanism, defense mechanisms and stress appraisals of Jamaicans and Americans.

Chapter II.

Method

Participants were recruited via private social media platforms targeting Jamaican born and American born adults. Participants who did not meet this requirement were not included in the data collection. Private groups included a clothing boutique and candle store targeting American adults, as well as a Jamaican group focusing on current employment opportunities in Jamaica and a dog grooming company based in Jamaica were used to target Jamaican born adults. All participants were able to access a direct link to the full survey via Qualtrics, a web-based software platform to collect data from surveys. Participants were provided a consent form at the beginning of the survey detailing information needed to make informed decisions on their participation (see Appendix H). The consent form also detailed necessary information relating to the goal of the study such as the purpose, benefits, and what to expect when participating. "The goal of this study is to broaden research on stress, defense mechanisms and coping strategies across cultures" was disclosed on all consent forms to further facilitate the understanding of this research project. Participants were also informed they can discontinue participating at any point with no adverse consequences. Participants were advised not to include any personal or identifiable information in their responses. The survey took approximately 25 minutes to complete entirely. The survey included questions from the *Brief Coping Orientation Problems Experienced Inventory, Defense Style Questionnaire, Perceived Stress Scale, Mini IPIP, Stress Appraisal Measure* as well as a brief demographic and open-ended short answer questionnaire. After the survey was

completed, participants were given the option to send an email to FactsSerica@gmail.com with their preferred pseudonym to be submitted into a raffle to win one of three prizes, each valuing $100. Participants' results were scored and averaged by the researcher based on score key available at the end of each measure using SPSS Statistics.

The independent variable in the present study is birthplace of the participants, Jamaica, or the United States. The dependent variables are perceived stress, coping strategies and defense mechanisms utilized most frequently by each group, Jamaican participants, and American participants. Participants were advised to complete the survey anywhere quiet and free of distractions on a smartphone, tablet, laptop, or any device with web browsing capabilities. Raw data collected from all of the completed surveys was analyzed. At the end of the survey all participants were provided contact information for the principal investigator as well as contacts to immediate resources for mental health services. Participants were also given contact information at the end of the survey to later inquire about the results of the study, if they want to learn more. The data from participants who were not born in Jamaica or America and under 18 years of age were excluded from the study results. Participants with reported mental or health disorders were not included in this study to protect potential vulnerable participants.

Participants

Overall, 110 individuals participated in this study, with 96 completing most of the survey. The data analyses are based on 96 participants: 51 participants from Jamaica and 55 participants from the United States. The mean age of participants from Jamaica was 36.4 (*SD*=15.3), while the mean age of participants from the United States was 31.6

(*SD*=9.0). Missing data was filled in with median scores; this was less than 1% of the data. Included in the study analyses were 50 participants who identified as male, 45 participants who identified as female and 1 participant who identified as non-binary. There were 21 married and 74 single participants. 49 participants identified having a high school diploma or GED, 18 participants held a bachelors, 15 participants held a master's degree or higher and 10 participants selected other indicating none of the previous selections fit their educational background.

Materials

The participants' answers on the demographic portion of the questionnaire were used to screen participants to ensure they fit the qualification to participate in the study. The Demographic Questionnaire (see Appendix A) and Open-Ended Questionnaire (see Appendix F) were used to gain a more detailed perspective on the participants background such as marital status as well as their professional and personal lives.

A Qualtrics survey was designed by the researcher for collecting, storing, and retrieving data relating to this study. The participants who chose to participate were directed to the website via an online link or designated web address. Prior to beginning the surveys participants read and filled out an informed consent form (see Appendix H). The data was collected and stored on a password protected computer belonging to the researcher.

Measures

Brief Coping Orientation Problems Experience Inventory

Brief Coping Orientation Problems Experienced Inventory (Carver et al., 1989) (see Appendix B). The Brief COPE is a self-reporting questionnaire containing 28 questions designed to analyze the way in which an individual's copes in response to stress. The three main coping styles observed by the Brief-COPE are problem-focused coping, emotion-focused coping, and avoidant coping. The inventory also observes specific coping strategies: self-distraction, active coping, denial, substance use, use of emotional support, instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame. Participants chose their answers from the following choices *I haven't been doing this at all, I've been doing this a little bit, I've been doing a medium amount,* or *I've been doing this a lot.* This survey provided insight on the participant's preferred coping strategies, which include self-distraction, active coping, denial, substance abuse, emotional support, instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame.

Defense Style Questionnaire

Defense Style Questionnaire (DSQ40; see Appendix C) developed by Andrews, Singh, and Bond (1993) is a self-report questionnaire with 40 questions used to analyze defense mechanism based on mature, neurotic, and immature styles. Martin et al. (2019) found that the DSQ-40 is a reliable tool to analyze defense mechanism styles. The participants chose from the following responses *strongly disagree, disagree, neutral,*

agree, strongly agree. The participants answer for each question were categorized by defense mechanism styles ranging from mature, neurotic, image distorting, and immature. Scores were calculated by averaging the item ratings for each of the four defense mechanisms. An example of the question asked is "I am able to laugh at myself pretty easily." The defense style is categorized into four categories, mature, immature, image distorting and neurotic. Immature defense mechanisms include projection, passive aggression, autistic fantasy, somatization, displacement and acting out. Mature defense mechanisms include humor, sublimation, suppression, rationalization, and anticipation. Image-distorting defense mechanisms include denial, dissociation, devaluation, isolation, and splitting, Neurotic defense mechanisms include reaction formation, undoing, idealization, and pseudo-altruism. Ruuttu et al. (2006) conducted a study exploring the validity of the DSQ-40 for adolescents. They stated there is already substantial evidence that suggests the DSQ-40 is a valid measure among adults. Their study found the DSQ-40 to be a valid measure for adolescents as well. This further highlights its importance in the present study as well as for similar future studies.

Demographic Questionnaire

Demographic questionnaire (see Appendix A) was included to gather basic information about the participants. Questions including were age, race, country of origin and gender, employment status and number of dependents.

Mini International Personality Item Pool

Mini International Personality Item Pool (see Appendix G) consists of 20-items describing a phrase. Participants indicate using a Likert scale how relatable the phrase is

to them. All items utilize a 5-point Likert scales with responses ranging from 1 ("strongly disagree"), 2("disagree"), 3("neutral"), 4("agree") to 5("strongly agree"). Phrases include "I am the life of the party", "I talk to a lot of different people at parties", "I am relaxed most of the time", "I get chores done right away" and "I often forget to put thing back in their proper place." This inventory was developed by Wim K.B Hofstee and colleagues (Hendriks et al., 2002) as a personality scale using factor analysis. Li et al. (2012) conducted a study to validate the Mini IPIP with a sample of 1500 Chinese earthquake survivors ages ranging from 18-65 years old. Their study found the Mini IPIP to be reliable measure for the Big Five personality factors. They also found Neuroticism was positively correlated with symptoms of PTSD. Intellect and extraversion were negatively correlated with PTSD symptoms.

Perceived Stress Scale

Perceived Stress Scale (see Appendix D.) originally developed by Cohen et al. (1983) has ten questions regarding the participant's current stress levels. Participants select their answers from the following choices 0= never, 1= almost never, 2= sometimes, 3= fairly often, 4= very often. Scores for the PSS were derived by totaling the numeric responses. Scores ranging from 0-13 are considered as low perceived stress, 14-26 moderate stress and 27-40 high perceived stress.

Self-Report Questionnaire (Open-ended questions)

Self-report questionnaire included eight open-ended questions created specifically for this study by the principal investigator (Appendix F). These open-ended questions allowed the participants to engage in responding without limitations providing more

insight on the thoughts of each participant in their own words. Questions such as "Were there any external factors that influenced your responses today?" and "How are you feeling today? Explain." were included to deeper perspective on the participants attitude or mood while completing the surveys. This measure provided a qualitative outlook across both groups, providing participants with the opportunity to be more detailed in their responses. This measure also gave participants break from having to choose specific answers based on a set list of choices. A change in the answering format might have released some of the test burden symptoms some participants possibly experienced.

Stress Appraisal Measure

Stress Appraisal Measure (SAM; see Appendix E.) created by Peacock and Wong (1990) was used to analyze the individual's stress levels utilizing a 5-point Likert scale. Participants selected one of the following options not at all, slightly, moderately, considerably, and extremely. This survey provided a quantitative stress outlook on the answers of the participants. Rowley et al., (2005) counted a study utilizing the SAM with a sample of 272 minority adolescents age ranged between 14 and 18 years old. Their study found that stress appraising is less complex for adolescents than it is for adults, centrality was not a relevant factor. This finding is interesting because it correlates with growth stages theories, adolescents' perceptions of their environment and stressors are limited to their personal maturity and cognitive abilities. Stress appraisals are categorized by controllable by self, threat, centrality, uncontrollable, controllable by others, challenge, and stressfulness. This is a good measure for exploring the participants' stress appraisals. There are three secondary subscales measured but the SAM which are used to analyze the individual's appraisal of available coping resources. Secondary subscales

include controllable by self, controllable by other and controllable by anyone. For this study the subscales were calculated by adding the appropriate subscales items and dividing the total score by 4 to define the average subscale score. The goal of the SAM is to analyze perceived stressors, (Peacock and Wong, 1990) which is an important aspect of this study.

Chapter III.

Results

All participants included in the final analysis completed the Brief COPE, Perceived Stress Scale (PSS), Stress Appraisal Measure (SAM), Demographics and Open-Ended Questionnaire and the Mini International Personality Item Pool. The data analyses are based on 96 participants: 51 participants from Jamaica (mean age = 36.4 yrs, *SD* = 15.3) and 44 participants from the United States (mean age = 31.6 yrs, *SD* = 9.0).

Table 1. Gender by Country of Origin

	Jamaica	**U.S**
Male	29 (57%)	21(48%)
Female	22(43%)	22(50%)
Binary	0(0%)	1(2%)

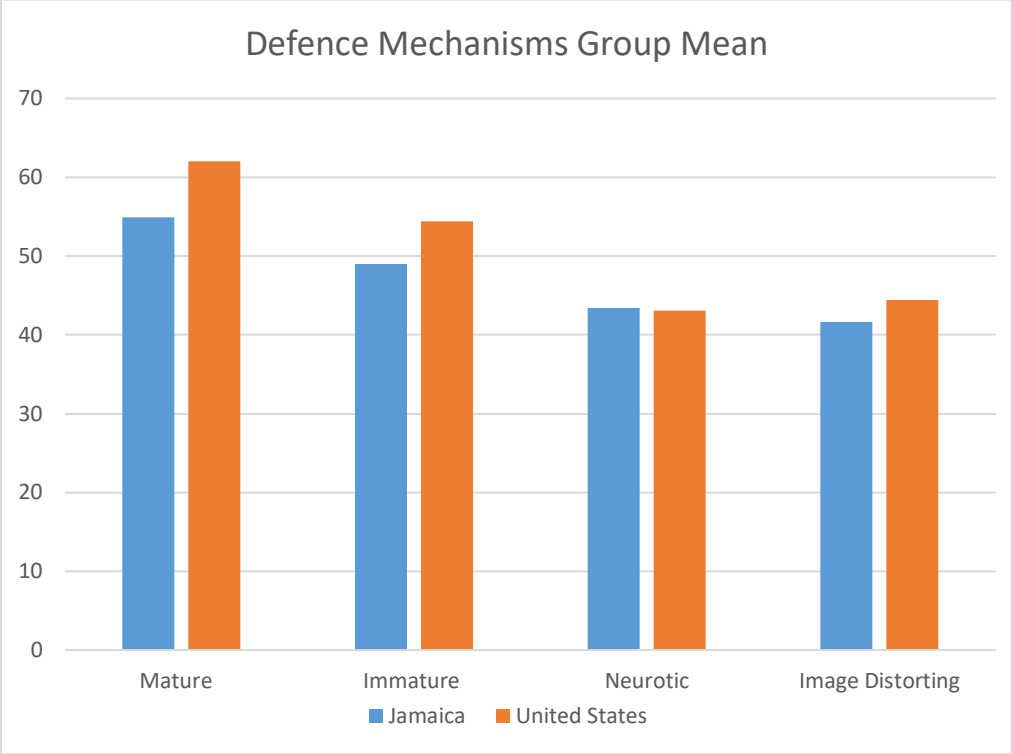
Table 2. Race by Country of Origin

	Jamaica	**U.S**
Black	48(96%)	27(63%)
White	0(0%)	5(12%)
Asian	1(2%)	4(9%)
Other	1(2%)	7(16%)

Analyses of Research Questions

Based on the results of the Defense Style Questionnaire (DSQ-40) hypothesis #1 suggested that Jamaican participants will have higher rates of immature, neurotic, and image-distorting defense mechanisms in comparison to U.S participants, while U.S participants will score higher in mature defense mechanisms, in comparison to Jamaican participants. In order to test whether the U.S. group was more likely to use mature defense mechanisms than the Jamaican group, I performed a comparison of means analysis. The U.S. group was significantly more likely (mean = 62, *SD* =8.98) that the Jamaican group (mean = 54.94, *SD* = 16.04) to use mature defense mechanisms ($t(68) = -2.252$ p = .028), supporting hypothesis #1. The Jamaican group (mean = 43.39, *SD* = 15.37) was more likely than the U.S group (mean = 43.06, *SD* =10.27) to use neurotic defense mechanism but the results were not significant ($t(68) = .105$, $p = .917$). The Jamaican group (mean = 43.39, *SD* = 20.29) was less likely than the U.S group (mean = 54.41, *SD* =16) to use the immature defense mechanism ($t(68) = -1.240$ $p = .219$). The Jamaican group (mean = 43.39, *SD* = 17.39) was more likely than the U.S group (mean = 41.67, *SD* =13.09) to use image distorting defense mechanisms ($t(68) = -.743$ $p = .460$). The bar graph in figure 1 represents the means of each group in regard to defense mechanism styles most used. Americans scored significantly higher in mature. It is important to note Americans also scored higher in immature although the results were not significant. Americans also scored higher in image distorting. Neurotic score was similar for both groups. The results on mature defense mechanisms supports hypothesis #1, but the findings for the other defense styles are not significant. Therefore, hypothesis #1 is partially supported.

Figure 1. Group Statistics Mean for Defense Mechanisms



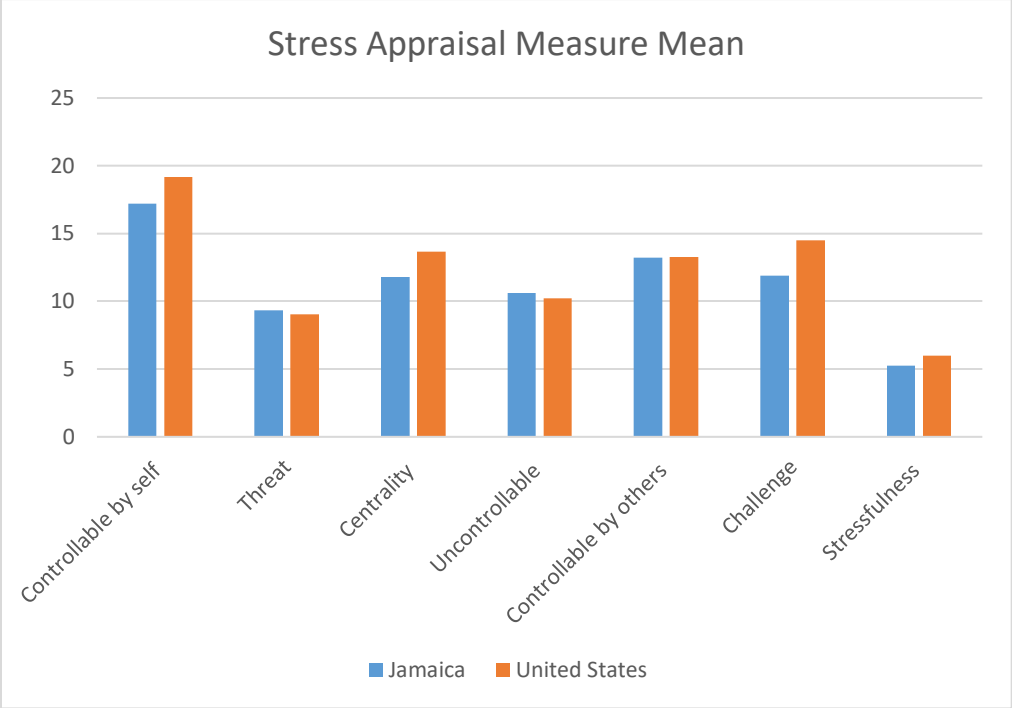
Hypothesis #2 suggested U.S participants will be more likely to engage in use of emotional support and self-distraction, while Jamaican participants will be more likely to engage in religion and humor coping strategies. In order to test whether the U.S. group was more likely to use emotional coping strategy than the Jamaican group, I performed a comparison of means analysis. The U.S. group (mean =5.33, *SD* = 1.99) was significantly more likely than the Jamaican group (mean = 4.04, *SD* =1.69) to use emotional coping strategies ($t(82) = -3.208$, $p = .002$). The U.S. group (mean =5.36, *SD* = 1.66) was significantly more likely than the Jamaican group (mean = 4.13, *SD* =1.95) to use self-distraction as a coping strategy ($t(82) = -3.075$, $p = .003$), supporting hypothesis #2. The Jamaican group (mean = 3.82, *SD* =2.03) was less likely than the U.S group (mean =4.67, *SD* = 2.07) to use humor as a coping strategy ($t(82) = -1.887$, $p = .063$).

Additionally, the Jamaican group (mean = 5.38, *SD* =2.03) was more likely than the U.S group (mean =4.64, *SD* = 1.93) to use religion as a coping strategy ($t(82) = 1.701$, $p = .093$). Both the religion and humor comparisons approached significance.

Hypothesis #3 suggested Jamaican participants will have a higher stress appraisal score, and that U.S participants will score higher on the centrality subscale while Jamaicans will score higher in controllable by self-subscale. The Jamaican group (mean = 18.80, *SD* =5.58) was more likely than the U.S group (mean =18.69, *SD* = 6.58) to score higher on their stress appraisals ($t(65) = .076$, $p = .940$), the results were not significant. U.S participants did score higher in centrality in comparison to Jamaican participants but not statistically significant. The U.S. group (mean =13.64, *SD* = 4.15) was more likely than the Jamaican group (mean = 11.77, *SD* =4.35) to score higher in centrality ($t(60) = 1.73$, $p = .088$), with the comparison of means trending toward significance. The U.S. group (mean =19.16, *SD* = 3.62) trended toward being more likely than the Jamaican group (mean = 17.21, SD =5.02) to view their stressors as controllable by self ($t(61) = 1.75$, $p = .085$), failing to support hypothesis #3. It is interesting to note there were significant findings U.S participants viewing their stressor as a challenge, meaning the stressor they are facing will result in growth gained (Peacock & Wong, 1990). The U.S. group (mean =14.52, *SD* = 3.69) was more likely than the Jamaican group (mean = 11.91, *SD* =4.07) to view their stressors as a challenge ($t(61) = -2.66$, $p = .010$). The results for stressfulness were not significant, the U.S. group (mean =5.97, *SD* = 2.07) was more likely than the Jamaican group (mean = 5.25, *SD* =1.95) to score higher in stressfulness ($t(62) = 1.75$, $p = .158$). The study found, Jamaican participants had a slighter higher overall stress appraisal score, but the results were not

significant, failing to support hypothesis #3. The bar graph in figure 2 represents the results from the Stress Appraisal Measure (SAM).

Figure 2. Group Means from Stress Appraisal Measure (SAM)



Hypothesis #4 suggested that U.S participants will score higher in conscientiousness and extraversion, while Jamaican participants will score higher in agreeableness and passive aggression. The U.S. group (mean = 15.67, *SD* =2.04) was significantly higher than the Jamaican group (mean = 14.38 *SD* = 3.45) in agreeableness ($t(57) = 5.632$, $p = .021$), failing to support the last part of hypothesis #4. However, the U.S group (mean = 10.67, *SD* =4.94) was significantly less likely than the Jamaican group (mean = 12.29 *SD* = 3.76) to engage in passive aggression as a coping strategy ($t(66) = 4.275$, $p = .043$), supporting the second part of hypothesis #4. The U.S. group

(mean = 13.63 *SD* =2.76) did not score significantly higher than Jamaican group (mean = 14.45 *SD* = 2.75) in conscientiousness ($t(57) = .035$ $p = .852$), failing to support the first part of hypothesis #4. But the U.S group (mean = 6.70, *SD* =3.50) scored higher in Extraversion the Jamaican group (mean = 4.86 *SD* = 2.76) ($t(57) = 1.134$, $p = .291$), supporting the first part of hypothesis #4, although the difference did not reach significance.

It is important to note, there were significant findings in regard to the other coping strategies: reaction formation and sublimation. The U.S group (mean = 10.61, *SD* =2.89) was significantly more likely than the Jamaican group (mean = 8.86 *SD* = 4.59) to engage in reaction formation as a coping strategy ($t(67) = 6.583$, $p = .013$). The U.S group (mean = 13.45, *SD* =2.44) was significantly more likely than the Jamaican group (mean = 12.37 *SD* = 3.70) to engage in sublimation as a coping strategy ($t(66) = 7.068$, $p = .010$).

Exploratory Analyses

The results were significant for behavioral disengagement among males when a cross analysis between coping strategies and gender was performed based on the data from the PSS, SAM and Brief Cope. Males (mean =3.84, *SD* =1.88) were significantly more likely than females (mean = 2.95, *SD* = 1.34) to engage behavioral disengagement as a coping strategy ($t(81) = 2.463$, $p = .016$). The results for threat on the SAM approached significance. The males (mean = 10.61, *SD* =2.89) was significantly more likely than the females (mean = 10.30, *SD* = 4.30) to view their stressors as a threat ($t(59) = 1.859$, $p = .068$). Males scored higher in passive aggression in comparison to females, but the results were not significant. Males (mean = 12.00, *SD* =4.66) was more likely

than females (mean = 11.03, *SD* = 4.27) to engage in reaction formation as a coping strategy ($t(65) = .891$, $p = .376$).

Based on the analysis of the Mini IPIP the study found anticipation, intellect, extraversion, and suppression to be significant between American and Jamaican participants. The U.S group (mean = 8.64, *SD* =3.315) was significantly more likely than the Jamaica group (mean = 5.97, *SD* = 4.032) to score higher in anticipation ($t(67) = -2.982$, $p = .004$). The U.S group (mean = 15.57, *SD* =3.350) was significantly more likely than the Jamaica group (mean = 13.14, *SD* = 2.735) to score higher in intellect (openness) ($t(47) = -3.045$, $p = .004$). The U.S group (mean = 6.70, *SD* =3.495) was significantly more likely than the Jamaica group (mean = 4.86, *SD* = 2.761) to score higher in extraversion ($t(57) = -2.236$, $p = .029$). The U.S group (mean = 11.24, *SD* =3.597) was significantly more likely than the Jamaica group (mean = 9.28, *SD* = 4.514) to score higher in suppression ($t(67) = -1.9872$, $p = .051$).

Chapter IV.

Discussion

The BREIF Cope provided meaningful insight, but a larger sample size might have provided stronger results. Coping strategies included self-distraction, substance abuse, emotional support, behavioral disengagement, humor, acceptance, religion, and self-blame. U.S participants used more emotional, distraction and humor coping strategies in comparison to Jamaican participants, while Jamaican participants engaged in more religion based coping strategies. Nelson and Smith's (2016) also found that perceived stress mediated job satisfaction among police officers in Jamaica. Participants who had higher levels of job satisfaction also scored lower in perceived stress. These findings as wells as the findings of the present study suggest proper metal health programs in public and professional spaces are necessary to mediate maladaptive coping strategies and defense mechanisms. Hypothesis #2 which suggested Americans will engage in more emotional support and self-distraction. Self-distraction includes behaviors such as reading, leisure activities that distract the individual from the stressor. Islam et al (2022) conducted a study examining the impacts of individuals using social media as a self-distracting coping strategy. The second part to hypothesis #2 suggested Jamaicans will score higher in religion and humor was partially supported; Jamaicans actually scored lower in humor but higher in religion. This is interesting to note because this study recruited from churches in Jamaica and the U.S. so the results regarding using religion coping being higher in Jamaica might be due to the countries focus on religion especially

in comparison to the U.S. It may have been useful to include a question regarding the participants religious beliefs. Religion as a variable might have provided some valuable insight on perceived stress as well as coping strategies. Taylor and Chatters (2010) found African Americans and Caribbean Blacks were more likely to indicate religion and spirituality as important factors in their lives. This study did not consider the influence of humor. Their study also highlighted the potential importance of acknowledging someone's religious and spiritual orientation to create useful treatment programs within communities, schools, and households. If there is some level of incorporating religious and spiritual beliefs into social and psychological recourses for groups that values religion, then there is a higher possibility of creating effective coping and stress reducing programs for these individuals. Dueñas et al., (2020) conducted a study examining the influence of humor as a coping mechanism. The study had participants from nine different countries. The results found dark humor as a possible outlet for relieving tension from horrible situations, but it is important to note these individuals still utilize some level of caution regarding what appropriate humor is. A small portion of the total participants believed humor is never appropriate in stressful situations. Nonetheless, Dueñas et al. (2020) found significant implications that suggest humor is impactful in personal and professional settings. More studies featuring religious civilians from specifically the Jamaican population are necessary to inquire deeper into the influence both humor and religion have on coping strategies. There are currently no such studies to my knowledge available.

The Defense Style Questionnaire-40 was important in understanding the unconscious behaviors of the participants. Freud created the term defense mechanisms as

a process individuals undertake to protect themselves from anxiety. These defenses can be immature, mature, neurotic or image distorting. Immature defense mechanisms include projection, passive aggression, autistic fantasy, somatization, displacement and acting out. Mature defense mechanisms include humor, sublimation, suppression, rationalization, and anticipation. Image-distorting defense mechanisms include denial, dissociation, devaluation, isolation, and splitting, Neurotic defense mechanisms include reaction formation, undoing, idealization, and pseudo-altruism. In the present study, U.S participants were significantly more likely to use mature defense mechanisms in comparison to Jamaican participants. Mature defense mechanisms include rationalization and anticipation. This suggests U.S participants may unconsciously deploy more anticipating of emotions, reasoning, and logic to potentially combat their anxiety. Hypothesis#1 which predicted Jamaicans will have higher rates of immature and neurotic defense mechanisms compared to Americans was not supported or significant. It is also important to note, Jamaican participants only scored higher in neurotic defense mechanisms. The practical implications might be effective programs that provide services that help individuals properly develop their defense mechanisms and coping strategies to effectively ease the impact of their stressors.

The results support hypothesis #1, U.S individuals use more mature defense mechanisms than Jamaicans. Cramer (2000) explored the relationship between coping strategies and defense mechanisms. Her findings suggest coping strategies are conscious behaviors while defense mechanisms are unconscious. This is important to discuss in the present study because the answers participants submitted for their coping strategies could be greatly influenced by their defense mechanisms. The hypothesis regarding higher

scores of mature defense mechanism among U.S participants in comparison to Jamaican participants was supported and is a meaningful addition to studies that aim to explore defense mechanisms cross-culturally. Hovanesian et al., (2009) suggest immature and image distorting mechanism both require some need for the individual to not deal with reality. In some ways imagine-distorting is used as a mechanism to "manipulate reality to avoid conflict" (p.76). Felker-Kantor et al. (2019) found that participants who viewed their environment at dangerous were more likely to engage in immature mechanisms. According to Country Office Annual Report Jamaica 2020 by UNICEF found that violence against children is a critical concern due to isolation and home tensions increasing due to the pandemic. In 2017 Forbes ranked Jamaica as the third most dangerous place for women travelers (Bloom, L. 2017). In 2018 Business Insider ranked Jamaica as tenth out of the twenty most dangerous places in the world (Foster, C. 2018) Perhaps a follow up study targeting participants from known crime riddled areas, might provide additional meaningful insight on defense mechanisms in Jamaica. This is important due to the lack of coping and stress research and resources for Jamaicans. The Stress Appraisal Measure (SAM) and Perceived Stress Scale (PSS) provided similar valuable insight on how each group appraise and perceive their stressors. The two groups did not differ on their perceived stress scores. However, I do think it's important to note that while both groups scored similarly on threat appraisal, the U.S. group alone scored high on challenge appraisal, suggesting it is perhaps easier for the American group to reframe their appraisal of stress. Perhaps this is also due to the lack of mental health resources as well as the stigma of seeking these resources that exists in Jamaica. This further suggests the importance of studies such as the present one to highlight the

immediate need for better mental health and preventative programs in Jamaica. Even though the sample size in this study was small the results provide substantial claims.

Stress is created when a person perceives their environment as negative or troublesome (Islam et al., 2022). Understanding the influence of environment and culture on behavior and coping strategies is important to create effective mental health programs. Islam et al., (2022) found that COVID-19 created two distinct stressors. The first, the threat of contracting the virus, Secondly, the threat of unemployment which millions faced. Both of these stressors (threats) caused an increase in negative emotions. They found that emotional support seeking through social networking sites increased and had negative implications such as social network exhaustion which occurs from constantly seeking of emotional support from these platforms. The pandemic forced millions into some sort of isolation from the outside world especially young children and older people since they were categorized as higher risk for the virus. Millions turned to social networks as a source of self-distraction. This suggests social networking may directly influence stress and coping behaviors. Perhaps creating social network interventions will help create healthier boundaries and coping strategies. This is important for individuals of all ages who utilize social media often. There might be many impacts leading to long term maladaptive coping strategies.

Lazarus and Folkman (1984) discussed the two types of general coping, problem-focused and emotional coping. Problem focused involves finding some sort of solution for some aspect or all of the stressor. For example, if an individual knows there will be traffic resulting in late arrival to work, they can alleviate some stress by leaving much earlier for work. Emotional focused coping is based on managing and utilizing effective

emotions to manage the stressor. Positive thinking and reframing are examples of emotion focused coping. For example, if an individual encounters a stressor that influences them to be angry if they can find a positive manner to express their feelings that be effective emotion-focused coping. Lazarus and Folkman (1984) described stress as self-appraisals that lead to adverse emotional states due to the individual's inability to cope with the demands of the stressor. Individual stress appraising is crucial to investigate when studying coping behaviors. The present study found Jamaicans had a slightly higher overall stress appraisal score in comparison to American participants, but the results were not significant failing to support hypothesis #3 which was Jamaicans will have higher stress appraisal scores. It is interesting to note the only significant finding in regard to stress appraisal measures was U.S participants viewed their stressor as a challenge meaning, the stressor they are facing will result in growth gained in their perspective (Peacock & Wong, 1990). This is interesting because Americans also scored significantly higher in mature defense mechanisms and intellect (openness). This might be due to the fact America has more treatment and programs to help alleviate and manage stressors in comparison to Jamaica (World Health Organization, 2018). These findings suggest Americans have access to resources within their environment and social settings that may help to develop more mature defense mechanisms and intellect. Also, mental health is stigmatized more in Jamaica than it is in America creating another barrier to seeking help for many Jamaicans contributing to the study's findings (Morgan et al, 2020).

The bar graph in figure 2 represents the results from the Stress Appraisal Measure (SAM). Stress appraisals are categorized by controllable by self, threat, centrality,

uncontrollable, controllable by others, challenge, and stressfulness. Among both groups stressfulness scored the lowest and controllable by self-scored the highest. A possible implication for American scoring the highest for perceiving their stressor as controllable by self may be a result of having higher mature defense mechanisms as well. The present study also found Americans to have significantly higher mature defense mechanisms than Jamaicans. The American group also scored higher in centrality, challenge, and stressfulness sub-scales. Both groups had similar results for threat, uncontrollable and controllable by others. Perhaps the similarities are due to a personality trait more than the individual's perception of the stressor. For example, some individuals might view daily hassles as threatening, to most people daily hassles are annoying but not necessarily extremely stressful. Stress appraisal is a complex process that requires maturity to navigate. This is why I believe there is an insightful link between stress appraisals and mature defense mechanisms.

The Mini International Personality Item Pool provided insight on the personality traits of the participants based on the five factor traits, intellect, neuroticism, conscientiousness, agreeableness, and extraversion. The present study found that U.S participants scored higher in extraversion, agreeableness, neuroticism, intellect, acting out, anticipation, fantasy, devaluation, humor, idealization, isolation, projection, altruism, rationalization, reaction formation, somatization, splitting, sublimation, suppression, undoing, denial, and displacement. Jamaican participants scored higher in passive aggression, conscientious and dissociation. This partially supports hypothesis #4, which was U.S participants will score higher in conscientiousness and extraversion, while Jamaicans will score high in agreeableness and passive aggression. It is interesting to

note that Americans scored higher in more items than Jamaicans. Perhaps this is also due to the lack of mental health resources available to Jamaicans. This may also be attributed to the U.S being a melting pot society resulting in diverse personalities. Hull and Beaujean (2011) conducted a personality with Jamaican young adults examining Big Five Personality traits. This study did not use the Mini IPIP, like the present study instead used the NEO-Five Factor Inventory. They found some insight that suggests agreeableness and intellect (openness) contributed to personality and behavior. The present study found Americans to be more agreeable than Jamaicans. This finding further suggests there could be due to the cultural difference in each country. America is much more diverse with a variety of resources, cultures, and ethnicities in comparison to Jamaica possibly contributing to higher intellect. More importantly, the mental health resources vary greatly between countries. There is a lack of mental health professionals, treatment centers and overall support (World Health Organization, 2018). DeYoung (2006) suggest both extraversion and intellect (openness) are indicative of a higher level of plasticity and approach versus avoidance. The study also suggested stability is associated with agreeableness, conscientiousness, and neuroticism. The present study found the U.S group scored higher in agreeableness and neuroticism while the Jamaican group scored higher in conscientiousness. The U.S. group scoring higher in both extraversion and intellect might be attributed to Americans being more risk-taking and adventurous than most populations including Jamaica. In the present study males were significantly more likely than females to engage in behavioral disengagement. Males also scored higher in reaction formation and passive aggression. It is important to note individuals respond to stressors based on resources, life experiences, and personality (Sinha & Latha, 2018).

Perhaps males scored significantly higher than females to use behavioral disengagement as a coping strategy because men are less likely than females to seek mental health services or support. Men also tend to disengage in mental health services. Kwon et al., (2023) conduced a study exploring the reasons why men disengage at higher rates than females. Their study found that men disengage mainly because of autonomy, professionalism, authenticity, and systematic barriers. Participants felt clinicians disregarded their autonomy making them feel unheard or uninvolved in their treatment decisions which contributed to disengagement (p.4). Participants complained that a lack of professionalism caused them to cease efforts for obtaining mental health services. Almost all of the participants indicated they did not feel genuine interest or empathy from their mental health care providers. Systematic barriers include accessibility, aftercare, and consistency from mental health providers., Many participants expressed the lack of communication between the clinics and clinicians which inevitably causes additional barriers to engaging in receiving adequate care (p.6). Kwon et al., (2023) found that men will successfully reengage with mental health services if they are able to provide feedback while still maintaining a healthy therapeutic relationship, services are provided to them by individuals with similar life and personal experiences, and a transparent system for reentry into seeking mental health care. This is important to note because these implementations may help increase the number of men that seek and engage successfully in mental health care programs. Potentially decreasing passive aggression and behavioral disengagement in men. These findings suggest females might relate to their mental health care providers more often than men, causing men to disengage at higher rates in comparison to females.

Limitations

While this study has contributed to the research on stress, defense mechanisms and coping strategies between Jamaicans and Americans, it has a number of limitations that should be considered. The first limitation to this study is the conditions in which each participants completed the survey may be different. The participants who opted to take their surveys at home may have encountered extraneous variables unknown to the researcher. For example, household members or roommates might be a source of distraction or perhaps the participants received a phone call while completing the survey that completely altered their focus. The researcher will not be able to observe or control these variables which may impact the responses of the participant. A second limitation was recruiting participants mainly in the New York and Old Harbour areas. This may limit the generalizability of the results to other areas if the U.S. and Jamaica. A third limitation is the reliance of self-report measures. Biases may cause people to over or under report while completing the questionnaires (Ezzati, 2006). Self-report questionaries have also been associated with overestimating or underestimating (Brown et al. 2016). A fourth limitation is the type of language in the measures used might be more suitable for one group than the other. Jamaican English tends to follow the British English spellings. Despite research limitations this study is the first to explore coping strategies, stress appraisals and defense mechanisms cross culturally between Jamaica and the United States. Understanding coping behaviors cross-culturally can help researchers and practitioners improve coping efficiency. A fifth limitation is the small sample size (96 total participants). A larger sample size might have provided stronger and more accurate mean values. The sixth limitation is there was no control for how long a person lived in

their country of origin. Based on the demographic questionnaire (Appendix A). Ninety-two percent (88 participants) lived in their country or origin for more than 4 years based on analysis of the results.

Future Research

Future studies should consider controlling for number of years the participant has lived in their country of origin. This is important in cross-cultural studies because geographic location is important. How much time the participant has spent in their specific country of origin is important to know due to the fact that their cultural environment influences their habits and behaviors. Future studies should seek a large sample size to gain more robust means between the two groups. A larger sample size might provide more significant results inevitably providing stronger correlations and results. Also, the sample size is not representative of the Jamaican population due to is small size. The present study nonetheless provided meaningful data, with significant results.

Researchers should consider conducting studies that compare various types of coping strategies, defense mechanism and stress appraisals based on age and country of origin. Using age as a variable may provide insight on coping strategies based on generation. Furthermore, it would be insightful to conduct one on one interviews with the participants asking them the questions and recording their answers. This method of collecting data may help to ensure participants are more aware and attentive to the questions they are answering. Perhaps, a multi method way of collecting responses as discussed by Schellings and Van Hout-Wolters (2011) could provide deeper insight on the broader picture being investigated. Multi-method response collection would give each

participants various options for recording their responses. Charles and Abbas (2010) discussed in a multimethod study "test burden" (p. 203) might become an issue due to the various steps each participation.

Coping strategies and defense mechanism have concepts that may overlap but should be differentiated on the conscious and unconscious processes dictated by intentional or unintentional actions of the individual based on Cramer (2000) findings. Cramer also noted that it is crucial to understand participants may describe their coping strategies with influence from their defense mechanisms (p. 641). This is important to highlight because there are multiple factors that involve the conscious and unconscious processes. Having multiple measures provides some additional insight on these dynamics. Since coping is indeed a dynamic process that changes based on social and economic environment (Henry-Lee et al., 2010). U.S. participants might have had social and environmental buffers that acted against maladaptive coping strategies in comparison to Jamaican participants. Further research including environmental and social buffers this could produce useful insight.

Conclusion

The aim of this study was to investigate stress appraisal, coping strategies and defense mechanisms decision making processes in Jamaica as they compare to the United States. This research utilized multiple self-report measures. Hull and Beaujean (2011) discussed the importance of collecting data from multiple self- report sources for future research on the Jamaican population. This is due to the lack of available research and the ideology that more measures provide more information to analyze. Specifically, questions this study explored were which group utilizes more immature and neurotic defense

mechanisms as well as which group be more likely to engage in use of humor, religion emotional support and self-distraction. The results provided valuable insight on stress response behaviors and decisions individuals make that are driven by perceived stress, defense mechanism, personality. Jamaican participants scored significantly higher in passive aggression. U.S. participants scored significantly higher in anticipation, extraversion, intellect, suppression. U.S also scored higher in agreeableness and conscientiousness, but the results were not significant. Males scored significantly higher in behavior disengagement in comparison to female participants. Males also scored higher in passive aggression, but the results were not significant. This finding suggests the need for diversity and inclusion in mental health related services and programs to help men successfully engage in mental health resources. Jamaicans scored higher in using more neurotic defense mechanisms, while Americans scored higher in immature, mature and image-distorting defense mechanisms. The results are important because it is one of the first studies to explore coping strategies, defense mechanism, stress appraisals and personality traits in a Jamaican sample.

My goal is to provide practical implications and potential suggestions to help reduce stress and maladaptive coping in Jamaica and the U.S. The implications founded by the present study may be effective in creating programs or services that support the development of defense mechanisms, stress appraisals and coping strategies to effectively ease the impact of internal and external stressors. This study has the potential to influence similar studies. While there have been many cross-cultural studies, there are limited studies on Jamaicans specifically. This study is a positive contribution to the limited research available on Jamaicans' coping and defense mechanism responses. My hope is

that this research will inspire further cross-cultural coping and stress research among the Caribbean population.

Appendix A.

Demographics Questionnaire

1. Age
2. Gender
3. Race

    Black (1)

    White or European (2)

    Asian (3)

    Middle Eastern (4)

    Other (please specify) (5) _____

4. Country of Origin

    Jamaica (1)

    United States of America (2)

5. How long have you resided in country of origin?

    0-1 years (1)

    Over 1 year but less than 5 years (2)

    5-10 years (3)

    Over 10 years (4)

6. Highest level of education completed:

    High School/GED (1)

    Bachelors (2)

    Masters or higher (3)

    Other (please specify) (4) _____

7. Marital Status:

    Single (1)

    Married (2)

    Widowed (3)

    Divorced (4)

8. State or Parish of birth

9. Do you have a disability?

    No (1)

    Yes (2)

10. Employment status:

    Full-time (1)

    Part-time (2)

    Contract/ Temporary/Seasonal (3)

    Unemployed (4)

    Unable to work (5)

    Other (please specify) (6) _____

11. How many dependents (persons you are responsible for full-time) do you have?

12. Do you have any history of mental illness?

13. Do you have any history of any injuries? Please include all physical injuries.

Appendix B.

Brief COPE Inventory

(Brief-COPE) (Carver et al., 1989)

(4-point Likert scale)

(1- I haven't been doing this at all | 2- I've been doing this a little | 3- I've been doing this a medium amount | 4- I've been doing this a lot)

I've been turning to work or other activities to take my mind off things.
I've been concentrating my efforts on doing something about the situation I'm in.
I've been saying to myself "this isn't real".
I've been using alcohol or other drugs to make myself feel better
I've been getting emotional support from others.
I've been giving up trying to deal with it.
I've been taking action to try to make the situation better.
I've been refusing to believe that it has happened.
I've been saying things to let my unpleasant feelings escape
I've been getting help and advice from other people.
I've been using alcohol or other drugs to help me get through it.
I've been trying to see it in a different light, to make it seem more positive.
I've been criticizing myself.
I've been trying to come up with a strategy about what to do.
I've been getting comfort and understanding from someone.
I've been giving up the attempt to cope.
I've been looking for something good in what is happening.
I've been making jokes about it.
I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
I've been accepting the reality of the fact that it has happened.
I've been expressing my negative feelings.

I've been trying to find comfort in my religion or spiritual beliefs

I've been trying to get advice or help from other people about what

I've been learning to live with it.

I've been thinking hard about what steps to take.

I've been blaming myself for things that happened

I've been praying or meditating

I've been making fun of the situation.

Brief COPE Scoring Procedure:

The responses are coded in the following manner across all statements:

1= I haven't been doing this at all

2= I've been doing this a little bit

3= I've been doing this a medium amount

4= I've been doing this a lot

Brief COPE Score:

Self-Distraction BC1 + BC19

Active Coping BC2 + BC7

Denial BC3 + BC8

Substance Use BC4 + BC11

Use of Emotional Support BC5 + BC15

Use of Instrumental Support BC10 + BC23

Behavioral Disengagement BC6 + BC16

Venting BC9 + BC21

Positive Reframing BC12 + BC17

Planning BC14 + BC25

Humor BC18 + BC28

Acceptance BC20 + BC24

Religion BC22 + BC27

Self-Blame BC13 + BC26

Appendix C.

Defense Style Questionnaire (DSQ40)

(DSQ40) (Andrews, Singh & Bond, 1993)

(9-point Likert scale)

(0- Never | 1- Almost Never | 2- Sometimes | 3- Fairly Often | 4- Very Often |

5-Neutral | 6-Slightly Agree | 7-Midly Agree | 8- Agree | 9- Strongly Agree)

1. I'm able to keep a problem out of my mind until I have time to deal with it.

2. I work out my anxiety through doing something constructive and creative like painting or woodwork

3. I'm able to laugh at myself pretty easily.

4. I can keep the lid on my feelings if letting them out would interfere with what I'm doing

5. I'm usually able to see the funny side of an otherwise painful predicament

6. When I have to face a difficult situation, I try to imagine what it will be like and plan ways to cope with it.

7. If I can predict that I'm going to be sad ahead of time, I can cope better.

8. Sticking to the task at hand keeps me from feeling depressed or anxious.

9. After I fight for my rights, I tend to apologize for my assertiveness.

10. If I have an aggressive thought, I feel the need to do something to compensate for it.

11. I get satisfaction from helping others and if this were taken away from me I would get depressed.

12. If I were in a crisis, I would seek out another person who had the same problem.

13. I always feel that someone I know is like a guardian angel.

14. There is someone I know who can do anything and who is absolutely just and fair.

15. If someone mugged me and stole my money, I'd rather he be helped than punished.

16. I often find myself being very nice to people who by all rights I should be angry at.

17. People tend to mistreat me.

18. I am sure I get a raw deal from life.

19. If my boss bugged me, I might make a mistake in my work or work more slowly so as to get back at him.

20. No matter how much I complain, I never get a satisfactory response.

21. I often act impulsively when something is bothering me.

22. I get openly aggressive when I feel hurt.

23. I'm often told that I don't show my feelings.

24. Often I find that I don't feel anything when the situation would seem to warrant strong emotions.

25. I pride myself on my ability to cut people down to size.

26. I'm a very inhibited person.

27. I get more satisfaction from my fantasies than from my real life.

28. I work more things out in my daydreams than in my real life.

29. People say I tend to ignore unpleasant facts as if they didn't exist.

30. I fear nothing.

31. Doctors never really understand what is wrong with me.

32. When I'm depressed or anxious, eating makes me feel better.

33. I ignore danger as if I was Superman.

34. I've special talents that allow me to go through life with no problems.

35. Sometimes I think I'm an angel and other times I think I'm a devil.

36. As far as I'm concerned, people are either good or bad.

37. I am able to find good reasons for everything I do.

38. There are always good reasons when things don't work out for me

39. I get physically ill when things aren't going well for me.

40. I get a headache when I have to do something I don't like.

DSQ40 Scoring Procedure:

Mature Defense Style:

Sublimation DSQ2 + DSQ8

Humor DSQ3 + DSQ5

Anticipation DSQ6 + DSQ7

Suppression DSQ1 + DSQ4

Rationalization DSQ16 + DSQ37

Neurotic Defense Style:

Undoing DSQ9 + DSQ10

Altruism DSQ11 + DSQ12

Idealization DSQ13 + DSQ14

Reaction Formation DSQ15 + DSQ16

Immature Defense Style:

Projection DSQ17 + DSQ18

Passive Aggression DSQ19 + DSQ20

Acting out DSQ21 + DSQ22

Fantasy DSQ27 + DSQ28

Displacement DSQ31 + DSQ32

Somatization DSQ39 + DSQ40

Image Distorting

Denial DSQ29 + DSQ30

Dissociation DSQ33 + DSQ34

Devaluation DSQ25 + DSQ26

Isolation DSQ23 + DSQ24

Splitting DSQ35 + DSQ36

Appendix D.

Perceived Stress Scale

(PSS) (Cohen, Kamarck, & Mermelstein, 1983)

(5-point Likert scale)

(0- Never | 1- Almost Never | 2- Sometimes | 3- Fairly Often | 4- Very Often)

1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. In the last month, how often have you felt that you were unable to control the important things in your life?
3. In the last month, how often have you felt nervous and stressed?
4. In the last month, how often have you felt confident about your ability to handle your personal problems?
5. In the last month, how often have you felt that things were going your way?
6. In the last month, how often have you found that you could not cope with all the things that you had to do?
7. In the last month, how often have you been able to control irritations in your life?
8. In the last month, how often have you felt that you were on top of things?
9. In the last month, how often have you been angered because of things that happened that were outside of your control?
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Perceived Stress Scale Scoring Procedure:

Reverse scores for questions 4, 5, 7, and 8. For these questions change the score to:

0=4, 1=3, 2=2, 3=1, 4=0.

Add up all scores to get a total score. Individuals' score can range from 0 to 40 with higher scores indicating higher perceived stress.

- Scores ranging from 0-13 would be considered low stress.
- Scores ranging from 14-25 would be considered moderate stress.
- Scores ranging from 27-40 would be considered high perceived stress.

Retrieved from: https://www.das.nh.gov/wellness/docs/percieved%20stress%20scale.pdf

Appendix E.

Stress Appraisal Measure (SAM)

(SAM) (Peacock & Wong, 1990)

(5-point Likert scale)

(1- Not at All | 2- Slightly | 3- Moderately | 4- Considerably | 5- Extremely)

1. Is this a totally hopeless situation?
2. Does this situation create tension in me?
3. Is the outcome of this situation uncontrollable by anyone?
4. Is there someone or some agency I can turn to for help if I need it?
5. Does this situation make me feel anxious?
6. Does this situation have important consequences for me?
7. Is this going to have a positive impact on me?
8. How eager am I to tackle this problem?
9. How much will I be affected by the outcome of this situation?
10. To what extent can I become a stronger person because of this problem?
11. Will the outcome of this situation be negative?
12. Do I have the ability to do well in this situation?
13. Does this situation have serious implications for me?
14. Do I have what it takes to do well in this situation?
15. Is there help available to me for dealing with this problem?
16. Does this situation tax or exceed my coping resources?
17. Are there sufficient resources available to help me in dealing with this situation?
18. Is it beyond anyone's power to do anything about this situation?
19. To what extent am I excited thinking about the outcome of this situation?
20. How threatening is this situation?
21. Is the problem unresolvable by anyone?
22. Will I be able to overcome the problem?
23. Is there anyone who can help me to manage this problem?

24. To what extent do I perceive this situation as stressful?
25. Do I have the skills necessary to achieve a successful outcome to this situation?
26. To what extent does this event require coping efforts on my part?
27. Does this situation have long-term consequences for me?
28. Is this going to have a negative impact on me?

Stress Appraisal Measure (SAM) Scoring Procedure:

1. Controllable by self : SAM12 + SAM14 + SAM22 + SAM25 + SAM26
2. Threat: SAM5 +SAM11 + SAM20 + SAM28
3. Centrality: SAM6 + SAM9 + SAM13 + SAM27
4. Uncontrollable: SAM1+ SAM3 + SAM16 + SAM18 + SAM21
5. Controllable by others: SAM4 + SAM15 + SAM17 + SAM23
6. Challenge: SAM7 + SAM8 + SAM10 + SAM19
7. Stressfulness: SAM2 + SAM 24

Retrieved from: http://www.drpaulwong.com/wp-content/uploads/2018/03/Stress-Appraisal-Measure-SAM-Peacock-Wong-1990-Scale.pdf

Appendix F.

Open Ended Questions Self Report Questionnaire

Please do not enter any personal information including name, address or anything that is identifiable to you.

1. Would you consider your daily life to be stressful? Why or why not.
2. Do you get easily irritated by minor problems or hassles? Explain.
3. List the activities you engage in to overcome or manage stress? (e.g., church, drinking, smoking, exercise, etc.)
4. Who do you confide in or seek support from when a stressful event arises? Explain your answer.
5. List three aspects of your life that you feel is normal but think someone outside of your culture feel is anomalous?
6. How are you feeling today?
7. Were there any external factors that influenced your responses today?
8. How often do you engage in leisure activities?

Appendix G.

Mini International Personality Item Pool (IPIP)

(Mini IPIP) (Hendriks, Hoftee, & De Raad, 2002)

(5-point Likert scale)

1- Strongly disagree | 2- Disagree | 3- Neutral | 4- Agree | 5- Strongly agree

1. I am the life of the party.
2. I sympathize with others' feelings.
3. I get chores done right away.
4. I have frequent mood swings.
5. I have a vivid imagination
6. I don't talk a lot.
7. I'm not interested in other peoples' problems.
8. I often forget to put things back in their proper place.
9. I am relaxed most of the time.
10. I am not interested in abstract ideas.
11. I talk to a lot of different people at parties.
12. I feel others' emotions.
13. I like order.
14. I get upset easily.
15. I have difficulty understanding abstract ideas.
16. I keep in the background.
17. I am not really interested in others.
18. I make a mess of things.

19. I seldom feel blue.

20. I do not have a good imagination.

Mini International Personality Item Pool Scoring Procedure:

Extraversion IPIP1 + IPIP6 + IPIP11 + IPIP16

Agreeableness IPIP2 + IPIP7 + IPIP12 + IPIP17

Conscientiousness IPIP3+ IPIP8 + IPIP13 + IPIP18

Neuroticism IPIP4 + IPIP9 + IPIP14 + IPIP19

Intellect (openness) IPIP5 + IPIP10+ IPIP15 + IPIP20

Appendix H.

Consent Form

This consent form located at the start of the survey before participants begin

Survey link: https://harvard.az1.qualtrics.com/jfe/form/SV_1HRTIcf1tB55I9g

You are being invited to participate in a research study. This consent form will provide you with information on the research project and what you will need to do. Your participation is voluntary. Please read this form carefully. It is important that you ask questions and fully understand the research in order to make an informed decision.

What is the purpose of this research? There are benefits to exploring the differences of coping strategies and defense mechanisms in a cross-cultural manner. Cross cultural studies advance the knowledge beyond geographical constraints, being able to compare and contrast the behaviors of individuals cross-culturally provides insight on how to effectively programs and provide mental health services. Cross culture psychology studies provide cultural perspectives on diverse human behaviors, which is one of the goals of this study. The relationship between both countries' population regarding stress is worth exploring due to the fact that United States citizens make up the largest group of travelers to Jamaica and Jamaicans are the largest Caribbean descent group in the United States. There is sufficient evidence that suggests experiencing chronic stress has negative effects on physical and mental health.

What can I expect if I take part in this research?

- **Each participant will receive a direct link to the survey via Qualtrics.**
- **The survey should take approximately 25 mins to complete entirely.**
- **After the survey is completed, your must email your pseudonym (fake name) to FactsSerica@gmail.com to be entered into a raffle to win $100 U.S. (there will be THREE winners, selected at random).**
- **The research project will take approximately 3-4 weeks to complete**
- **The survey can be completed (anywhere quiet and free of distractions) on a smartphone, tablet, laptop, or any device with web browsing capabilities.**
- **Each participant should only submit one survey entry.**

What should I know about this research study?

- **Whether or not you take part is up to you.**
- **Your participation is completely voluntary.**
- **You can choose not to take part.**
- **You can agree to take part and later change your mind.**
- **Your decision will not be held against you.**
- **Your refusal to participate will not result in any consequences or any loss of benefits that you are otherwise entitled to receive.**

- **DO NOT ENTER ANY PERSONAL OR IDENTIFIABLE INFORMATION IN SHORT ANSWER RESPONSES.**
- **ALL ANSWER ARE TO REMAIN ANONYMOUS.**
- **If you have any questions before you decide to participate, please email FactsSerica@gmail.com.**
- ***If you agree to participate in this study, please choose YES below and click the arrow to continue to the survey. If you do not agree please choose NO below and exit the survey.***

If you have questions, concerns, or complaints please email FactsSerica@gmail.com

Appendix I.

Participant Recruitment Poster

PARTICIPANTS NEEDED FOR A STUDY INVESTIGATING STRESS, COPING & DEFENSE MECHANISMS BETWEEN AMERICANS & JAMAICANS JMUS

What do we need?

- Participants who are 18 years or older
- Proficient in reading & understanding English
- In good general health, with no history of neurological or psychiatric illness.
- Participants must be from a Jamaican or American background.
- The survey will take about 30 mins to complete.

The survey MUST be completed (anywhere quiet and free of distractions) on a smartphone, tablet, laptop, or any device with web browsing capabilities.

Each participant can only submit ONE survey entry.
Each participant must sign their initials on the consent form before beginning the survey.

If you decide to participate in the raffle, you must follow the directions at the end of the survey to enter.

The raffle prize winner will receive $100 U.S

Whether or not you take part is up to you.

1. Your participation is completely voluntary.
2. You can choose not to take part.
3. You can agree to take part and later change your mind.
4. Your decision will not be held against you.
5. Your refusal to participate will not result in any consequences or any loss of benefits that you are otherwise entitled to receive.
6. You can ask all the questions you want before you decide.

Link to survey: https://harvard.az1.qualtrics.com/jfe/form/SV_1HRTIcf1tB55I9g

To learn more about this research project contact:
FactsSerica@gmail.com

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