

EXAMINING BELIEF IN PRAYER, FREQUENCY OF PRAYER, PRAYER TYPES, AND
LEVELS OF STRESS IN A SAMPLE OF AFRICAN AMERICAN ADULTS

by

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A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

African Americans face many stressors in their daily lives, including financial difficulties, crime and safety issues, perceived racism or discrimination, and physical health issues. Many African Americans use prayer to cope with stress. This study explored African American adults' belief in the efficacy of prayer, frequency of prayer, prayer types (adoration, confession, thanksgiving, supplication, and reception), and their association with stress levels. The theoretical frameworks used for this study were Pargament's theory of religious coping, cognitive stress theory, and Vroom's expectancy theory. This quantitative study used a cross-sectional survey design intending to provide counselors with information regarding prayer as a coping strategy for African Americans and how the belief in prayer is associated with stress levels when mediated by frequency of prayer and moderated by prayer types. Anonymous survey responses were analyzed using a simple mediation analysis and a moderated mediation analysis. Findings showed that belief in the efficacy of prayer has an inverse relationship with stress levels when mediated by the frequency of prayer. It was also found that none of the prayer types acted as a moderator for indirect relationship between belief in prayer and stress levels when the frequency of prayer was the mediator. However, thanksgiving, reception, and adoration prayers acted as a moderator for the direct relationship between belief in prayer and stress levels. Based on the results, belief in prayer is an effective coping mechanism for African Americans, and those who pray more frequently tend to have lower stress levels. It is also concluded that thanksgiving, reception, and adoration prayer reduce stress when combined with the belief in the efficacy of prayer.

Keywords: prayer, prayer types, religious coping, stress

Dedication

I want to dedicate this study to my husband, Jeremy Pittman, and my three children, Jeremiah, Joel, and Jordyn. Thank you all for being by my side during this journey and providing me with love and support. You all motivated me to keep going when I wanted to give up. I want to thank all my family and friends who encouraged me when I felt discouraged. You all, indeed, have been my rock. I most importantly want to thank God for giving me patience, peace, and strength during this time. Philippians 4:13 “I can do all things through Christ who strengthens me.” Lastly, I want to thank all the participants in my study. I hope this study will provide information for mental health professionals regarding prayer types that will be valuable for their practice with African Americans.

Acknowledgments

I want to acknowledge God, the head of my life and from whom all blessings flow. Without God, I wouldn't have made it through. However, with much prayer and faith, I made it. Philippians 4:6 "Be anxious for nothing but in everything by prayer and supplication, with thanksgiving, let your requests be made known to God; and the peace of God, which surpasses all understanding, will guard your hearts and minds through Jesus Christ.

Next, I want to thank my chair, Dr. Pamela Moore. Thank you for your support, guidance, encouragement, and assistance during this process. Thank you for being patient with me and genuinely wanting to help me make it to the finish line. I also want to thank Dr. Fred Volk and other committee members for your assistance during this process. I greatly appreciate you all.

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List of Abbreviations

Adoration Prayer (ADO)

Belief in Prayer (BLF)

Confession Prayer (CON)

Frequency of Prayer (FRQ)

Multidimensional Prayer Inventory (MPI)

Perceived Stress Scale (PSS)

Reception Prayer (REC)

Statistical Package for the Social Sciences (SPSS)

Supplication Prayer (SUP)

Thanksgiving Prayer (THK)

CHAPTER ONE: INTRODUCTION

Overview

This chapter will examine African Americans' belief in prayer, frequency of prayer, and use of different prayer types to cope with stress. African Americans have historically used religion as a coping mechanism, including prayer, but are an understudied population regarding the diverse prayer types. This chapter will present the historical background, theoretical framework, problem statement, purpose statement, significance of the study, research questions, and operational definitions. The chapter concludes with a summary.

Background

African Americans of low socio-economic status report higher stress levels than Caucasian Americans (Haynes et al., 2017; American Psychological Association-Stress and Health Disparities Working Group, 2017). Stress is an environmental, social, or internal demand that results in a psychological, physiological, or behavioral response (Bruce et al., 2015; Griffith et al., 2013). Stress is a key contributor to poor health outcomes (Ellis et al., 2015). Exposure to stress increases the likelihood of experiencing stress-related psychopathology. Individuals living below the poverty level have poorer mental health, more chronic health conditions, and a shorter lifespan (American Psychological Association-Stress and Health Disparities Working Group, 2017). There are significant race and class disparities in access to a full range of personal, social, educational, and material resources (American Psychological Association-Stress and Health Disparities Working Group, 2017). African Americans are more likely than Caucasian Americans to live in areas with insufficient educational resources, inadequate housing, family disruption, gender disorder, pollution, and violence (Bruce et al., 2015; Haynes et al., 2017). It

can be challenging to meet minor demands without sufficient resources, which can be a significant stressor (Evans, 2012).

Stress associated with social and economic disadvantage hurts psychological, neurobiological, physiological, and behavioral processes (Santiago et al., 2011; Tawakol et al., 2019). Griffith et al. (2013) found that African American males' primary stressors are challenges in fulfilling their role as economic providers for their families and being African American males in a racially stratified society. They reported employment stress as the most common type due to receiving less pay than Caucasian Americans, working long hours, having complex interactions with coworkers, and the decreasing workforce. African American men also reported significant stress due to being treated differently because of their race and discrimination.

Moreover, African American women reported exposure to high levels of stress due to their race, gender, and socioeconomic position (Woods-Giscombe et al., 2015). According to Giurgescu et al. (2013), African American women are more likely to experience more chronic stressors than Caucasian women, such as living in poor neighborhoods, racial discrimination, financial issues, and issues in their family and friends' network. These stressors can lead to psychological and physiological disorders (Giurgescu et al., 2013). As a result, African American women appear to have higher stress-related conditions such as diabetes, cardiovascular disease, and adverse birth outcomes (Sheffield-Abdullah & Woods-Giscombe, 2015).

Despite the amount of stress African Americans face, they are less likely to seek professional mental health treatment when encountering psychological distress or other mental health issues. African Americans are under-served regarding medical and mental health services (Taylor et al., 2021). According to Haynes et al. (2017), African Americans in the rural south have stressful living environments. Still, they report religious beliefs and other community-held

beliefs contribute to their lack of help seeking-behaviors from a licensed mental health provider. African Americans are more likely to use prayer and indicate the importance of God in their lives in comparison to other racial/ethnic groups (Hamilton et al., 2020).

Hamilton et al. (2020) studied African Americans' use of prayer during life-threatening illnesses and found that African Americans requested strength to endure, protection, and healing and expressed gratitude through prayer. Prayer is an essential expression of spirituality and mental health in older African Americans facing life-threatening illnesses. African Americans consider God a vital source of support during trouble (Hamilton & Sandelowski, 2004).

Historical Overview

According to Cone (1997), the Black religious perspective was created in the context of human suffering during slavery and segregation. During enslavement, Africans and their descendants were exposed to Christianity. According to Raboteau (1995), enslaved people found a theology of history in the Bible that helped them make sense of their enslavement. They were particularly intrigued by the story of Exodus. Enslaved people believed themselves like Israel, suffering servitude under a new Pharaoh. Black people believed that just as God had delivered Moses and the Israelites from Egypt, Daniel from the lion's den, and the Hebrew children from the fiery furnace, He would also deliver them from slavery (Cone, 1997). Therefore, when Blacks would sing, pray, and preach, it was grounded in the belief that God's choice was to be with the oppressed. Through prayer and other religious coping methods, Blacks expressed their visions of freedom and believed Jesus was their helper when they felt weak or helpless. This belief in God being more powerful than their oppressors freed Blacks from being dependent upon slavery and gave them a sense of hope. Many Blacks also believed prayer was needed to stay on the Lord's journey (Cone, 1997). They believed God was everything they needed to

sustain life, and He was the one they could go to when they were in trouble. According to Taylor et al. (2021), the Black church, prayer, and spiritual hymns reminded enslaved Africans to take their burdens to God and leave them there.

Conceptual/Theoretical Background

Pargament's Theory of Religious Coping

Pargament (1997) studied the relationship between religion and coping concerning psychology and life stressors. According to Pargament et al. (1998), in the face of stressful life events, general religious beliefs and practices are transformed into specific forms of coping. They believed that individuals' use of religious coping during stressful times directly affects their health. Pargament (1997) theorized that people turn to religious coping because it is easily accessible and a more compelling way of coping. He proposed that those with limited means with fewer alternatives were more likely to allow religion to take a greater power in their lives. Pargament suggested that this may be why religious coping is more evident in less powerful groups such as Blacks, women, the elderly, the poor, and more troubled people. According to Pargament's theory, people who attributed life events to supernatural forces were more likely to pray, attend church, and report a closer relationship with God. This commitment to religion was associated with individuals believing God controls the outcomes of any situation. Finally, he hypothesized that positive religious coping, such as prayer, could mitigate the adverse effects of stress or other crises that impact one's life (Pargament et al., 1998). Pargament and Raiya (2007) formed seven assumptions about religion:

- 1) Religion comes in many shapes and sizes.
- 2) Religious coping does not operate in a vacuum.
- 3) Religious coping has spiritual, psychological, and physical implications.

- 4) Religious coping can be both harmful and helpful.
- 5) Religious coping is a better predictor of outcomes than general religious outcomes.
- 6) To study religion, multiple research methods and tools are needed.
- 7) Religion can be fully interwoven into efforts to help people.

Each of these assumptions will be examined further in chapter two.

Cognitive Stress Theory

According to Lazarus and Folkman (1984), cognitive appraisal stress occurs when a person considers the threatening nature of the stress and assesses the resources required to minimize or eliminate it. They further state that psychological stress occurs when the individual appraises the stress as exceeding their resources and endangering their well-being. Under similar circumstances, people may respond differently. For instance, one person may react with depression, another with anger, while another may respond with anxiety. Additionally, people differ in their interpretation and reactions to stress.

Lazarus and Folkman (1984) further discussed primary and secondary stress appraisals. Primary appraisals focus on the encounter and whether it is threatening or not. Three forms of primary appraisals (harm/loss, threat, and challenge) will be discussed further in chapter two. Secondary appraisals focus on whether there is a way to eliminate stress. This appraisal will also be discussed further in chapter two.

Vroom's Expectancy Theory

Vroom's (1964) expectancy theory is a cognitive process theory of motivation that asserts that people are motivated to utilize a higher level of effort when they believe there is an association between the effort they put forth, the performance achieved, and the outcome received. Vroom's (1964) theory's three critical components are valence, expectancy, and

instrumentality. Valence is considered the importance, attractiveness, desirability, or anticipated satisfaction with the outcome (Van Eerde & Thierry, 1996; Vroom, 1964). It is the value one places on a specific outcome or reward associated with particular behaviors. Expectancy is a subjective probability of an effort leading to a result (Van Eerde & Thierry, 1996; Vroom, 1964). It associates effort with performance, for instance, how much the additional attempt will help one achieve the target behavior. Finally, instrumentality is a relationship between two outcomes and the probability of obtaining an outcome (Van Eerde & Thierry, 1996; Vroom, 1964). It focuses on how much one believes a reward will appear if one achieves the desired results.

Prayer

According to Spilka and Ladd (2013), prayer is an offering of one's desires to God for things agreeable to His will. Responsive communication brings one's personal needs and wants into the picture. Through prayer, individuals can identify with the Divine (Pargament, 1997). As stated by Spilka and Ladd (2013), prayers assign power to God and anticipate kindness and generosity on the part of the Deity. Individuals who pray believe that one has gained additional protection and safety from God, which results in greater peace of mind. Spilka and Ladd (2013) evaluated prayer from a cognitive perspective (beliefs about prayer), motivational perspective (reasons for praying), neuropsychological perspective (brain reaction to prayer), and social-psychological perspective (relationship between the person and God). Each of these perspectives will be discussed further in chapter two.

According to McCullough and Willoughby (2009) and Weber and Pargament (2014), the primary role of prayer is to give individuals a greater sense of control which is positively associated with better mental health and well-being. Pargament et al. (1998) found that religious coping is associated with many critical life situations', physical health, and mental health-related

outcomes. In addition, they observed that positive religious coping in the face of stress is tied to fewer symptoms of psychological distress and spiritual growth. Pargament (1997) identified three religious coping methods: self-directing, deferring, and collaborative. He defined self-directing coping as one where people rely on themselves instead of God. Deferring coping is passively giving responsibility to God. Collaborative coping is working with God actively as a partner. Pargament (1997) found that those with a collaborative style pray more frequently and appear to have a more committed relationship with God. He also found that the collaborative approach is associated with greater self-esteem and better personal control. Based on this theory, greater prayer frequency is associated with more spirituality and better well-being.

Lastly, it is essential to consider that prayer is multidimensional. Laird et al. (2004) mention that people use different types of prayer to cope with stress. Laird et al. (2004) created the multidimensional prayer inventory to assess individuals based on prayer types. These prayer types include adoration, confession, thanksgiving, supplication, and reception. According to Laird et al. (2004), adoration prayer refers to worshiping God for who He is instead of focusing on a need. Secondly, confession prayer involves admitting faults or wrongdoings. Thirdly, thanksgiving prayer consists of thanking God for meeting specific needs. Next, supplication prayer focuses on requesting needs or wants from God. Finally, reception prayer includes waiting on God for guidance or wisdom.

Belief in the Efficacy of Prayer

Matthew 21:22 states, “If you believe, you will receive whatever you ask for in prayer.” This scripture suggests that prayer is effective when an individual has faith or believes their prayers will be answered. Krause et al. (2000) analyzed individuals' beliefs about how prayer works, including whether prayers are responded to and situations in which prayers are

successful. According to this study, there are several general beliefs about prayer. These beliefs include whether all prayers are answered, the timing of answers to prayers, and how prayers are answered.

Krause et al. (2000) found that three beliefs emerged regarding whether all prayers are answered. These include the belief that prayers are only answered if a person works hard with God on a solution, the belief that prayers are only answered if the person has the right attitude, and the belief that prayers are answered if a person asks for wisdom and guidance. When considering beliefs about the timing of prayers, Krause et al. (2000) found that many believed that individuals should be patient when waiting for an answer to a prayer because prayers are usually answered at the exact time when it is needed most. Additionally, when evaluating people's beliefs about how prayers are answered, Krause et al. (2000) found that while individuals believe they may not always get what they ask for in prayer, they always get what they need the most.

Brummer (2016) likewise stated that most believers would claim that God answers their prayers based on personal experience and that even though he may not answer all prayers, the prayers offered up do have an effect. Brummer (2016) also suggested that prayer is a way one exercises one's faith and that prayer is meaningless and ineffective without faith. According to Brummer (2016), one recognizes an event as an act or work of God only with the eyes of faith. Finally, he discusses how all the things one does when one prays to God presuppose the nature of God and one's relationship with him. These beliefs about prayer will be discussed further in chapter two.

Problem Statement

African Americans often use religious coping to help with many problems, including physical health, mental health, finances, employment, and interpersonal (Bryant-Davis et al., 2012; Bryant-Davis & Wong, 2013; Taylor et al., 2021). Prayer is a common practice for African Americans, even if they don't attend religious services. According to Brown et al. (2013), six of 10 individuals who never attend church services indicate prayer is essential during stressful situations and look to God for strength. However, the problem is that while there is literature regarding the use of religious coping with stressful situations, there is a tiny body of research that explores the use of religious coping methods in African American Christians in response to stressors such as physical illness, financial difficulties, and interpersonal problems (Harris et al., 2019; Park, Holt, et al., 2018).

Taylor et al. (2021) completed a study that examined the degree to which African Americans and Black Caribbeans used religious coping for mental health issues and stressful situations. Three out of four participants reported using prayer to cope with mental and emotional problems. They recommended that future studies focus on prayer as one form of religious coping to address mental health issues. They also suggested that future research focus on examining the differences in types of prayer (mediative, colloquial, petitionary, ritual, etc.) used as a coping mechanism. Laird et al. (2004) proposed that to study the impacts of prayer on individuals from a cognitive, physical, and emotional position; future researchers should evaluate individuals based on distinct types of prayer. He suggested people be assessed regarding the frequency of prayer, belief in the efficacy of prayer, and five different types of prayer (adoration, confession, thanksgiving, supplication, and reception). Each of these variables would be studied related to perceived stress levels.

This research explores the association between the belief in the efficacy of prayer, frequency of prayer, and the use of different prayer types in African Americans facing general life stressors. This study will consider African Americans' use of five types of prayer: adoration, confession, thanksgiving, supplication, and reception. This is significant because, as Pargament (1997) suggested, different people may use different types of prayer to cope with stressful life events. Similarly, Laird et al. (2004) indicated that individuals rely on different prayer types. Still, he believed the kind of prayer a person uses depends on cognitive development and life events. Likewise, Martinez (2012) postulated that a person's prayers are affected by spiritual conditions and factors such as temperament, personality, and circumstances.

Nevertheless, while each of these researchers distinguished the types of prayers used by individuals, none of them examined how each prayer type was associated with perceived stress levels when considering belief in prayer and frequency of prayer. There is limited literature on the different prayer types and stress (Taylor et al., 2021). This study is significant as it will examine the belief in the efficacy of prayer, frequency of prayer, and different prayer types and their association with perceived stress levels.

Purpose Statement

The purpose of the study is to explore African American adults' belief in the efficacy of prayer and its association with frequency of prayer, types of prayer (adoration, confession, thanksgiving, supplication, and reception), and stress. Many studies focus on general prayer measures, such as the frequency of prayer, without reference to the specific types of prayer or underlying processes that may contribute to perceived effectiveness (Lazar, 2015; Skipper et al., 2018; Taylor et al., 2021). However, prayer is multidimensional and should be examined as such (Laird et al., 2004; Spilka & Ladd, 2013). This study will evaluate the belief in the efficacy of

prayer, frequency of prayer, and five different types of prayer (adoration, confession, thanksgiving, supplication, and reception) using the multidimensional prayer inventory.

Participants will also be assessed regarding perceived stress levels using the perceived stress scale. This study will add to the body of literature regarding how belief in the efficacy of prayer, frequency of prayer, and prayer types are associated with perceived stress levels in African American adults. As Lazar (2015) mentions, future studies that assess individuals' use of prayer types should focus on specific aspects of psychological well-being, such as anxiety or stress, instead of subjective well-being.

Additionally, Taylor et al. (2021) mention that further research is needed to understand differences in prayer types used by African Americans for coping and the conditions that enable positive coping through prayer. This study will evaluate stress as a form of psychological well-being. It will include an examination of the belief in the efficacy of prayer, frequency of prayer, and specific prayer types used by African Americans.

Significance of the Study

African Americans often use prayer when coping with stressful situations, decreasing stress (Cooper et al., 2014; Skipper et al., 2018; Taylor et al., 2021). While using prayer to cope has been previously studied, the focus has been on prayer frequency or its effectiveness. This study is significant as it will provide insight into the association between belief in the efficacy of prayer, frequency of prayer, prayer types, and perceived stress levels. The American Psychological Association (2017) recommends in their multicultural guidelines that psychologists or other mental health clinicians should seek to understand how identity is shaped by cultural influences such as religion and spirituality. For many people, health can be entwined with their religious or spiritual beliefs, which is why it is crucial not solely to treat the underlying

medical or mental health conditions but also to include spiritual healing (American Psychological Association, 2017).

The study results will be necessary for counselors who work with African American adults who consider themselves spiritual or religious and are trying to cope with stressful life events. Clinicians who receive training in spiritual interventions can better understand how prayer or other religious techniques act as a coping mechanism to address mental health issues, including stress (Taylor et al., 2021). The study will help counselors better understand the different types of prayer one uses and how the belief in the efficacy of prayer, frequency of prayer, and prayer types affect perceived stress levels. Counselors may be inclined to recommend that clients include prayer in their daily life as a positive coping tool if they are religious and not currently using it and to pray more frequently. Jeppsen et al. (2015) suggested that counselors consider an individual's use of prayer when culturally relevant. By identifying prayer as a coping strategy, mental health providers can be better equipped to work with African Americans who are largely underserved regarding mental health (Taylor et al., 2021).

Research Questions

RQ1: What is the association between the belief in the efficacy of prayer, the frequency of prayer, and the level of stress?

RQ2: Does prayer type moderate the direct and indirect effect of the belief in the efficacy of prayer on frequency of prayer and level of stress?

Definitions

Adoration prayer- focuses on God's worship and praise without reference to specific needs (Laird et al., 2004).

Colloquial prayer- prayer that involves using a conversational tone with God, expressing love and adoration, and asking God for guidance (Jeppsen et al., 2015).

Confession prayer- prayer in which shortcomings are acknowledged (Laird et al., 2004).

Mediative prayer- prayer that is passive and focuses on listening for God's direction and feeling His presence (Jeppsen et al., 2015).

Negative religious coping- religious coping that reflects spiritual tension, negative reappraisals of God's power (feeling abandoned or punished by God), spiritual questioning and doubting, and interpersonal religious discontent (Boulware & Bui, 2016).

Positive religious coping- religious coping that reflects a sense of connectedness with God, a sense of spiritual connection with others, and a belief that life has a greater benevolent meaning (Boulware & Bui, 2016).

Prayer - the experience of being in communication with a higher power, which can be formal or conversational, enunciated, or silent, utilizing written words, song lyrics, or utterances, circumscribed or spontaneous, public, or private, involving gestures, body postures, oral formulas, repetition, concentration on specific topics, meditation, and can stimulate or be stimulated by emotions (Spilka & Ladd, 2013).

Religious coping- the use of religious beliefs or behaviors to prevent or alleviate the negative emotional consequences of stressful life events (Koenig et al., 1998).

Reception prayer- prayer in which an individual waits for guidance and direction (Laird et al., 2004).

Stress- A normal psychological and physical reaction to demands in life (Jones, 2016).

Supplication prayer - prayer used to request intervention from God (Laird et al., 2004).

Thanksgiving prayer - prayer which involves expression of thanks (Laird et al., 2004).

Summary

Chapter one presented the problem statement: limited research on different prayer types, belief in prayer, and prayer frequency in African Americans as a coping mechanism for perceived stress. The background of the problem included a discussion of the specific stressors faced by African Americans and how they've used religious coping over the years instead of seeking professional mental health treatment. The significance of the study was explained concerning the importance of understanding the association between belief in the efficacy of prayer, frequency of prayer, prayer types (adoration, confession, thanksgiving, supplication, and reception), and perceived stress. There was also a discussion of how this is important from a multicultural perspective when working with clients who are religiously or spiritually inclined. The chapter concluded with research questions and operational definitions.

CHAPTER TWO: LITERATURE REVIEW

Overview

Chapter two will examine the gaps in the literature related to African Americans' belief in prayer, frequency of prayer, and use of specific prayer types as a religious coping mechanism when faced with general life stressors. This chapter will begin by exploring the literature about the theoretical framework's Pargament's theory of religious coping and cognitive stress theory. The second portion of this chapter will analyze stress in African Americans, barriers to seeking professional mental health treatment, and spirituality and religious coping in African Americans.

Conceptual or Theoretical Framework

The theoretical framework will explore theories and concepts related to the current study. The theoretical framework provides a grounding base for the literature review, methods, and analysis (Grant & Osanloo, 2014). The theoretical frameworks used to support this study include Pargament's theory of religious coping, cognitive stress theory, and Vroom's expectancy theory. Additionally, the concept of prayer and belief in the efficacy of prayer will be used. This research will critically examine the literature on religious coping and prayer to better understand how belief in prayer, prayer frequency, and prayer types is associated with perceived stress levels in African American adults using these theoretical perspectives and concepts.

Pargament's Theory of Religious Coping

According to Pargament (1997), the coping process is oriented to stressful life experiences, whereas religion is oriented to the sacred. Religion can be involved in coping but also guides how individuals should respond when faced with these challenges (Pargament, 1997). While each religion is different and may have other solutions to problems, they each offer a way to cope with stressful situations. Religious coping is sometimes prompted by conditions

pushing a person beyond their understanding and limited personal and social resources (Pargament & Raiya, 2007).

Pargament's theory of religious coping has seven assumptions. The first assumption is that "religion comes in many shapes and sizes" (Pargament & Raiya, 2007, p. 743). According to this assumption, individuals may use different forms of religious coping. For example, people who are trying to gain control of their lives may use collaborative religious coping, active religious coping, passive religious coping, pleading with God, or self-directing religious coping (Pargament et al., 2000). Individuals may also use positive or negative religious coping strategies when stressed. For example, Aflakseir and Mahdiyar (2016) found that women in their study who were facing infertility issues and were depressed used active, positive religious coping methods more frequently than passive negative religious coping. This supports Pargament's assertion that religiousness is more often linked to active than passive coping techniques (Pargament & Raiya, 2007). Finally, prayer is considered one form of active religious coping. According to Sharp (2012), prayer is an interaction with an imagined being with a human-to-human type exchange that influences social action through psychological processes. However, as Sharp (2012) mentioned, there are various ways and reasons people pray which should be considered.

The second assumption by Pargament and Raiya (2007) is that "religious coping does not operate in a vacuum" (p.743). According to this assumption, religious coping depends significantly on cultural factors and can be fully embodied in an individual's life. Individuals use well-established beliefs, practices, attitudes, goals, and values when using religious coping during troubles or distress. African Americans have the highest rate of church attendance among all racial/ethnic groups in the United States. This attendance at the Black church has helped

provide mental health care and physical resources for those in need (Lukachko et al., 2015). According to Harris et al. (2021), religion and prayer are the most acceptable forms of help-seeking in African American communities. However, as Laird et al. (2004) proposed, prayer is multidimensional, and individuals rely on different prayer types based on various factors, including cognitions, culture, beliefs, and various life events.

The third assumption by Pargament and Raiya (2007) is that “religious coping has spiritual, psychological, and physical implications” (p. 743). According to this assumption, religion can serve multiple purposes. It can assist with spiritual growth, improve mental health, as well as help with physical health. Pargament et al. (2004) found that medically ill elderly patients' positive religious coping methods were associated with improved health. In contrast, negative religious coping was associated with declines in health. Sharif et al. (2018) found in their study of Iranian cancer patients that more positive religious coping increased the ability to manage stressors, improved psychological well-being, and promoted adaptation. This study shows the positive effects of religious coping, including prayer, on one's well-being.

The fourth assumption by Pargament and Raiya (2007) is that “religious coping can be both helpful and harmful (p.744). According to this assumption, individuals may use positive or negative religious coping. For example, Park, Holt, et al. (2018) found in African Americans that positive religious coping was associated with positive well-being indicators, and negative religious coping was associated with negative well-being, such as depressive symptoms. Positive religious coping mechanisms include working with God to cope with stress and seeking guidance. In contrast, negative religious coping believes one is being punished for sins or that God isn't answering their prayers (Holt et al., 2014).

The fifth assumption by Pargament and Raiya (2007) is that “religious coping is a better predictor of outcomes than more general religious outcomes” (p.744). According to this assumption, focusing on general or global religious measures such as frequency of prayer is not as strong a predictor of outcomes as specific religious coping methods such as how a person is praying. Spilka and Ladd (2013) also report prayer is complex and can be expressed in many ways. They mentioned that when researchers only use a single item to measure prayer, such as frequency of prayer, it is difficult to know what the data means because it is so vague. They advocate that to understand prayer, multidimensional indices are essential.

This sixth assumption by Pargament and Raiya (2007) is that “to study religion, multiple research methods and tools are needed” (p.745). According to this assumption, religious coping is complex and multi-faceted; no research method can fully capture it. Therefore, to create a clearer understanding of the various ways individuals use religious expression, many research methods and tools are needed to explore it. This assumption is demonstrated by Harris et al. (2019). They found that African American women use many types of religious coping mechanisms, including positive and negative religious coping, reading the Bible, pastoral counseling, prayer, and church.

The seventh assumption by Pargament and Raiya (2007) is that “religion can be fully interwoven into efforts to help people” (p.745). According to this assumption, religious beliefs are a part of the daily functioning of many people. Therefore, clinicians should try to incorporate religious coping techniques when working with African Americans clients who are religious. According to Harris et al. (2019), although counselors should be aware of cultural barriers that contribute to African Americans' lack of participation in counseling, they should also learn to highlight how religion and the church are a source of support.

Cognitive Stress Theory

Lazarus and Folkman's (1984) cognitive appraisal theory defined stress as a relationship between the person and the environment they appraise as taxing or exceeding their resources and endangering their well-being. They suggested that people experience stress when demands exceed the available resources to cope with those demands. Lazarus and Folkman (1984) theorized in their concept of appraisal that subjective assessment of experiences influences emotions and behaviors related to events. Primary appraisals focus on one's perception of an event as a threat, whereas secondary appraisals reflect one's assessment of resources available to help one address the situation. When one lacks resources to meet demands, stress is the result. African Americans are among those who are overrepresented as poor, with minimal resources, having a greater likelihood of entering poverty and a lower likelihood of leaving poverty (Snowden, 2014). Santiago et al. (2011) found that socioeconomic status, neighborhood disadvantage, and poverty can all contribute to stress, negatively impacting the psychological health of children, adolescents, and adults.

Lazarus and Folkman (1984) discussed stress appraisals which include harm/loss, threat, and challenge. The harm/loss appraisal includes situations in which the individual has already experienced harm, such as a disabling illness, impairment of self-esteem, or loss of a loved one, followed by negative emotions. Many African Americans are experiencing significant health issues. According to Kochanek et al. (2013), the life expectancy for Blacks is lower than that for Whites due to heart disease, cancer, homicide, diabetes, and perinatal conditions (Kochanek et al., 2013). This increased risk of physical health diagnosis and lowered life expectancy is like Lazarus and Folkman's (1984) harm/loss appraisal, which can contribute to stress.

The second form of appraisal, the threat appraisal, centers on harms or losses that have not occurred but are anticipated. For example, according to Simning et al. (2012) and Lei et al. (2015), African Americans who reported higher levels of perceived crime and neighborhood problems were more likely to have a psychiatric disorder than others. This fear of being in a crime-infested area is like the threat appraisal, which can also contribute to stress, according to Lazarus and Folkman (1984).

Lastly, challenge appraisal is a form in which an individual may look at the stressor as a potential for gain or growth. Some African Americans who are strong in their faith may consider their stressor as a temporary trial. They may believe what the Bible says regarding rejoicing in suffering (James 1: 2-4) and that if they remain steadfast, they will receive the crown of life (James 1:12). According to Lazarus and Folkman (1984), this belief in God can give individuals meaning in life to maintain hope even when a situation appears damaging. They suggested that when beliefs are infused with emotion, they can generate hope. As it pertains to this study, prayer is the tool used that will be evaluated to determine if it gives African Americans hope when they are faced with stress.

Vroom's Expectancy Theory

Vroom's (1964) expectancy theory is a cognitive process theory of motivation that asserts that people will be motivated to utilize a higher level of effort when they believe there is an association between the effort put forth, the performance they achieve, and the outcome received. It focuses on the things people want and their likelihood of getting them. Vroom's (1964) theory is divided into three categories. These three categories include valence, expectancy, and instrumentality. In the first category, valence is defined as the importance, attractiveness, desirability, or anticipated satisfaction with the outcome (Van Eerde & Thierry, 1996; Vroom,

1964). It is considered the value one places on a specific outcome or reward associated with specific behaviors. If the reward is meaningful, it may motivate the individual to increase an action to receive a reward.

The second category, expectancy, is a subjective probability of an effort leading to an outcome (Van Eerde & Thierry, 1996; Vroom, 1964). It associates effort with performance, for instance, how much the additional effort will help one achieve the target behavior. If an individual puts in the extra effort, they may expect a particular reward or result. This expectancy increases an individual's motivation. The third category, instrumentality, is a relationship between two outcomes and the probability of obtaining an outcome (Van Eerde & Thierry, 1996; Vroom, 1964). It focuses on how much one believes a reward will appear if one achieves the desired outcomes. When considering the use of Vroom's expectancy theory in this study, valence would be considered the use of prayer to get a reward that one truly values or needs. Expectancy is the individual's belief that they will receive a reward if they pray. Instrumentality would be the individual's effort, such as believing the frequency with which one prays will lead to the desired outcome.

According to Gyurko (2011), Vroom's expectancy theory has cognitive and social dimensions similar to social cognitive theory. According to this theory, how one thinks, believes, and feels affects how one behaves. Saleem et al. (2021) found that the frequency of their prayer offering positively impacts mental health in those who believe in God. Possel et al. (2014) also found that trust-based beliefs and prayer frequency are associated with mental health. Those who believe in God and pray more frequently tend to have better mental, physical, and spiritual health.

Prayer

According to Spilka and Ladd (2013), prayer is communication with God. Prayer attributes power to God and offers peace of mind. There are four psychological perspectives of prayer, which are cognitive, motivational, neuropsychological, and social-psychological. The first perspective, the cognitive perspective of prayer, focuses on individuals' beliefs about prayer and the nature of God. For instance, when one uses petitionary prayer, one may believe God can do anything. Harris et al. (2019) studied African American women's use of religious coping, including prayer, and found that many believed God to be a keeper when trying to get through the valley. The participants recalled dealing with stressful situations such as grief and loss, divorce, and medical and financial issues. Many believed God was the reason they could endure their struggles.

The second perspective identified was the motivational perspective of prayer. According to this perspective, there are many reasons why people pray. Some of the reasons identified include praying because one needs assistance with something, such as facing a threat or crisis, praying for personal growth, or praying to improve their relationship with God. For example, Whittington and Scher (2010) found that individuals pray for many different reasons, including adoration, confession, thanksgiving, supplication, and reception, but also some pray out of obligation.

The third perspective identified was the neuropsychological perspective of prayer. This perspective focuses on how the brain responds when one prays or uses religious coping techniques. For example, Gupta et al. (2018) evaluated imaging and neuropsychological changes in the brain of those who use spiritual practices. They found that individuals have improved cognitive processing speed, significantly improved mood and that the frontal cortex is activated

with improved perfusion in the frontal lobes. They concluded that spiritual practices impact neural networks, brain perfusion, cognitive processing, and sense of well-being.

The last perspective identified was the social-psychological perspective of prayer. This perspective focuses on the relationship between people and God and how individuals connect to God through prayer. For example, Spilka and Ladd (2013) discussed prayer as being interpersonal. Likewise, Neubauer (2014) found that prayer appears to be a reciprocal relationship. Ninety-two percent of participants in the study reported they felt the presence of God within one minute of praying. In addition, many participants reported believing that God was speaking to them.

Additionally, the brain areas activated during prayer to God overlap with areas activated during a spontaneous speech to a loved one. This study will review the belief in prayer, the frequency of prayer, and the different types of prayer used amongst African Americans and their association with perceived stress levels. The types of prayer will include adoration, confession, thanksgiving, supplication, and reception. According to Laird et al. (2004), adoration prayer involves praising God for who He is and not because something is needed. Confession prayer involves admitting a sin. Thanksgiving prayer involves giving thanks for meeting supplication prayer involves requesting a need. In contrast, reception prayer involves waiting on God to move or provide direction.

Belief in the Efficacy of Prayer

Numerous scriptures inform Christians to have faith when they pray and that God will answer their prayers. For instance, Mark 11:24 states, “Therefore I tell you, whatever you ask for in prayer, believe that you have received it, and it will be yours. Likewise, Hebrews 11:6 states, “And without faith, it is impossible to please God, because anyone who comes to Him must

believe that he exists and that he rewards those who earnestly seek him. Proverbs 3: 5-6 states, "Trust in the Lord with all your heart, and do not lean on your understanding. In all your ways, acknowledge Him, and he will direct your paths. According to Krause et al. (2000), there are general beliefs about how prayer operates. This study shows the general beliefs include a belief about whether all prayers are answered, a belief about the timing of answers to prayers, and a belief regarding how prayers are answered.

When evaluating the belief about whether prayers are answered, Krause et al. (2000) found that many people believe their prayers are answered but only under certain circumstances. Some believe that prayers are answered if the person works hard with God on a solution. For instance, the Bible states in James 2:17, "Faith without works is dead." Some believe that even if they pray, they need to work with God by putting in the effort to come to a solution. Additionally, they found that individuals believed that prayers are answered only if the person has the right attitude. The Bible talks about praying with wrong motives in James 4:3 "You ask and do not receive because you ask amiss, that you may spend it on pleasures." However, Philippians 4:6 states to make all requests to God with Thanksgiving. Furthermore, individuals believe that prayers are answered if they ask for wisdom and guidance instead of material things. James 1:5, "If any of you lacks wisdom, you should ask God, who gives generously to all without finding fault, and it will be given to you.

Secondly, when examining beliefs about the timing of prayer, Krause et al. (2000) found that most believed that waiting for prayers to be answered requires patience. They mentioned that when prayers are answered, they are answered when needed most and that God is never too early and never too late. Romans 8:24-25 states, "Hope that is seen is no hope at all, but if we hope for what we do not have yet, we wait patiently for it." Romans 12:12 states, "rejoice in

hope, be patient in tribulation, and be constant in prayer.” Lastly, according to Psalm 40:1, “I waited patiently for the Lord; he inclined to me and heard my cry.”

Thirdly, Krause et al. (2000) evaluated individuals' beliefs about how prayers are answered. Many stated that they don't always get exactly what they pray for; however, the individuals receive what they need the most. For example, the Bible says in Matthew 6:31-33, “Do not worry, for God knows what we need before we even ask, seek the kingdom of God above all else, and live righteously, and God will supply all our needs.” Likewise, Philippians 4:19 states, “My God will meet all your needs according to the riches of His glory in Christ Jesus.”

Brummer (2016) also suggested that prayer is a way one exercises one's beliefs and that prayer is meaningless and ineffective without faith. According to Brummer (2016), one recognizes an event as an act or work of God only with the eyes of faith. He discusses how the things one does when one prays to presuppose the nature of God and one's relationship with him. For instance, when one uses petition prayer (asking God for things), one presupposes that God can bring about the things asked of Him. Additionally, when one uses intercession prayer (praying for other people), one assumes that God is compassionate and concerned about the well-being of everyone. Likewise, when one uses confession prayer (admitting one's faults or sins), one assumes God is merciful and forgiving. Furthermore, when one uses thanksgiving prayer (expressing gratitude to God), we assume that all of the things that contribute to our well-being, happiness, and opportunities are because of God's grace.

Related Literature

Several articles have been chosen and evaluated to show the gap in the literature and the support for additional research regarding African Americans' use of different prayer types when

facing life stressors. While the research is increasing regarding African Americans' use of prayer and other forms of religious coping, there remains limited research on specific prayer types and how these prayer types are associated with perceived stress levels (Taylor et al., 2021).

According to Wu et al. (2019), African Americans are subjected to excessive stress and health-related problems due to racial discrimination and high poverty. Yet, notwithstanding this high level of stress, African Americans have lower rates of professional mental health treatment (Le Cook et al., 2014; Woodward et al., 2015). Furthermore, African Americans who endorse higher levels of religious coping are less likely to attend professional counseling (Harris et al., 2021). Nevertheless, positive religious coping techniques have been found to predict well-being in African Americans (Park, Holt, et al., 2018).

African Americans and Stress

African Americans face a large number of stressors in their daily lives. For instance, according to Haynes et al. (2017), African Americans have identified racism, unemployment, and poverty, as social inequities that increase the risk of experiencing mental illness.

Additionally, according to Williams (2018), Blacks report lower levels of well-being concerning life satisfaction and happiness. Some African Americans experience stress associated with greater exposure to significant threats to safety, achievement, and belonging and having less access to resources to mitigate these threats (Chang et al., 2018). Furthermore, racial and ethnic discrimination, crime, and unemployment are also stressors identified by Chang et al. (2018). Those who live in poverty-ridden areas with high crime are especially susceptible to stress.

Prayer has been used as a coping tool for these stress sources. However, there is no information in the literature regarding African American belief in prayer, frequency of prayer, specific prayer types, and stress association which is the focus of this study. Taylor et al. (2021)

found that 75% of African Americans in their study reported that prayer was important during stressful experiences and that they looked to God for strength. They found that Blacks report high rates of prayer. They specifically evaluated the number of individuals who used prayer as a coping mechanism, whether they believed prayer is essential in stressful situations, and whether they looked to God for strength, support, and guidance. However, they suggested that future studies consider the differences in types of prayer used for coping as well as the quality and conditions that enable positive coping through prayer. The upcoming sections will focus on the types of stressors African Americans face, followed by perceived barriers to treatment and the use of religious coping with facing life stressors.

Crime and Safety Issues

There are significant disparities in neighborhood crime rates in the United States, with average crime rates higher in predominantly Black neighborhoods (Peterson & Krivo, 2010). The stress associated with crime and safety issues in African American communities can lead to mental and physical health issues. For example, Sun et al. (2020) found that one's perception of neighborhood violence, crime, and poor emotion regulation increased African American girls' vulnerability to posttraumatic symptoms. Additionally, Coulon et al. (2016) found that when neighborhood satisfaction was low, perceived crime was related to increased blood pressure. This study supports Lazarus and Folkman's (1984) cognitive stress appraisal theory and Copeland-Linder et al. (2011) research that a person's perception of their ability to handle stress, including one's fear of violence in their neighborhood, can influence their risk for adverse outcomes.

Accordingly, some African Americans use religious coping techniques to cope with the associated neighborhood stress. For instance, prayer is helpful for those struggling with stress

related to neighborhood issues. This is supported by Krause et al. (2017), who evaluated neighborhood stress, and how it impacts hypertension when the individual uses religious coping methods. They found those religious coping methods, such as believing God would handle the stressor, reduced hypertension. However, while Krause et al. (2017) included private prayer as a coping mechanism in their study, they did not consider the specific types of prayer used.

Similarly, Sealy-Jefferson et al. (2016) evaluated the role of religious coping on the impact of neighborhood disadvantage on pre-term delivery rates in pregnant African American women. They found that religious coping may be a buffer against pre-term delivery due to living in a disadvantaged neighborhood. However, their study focused specifically on the frequency with which one prays and the frequency with which one asks someone else to pray for them. Again, they did not mention specific prayer types, although they acknowledged that religious coping is multidimensional.

Financial Difficulties

According to the U.S. Census Bureau (2013), approximately 25.8% of African Americans live in poverty compared to 11.6% of Whites. In addition, perceived financial distress has been significantly associated with higher depressive symptoms (Hudson et al., 2012; Joshi et al., 2017; Starkey et al., 2013). Likewise, the U.S. Department of Health and Human Services, Office of Minority Health (2022) reported that Black or African Americans living below the poverty level are twice as likely to report severe psychological. This report signifies that living in poverty and dealing with financial difficulties can be very stressful for African Americans.

According to Mouzon et al. (2016), material hardship, such as the inability to meet basic needs, including housing and utilities, or a severe level of economic deprivation, is associated with high levels of distress among African Americans. Yelin et al. (2019) studied the effects of

poverty and stress on persons with Lupus and found that poverty was one factor that triggered disease flare-ups. Likewise, Assari (2018) found that household income is inversely associated with a risk of major depressive disorder and that African Americans are less protected from depression by household income than Whites. This study signifies poverty's negative impact on mental and physical health.

When considering the use of religious coping to buffer the effects of financial hardship on mental health, Bradshaw and Ellison (2010) found that certain aspects of religious coping buffer the effects of this distress. They specifically found religious attendance and the belief in an afterlife to be a buffer; however, there was no relationship between prayer and financial distress. Their findings are contrary to other studies, which found that religious coping, including prayer, is an effective coping mechanism to protect from depression for low-income people (Kilbourne et al., 2009). For instance, Lechner and Leopold (2015) assessed unemployment and the use of religious attendance as a coping mechanism and found that religious attendance buffers the psychological impact of unemployment. Moreover, Nierobisz and Sawchuk (2018) examined how older adults who experienced job loss during the 2008 Great Recession coped with the financial crisis. Many found their job loss to be traumatic. However, nearly 75% of the individuals used some form of religious coping.

Nierobisz and Sawchuk (2018) found five common themes in their study of those who used religious coping to deal with job loss. The first theme was faith as solace. Most of the participants expressed receiving comfort and strength from their faith. The second theme was surrendering to God. Many believed that God was merciful and capable of solving any issues they may have, so they were willing to surrender to Him. The third theme was meaning-making. Some individuals assumed a more significant reason for the job loss, such as a great opportunity

awaits them. The fourth theme was discontent with God or believers. A few used negative religious coping techniques, believing God wasn't moving on their behalf. Lastly, the fifth theme was gaining strength from their religious community. Many also received comfort from their church.

Nevertheless, while Nierobisz and Sawchuk (2018) focused on religious coping, they did not discuss the specific impact of prayer as a coping tool. However, they did agree with Pargament and Raiya (2007) and Laird et al. (2004), who suggested that religious coping is multidimensional. Therefore, they believe it should not be placed in overly simplistic categorizations such as positive or negative coping but more detailed categories.

Perceived Racism and Discrimination

African Americans' perception of experiencing racism and discrimination has been a source of harmful stress and has led to mental health issues in some. Pieterse et al. (2012) and Yoon et al. (2019) found that perceived everyday discrimination is associated with mental health problems for African American men and women. Likewise, Schmitt et al. (2014) found that if one believed they were the target of discrimination, their psychological well-being was threatened. This perceived discrimination increased their risk for suicide vulnerability (Walker et al., 2017). Those who have experienced racism reported feeling over-scrutinized, overlooked, underappreciated, misunderstood, and disrespected (Fleming et al., 2012).

Notably, religion has been found to play a significant role in coping with racial discrimination, with prayer being the most common strategy used by African Americans (Hayward & Krause, 2015). Moreover, previous studies show that African Americans' use of positive religious coping, such as prayer, has effectively reduced stress. For instance, Cooper et al. (2014) found that higher amounts of prayer to cope with racism were associated with

decreased stress and diastolic blood pressure in African American women. Likewise, Ellison et al. (2008) found that religious coping moderated the effects of racism on psychological distress and that having a healthy relationship with God served as a protective factor (Butler-Barnes et al., 2018).

Contrarily, Ellison et al. (2017) found that while church-based support buffered the association between discrimination and mental health concerns, prayer and church attendance failed to moderate the mental health effects of discrimination. McCleary-Gaddy and Miller (2019) examined African Americans' perception of everyday discrimination. They found that discrimination was not associated with positive religious coping methods, such as prayer but with negative religious coping methods, such as feeling disconnected from God. In many instances, negative religious coping has been found to increase stress or mental health issues (O'brien et al., 2019; Park, Holt, et al., 2018; Park, Smith, et al., 2017).

Physical Health Issues

According to the Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion (2017), Blacks in their 20s, 30s, and 40s are more likely to live with or die from conditions that occur in older ages in Whites, such as heart disease stroke and diabetes. Other key findings from the Center for Disease Control and Prevention are that Blacks ages 18 to 64 have a higher risk of early death than Whites and that Blacks have the highest death rate for all cancers combined. African Americans are also more likely than Caucasians to be diagnosed with hypertension and diabetes (Glover et al., 2016; Kelly & Ismail, 2015; Loehr et al., 2019). These physical illnesses are a significant stressor for African Americans. For instance, Blacks with aggressive breast cancer reported greater fear of dying, unmet supportive care needs, financial distress, lower physical/functioning well-being, and

overall worse health-related quality of life, including more significant depressive symptoms (Samuel et al., 2016; Sheppard et al., 2013). Likewise, African Americans diagnosed with cancer reported more stress from the cancer diagnosis than Whites (Zhang et al., 2012).

Consequently, faith, spirituality, prayer, and the presence of God have been considered an essential part of African Americans' coping with physical issues such as breast cancer (Best et al., 2015; Davis et al., 2018; Lynn et al., 2014). Prayer of others provides strength and comfort to African Americans who face physical health issues (Lynn et al., 2014). Praying for oneself is also a technique used by African Americans. For instance, according to Hamilton et al. (2020), African American's who prayed not only did so for strength to endure but also for healing, gratitude, and protection during illness. Hamilton et al. (2020) found that when people prayed for health and healing, it was done as a form of petitioning prayer, one of the most common. They found prayer to be a way to connect to God and comfort them in their belief that God promises them health and well-being through their association with Him. However, Hamilton et al. (2020) acknowledged that prayer is a global concept, and many people may have different perceptions of prayer. Although their study acknowledged thanksgiving as a form of prayer, the study focused primarily on petitioning prayer, which is a limited view of prayer.

Barriers to Professional Help-Seeking

Although African Americans have a higher likelihood of stress than Caucasians, they are less likely to have access to resources that will help buffer the effects of stressors (Johnson et al., 2016). According to Fripp and Carlson (2017), those seeking professional mental health treatment are frequently middle-class Caucasian Americans of higher socioeconomic status. In addition, Dempsey et al. (2016) reported that African Americans have been skeptical of services provided by professional mental health clinicians. Instead, they use religious coping, such as

seeking solace through the clergy. Furthermore, there are multiple other barriers to seeking professional mental health treatment. Those barriers include mental health stigma and low mental health literacy (Haynes et al., 2017; Jon-Ubabuco & Champion, 2019). Other barriers identified include the cost of care, transportation, lack of childcare, misdiagnosis, and overutilization of emergency care services (Kawaii-Bogue et al., 2017). The upcoming sections will discuss some of the barriers African Americans face which prohibit them from seeking mental health treatment.

Historical Mistrust

African Americans have a history of being misdiagnosed and mistreated in both mental and physical health realms, leading to mistrust of mental health and medical professionals. According to Gamble (1997), the Tuskegee Syphilis experiment is frequently described as why African Americans mistrust medicine and public health institutions. In the experiment, researchers withheld penicillin from African Americans to observe how syphilis spreads and attacks healthy human cells, which caused some to die. However, African Americans who participated in the study were never fully informed of the true nature of the study. Gamble (1997) also mentioned that Black Americans' fears about exploitation date back to the antebellum period when enslaved people and free Black people were used as subjects for dissection and medical experimentation. Some individuals perceived themselves as being judged by their mental health providers and felt as if they were being discriminated against (Borba et al., 2012). This perception led to their mistrust of the providers and underutilization of services. For instance, Hammond (2010) found that African American men's perceived racism in healthcare was strongly correlated to medical mistrust. They also found that African American men's

mistrust of healthcare organizations is also related to their negative social/healthcare experiences and characteristics.

Additionally, African Americans and Hispanic males have been more frequently diagnosed with Schizophrenia spectrum disorders than Caucasians (Choi et al., 2012; Gara et al., 2019). According to Gara et al. (2019), African Americans diagnosed with Schizophrenia were later evaluated and found to be more likely to have a mood disorder than Caucasian Americans diagnosed with Schizophrenia. This study suggests that there may be racial bias in diagnosing African Americans partly due to clinicians' underemphasizing the relevance of mood symptoms in Blacks (Gara et al., 2019). This misdiagnosis is one of several reasons African Americans refuse to seek professional mental health treatment. Misdiagnosis can lead to improper treatment and have serious consequences such as prolonged patient frustration, treatment nonadherence, dropout, and worsening morbidity (Gara et al., 2019). According to Ward et al. (2009), African American women report barriers to professional mental health treatments as poor quality of care and fear of misdiagnosis if the clinician is culturally incompetent.

Moreover, Memon et al. (2016) found that Blacks believed healthcare providers to be culturally naïve or insensitive. For instance, participants mentioned that they received inadequate treatment because of their ethnicity and struggled to understand the Black experience. They mentioned they preferred seeing someone who understands their culture. However, found it difficult to access services. According to Hooper et al. (2018), the higher the level of perceived competence, the less likely African Americans would not adhere to treatment. This study signifies that if individuals believe their provider is culturally competent to provide the needed services, they are more likely to adhere to treatment. However, they are less likely to adhere to treatment if they are not confident in the clinician's ability to treat individuals of diverse cultural

backgrounds. Suite et al. (2007) concluded that failure on the part of the practitioners to recognize and acknowledge the historical perspectives from which they and their patients of color make decisions contribute to mistrust of medical and mental health providers. Townes et al. (2009) state that African Americans with high levels of cultural mistrust, low assimilation attitudes, and high Afrocentric attitudes are more likely to see an African American counselor than a Caucasian counselor.

Help-Seeking Stigma

According to Masuda et al. (2012), mental health stigma is a set of negative attitudes towards people with a psychological disorder, such as that they are unpredictable or hopeless in recovery. For years, the African American community has associated a stigma with mental health treatment. Masuda et al. (2012) studied help-seeking attitudes and mental health stigma in African American college students and found that mental health stigma is associated with less favorable help-seeking attitudes. Similarly, Fripp and Carlson (2017) found that African Americans' help-seeking attitude is inversely correlated with stigma.

One barrier that inhibits Blacks from seeking mental health treatment is a fear of being labeled and believing they will be perceived as crazy (Jon-Ubabuco & Champion, 2019; Memon et al., 2016;). According to some of the participants in Memon et al. (2016) study, mental illness is viewed negatively in their communities, and they are expected to be strong or deal with it. Additionally, Williams et al. (2012) found that many African Americans expressed negative attitudes about people who obtain treatment for mental health and did not want to identify with this group.

Consequently, this fear of being viewed negatively is one reason some fail to obtain care. For instance, Samuel (2015) studied African American youth's reasons for not seeking treatment,

and they mentioned that the African American community is less tolerant of people with mental illness. Particularly believing people will think they are not normal and can't live everyday life. They also feared being gossiped about and looked at as if they were weak-minded or lazy. Additionally, Haynes et al. (2017) evaluated African Americans living in the rural south, and some reported fear of being labeled crazy or dangerous. In like manner, Ward et al. (2013) found that African Americans are not very open to acknowledging mental health issues as they feared that their significant others would find out that they were seeking treatment and look at them differently. Many were very concerned about stigma. Most individuals preferred religious coping techniques such as prayer or speaking to a pastor instead of seeking professional mental health treatment.

According to Neely-Fairbanks et al. (2018), 92% of African Americans in their study stated they would rather live with mental illness than seek treatment. Additionally, 83% of the African American participants feared getting treatment because of what others might think. Lastly, more than 75% of African American participants believed their faith in God would keep them healthy. They believed counseling would be a waste of time as it wasn't promised to heal. Additionally, Bodnar-deren et al. (2017) studied Black and White women who had post-partum depression and found that women who endorsed stigma about post-partum depression treatment were less likely to accept mental health medications or counseling. Black women in this study were more likely to accept spiritual counseling.

Economic Barriers

According to the Bureau of Labor Statistics (2021), Blacks are more likely to be unemployed than Whites and to be unemployed longer. Blacks had an unemployment rate of 11.6 while Whites' unemployment rate was 6.7 percent in 2020 (Bureau of Labor Statistics,

2021). Moreover, the rates of insurance loss are also very high for African American adults (Sohn, 2017). Some cannot afford insurance and do not have public assistance. This lack of insurance or ability to pay copays presents a barrier to seeking mental health treatment for some African Americans (Ward & Besson, 2013).

According to Coombs et al. (2022) in their study, African Americans were concerned about the cost of mental health services and believed free services should be more established throughout their community. They also found that some African Americans want to see a therapist, but the cost stops them from going. Likewise, Williams et al. (2012) found that African Americans who do not qualify for financial assistance and cannot afford insurance are concerned about treatment costs. Approximately a quarter of the participants in Williams et al. (2012) study reported that they did not have any insurance. As a result, individuals who do not have adequate income struggle to access mental health services (Borba et al., 2012). Some are turned away due to the inability to co-payments (Borba et al., 2012).

Furthermore, Ullman and Lorenz (2020) found over half of their participants did not have health insurance, which was a barrier to treatment. Some had interrupted therapy due to unpaid medical bills. Those who reported low income and lack of insurance believed this contributed to their negative mental health help-seeking experience. Lastly, Weaver et al. (2020) studied barriers to mental health treatment and church-based intervention. They found that most participants reported barriers to mental health treatment were cost (47.4%), lack of transportation (31.6%), and lack of insurance (26.3%). The majority indicated that church-based treatment for depression would benefit their community.

Religion, Prayer, and Coping

Benefits of Religion

Koenig (2018) discussed ten benefits of religion. The first benefit of religion is that it provides an optimistic view of the world. For instance, Christians believe God is loving, merciful, and compassionate. They believe that God controls everything and that people can communicate with God. For many people, this view of the world and communicating with God helps them cope. For instance, Dein and Cook (2015) found that those who communicate with God believed the communication provided them with direction, consolation, and empowerment. The second benefit is that religion provides meaning and purpose to people's lives. According to this view, there is a reason for everything. Those experiencing pain or suffering may believe this has a specific purpose. Aflakseir and Mahdiyar (2016) found that women suffering from fertility problems who used benevolent reappraisal when trying to cope had lower rates of depression. They found that those who believe their lives are controlled by a higher power or believe the stressful life event to be an opportunity for spiritual growth may find the event less stressful and less threatening.

The third benefit of religion is that it helps individuals psychologically process loss, trauma, or unwanted change. For example, those facing trauma may have religious rituals that help them deal with distress. For example, Johnson et al. (2016) found that African American women exposed to trauma reported receiving comfort from praying, reading their Bible, and considering religious teachings. The fourth benefit of religion is that it provides hope for better times in the future. For example, Morgan et al. (2017) found hope emerged as an essential feature in those who employed religious coping strategies such as praying, reading the Bible, listening to gospel music, and seeking spiritual support from others.

The fifth benefit of religion is that it empowers people to improve their situation. For instance, some believe their situation may improve if they confess their sins. Lazar (2015) found

that confession prayer is associated with well-being, possibly due to feelings of relief and empowerment. The sixth benefit of religion is that it provides a sense of control. If one prays to God, they may not feel the need to be as dependent on health professionals because they've given control to God. For example, McLaughlin et al. (2013) found that deferring control to God was associated with decreased breast cancer concerns in breast cancer patients.

The seventh benefit of religion is that it provides role models who can be used as examples during times of trouble. For instance, Christians may refer to the suffering of Job from the Bible and how God rewarded him in the end. In Job 2: 9-10 of the Holy Bible, Job's wife advised him to curse God and die. However, Job refused and stated, "shall we accept good from God and not trouble." Consequently, in Job 42:12, the Bible states, "The Lord blessed the latter part of Job's life more than the former part." The eighth benefit of religion is that it provides a guide for decision-making during difficult situations where an individual might be tempted to reduce stress in unhealthy ways. For instance, one may choose not to drink to cope since religion may discourage this. Instead, one may adhere to religious coping techniques. Harris et al. (2019) studied African American women's experiences with religious coping. They found that participants emphasized the importance of the Bible and its role in providing guidance and direction throughout their lives, especially during times of challenge. Some mentioned they sought assistance from their pastor, who would pray with them and impart spiritual wisdom.

The ninth benefit of religion is that it provides answers to questions. For instance, if someone is ill, they may question where they are going when they die. However, as Christians, many believe in life after death. They believe that the individual will go to Heaven. Park, Holt, et al. (2018) studied the association between religion, belief in an afterlife, and depression in elderly individuals. They found that people who believed in the afterlife were less likely to be

depressed than those who didn't. The tenth benefit of religion is it offers a community of believers to provide support and encouragement during difficult times. Both the clergy and members of the church are supportive of those struggling with stressful situations. Chatters et al. (2015) found that social support from church members was protective against depression and psychological distress.

Prayer as a Coping Mechanism

Adults facing challenging life issues and stressful situations often use prayer to cope (Simao et al., 2016). According to the Pew Forum on Religion and Public Life (2022), approximately 55% of Americans pray daily. Additionally, approximately 71 % of Americans pray at least once a week. This high frequency of prayer signifies its importance in many people's lives, including African Americans. Prayer gives control to God in situations, including stressful ones. It's a way that individuals can express their wants, needs, or even gratitude to God.

Sharp (2012) discussed a variety of ways and reasons people pray. According to Sharp (2012), people pray to communicate with God, petition for help, seek guidance, manage emotions, and perform religious rituals. For many people, prayer is a way to solve their troubles. It provides insight into the complications they face. Prayer is a way for people to make their requests known to God in hopes that He will answer them. African Americans are more likely to use religious coping techniques and are more likely to want their spiritual needs addressed in treatment if they do attend (Brewer & Williams, 2019; Brownley et al., 2015).

Coombs et al. (2022) found that some participants expressed that obtaining mental health services is contrary to what they believe as they were taught to take things to God in prayer, go to church, and not go to a mental health provider to share what is going on with them. Likewise,

Haynes et al. (2017) found that African Americans believe that faith in God and prayer are associated with maintaining emotional wellness because it gives them a sense of hope and optimism when facing stressful life events. Additionally, some African Americans believe that mental health issues such as anxiety, depression, and trauma can be addressed and managed by the church, which is another form of religious coping (Campbell & Littleton, 2018). Therefore, they believe that religiosity and spirituality are crucial to their mental health (Campbell & Littleton, 2018). Moreover, Himle et al. (2012) found that African Americans with obsessive-compulsive disorder rely heavily on prayer and less on church attendance when coping with the disorder.

Additionally, many African Americans rely on the Black church or other religious coping mechanisms during times of emotional distress because it provides a source of hope and support for disadvantaged communities (Brewer & Williams, 2019). Skipper et al. (2018) studied African Americans' use of prayer to cope and found three themes. The first theme found was that prayer builds personal strength. This theme signifies that one may feel a sense of hope and that their prayers will be answered, which helps to alleviate stress. The second theme found was that prayer strengthens families. Individuals believed that by one or both spouses praying, God would intercede on their behalf, contributing to a stronger family. The last theme found was that prayer unites communities. According to this theme, praying for each other can have the same emotional and psychological benefits as other supportive behaviors.

Moreover, when considering why Christians pray during times of stress, many Scriptures tell people to bring their needs and worries to God and that He will solve their problems. For instance, the Bible states that Jesus encourages those weary or heavily burdened to come to him to receive rest (Matthew 11:28). Similarly, 1 John 5:14 tells people they can be confident

knowing He hears them if they ask anything according to His will. Likewise, Mark 11:22-25 discusses mountain-moving prayer. It is encouraging in that it mentions that if someone is facing a mountain, it will be moved if they tell it to be moved. It goes further to say that whatever a person asks in prayer, if they believe they have received, it shall be theirs. Lastly, James 5:13-18 goes into great detail regarding healing prayer and the effectiveness of righteous prayers. For example, the Scripture states explicitly, “Is anyone among you suffering? Let him pray. The prayer of a righteous person has great power as it is working.” This use of prayer to cope with stressful life events can have different effects depending on the individual’s faith.

Frequency of Prayer. Prayer frequency refers to how often one prays. Most studies show frequency of prayer is associated with better mental health; however, the research is mixed. Some studies show prayer frequency is associated with poorer mental health, and other studies show no relationship between prayer frequency and psychological well-being. For instance, Cruz et al. (2009) studied the frequency of church attendance and prayer with depression and hopelessness in adults treated for major depression and found a negative association between the frequency of prayer and depression and hopelessness. On the other hand, the results showed that prayer was significantly related to less hopelessness and decreased depression.

Similarly, Hollywell and Walker (2009) found that the frequency of prayer is associated with decreased depression and anxiety. Likewise, Possel et al. (2014) found that a higher frequency of prayer was associated with less anxiety, confusion, and depression. They also found that the frequency of prayer reduced the effects of stress on anxiety. This prayer is possibly an effective coping mechanism when facing stress or other issues. On the contrary, Denny (2011) found that the frequency of prayer is associated with higher levels of depression. Likewise, Leondari and Gialamas (2009) found a positive association between the frequency of prayer and

anxiety. According to Leondari and Gialamas (2009), this may imply that anxious people frequently pray to cope with anxiety. However, it does not necessarily mean that frequency of prayer increases anxiety. It's also important to note that this contrasts with Ellison et al. (2009) study, which found the frequency of religious attendance was inversely associated with anxiety; however, it did not find any association between the frequency of prayer and anxiety. Likewise, Ellison et al. (2014) also did not find any association between the frequency of prayer and anxiety-related symptoms.

Belief in the Efficacy of Prayer. Previous research has shown that people's beliefs about God and belief in the efficacy of prayer contribute to well-being. For example, Jones et al. (2007) found that African American prostate cancer survivors believed that their faith in God helped reduce the stress they experienced from their prostate diagnosis. In addition, they believed that prayer helped give them peace of mind as well as strength. Krause (2004) found that people's trust-based prayer expectancies and the belief that God will answer prayers are associated with greater feelings of self-worth. Likewise, Laird et al. (2004) found that women who strongly believed in prayer had improved well-being and higher life satisfaction when prayer was prolonged.

In contrast, those with a low belief in prayer had negative well-being and poorer life satisfaction when the prayer was long. Krause and Hayward (2013) found that those who strongly believe in prayer are more likely to be satisfied with their lives. Finally, while only a few studies addressed belief in the efficacy of prayer with well-being, they all associated belief in the efficacy of prayer with well-being and higher life satisfaction.

Effects of Prayer on Mental Health. In some instances, religious coping is effective at improving well-being; in other instances, there is no relationship between religious coping and

mental health. For instance, Simao et al. (2016) found that both petitionary and intercessory prayer helps people cope during illness or other crises. Similarly, Gaston-Johansson et al. (2013) found that African American women with breast cancer with greater spiritual well-being had less psychological distress. Most of the women in the study mentioned prayer and faith in God as the primary source of coping. However, those who used negative religious coping techniques had more significant depressive symptoms and worse mental health. Cain (2019) also found that most nurses surveyed used prayer as a coping mechanism for stress. They found prayer effective in providing assistance, acceptance, and calming the nurses.

When considering those with a severe mental illness, amongst patients receiving psychiatric treatment in a partial hospital program, those who used positive religious coping techniques (prayer and faith in God) showed a more significant reduction in depression and anxiety and increased well-being (Rosmarin et al., 2013). However, those who used negative religious coping (feeling God was punishing them or not answering their prayers) were at greater risk for suicidality and other affective issues. Bjorck and Thurman (2007) found that stressful life events were associated with positive and negative religious coping. However, positive religious coping was able to buffer the harmful effects of negative religious coping. Likewise, Park, Holt, et al. (2018) found that positive religious coping was associated with positive well-being, and negative religious coping was associated with negative well-being 2.5 years later. Contrarily, in a study of acute stress symptoms in Hurricane Katrina survivors, Park and Sacco (2019) found no association between positive religious coping and acute stress disorder; however, negative religious coping was associated with acute stress disorder.

Likewise, Gonyea and O'Donnell (2021) sought to determine the effects of positive and negative religious coping on caregivers of family members with Alzheimer's. While positive

religious coping did not have a buffering effect on psychological distress, negative religious coping was associated with increased depression and anxiety symptoms. Furthermore, Nouman and Benyamini (2019) found that while religious coping techniques such as seeking support from spiritual advisors or going to God for assistance helped reduce distress in women facing fertility issues, they did not improve psychological well-being. Moreover, O'Brien et al. (2019) found in their study of African Americans who use religious coping that positive religious coping does not moderate the positive association between negative religious coping and worry. Lastly, Green et al. (2011) found that individuals with emphysema frequently used religious and spiritual coping; however, there was no association between religious and spiritual coping with psychological well-being.

The literature shows that when individuals use negative religious coping, it is often associated with negative well-being. However, while positive religious coping is sometimes associated with positive well-being in some studies, it shows no effect on well-being in other studies. The following section will discuss the literature on specific prayer types as a form of coping.

Types of Prayer. The first prayer type, adoration prayer, focuses on the worship and praise of God without asking for specific needs to be met. This form of prayer is supported by Psalm 103:2, which states, "Bless the Lord, O my soul, and forget not all His benefits." Next, confession prayer involves acknowledging one's faults or misdeeds. The Bible says in Proverbs 28:13 that whoever conceals their sins does not prosper, but the one who confesses shall obtain mercy.

Additionally, thanksgiving prayer includes expressions of gratitude. For instance, Philippians 4:6-7 tells individuals to be anxious for nothing, but through prayer, with

thanksgiving, present their requests to God, and the peace of God will guard their hearts and minds in Christ Jesus. Furthermore, supplication prayer is a form of prayer in which requests are made to God for intervention on one's behalf. This type of prayer is a form of petitionary prayer, supported by Matthew 7:7, which states to ask, and it shall be given. Lastly, reception prayer is where one waits for wisdom and guidance. The Bible says in Isaiah 40:31 that they that wait on the Lord he shall renew their strength. Each of these prayer types is commonly used, although some prayer types are more commonly used than others.

For instance, Laird et al. (2004) used the multidimensional prayer tool to assess people trying to cope with arthritis based on these prayer types. Laird et al. (2004) found that 77% of participants in the study reported they prayed during the past month when trying to cope with arthritis and that all prayer types were used at high levels. Nevertheless, while all prayer types were used, adoration prayer was most used, and confession prayer was less frequently used than any other prayer type. Thanksgiving prayer was positively related to participants' subjective well-being, which may be related to the expression of gratitude and being willing to wait with anticipation (Laird et al., 2004; Pérez et al., 2011). Laird et al. (2004) showed that prayer is vital for individuals facing general life stressors and is related to fewer health concerns. People who prayed more frequently were less concerned about their physical health and had fewer symptoms of depression and anxiety.

Whittington and Scher (2010) used the same multidimensional prayer inventory to determine if all prayer types equally affect well-being. They found that prayers of thanksgiving are the most consistently effective forms of prayer in terms of subjective well-being, self-esteem, and optimism. Likewise, Zarzycka and Krok (2021) found that prayers of thanksgiving were correlated to higher levels of well-being. Whittington and Scher (2010) also found that prayers of

reception were correlated to positive psychological outcomes, and prayers of adoration were associated with optimism and positive meaning in life. Additionally, Pérez et al. (2011) found adoration prayer related to lower depressive symptoms in cancer patients. However, Zarzycka and Krok (2021) found no relationship between adoration and reception prayer and well-being.

Moreover, Whittington and Scher (2010) found certain prayer types associated with adverse effects. For instance, confession prayer was the most consistent negative predictor of well-being. However, Pérez et al. (2011) did not find confession prayers associated with depression or psychological distress. Furthermore, supplication prayers had a negative effect on subjective well-being (Whittington & Scher, 2010). Likewise, Zarzycka and Krok (2021) also found that prayers of supplication were associated with lower levels of well-being. However, Pérez et al. (2011) did not find supplication prayers associated with depression or psychological distress. These studies show some of the inconsistencies in the literature regarding the different prayer types by different researchers. It also signifies that different prayer types affect psychological well-being differently (Whittington & Scher, 2010).

Association Between Prayer Beliefs, Prayer Frequency, Prayer Types, and Stress

When examining the literature on the association between belief in prayer and prayer frequency, several studies supported the idea that prayer frequency and belief in prayer are associated with better mental health, including less stress. For instance, Possel et al. (2014) found that the frequency of prayer was associated with belief in prayer, which is associated with mental health (less anxiety, confusion, and depression). Furthermore, they found that belief in prayer mediates the association between prayer frequency and mental health. Lazar (2015) found prayer and well-being moderated by prayer duration and belief in prayer in women. However, they did not find any moderating effect in men. Women who strongly believed in prayer had better well-

being when prayer duration was long; however, women with a low belief in prayer had lower well-being when prayer was lengthy. For men, prayer and well-being were related without considering prayer frequency or belief in prayer. They found all prayer types to be associated with well-being; however, there were no mediating or moderating factors. Another study found some prayer types to be associated with positive well-being and some with negative well-being; however, there were no mediators or moderators in those studies (Whittington & Scher, 2010).

Lazar (2014) also found that all prayer types were used frequently. However, prayers of adoration were most used by those suffering from illness. In addition, confession prayer was used less frequently but was still present half the time. Fewer confessional prayers appear to be associated with well-being.

Critique of Previous Research Methods

No literature was found regarding specific prayer types being used as moderators with both frequency of prayer and belief in prayer to cope with stress, which presents a gap in the literature. This study will fill that gap by assessing whether types of prayer moderate the direct and indirect effects of belief in the efficacy of prayer and frequency of prayer on the stress level. Additionally, while studies on prayer types have shown their association with well-being, there are inconsistencies. For example, studies show either a positive relation to well-being, negative relation to well-being, or no relation to well-being. Also concerning is that African Americans are understudied regarding the different prayer types. This researcher completed a search for African Americans' use of prayer types and found only two studies that focused on the content of prayer. Most of the studies regarding African Americans' use of prayer focused specifically on prayer as a religious coping mechanism used by African Americans. Prayer was generally discussed in terms of frequency, its positive or negative effects on physical or mental well-being,

or comparing different ethnicities' use of prayer but not its association with types of prayer used combined with the belief in prayer. For instance, Chatters et al. (2008) studied the use of prayer in African Americans, Caucasians, and Caribbean Blacks and found significant differences in attitudes between the two groups regarding religious coping. They found that 90.4% of African Americans reported prayer as an essential method of coping during stressful situations. In comparison, only 66.7% of non-Hispanic Whites indicated prayer as essential to cope with stress. However, there was no discussion regarding what type of prayer was used, only mentioning that the use of prayer to cope with health concerns is very prevalent in African Americans.

Hamilton et al. (2020) studied older African Americans' use of prayer during life-threatening illnesses. They found that the most common purpose of prayer was for strength to endure and requests to be healed. Prayers of gratitude and protection were less frequently used. While this is almost similar to assessing prayer types, it did not assess how it impacts well-being or stress, which is the purpose of this researcher's study. Similarly, Baker (2008) completed a study that focused on the content of prayer used by African Americans. The content areas assessed include whether one prayed for family, someone else they know, their relationship with God, general world concerns, confessed sins, and personal health. They also assessed whether one gave praise or adoration, prayed for someone they didn't know, or prayed for financial security. They found that African Americans are more likely to address petitionary concerns through prayer than spiritual concerns. However, they listed a limitation in that there are many types of prayers they did not assess. This study was much like assessing specific prayer types; however, the study did not assess how the content of prayer or prayer types relates to stress or well-being. Assessing prayer types concerning stress or well-being appears to be an understudied topic.

The few studies that focused on prayer types and well-being were primarily with individuals who are not African American or did not focus on all variables, including prayer belief, prayer frequency, prayer types, and stress. One example is the study by Lazar (2015), who evaluated the multidimensional prayer inventory use. The study found that the results of prayer and well-being are sensitive to moderating factors such as the duration of prayer and the belief in prayer. Lazar (2015) hypothesized that the longer the individual prays and the firmer the belief in the power of prayer, the stronger the relationship between prayer and well-being. The results showed in men that there was a positive relationship between all five prayer types (adoration, confession, thanksgiving, supplication, and reception) with well-being and life satisfaction with no moderating factors. However, in women, both moderating factors (prayer duration and belief in prayer) were present when associating prayer with well-being. This study, however, was completed with Israeli Jews, which may not be generalizable to a population of African American Christians.

Secondly, using the multidimensional prayer inventory, Pérez et al. (2011) evaluated individuals based on all five prayer types. They found that prayers of adoration, reception, and thanksgiving were associated with lower depressive symptoms in cancer patients. On the contrary, supplication prayer had no relation to depressive symptoms. A limitation was that participants in the study were non-random, predominantly White, female, well-educated, Christian cancer patients. Therefore, this study would make it difficult to generalize to individuals of different races, such as African Americans, and individuals of different gender or socioeconomic statuses. You and Yoo (2016) found thanksgiving prayer to be associated with positive well-being and supplication prayer to be negatively associated with well-being. The current study would add to the body of literature regarding African Americans' use of prayer

types to cope with stress. It would evaluate the association between prayer types, prayer frequency, belief in the efficacy of prayer, and perceived stress.

Additionally, Black et al. (2015) assessed whether self-disclosure would mediate the relationship between prayer types and mental health. They assessed participants using four prayer types (colloquial, meditative, petitionary, and ritual). Colloquial prayer focuses on asking God for guidance, meditative prayer involves waiting and listening for a response, petitionary prayer involves making specific requests to God, and ritual prayer involves reciting prayers. The researchers found that self-disclosure mediated the positive relationship between colloquial and meditative prayers and mental health. However, self-disclosure did not mediate the relationship between petitionary or ritual prayer. In addition, petitionary prayer was found to have a negative relationship with mental health, whereas ritual prayer had a positive relationship with mental health. Most of this study's participants were European Americans instead of African Americans.

Lastly, Possel et al. (2018) studied whether rumination mediates the association between prayer, stress, and depression. They examined colloquial, meditative, petitionary, and ritual prayer types. The authors assumed that prayer would reduce the negative effect of stress on mental health. The results showed that rumination mediates the relationship between colloquial and ritual prayer through stress interactions with depression. However, meditative prayer and petitionary prayer were associated directly with depression. This study primarily consisted of Caucasian participants. Also, this study and the study completed by Black et al. (2015) show different results from Ai et al. (2008) regarding petitionary prayer. For instance, Ai et al. (2008) found that petitionary prayer is associated with well-being.

Summary

A discussion of the theoretical frameworks began with Pargament and Raiya's (2007) theory of religious coping. Seven assumptions based on this theory were discussed, including religion comes in all shapes and sizes; religion coping has spiritual, psychological, and physical implications; religious coping does not operate in a vacuum; religious coping is a better predictor of outcomes than more general religious outcomes; religious coping can be both harmful and helpful; to study religion, multiple research methods and tools are needed; religion can be fully interwoven into efforts to help people. The second theoretical framework addressed was Lazarus and Folkman's (1984) cognitive stress theory. Three stress appraisals were discussed based on this theory: harm/loss, threat, and challenge. The third theory discussed was Vroom's expectancy theory, which focused on valence, expectancy, and instrumentality. These theories are essential to this study as the focus of this study is on prayer frequency, prayer types, belief in the efficacy of prayer, and perceived stress levels. The concept of prayer was discussed using Spilka and Ladd's (2013) psychology of prayer, which evaluated the cognitive, motivational, neuropsychological, and social-psychological perspectives of prayer. The belief in the efficacy of prayer was also discussed.

Next, there was a discussion of the gap in the current literature, which shows that there is limited research regarding the variable's belief in prayer, prayer frequency, prayer types, and stress in African American adults (Taylor et al., 2021). Moreover, the related literature review began by discussing different types of stress African Americans face. These stressors include crime and safety issues, financial difficulties, perceived racism and discrimination, and physical health issues. Following this discussion, there was an evaluation of barriers to help-seeking in

African Americans. The barriers identified include historical mistrust, help-seeking stigma, and economic barriers.

Additionally, there was a discussion of African Americans' use of religious coping. This discussion began by examining ten benefits of religion identified by Koenig (2018). These benefits include religion providing an optimistic view of the world, meaning and purpose to people's lives; helping individuals psychologically process loss, trauma, or unwanted change; providing hope that there will be better times in the future; empowering people to improve their situation; providing a sense of control; providing role models who can be used as examples during times of trouble; offering a guide for decision making during difficult situations where an individual might be tempted to reduce stress in unhealthy ways; providing answers to questions; offering a community of believers to provide support and encouragement during difficult times.

Following this, there was a discussion of the use of prayer as a coping mechanism and the effects of religious coping on psychological well-being. Laird et al.'s (2004) multidimensional prayer inventory was also discussed. This inventory will be used for the current study to assess individuals' use of five specific prayer types (adoration, confession, thanksgiving, supplication, and reception), the frequency of prayer, and the belief in the efficacy of prayer and how it is associated with perceived stress levels. The participants' perceived stress levels will be evaluated using Cohen et al. (1983) perceived stress scale, which was also discussed. Lastly, there was a critique of the current literature, which shows limited research done with African Americans and the use of prayer, or the research does not focus on specific types of prayer used. Also, there were inconsistencies in the literature regarding the effects of religious coping on psychological well-being.

CHAPTER THREE: METHODS

Overview

This study is a quantitative, nonexperimental, cross-sectional study that investigated African Americans' belief in the efficacy of prayer, frequency of prayer, use of different prayer types (adoration, confession, thanksgiving, supplication, and reception), and how this is associated with perceived stress levels. The data from this investigation may assist counselors and other mental health professionals in understanding how belief in prayer, frequency of prayer, and different prayer types can be used to assist African Americans in coping with stress or other mental health concerns. In this chapter, there will be a discussion on cross-sectional survey design and the rationale for why this approach is most appropriate. There will be a discussion of the consequent variables and the antecedent variables. In this study, the consequent variables are prayer frequency and stress using a simple mediation model. The antecedent variables are belief in prayer and prayer frequency.

Additionally, using a moderated mediation analysis for this study, the moderator variable was prayer types, while the other variables were (belief in prayer, prayer frequency, and stress). The variables' belief in prayer, prayer frequency, and prayer type were evaluated using the multidimensional prayer inventory created by Laird et al. (2004). The variable stress was evaluated using the perceived stress scale created by Cohen et al. (1983). Following these discussions, there will be a discussion of the research questions, hypotheses, participants, recruitment process, instrumentation, procedures, and data analysis.

Design

In this study, a quantitative research design was conducted. Quantitative research tests objective theories by examining the relationship between variables (Creswell & Creswell, 2020).

This study examined the predictor variables (belief in the efficacy of prayer, prayer frequency, and prayer types) and how these variables impact the outcome variable (perceived stress levels). Quantitative designs are commonly used to investigate associations and correlations (Leavy, 2017). It focuses on objectivity and accurate measurements (Leavy, 2017). It is considered a nonexperimental design. According to Edmonds and Kennedy (2017), nonexperimental research is used when the variables aren't controlled through manipulation, inclusion, exclusion, or group assignment. It also does not imply cause and effect. Instead, the study focused on the relationship or association between the variables.

The type of quantitative design used for this study was a survey design. According to Creswell and Creswell (2020), survey research provides a numeric description of a population's trends, attitudes, or opinions by studying a sample of that population. Additionally, survey research answers descriptive questions such as how frequently African Americans pray (Creswell & Creswell, 2020). Secondly, it answers questions about the association between variables, such as how different types of prayer impact stress levels. According to Leavy (2017), survey research is the most common design used in the social sciences. There are two types of survey designs, cross-sectional and longitudinal designs. For this study, to minimize time, a cross-sectional study was conducted at one point in time as opposed to a longitudinal study done over time.

Moreover, according to Leavy (2017), questionnaires are the primary tool for collecting data in survey research. Therefore, the research questions in the study were presented as items on questionnaires in the form of a Likert scale. A Likert scale provides questions on a scale that allow individuals to indicate their level of agreement by choosing a single response (Leavy, 2017). In this study, data were collected through the administration of the multidimensional

prayer inventory and the perceived stress scales. The multidimensional prayer inventory is a 7-point Likert scale that measures prayer types, prayer frequency, and belief in the efficacy of prayer (Laird et al., 2004). For instance, for prayer types, the participants chose a response such as *never*, *little of the time*, *some of the time*, *about half the time*, *much of the time*, *most of the time*, and *all of the time*.

Similarly, the perceived stress scale is a 4-point Likert scale that measures perceived stress levels (Cohen et al., 1983). Participants chose a response such as *never*, *almost never*, *sometimes*, *fairly often*, and *very often*. Surveys can be administered online or in-person (Leavy, 2017). This study administered the surveys online through the Survey Monkey website.

Research Questions

The research questions for this study are:

RQ1: What is the association between the belief in the efficacy of prayer, the frequency of prayer, and the level of stress?

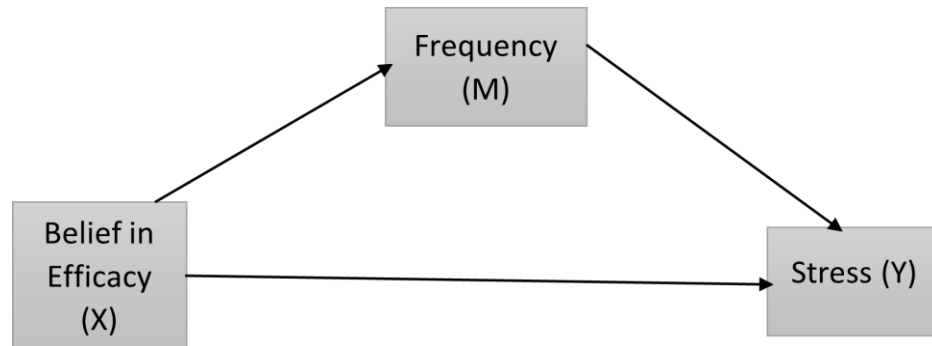
RQ2: Does prayer type moderate the direct and indirect effect of the belief in the efficacy of prayer on frequency of prayer and level of stress?

Hypotheses

The hypotheses for this study are:

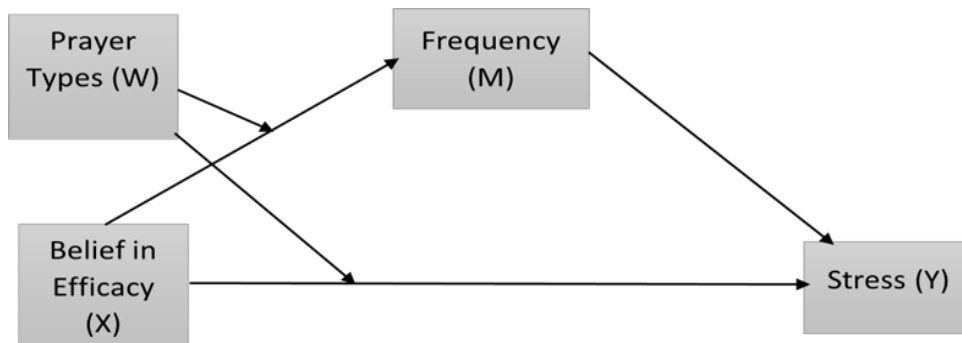
H₀1: There is no association between the belief in the efficacy of prayer, the frequency of prayer, and the level of stress.

H_a1: The belief in the efficacy of prayer is inversely correlated to stress level, and the frequency of prayer will mediate this effect. Figure 1 shows an example of this using simple mediation analysis.

Figure 1*Simple Mediation Analysis*

H₀2: There is no association between prayer types, belief in the efficacy of prayer, the frequency of prayer, and the level of stress.

H_a2: Thanksgiving prayer will be the only prayer type that will moderate the mediated relationship of belief in prayer, frequency of prayer, and stress level with the effect of lowering stress. Figure 2 shows an example of this using moderated mediation analysis.

Figure 2*Moderated Mediation Analysis***Participants and Setting**

The participants in this study were drawn from a convenience sample of local churches in the Southeast part of the United States, in the state of Georgia, as well as social media sites (Twitter, Facebook, and Instagram). An ad was placed on all three social media sites (Twitter,

Facebook, and Instagram) with the details of the study. These institutions and social media sites were chosen because they provided a quick and efficient way to recruit participants for this study. The local churches were contacted by email with the study details to determine if they would allow their members to participate. Additionally, this researcher is a part of an African American group on Facebook called the Minority Doctoral Network, Inc., some of whom are religiously affiliated. The ad was placed in that group and on the researcher's social media pages. Finally, this researcher is affiliated with Christian organizations on Facebook, such as In God We Trust Ministries and My Father's House Ministries. The pastors of those organizations were contacted via direct message to see if they would allow their members to participate.

The sample included male and female African American participants ages 18 and older. The total sample size required was 100, which is appropriate for both mediation and moderated-mediation models. The sample size was obtained by determining the power size, which is 99%, and the effect size, which is .39, using bootstrapping to estimate the sampling distribution of the indirect effect (Preacher et al., 2007). See Figure 3.

Figure 3

Power Analysis

TABLE 7
Type I Error Rates and Empirical Power for Model 5

Test	Regression Coefficients	Sample Size				
		50	100	200	500	1000
first	.00	.000	.002	.000	.000	.000
first	.14	.016	.074	.363	.952	1.000
first	.39	.747	.989	1.000	1.000	1.000
first	.59	.989	1.000	1.000	1.000	1.000
second	.00	.000	.001	.000	.000	.000
second	.14	.016	.062	.328	.939	1.000
second	.39	.730	.989	1.000	1.000	1.000
second	.59	.986	1.000	1.000	1.000	1.000
boot	.00	.005	.004	.003	.000	.002
boot	.14	.051	.185	.559	.975	1.000
boot	.39	.784	.993	1.000	1.000	1.000
boot	.59	.981	1.000	1.000	1.000	1.000
bc	.00	.011	.010	.005	.003	.006
bc	.14	.085	.297	.656	.991	1.000
bc	.39	.858	.994	1.000	1.000	1.000
bc	.59	.988	1.000	1.000	1.000	1.000
bca	.00	.011	.009	.005	.003	.006
bca	.14	.088	.295	.655	.991	1.000
bca	.39	.857	.994	1.000	1.000	1.000
bca	.59	.991	1.000	1.000	1.000	1.000

Instrumentation

Multidimensional Prayer Inventory

Laird et al. (2004) created the multidimensional prayer inventory (MPI) to assess different prayer types. The MPI is a 21-item inventory that assesses both the quantitative and qualitative aspects of prayer, including the frequency of prayer (daily and weekly), duration of prayer (a few seconds to 21+ minutes), level of faith in the effects of prayer, and prayer types (adoration, confession, thanksgiving, supplication, and reception). The MPI assesses prayer frequency on items 1 and 2, duration of prayer on item 3, and the five prayer types (three questions per prayer type) on items 4-18. The 15 items referring to prayer type include three items for adoration (e.g., I praised God), three items for confession (e.g., I admitted inappropriate thoughts, feelings, and behaviors), three items for thanksgiving (e.g., I offered thanks for specific things), three items for supplication (e.g., I made various requests of God), and three items for reception (e.g., I tried to be receptive to wisdom and guidance) (Lazar, 2014). In addition, the MPI assesses belief in the efficacy of prayer on items 19 and 20 (e.g., I believe my prayers affect my life). The responses are based on a 7-point Likert scale (1-never, 2-little of the time, 3-some half the time, 4-about of the time, 5- much of the time, 6-most of the time, and 7-all of the time). Individuals with higher scores would have more awareness of God and, as hypothesized, have less stress.

The MPI is a reliable measure for assessing prayer types. Laird et al. (2004) found the MPI to have high internal consistency for the qualitative items and confirmed the five prayer types (adoration, confession, thanksgiving, supplication, and reception). The quantitative items (duration, frequency, and belief in the efficacy of prayer) were also found to have good internal consistency. They found the MPI to have good convergent validity. A regression analysis was

completed and confirmed the usefulness of this prayer tool. The MPI has been used in other studies and is a reliable measure of all five prayer types (Lazar, 2014; You & Yoo, 2016; Zarzycka & Krok, 2021; Zarzycka et al., 2022). For instance, Lazar (2014) found all scales of the MPI to have reliability coefficients ranging from .77 to .90, which they stated is acceptable because each scale is only three items long. He found through confirmatory factor analysis that the MPI is valid and that using the five prayer types was superior to using a simple structure.

Additionally, Lazar (2015) found the reliability for all study measures of the MPI to be between .70 to .87 for men and .73 to .90 for women. The relationship between the five prayer scores was significant and positive for men ($r_s = .58-.71$) and women ($r_s = .52-.72$). In addition, belief in the efficacy of prayer was related to all prayer types with ($r_s = .21-.53$) women and ($r_s = .26-.38$) men. The researcher received permission to use this scale from one of the original creators of the MPI (see appendices).

Perceived Stress Scale

The perceived stress scale (PSS) is a 14-item Likert scale created by Cohen et al. (1983) to measure the degree of perceived stress in one's life. The PSS was used in three community samples and found to have a coefficient alpha reliability of .84, .85, and .86 in those samples. The 10-item version of the PSS is a shorter version which was found to be a better tool for measuring perceived stress as this version was found to have 48.9% variance and better reliability (Cronbach's $a = .84. \sim .86$) (Cohen & Williamson, 1988, as cited in Chiu et al., 2016). The scores on the PSS 10-item version are ranked from 1 (*never*) to 5 (*very often*). The scores are tallied by reverse-scoring items 4, 5, 7, and 8, then summing the 10 items. Scores ranging from 0 to 13 would be considered low stress, scores ranging from 14-26 are considered moderate stress, and scores ranging from 27-40 are considered high perceived stress. Chiu et al. (2016) examined

the use of the PSS 10-item version and found the test to have appropriate internal consistency, test-retest reliability, and measurement invariance. Taylor (2015) evaluated the PSS 10-item to determine whether a one or two-factor model works best, to determine the performance of the scale, and to check for gender bias. Taylor (2015) found that an oblique 2-factor model best describes the items instead of a unidimensional factor. He also found the test valid and showed no significant gender bias.

Khan and Shamama-Tus-Sabah (2020) used the perceived stress scale to assess perceived stress concerning mental health. They found that perceived stress was negatively related to well-being, making it difficult for some to function if they lacked appropriate coping skills. Similarly, Chu (2012) evaluated nurses using the PSS and found that those who perceived themselves as having more significant job stress had a greater work-family conflict and worse mental health than those with less job stress. Nonetheless, not everyone exposed to stress develops mental health disorders or poor well-being. For instance, Whitehead and Bergeman (2020) studied whether religious coping buffers stress and affect in older adults using the PSS and found that religious coping is a significant buffer on daily stress and affect. This study aligns with Lazarus and Folkman's (1984) cognitive stress theory, specifically the challenge appraisal, which states that belief in God can give individuals hope even when the situation appears damaging.

Procedures

The researcher obtained Institutional Review Board approval at Liberty University. Permission was requested to use the multidimensional prayer inventory (MPI; Laird et al., 2004). The perceived stress scale (Cohen et al., 1983) was available for use in the public domain and did not require permission to use this scale. After receiving permission to use the MPI, a survey was created on the Survey Monkey website with questions from the perceived stress scale and

the multidimensional prayer inventory. These documents are in the Appendix. There was a description regarding the nature of the study, the risks and benefits of participation, requirements, and that participation is voluntary on the Survey Monkey website before starting the survey. Participants had to agree to give informed consent on the site to start the survey. The Survey Monkey site allowed the researcher to create the surveys online and distribute and create a link to add to the church emails and social media ads. The questions from the multidimensional prayer inventory were added, followed by the questions from the perceived stress scale.

Following Institutional Review Board approval, participants were recruited. An email will be sent to the administrative offices of Berean Christian Church, Ebenezer Baptist Church, Gospel Tabernacle East, Victory for the World, Voices of Faith Ministries, and Cornerstone of Faith church to request permission to allow their church to participate in the study. The churches were given information regarding the nature of the study, the benefits and risks of participation, the qualifications to participate, and a web address to access the survey for their church bulletins. Finally, a permission letter was sent to the churches that agreed to permit their members to participate. A copy of this template is in the Appendix.

In addition, an ad was placed on Twitter, Facebook, and Instagram with details of the study, participation qualifications, and the survey link. Likewise, a message was sent through Facebook messenger to the pastors of In God We Trust Ministries and My Father's House Ministries with information regarding the details of the study, the benefits, risks, and qualifications to participate in the study. The web address to access the survey was provided to those willing to allow their members to participate. The researcher received three permission letters that allowed their members to participate in the study. Samples of the email to the churches, permission letter, and social media ad is in the appendix section. After the participants

completed the survey, the researcher used the IBM Statistical Package for the Social Sciences (SPSS) version 28.01.01 to analyze the data. SPSS is an integrated system of computer programs designed to analyze social sciences data (Ho, 2017). According to Ho (2017), SPSS allows for flexibility in data format, provides a comprehensive set of procedures for data transformation and file manipulation, and offers many statistical analyses commonly used in social sciences. This study conducted a simple mediation analysis for research question one. A moderated mediation analysis was conducted for research question two, which was analyzed using the PROCESS macro in SPSS. PROCESS is programmed to automatically translate conceptual models, such as mediator and moderator models, into a set of equations (Hayes, 2018). It is a computational tool for observed variable path analysis-based moderation and mediation analysis and their integration as conditional process analysis.

Data Analysis

Mediation analysis was conducted to determine the association between the belief in the efficacy of prayer, frequency of prayer, and stress level. In addition, a moderated mediation analysis was used to determine if prayer type moderates the effect of the belief in the efficacy of prayer on the frequency of prayer and stress level. The sample size was obtained by determining the power size (see Table 1), which is 99%, and the effect size, which is .39, using bootstrapping to estimate the sampling distribution of the indirect effect (Preacher et al., 2007). The Alpha (α) level was set to .05.

The following research questions and hypotheses were accepted or rejected.

RQ1: What is the association between the belief in the efficacy of prayer, the frequency of prayer, and the level of stress?

H₀1: Frequency of prayer will not mediate the relationship between belief in the efficacy of prayer and stress levels.

H_a1: The belief in the efficacy of prayer is inversely correlated to stress level, and the frequency of prayer will mediate this effect. Figure 1 shows an example of this using simple mediation analysis.

RQ2: Does prayer type moderate the direct and indirect effect of the belief in the efficacy of prayer on frequency of prayer and level of stress?

H₀2: There is no association between prayer types, belief in the efficacy of prayer, the frequency of prayer, and the level of stress.

H_a2: Thanksgiving prayer will be the only prayer type that will moderate the mediated relationship of belief in prayer, frequency of prayer, and stress level with the effect of lowering stress. Figure 2 shows an example of this using a moderated mediation analysis.

Mediation analysis is a form of statistical analysis used to evaluate how a causal antecedent variable transmits its effects on a consequent variable through an intervening variable called the mediator variable (Hayes, 2018). Likewise, a simple mediation model examines how a variation in the antecedent (X) causes variation in one or more mediators (M), which in turn causes variation in the outcome variable (Y) (Hayes, 2018). A simple mediation analysis was conducted for the first research question. The goal of using this model was to determine whether the belief in the efficacy of prayer (X) causes variation in prayer frequency (M) and, in turn, causes variation in perceived stress levels (Y). According to Hayes (2018), two linear models are required for each when a simple mediation model is used, and there are two consequent variables, for instance, prayer frequency and stress. See figure one for the simple mediation model. For this study, PROCESS macro Model 4 was used to analyze the data for RQ1.

For the second research question, a moderated mediation analysis was conducted. According to Hayes (2018), a moderated mediation analysis combines mediation and moderation in the same model. A moderated mediation analysis identifies how the effect of the antecedent variable (X) on the consequent variable (Y) through the mediator variable (M) is possibly contingent or moderated by (W) (Hayes, 2018). The goal of using the model was to determine if prayer type moderates the effects of belief in the efficacy of prayer on the frequency of prayer and stress levels. See figure 2 for the moderation mediation model. For this study, the PROCESS macro and Model 8 were used to analyze the data for RQ2.

According to Hayes (2018), using ordinary least squares regression (OLS regression), some assumptions should be met before drawing inferences. The first assumption is linearity. This assumption refers to whether the genuine relationship between the variables is linear. This assumption is vital because, if violated, it jeopardizes the meaning of the interpretation of the regression coefficient. The second assumption is normality. Normality assumes that errors in estimating the consequent variable are normally distributed. The third assumption is homoscedasticity. According to this assumption, the errors in the Y estimation are equally variable. Homoscedasticity is not required for the derivation of the regression coefficients; rather, heteroscedasticity affects inference through its effect on the standard error of regression coefficients. The fourth assumption is independence. According to this assumption, the errors in estimation are statistically independent, and information about one doesn't give information about another. The last assumption is multicollinearity which means that the predictor variables should be examined to determine if there are strong correlations among the predictors. When testing for these assumptions, the linear model should have constant variance, be normally

distributed, and be independent of one another (Hayes, 2018). The assumptions were tested using SPSS.

Summary

Chapter three gave a discussion of the methods that were used to complete this study as well as to analyze the data. This study was conducted because there is limited research regarding African Americans' use of prayer as a coping mechanism. This study explored African American adults' belief in the efficacy of prayer and its association with frequency of prayer, prayer types (adoration, confession, thanksgiving, supplication, and reception), and stress. The study results will be significant for counselors who work with African American adults who consider themselves spiritual or religious and are trying to cope with stressful life events.

The design used for this study was a quantitative survey design. The research questions for this study are:

RQ1: What is the association between the belief in the efficacy of prayer, the frequency of prayer, and the level of stress?

RQ2: Does prayer type moderate the direct and indirect effect of the belief in the efficacy of prayer on frequency of prayer and level of stress?

The hypotheses for the study are:

H₀1: Frequency of prayer will not mediate the relationship between belief in the efficacy of prayer and stress levels.

H_a1: The belief in the efficacy of prayer is inversely correlated to stress level, and the frequency of prayer will mediate this effect. Figure 1 shows an example of this using simple mediation analysis.

H₀2: There is no association between prayer types, belief in the efficacy of prayer, the frequency of prayer, and the level of stress.

H_a2: Thanksgiving prayer will be the only prayer type that will moderate the mediated relationship of belief in prayer, frequency of prayer, and stress level with the effect of lowering stress. Figure 2 shows an example of this using a moderated mediation analysis.

The participants and procedures were discussed, including recruiting approximately 100 participants from local churches in the state of Georgia as well as social media sites. The instruments used were the multidimensional prayer inventory and the perceived stress scale. The data was analyzed using a mediation analysis for RQ1 and a moderated mediation analysis for RQ2. The type of test used to analyze the data in SPSS was multiple regression analysis. The next chapter will discuss this researcher's findings from the data analysis.

CHAPTER FOUR: FINDINGS

Overview

This chapter will present statistical findings on belief in prayer, frequency of prayer, prayer types (adoration, confession, thanksgiving, supplication, and reciprocation), and stress levels in African Americans adults. In this quantitative study, the mediating variable, frequency of prayer, was explored with belief in prayer and stress levels. There was also an exploration of prayer types being a moderator belief in prayer and stress levels, with the frequency of prayer being the mediator. The SPSS was used to analyze the data. The chapter will start by exploring descriptive statistics relevant to this study, age, gender, and religious orientation. Then, there will be an exploration of the results and whether or not the hypothesis was supported. The research questions and corresponding hypotheses are as follows:

RQ1: What is the association between the belief in the efficacy of prayer, the frequency of prayer, and the level of stress?

H₀1: There will be no associations between the belief in the efficacy of prayer, the frequency of prayer, and the level of stress.

H_a1: The belief in the efficacy of prayer is inversely correlated to stress level, and the frequency of prayer will mediate this effect. Figure 1 shows an example of this using simple mediation analysis.

RQ2: Does prayer type moderate the direct and indirect effect of the belief in the efficacy of prayer on frequency of prayer and level of stress?

H₀2: There is no association between prayer types, belief in the efficacy of prayer, the frequency of prayer, and the level of stress.

H_{a2}: Thanksgiving prayer will be the only prayer type that will moderate the mediated relationship of belief in prayer, frequency of prayer, and stress level with the effect of lowering stress. Figure 2 shows an example of this using a moderated mediation analysis.

Descriptive Statistics

Data Collection

Data collection for the study began on Saturday, August 13th, 2022, and ended on Wednesday, August 17th, 2022. There was a proposed sample size of 100 participants for both mediation and moderated-mediation models, which was obtained by determining the power size (see Table 1), which is 99%, and the effect size, which is .39, using bootstrapping to estimate the sampling distribution of the indirect effect (Preacher et al., 2007). However, there were 117 African American adults whose questionnaires were included in this study. The response rate was 100%. Therefore, the total sample size exceeded the minimum sample size by 17 participants.

Participant Demographics

Participants were recruited from local churches and social media (Facebook, Twitter, and Instagram). Participants were required to meet inclusion criteria of being African American, adults ages 18 or over, and having prayed at least once in the last month. One hundred twenty-seven participants took the survey. Data screening included removing 10 participants who had missing data. The final sample size consisted of 117 participants. The participants' demographic details include gender, age, and religious orientation. The demographic details provide an overview of the findings, such as the frequency and percentage of participants in each category who responded to the survey questionnaire.

Gender

The majority of the participants in the sample were female. The sample consisted of 106 (90.6%) female and 11 (9.4%) male participants ($N = 117$). The demographics for gender are presented in Table 1.

Table 1

Frequency Distribution for Gender

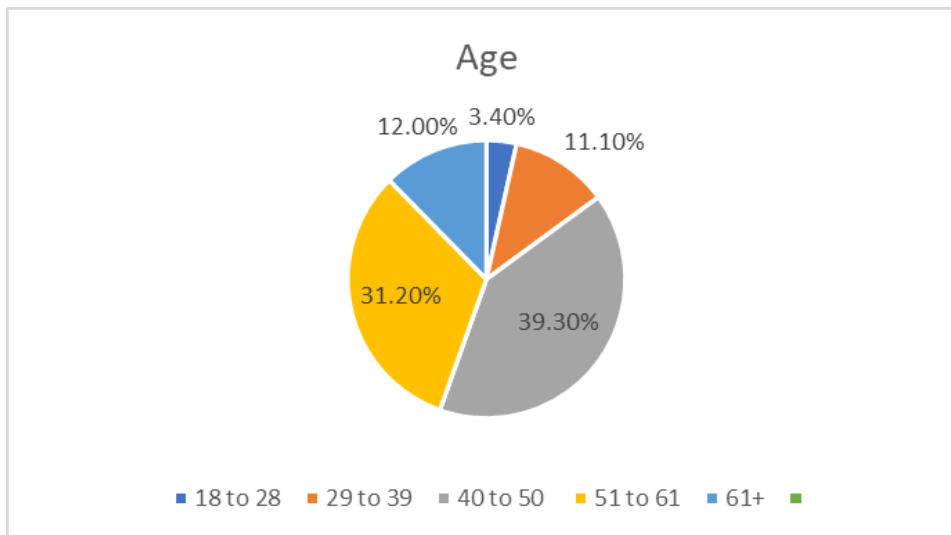
Gender	Frequency	Percent
Female	106	90.6
Male	11	9.4

Age

Most participants in the sample were between the ages of 35 to 44. The age ranges were: 18 to 28 (3.4%), 29 to 39 (11.1%), 40 to 50 (39.3%), 51 to 61 (34.2%), and 61+ (12.0%). The age ranges of 40 to 50 and 51 to 61 totaled 74.3. The demographic results for age are presented in Figure 4.

Figure 4

Frequency Distribution of Age



Religion

Most participants identified their religious affiliation as Christianity, totaling 107 participants (91.5%). The other religious affiliations were as follows: One (.9%) participant identified their religious affiliation as Buddhism, one (.9%) participant identified their religious affiliation as Catholicism, one (.9%) participant identified their religious affiliation as Judaism, and seven (6.0%) participants identified their religious affiliation as other. The demographics for religious affiliation are presented in Table 2.

Table 2

Frequency Distribution of Religion

Religion	Frequency	Percent
Christianity	107	91.5
Buddhism	1	.9
Catholicism	1	.9
Judaism	1	.9
Other	7	6.0

Instruments

The Perceived Stress Scale (PSS) was created by Cohen et al. (1983), and the Multidimensional Prayer Inventory (MPI) was developed by Laird et al. (2004). The descriptive statistics consisted of 35 items composed from these two scales. The PSS consisted of 10 items. This inventory measured perceived stress. The MPI consisted of 21 items recorded in SPSS before data analysis. This inventory measured prayer types (adoration, confession, thanksgiving, supplication, reception), prayer frequency, and belief in prayer.

PSS

Descriptive statistics for the PSS are shown in Table 3. There is an overall mean score of 2.7598 ($SD = .60259$). PSS 1 indicates how often the individual was upset because something happened unexpectedly. PSS 2 indicates how often the individual felt unable to control things in their life. PSS 3 indicates how often the individual felt nervous and stressed. PSS 4 indicates how confident the individual felt handling personal problems. PSS 5 indicates how often the individual felt things were going their way. PSS 6 indicates how often the individual felt they could not cope with things. PSS 7 indicates how often the individual can control irritations in life. PSS 8 indicates how often the individual felt they were on top of things. PSS 9 indicates how often the individual felt angered because of things outside their control. PSS 10 indicates how often the individual felt things were piling up so high they couldn't overcome them. The total mean value for perceived stress was 2.7598 times in one month.

Table 3*PSS Descriptive Statistics*

	N	Minimum	Maximum	Mean	Std. Deviation
PSS1	117	1	5	3.1453	.93093
PSS2	117	1	5	3.0598	.88367
PSS3	117	2	5	3.5299	.83638
PSS4	117	1	5	2.1538	.79454
PSS5	117	1	4	2.4872	.78362
PSS6	117	1	5	2.6581	.92067
PSS7	117	1	4	2.5385	.86641
PSS8	117	1	5	2.5043	.89658
PSS9	117	1	5	2.8803	.92067
PSS10	117	1	5	2.6410	.95106
Total	117	1.40	4.50	2.7598	.60259

Prayer Variables

Table 4 shows the total mean for each of the prayer variables. The prayer variables include belief in prayer (BLF), frequency of prayer (FRQ), adoration prayer (ADO), confession prayer (CON), thanksgiving prayer (THK), supplication prayer (SUP), and reception prayer (REC), which were analyzed using subscales from the MPI. The prayer type used most often in the sample was Thanksgiving prayer, with a mean value of 5.6895.

Table 4

Descriptive Statistics of Prayer Variables

	N	Minimum	Maximum	Mean	Std. Deviation
BLF	117	1	7	5.4131	1.55219
FRQ	117	1.75	11.25	6.0769	1.80172
ADO	117	1.67	10.67	4.2991	1.59824
CON	117	1	7	4.3533	1.72834
THK	117	1.33	7	5.6895	1.29227
SUP	117	1.33	7	5.3675	1.44330
REC	117	1.33	7	5.3590	1.43316

Reliability

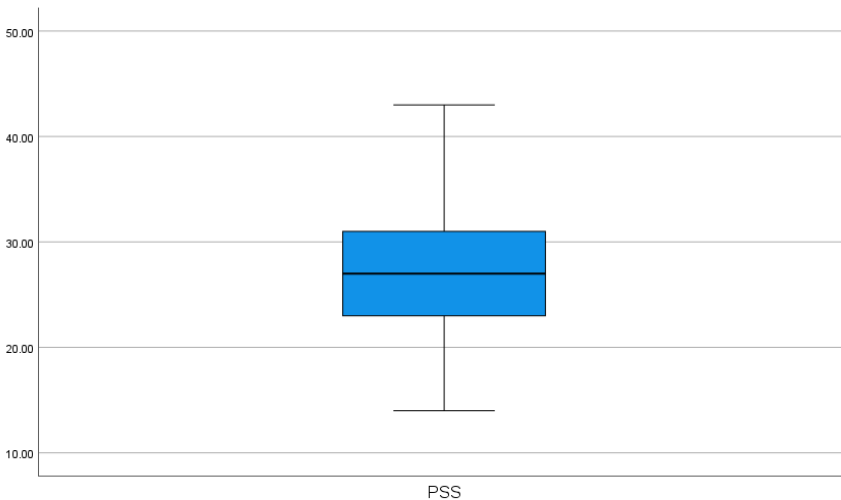
Reliability is the measure of the internal consistency of the constructs in the study. A construct is reliable if the Alpha (α) value is greater than .70. Construct reliability was assessed using Cronbach's Alpha. The results show that the PSS with ten items ($\alpha = .874$). The MPI results show ($\alpha = .886$) with the 21 items. Reliability was also assessed for belief in prayer, frequency of prayer, and each prayer type (BLF, ADO, SUP, THK, REC). Reliability results for all constructs are in Table 5.

Table 5*Reliability Statistics*

Constructs	No. of Items	Alpha
PSS	10	.874
MPI	21	.886
BLF	2	.789
FRQ	3	.738
ADO	3	.828
SUP	3	.812
CON	3	.827
THK	3	.762
REC	3	.850

Results**Data Screening**

Outliers were assessed in SPSS using the dependent variable, perceived stress, and a confidence interval of 95%. The results are shown in Figure 5. Based on the results, there are no significant outliers. Therefore, no data was deleted due to outliers. However, there were missing data, and those rows were not included in the study. To search for missing data, this researcher visually reviewed each line of the data to see if any rows had information missing and deleted those lines. The proposed sample size was 100. Ten completely blank rows were deleted, leaving a total sample size of 117 out of 127 participants. This sample size was still above the proposed sample size. There were also normality, linearity, homoscedasticity, and multicollinearity tests to test for errors.

Figure 5*Outliers***Assumption Testing**

When using ordinary least squares regression (OLS regression), some assumptions should be met before drawing inferences (Hayes, 2018). The assumptions include normality, linearity, multicollinearity, and homoscedasticity. The assumptions were tested using SPSS. Table 8 shows the test for normality using the Kolmogorov-Smirnov test and the Shapiro-Wilk test. Both tests show $p < .05$ for all variables. According to Warner (2013), in SPSS, statistical significance is denoted by sig. If the alpha level is less than .05, the test is significant. Each variable was normally distributed. The normality tests were used to assess the perceived stress scale (PSS), frequency of prayer (FRQ), adoration prayer (ADO), confession prayer (CON), thanksgiving prayer (THK), supplication prayer (SUP), and reception prayer (REC). The results are in Table 6.

Table 6*Test of Normality*

Kolmogorov-Smirnov			Shapiro-Wilk			
Variable	Statistic	<i>N</i>	<i>Sig</i>	Statistic	<i>N</i>	<i>Sig</i>
PSS	.104	117	.004	.964	117	.003
FRQ	.164	117	<.001	.872	117	<.001
ADO	.169	117	<.001	.877	117	<.001
THK	.155	117	<.001	.880	117	<.001
CON	.095	117	.012	.957	117	<.001
SUP	.172	117	<.001	.908	117	<.001
REC	.134	117	<.001	.913	117	<.001

Table 7 shows the test of linearity. PSS had significant linearity with the frequency of prayer, belief in prayer, adoration prayer, thanksgiving prayer, and reception prayer. The alpha levels for each of these variables were below .05. There was no significant linearity between PSS and confession prayer nor PSS and supplication prayer types. Because linearity was violated, there is no assumed relationship between PSS and confession prayer or PSS and supplication prayer.

Table 7

Test of Linearity

	df	Mean Square	F	Sig.
PSS*BLF	1	142.318	4.375	.039
PSS*FRQ	1	252.375	6.99	.010
PSS*ADO	1	240.488	8.228	.005
PSS*CON	1	37.328	1.053	.307
PSS*THK	1	621.317	20.907	<.001
PSS*SUP	1	6.864	.205	.651
PSS*REC	1	198.482	5.839	.018

FRQ*BLF	1	521.820	6.686	.011
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Table 8 shows the collinearity test using tolerance values and the variance inflation factor (VIF). According to Naybei (2021), tolerance values show a linear relationship between independent and dependent variables. A tolerance of 0 indicates a perfect relationship between the independent variables. A tolerance of 1 indicates a lack of relationship. If the tolerance is less than .10, multicollinearity may be problematic (Naybei, 2021). All tolerance values are greater than .1, indicating no issues with collinearity. VIF is used to detect the severity of multicollinearity in the ordinary least square regression analysis (Hayes, 2018). A VIF of 10 or even as low as four has been used as a rule to indicate serious multi-collinearity (Salmeron et al., 2018). The VIF values are all less than 10, indicating no collinearity issues.

Table 8

Test of Collinearity

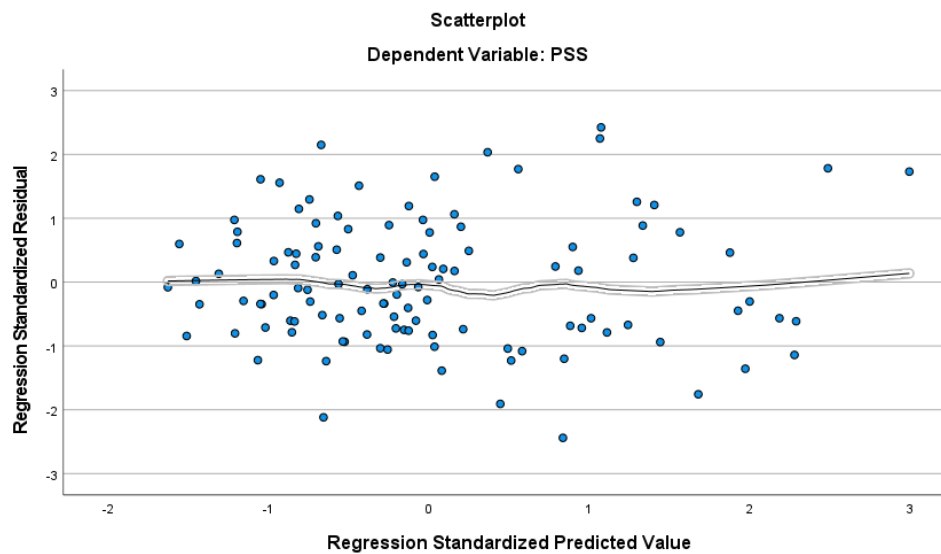
	Tolerance	VIF
PSS*BLF	.885	1.129
PSS*FRQ	.719	1.390
PSS*ADO	.422	2.370
PSS*CON	.561	1.783
PSS*THK	.609	1.643
PSS*SUP	.534	1.873
PSS*REC	.482	2.076

Figure 6 shows the test of homoscedasticity. Hayes (2018) stated that homoscedasticity is not required for the derivation of the regression coefficients; however, this assumption should be considered as heteroscedasticity can affect the validity of inference and reduce statistical power.

Based on the residual scatterplot, homoscedasticity was not violated. This was determined by looking at the residuals on the scatterplot as a function of the dependent variable. According to Warner (2013), scores on Y should be roughly equal or have homogenous variance across levels of X.

Figure 6

Test of Homoscedasticity



Hypothesis One

H₀1: Frequency of prayer will not mediate the relationship between belief in the efficacy of prayer and stress levels.

H_a1: The belief in the efficacy of prayer is inversely correlated to stress level, and the frequency of prayer will mediate this effect. Figure 1 shows an example of this using simple mediation analysis.

Mediation Analysis

The analysis shows that belief in prayer and frequency of prayer have a significant positive relationship ($b = 1.0337$, $se = .4019$, $t = 2.5720$, $p = .0114$, $CI = [.2376$ to $1.8298]$) when

alpha is .05. The results of the indirect effect show a significant negative relationship between belief in prayer and stress as mediated by frequency of prayer ($b = -.1463$, $se = .0861$, $t = -2.3074$, $CI = [-.3454 \text{ to } -.0073]$). The direct effect does not show a significant relationship between belief in prayer and stress levels ($b = -.3936$, $se = .2718$, $t = -1.4482$, $p = .1503$, $CI = [-.9320 \text{ to } .1448]$). The total effect shows a significant negative relationship between belief in prayer and stress as mediated by frequency of prayer ($b = -.5399$, $se = .2692$, $t = -2.0054$, $p = .0473$, $CI = [-1.0731 \text{ to } -.0066]$).

The study assessed the mediating role of frequency of prayer on the relationship between belief in the efficacy of prayer and stress levels. It was hypothesized that there would be an inverse relationship between belief in the efficacy of prayer and stress, which the frequency of prayer would mediate. The indirect effect was calculated by multiplying the pathway from belief in prayer to frequency of prayer ($b = 1.0337$) by the pathway from the frequency of prayer to stress levels ($b = -.1415$) which has an indirect effect of -0.146 . Findings show an overall indirect effect of belief in prayer on stress levels through the frequency of prayer was significant, as revealed by a 95% bootstrap confidence interval with no zero in between (Effect = -0.1463 , $BootSE = .0861$, $BootCI = [-.3454 \text{ to } -.0073]$). Those who believe in prayer tend to pray more frequently and have less stress based on the indirect effect. The direct effect was not statistically different from zero with a 95% confidence interval (Effect = -0.3936 , $se = .2718$, $t = -1.4482$, $p = .1503$, $CI = [-.9320 \text{ to } .1448]$). The total effect of belief in prayer on stress levels was significant, as revealed by a 95% confidence interval with no zero in between (Effect = -0.5399 , $se = .2692$, $t = -2.0054$, $p = .0473$, $CI = [-1.0731 \text{ to } -.0066]$). The negative sign means that people who believe in prayer report lower stress levels. The mediation analysis summary is presented in Table 9.

Table 9*Simple Mediation Results*

Source	b	se	T	p	llci	Ulci
Frequency: $R=.2332$, $R^2 = .0544$, $MSE = 78.8805$, $F = 6.6153$, $p = .0114$						
Belief	1.0337	.4019	2.5720	.0114	.2376	1.8298
Stress: $R = .2773$, $R^2 = .0769$, $MSE = 34.1071$, $F = 4.7484$, $p = .0105$						
Belief	-.3936	.2718	-1.4482	.1503	-.9320	.1448
Frequency	.1415	.0613	-2.3074	.0228	-.2630	-.0200
Indirect Effect	-.1463	.0861			-.3454	-.0073
Direct Effect	-.3936	.2718	-1.4482	.1503	-.9320	.1448
Total Effect	-.5399	.2692	-2.0054	.0473	-1.0731	-.0066

The proposed simple mediation model for frequency of prayer was supported, as findings show evidence for a negative total effect. The findings suggest that the frequency of prayer mediates belief in prayer and stress levels. This shows that the belief in prayer is associated with a higher frequency of prayer and lower stress levels. As the frequency of prayer increases, stress levels appear to decrease. The results suggest that belief in prayer is positively associated with the frequency of prayer and negatively associated with stress levels. These findings supported the alternate hypothesis.

Hypothesis Two

H₀₂: There is no association between prayer types, belief in the efficacy of prayer, the frequency of prayer, and the level of stress.

H_{a2}: Thanksgiving prayer will be the only prayer type that will moderate the mediated relationship of belief in prayer, frequency of prayer, and stress level with the effect of lowering stress. Figure 2 shows an example of this using a moderated mediation analysis.

Moderated Mediation Analysis

Adoration Prayer. Based on the findings, adoration prayer does not moderate the relationship between belief in prayer and frequency of prayer (coefficient = $-.0027$, $se = .0879$, $t = -.0302$, $p = .9759$, $CI = (-.1769 \text{ to } .1716)$). The moderated mediation analysis shows that adoration prayer moderates the direct effect of belief in prayer and perceived stress. The interaction (Int_1) between belief in prayer and stress with adoration as moderator was statistically significant with a 95% confidence interval that did not have a zero in between and $p < .05$ (coefficient = $.1893$, $se = .609$, $t = 3.1098$, $p = .0024$, $CI = [.0687 \text{ to } .3099]$). The effect size of $.1893$ is a medium effect size based on Pearson's r . According to Warner (2013) Pearson's r measures the strength of a bivariate relationship. The larger the effect size the stronger the relationship between the variables. In contrast, adoration prayer does not moderate the indirect effect of the moderated mediation model (index = $.0003$, $BootSE = .0104$, $BootCI = [-.0246 \text{ to } .0203]$). Because the confidence interval for the index of moderated mediation includes zero, adoration prayer is not related to the indirect effect of the moderated mediation model (see Table 10).

Table 10*Adoration Moderated Mediation Results*

Source	b	se	T	p	llci	ulci
Frequency: $R = .4756$, $R^2 = .2262$, $MSE = 65.6906$, $F = 11.0114$, $p = .0000$						
Belief	.5306	1.3873	.3825	.7028	-2.2179	3.2792
ADO	.8783	1.1412	.7696	.4432	-1.3827	3.1392
Belief x ADO	-.0027	.0879	-.0302	.9759	-.1769	.1716
Stress: $R = .4037$, $R^2 = .1630$, $MSE = 31.4787$, $F = 5.4522$, $p = .0005$						
Belief	-3.1909	.9610	-3.3204	.0012	-5.0949	-1.2868

Frequency	-.1032	.0651	-1.5844	.1159	-.2322	.0258
ADO	-2.6056	.7921	-3.2897	.0013	-4.1750	-1.0362
Belief x ADO	.1893	.0609	3.1098	.0024	.0687	.3099
Moderated Mediation	.0003	.0104			-.0246	.0203

Thanksgiving Prayer. Based on the findings, thanksgiving prayer does not moderate the relationship between belief in prayer and frequency of prayer (coefficient = $-.0428$, $se = .1008$, $t = -.4244$, $p = .6721$, $CI = (-.2424 \text{ to } .1569)$). The moderated mediation analysis shows that thanksgiving prayer moderates the direct effect of belief in prayer and perceived stress. The interaction (Int_1) between belief in prayer and stress with thanksgiving as moderator was statistically significant with a 95% confidence interval that did not have a zero in between and a $p < .05$ (coefficient = $.2113$, $se = .0655$, $t = 3.2268$, $p = .0016$, $CI = [.0816 \text{ to } .3410]$). The effect size of $.2113$ is a medium effect size based on Pearson's r (Warner, 2013). In contrast, thanksgiving prayer does not moderate the indirect effect of the moderated mediation model (index = $-.0021$, $BootSE = .0071$, $BootCI = [-.0144 \text{ to } .0160]$). Because the confidence interval for the index of moderated mediation includes zero, thanksgiving prayer is not related to the indirect effect of the moderated mediation model (see Table 11).

Table 11

Thanksgiving Moderated Mediation Results

Source	b	se	T	p	lci	Uci
Frequency: $R = .4436$, $R^2 = .1968$, $MSE = 68.1900$, $F = 9.2272$, $p = .0000$						
Belief	1.4229	1.7924	.7938	.4290	-2.1283	4.9740
THK	1.4340	1.2725	1.1269	.2622	-1.0870	3.9550
Belief x THK	-.0428	.1008	-.4244	.6721	-.2424	.1569
Stress: $R = .4856$, $R^2 = .2358$, $MSE = 28.7410$, $F = 8.6386$, $p = .0000$						

Belief	-3.9573	1.1669	-3.3912	.0010	-6.2694	-1.6452
Frequency	-.0491	.0611	-.8032	.4236	-.1701	.0720
THK	-3.1516	.8307	-3.7937	.0002	-4.7976	-1.5056
Belief x THK	.2113	.0655	3.2268	.0016	.0816	.3410
Moderated Mediation	.0021	.0071			-.0144	.0160

Reception Prayer. Based on the findings, reception prayer does not moderate the relationship between belief in prayer and frequency of prayer (coefficient = -.0038, *se* = .0779, *t* = -.0486, *p* = .9613, *CI* = (-.1505 to .1580). The moderated mediation analysis shows that reception prayer moderates the direct effect of belief in prayer and perceived stress. The interaction (Int_1) between belief in prayer and stress with reception as moderator was statistically significant with a 95% confidence interval that did not have a zero in between and *p* < .05 (coefficient = .1941, *se* = .0518, *t* = 3.7495, *p* = .0003, *CI* = [.0915 to .2967]). The effect size of .1941 is a medium effect size based on Pearson’s *r* (Warner, 2013). In contrast, reception prayer does not moderate the indirect effect of the moderated mediation model (index = -.0004, *BootSE* = .0116, *BootCI* = [-.0351 to .0146]). Because the confidence interval for the index of moderated mediation includes zero, reception prayer is not related to the indirect effect of the moderated mediation model (see Table 12).

Table 12

Reception Moderated Mediation Results

Source	b	Se	t	p	lci	Uci
Frequency: <i>R</i> = .4383, <i>R</i> ² = .1921 <i>MSE</i> = 65.5863, <i>F</i> = 8.9562, <i>p</i> = .0000						
Belief	.7517	1.3489	.5573	.5784	-1.9206	3.4241
REC	.7440	.9980	.7455	.4575	-1.2331	2.7212
Belief x REC	.0038	.0779	.0486	.9613	-.1505	.1580

Stress: $R = .4401$, $R^2 = .1937$, $MSE = 30.3247$, $F = 6.7251$, $p = .0001$

Belief	-3.6044	.8981	-4.0132	.0001	-5.3840	-1.8248
Frequency	-.1075	.0626	-1.7182	.0885	-.2314	.0165
REC	-2.6370	.6652	-3.9642	.0001	-3.9551	-1.3190
Belief x REC	.1941	.0518	3.7495	.0003	.0915	.2967
Moderated Mediation	-.0004	.0116			-.0351	.0146

The moderated mediation model for RQ2 showed that none of the prayer types moderate the relationship between belief in prayer and frequency of prayer. However, adoration, reception, and thanksgiving prayer types acted as moderators for the direct relationship between belief in prayer and stress levels. In contrast none of the prayer types moderated the indirect effect of the moderated mediation model. Additional findings show confession and supplication prayers, as shown in Table 8, failed the test of linearity with perceived stress and the moderated mediation model was insignificant for both the direct and indirect relationship between these prayer types with frequency of prayer, belief in prayer, and stress.

The null hypothesis for RQ2 is rejected. The alternate hypothesis is partially supported; whereas thanksgiving prayer does moderate the direct relationship between belief in prayer and stress levels, in addition to reception, and adoration prayer. The results of RQ2 show that those who believe in prayer and use one of the prayer types (thanksgiving, reception, and adoration) tend to have lower stress levels than those who use other prayer types. The coefficients of belief in prayer and prayer types (thanksgiving, reception, and adoration) were both negative which created a positive interaction with stress. This shows an inverse relationship with stress. For instance, when assessing for the moderated direct relationship of thanksgiving prayer with belief in prayer and stress, the coefficient for belief in prayer was -3.9573, the coefficient for

thanksgiving prayer was -3.1516 , which created a positive interaction of $.2113$ with stress.

Additionally, when assessing for the moderated direct relationship of reception prayer with belief in prayer and stress, the coefficient of belief in prayer was -3.6044 , the coefficient for reception prayer was -2.6370 , which created a positive interaction of $.1941$ with stress. Lastly, when assessing for the moderated direct relationship of adoration prayer with belief in prayer and stress, the coefficient of belief in prayer was -3.1909 , the coefficient for adoration prayer was -2.6056 which created a positive interaction of $.1893$ with stress. Additionally, thanksgiving prayer had a greater moderating effect on the direct relationship between belief in prayer and stress than the reception and adoration prayer. The combined effect of belief in prayer and prayer type show that thanksgiving prayer ($.2113$) has a greater effect on reducing stress than adoration ($.1893$) and reception ($.1914$).

Summary

This chapter provided the data analysis associated with this research study. Data were analyzed using IBM SPSS version 28.01.01 with Hayes (2018) PROCESS macro. The data analysis presented in this chapter included the following: data collection, descriptive statistics, simple mediation, and moderated mediation. The variable's belief in the efficacy of prayer, frequency of prayer, prayer types, and perceived stress levels were examined. The alternate hypothesis was supported for RQ1. The frequency of prayer was found to mediate the relationship between belief in prayer and stress levels. Participants who believed in prayer tended to pray more frequently and had lower stress levels. The alternate hypothesis was partially supported for RQ2. Thanksgiving prayer acted as a moderator for the direct relationship between belief in prayer and stress levels but not for the indirect relationship. The prayer types, adoration and reception, also acted as moderators for the direct relationship between belief in prayer and

stress levels but not the indirect relationship. Thanksgiving prayer had a greater moderating effect on the direct relationship between belief in prayer and stress than the reception and adoration prayer. It was found that when each of these moderators was present, the stress levels were lower. Tables and figures were included in the chapter. The next chapter will discuss findings, implications, limitations, and recommendations for future research.

CHAPTER FIVE: CONCLUSIONS

Overview

This chapter will provide a summary of the overall results of the study. It will begin with a discussion of the purpose of the study, which was to explore African American adults' belief in the efficacy of prayer and its association with frequency of prayer, types of prayer (adoration, confession, thanksgiving, supplication, and reception), and stress. The findings are based on two research questions: What is the association between the belief in the efficacy of prayer, the frequency of prayer, and the level of stress? Does prayer type moderate the direct and indirect effect of the belief in the efficacy of prayer on frequency of prayer and level of stress? The study's implications will be discussed regarding how the variables' belief in the efficacy of prayer, frequency of prayer, prayer types, and stress levels in African Americans can add to the current body of literature and its importance in the counseling profession. Additionally, the study's limitations and recommendations for future research will be discussed.

Discussion

This study aimed to evaluate African American adults' belief in the efficacy of prayer and its relationship with the frequency of prayer, prayer type, and perceived stress level. This quantitative cross-sectional study used two valid and reliable instruments: the perceived stress scale (PSS) and the multidimensional prayer inventory (MPI). Participants were recruited from

local churches and social media sites (Instagram, Twitter, Facebook). The inclusion criteria for participation were being 18 or older, African American, and having prayed at least once within the last month. A final sample size of 117 participants was included in the study. Most participants were women (90.6%) between the ages of 40 and 50 (39.3%).

Alignment with Theoretical Framework

This study used Pargament's theory of religious coping as a theoretical framework which states that positive religious coping methods, such as prayer, can decrease the adverse effects of stress or other crises that impact one's life (Pargament et al., 1998). Pargament's theory states that religion serves multiple functions including improved spiritual, psychological, and physical health. The current study shows an association between belief in prayer, frequency of prayer, and lower stress levels, supporting Pargament's theory. This study's results were statistically significant; therefore, it can be inferred that prayer is a helpful strategy for African Americans when faced with stress. Additionally, Pargament and Raiya's (2007) theory suggests individuals use different types of religious coping mechanisms. This study also shows that individuals use different types of prayer. The individuals in the study primarily used thanksgiving prayer, which had an average mean score of [5.6895]. However, some participants also used other prayer types (adoration [4.2992], confession [4.3533], reception [5.3590], and supplication [5.3675]).

Additionally, it was found in this study that those who believe in prayer tended to pray more frequently. This is supported by Vroom's (1964) expectancy theory of motivation which theorizes that people are motivated to put more effort into something if they believe they will be rewarded. Scriptures tell individuals to have faith in God and believe they will receive and be rewarded. For instance, Matthew 17:20 states, "Truly, I tell you, if you have faith as small as a mustard seed, you can say to this mountain, move from here to there, and it will move. Mark

11:24 states, “Therefore I tell you, whatever you ask in prayer, believe that you have received it, and it will be yours. These are a few examples of what God promises to do if individuals trust Him. 1 Thessalonians 5:16-18 states, “Rejoice always, pray without ceasing, give thanks in all circumstances.”

Lastly, this research was supported by Lazarus and Folkman’s (1984) cognitive stress theory, which states that stress occurs when an individual appraises the threatening nature of the stress and assesses the resources required to cope with or minimize that stress. In this study, individuals coped with stress by using prayer. Christians are taught that God is all-powerful and can do anything; for instance, Ephesians 1:19 discusses God’s incomparably great power. Luke 1:37 also mentions that with God, all things are possible. Those who used the coping mechanism of prayer more frequently had lower stress levels. Their belief and faith in God and His ability to assist them with any problems or situations they face appear to be associated with lower stress levels.

Research Question One

The first research question examined the association between belief in the efficacy of prayer, frequency of prayer, and perceived stress levels. Previous research discussed a negative association between the frequency of prayer with depression, anxiety, and hopelessness when coping with stress (Cruz et al., 2009; Hollywell & Walker, 2009). For instance, Cruz et al. (2009) found that African Americans adults who were trying to cope with the stress of aging were found to use prayer to cope and that the frequency of prayer protected individuals against severe depression and hopelessness. Research also suggested that those who strongly believed in prayer are more likely to be satisfied with their lives (Krause & Hayward, 2013). Based on previous research, it was hypothesized that the belief in the efficacy of prayer would be inversely

correlated to stress level and that the frequency of prayer would mediate this effect. In this hypothesis, belief in prayer is the predictor variable (X), frequency of prayer is the mediating variable (M), and stress level is the outcome variable (Y). A simple mediation analysis was conducted using Hayes (2018) Model 4 in SPSS to study the relationship between the three variables.

The results supported the alternative hypothesis. There was a significant negative relationship between belief in the efficacy of prayer and perceived stress levels when the frequency of prayer was mediating. The total effect was significant, as revealed by a *p*-value of less than .05. The confidence interval was -1.0731 to -.0066, which was significant due to no zero in between. Additionally, the results showed a significant positive relationship between belief in prayer and frequency of prayer. Those who believe in prayer appeared to pray more frequently. The α level was less than .05, and the confidence intervals were .2376 to 1.8298, without a zero in between.

Based on the results, belief in prayer is positively associated with the frequency of prayer and negatively associated with stress levels. Those who believed in prayer and prayed more frequently had lower stress levels. Belief in prayer is considered a predictor of stress levels when the frequency of prayer is mediating. The results are like that of Lazar (2015), who found that prayer and well-being are moderated by prayer duration and belief in prayer in women. His study showed that the more a woman believes in prayer and the longer she prays, a positive relationship between prayer and well-being occurs. Likewise, Possel et al. (2014) found that the frequency of prayer was positively associated with belief in prayer and better mental well-being. According to Possel et al. (2014), the association of prayer frequency with depression is fully

mediated by belief in prayer, and the association between prayer frequency and anxiety is partially mediated by belief in prayer.

Research Question Two

The second research question examined the association between prayer types, belief in prayer, frequency of prayer, and stress levels. Previous research found that thanksgiving prayer, reception prayer, and adoration prayer was positively associated with subjective well-being (Laird et al., 2004; Pérez et al., 2011; Whittington & Scher, 2010; Zarzycka & Krok, 2021). For instance, Pérez et al., 2011 found that individuals dealing with the stress of cancer had lower levels of depressive symptoms when using thanksgiving prayer. Laird et al. (2004) mentioned that Christians are told to pray and anticipate, which will give them healthier thoughts and feelings. They found that prayers of thanksgiving were related to subjective well-being when coping with osteoarthritis. Whittington and Scher (2010) found that prayers of reception and thanksgiving were correlated to positive psychological outcomes, and prayers of adoration were associated with optimism and positive meaning in life. Lastly, Zarzycka and Krok (2021) found that thanksgiving prayer was the only prayer type that was associated with positive well-being, however, they did not find adoration nor reception prayer associated with well-being.

Therefore, it was hypothesized that thanksgiving prayer would be the only prayer type that would moderate the mediated relationship of belief in prayer, frequency of prayer, and stress level with the effect of lowering stress due to thanksgiving prayer being the only consistent prayer type found to be associated with positive well-being. Additionally, although the research indicated that thanksgiving, reception, and adoration prayer have a positive effect on well-being and certain mental health issues, they do not address their effects on stress. According to Laird et al. (2004), adoration is worshipping God without focusing on oneself. Since praying for relief

from stress can be categorized as self-focused, adoration would not necessarily be a good fit. Similarly, Laird et al. (2004) describes reception prayer as waiting on God for guidance or wisdom. It can be assumed that a person who is stressed would not be as apt to employ this type of prayer to relieve stress. On the other hand, thanksgiving prayer, according to Laird et al. (2004) is expressing gratitude for met needs. Couple the expectation of met needs with belief in prayer, then thanksgiving prayer seemed to be the logical choice by this researcher as the only effective prayer type to moderate the mediated relationship of belief in prayer, frequency of prayer, and stress level with the effect of lowering stress. In this hypothesis, thanksgiving prayer is the only expected moderating variable (W), belief in prayer is the predictor variable (X), frequency of prayer is the mediating variable (M), and perceived stress is the outcome variable (Y). Therefore, a moderated mediation analysis was conducted using Hayes (2018) Model 8 in SPSS to study the relationship between the four variables.

The results partially supported the alternative hypothesis. Based on the findings, none of the prayer types moderate the relationship between belief in prayer and frequency of prayer. The moderated mediation analysis shows that all prayer types moderate the direct effect of belief in prayer and perceived stress. In addition, none of the prayer types are related to the indirect relationship of the mediated moderation model. Although the findings do indicate that thanksgiving prayer does have a moderating effect in the model, the findings also indicate that reception and adoration prayer also act as moderators in the model. The interaction between belief in prayer and stress with thanksgiving as moderator (coefficient = .2113, $se = .0655$, $t = 3.2268$, $p = .0016$, $CI = [.0816 \text{ to } .3410]$). The interaction between belief in prayer and stress with reception as moderator (coefficient = .1941, $se = .0518$, $t = 3.7495$, $p = .0003$, $CI = [.0915 \text{ to } .2967]$). The interaction between belief in prayer and stress with adoration as moderator

(coefficient = .1893, $se = .609$, $t = 3.1098$, $p = .0024$, $CI = [.0687 \text{ to } .3099]$). It is important to note that the correlational effect for the prayer types (thanksgiving [-3.1516], reception [-2.6370], adoration [-2.6056]) with perceived stress shows that thanksgiving prayer had the most significant inverse correlation. These results are like that of Whittington and Scher (2010), who found that prayers of reception and thanksgiving were correlated to positive psychological outcomes, and prayers of adoration were associated with optimism and positive meaning in life.

Additionally, Pérez et al. (2011) found that adoration prayer is related to lower depressive symptoms. The research shows that those who use thanksgiving, reception, and adoration prayer types tend to have higher mental well-being. In previous studies, there has been a negative association between mental well-being and stress (Rainville, 2018; Teh et al., 2013). Mental well-being refers to lower depression, anxiety, and other mental health symptoms.

The prayer types (adoration, reception, thanksgiving) focus more on worshipping and praising God and waiting on God's will and wisdom, which are considered positive prayer types (Whittington & Sher, 2010). These individuals who use these prayer types express gratitude to God for the blessings they've received in their lives. They are focusing primarily on God. However, confession and supplication prayer types were considered negative prayers (Whittington & Sher, 2010). You and Yoo (2016) found thanksgiving, adoration, and reception prayer associated with higher levels of subjective well-being. However, individuals who engage in supplication prayer focus on their wants and needs or the needs of others. They are focused more on the current world and experience lower levels of happiness when their prayers are delayed or not answered immediately. Those who focus on confession prayer admit inappropriate thoughts, feelings, or behaviors that may make some feel guilty and contribute to lower well-being.

Implications

The Christian worldview is one in which individuals believe that the universe is created by God the Father, the Son, and the Holy Spirit. Christians believe that God is omnipresent, omnipotent, omniscient, and omnibenevolent (Anderson et al., 2017). According to this belief, God is present everywhere, all-powerful, all-knowing, and has perfect and unlimited goodness. Furthermore, Christians believe God is loving and controls everything (Koenig, 2018). Consequently, they believe that when they communicate with God, they will be provided with direction, consolation, and empowerment (Dein & Cook, 2015).

The outcome of this study shows the importance of prayer to cope with stress in African Americans. Research has shown that African Americans are more likely to use prayer as a coping mechanism when faced with stress as they look to God for strength (Davis et al., 2018; Lynn et al., 2014; Taylor et al., 2021). African Americans face stressors such as perceived discrimination, financial difficulties, crime and safety issues, and physical health issues (Chang et al., 2018; Haynes et al., 2017). They also face barriers to professional mental health treatment such as mental health stigma, financial issues, transportation, lack of childcare, and mistrust due to misdiagnosis (Haynes et al., 2017; Jon-Ubabuco & Champion, 2019; Kawaii-Bogue et al., 2017). While African Americans have many barriers that prevent them from seeking professional mental health counseling, when they do seek treatment, mental health professionals should recognize the importance of prayer in African American lives and the benefits of prayer. They must also realize which prayer types are associated with better well-being. For instance, this study found thanksgiving prayer, adoration prayer, and reception prayer to be moderators for belief in prayer and perceived stress and to be associated with positive well-being. Those who use thanksgiving, adoration, and reception prayer have lower stress levels than those who do not.

Counselors could encourage clients to use these prayer types (thanksgiving, adoration, and reception) when coping with stress or other issues.

It was also found that the frequency of prayer mediates belief in prayer and stress. Therefore, counselors could encourage African American clients to pray more frequently as it was found to be associated with lower levels of stress. In addition, there were additional benefits of prayer and religion found in the literature. For example, religion provides an optimistic view of the world, provides meaning and purpose to people's lives, it helps individuals process trauma or unwanted change, provides hope for a better time in the future, empowers people to improve their situation, provides a sense of control, it provides a role model for times of trouble, it provides a guide for decision-making during difficult situations, it provides answers to questions, and it provides support and encouragement during difficult times (Koenig, 2018). Therefore, it is essential that counselors are aware of the benefits of prayer and religion and can educate their clients regarding these benefits.

Limitations

There were several limitations of this study. One of the limitations is that the data was self-reported. When individuals self-report, there is the potential for human error. According to Mellenbergh (2019), human judgments are fallible and prone to systematic errors. Participants with extreme scores can threaten the internal validity of the study (Creswell & Creswell, 2020). The data was analyzed for outliers to limit this threat. Researchers assess data for outliers by determining whether individual responses are sufficiently inconsistent with all other responses (Mellenbergh, 2019).

Another limitation was related to external validity. External validity threats arise when researchers draw incorrect inferences from the sample to other populations (Creswell &

Creswell, 2020). In this study, only eleven men participated, making it difficult to generalize the results to African American men. Also, there was a small representation of other religions in this study. The participants who identified with another religion outside of Christianity were less than 1%. However, most participants identified as Christian (91.5%). In response to this, Creswell and Creswell (2020) recommend that researchers restrict claims to groups where the results cannot be generalized.

Recommendations for Future Research

The recommendation for future research would be to complete a study focusing on prayer and stress in African American men because only eleven African American men participated in this study. Furthermore, future research could consider focusing on a specific religion other than Christianity, as the number of participants who identify with other religions was less than 1%. Lastly, it is recommended to do a qualitative study on why African Americans use thanksgiving prayer more frequently than other prayer types to cope with stress and to identify what causes some individuals to pray more frequently than others.

Summary

This study examined belief in prayer, frequency of prayer, prayer types (adoration, confession, thanksgiving, supplication, reception), and perceived stress levels. Unfortunately, there were no studies that examined each of these variables together. There were studies that examined each of these variables separately, but no studies that analyzed each of these variables together. Taylor et al. (2021) recommended that research be done to understand the differences in prayer types used by African Americans to cope. Lazar (2015) recommended that future research evaluates prayer type based on psychological well-being.

This study was conducted to add to the body of literature regarding African Americans' belief in prayer and stress levels being mediated by the frequency of prayer. The study also assessed whether prayer types would moderate the relationship between belief in prayer, frequency of prayer, and stress levels. The findings support belief in prayer and stress levels being mediated by the frequency of prayer. Individuals who believed in prayer prayed more frequently and had lower stress levels. The findings also support that prayer type has a moderating effect on the belief in prayer and stress level, where the pray type enhances the strength of the relationship. Additional findings were that thanksgiving prayer has a greater moderating effect on the relationship between belief in prayer and stress levels than adoration and reception prayers.

The study's limitations include 11 male participants and a small number of participants from religions outside Christianity. Implications of the study are for counselors and other mental health professionals to consider educating their African American clients on the benefits of prayer and religion as a coping mechanism for stress. In addition, future research should consider conducting a study that focuses primarily on African American males or using participants who identify with religions other than Christianity.

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Appendix A.

Copy of Instruments and Permission Letters to Use Instruments

Multidimensional Prayer Inventory – Original Form

APPENDIX
Multidimensional Prayer Inventory²

Gender: Male Female Age: _____ Date: _____

Directions Part 1: The following questions have been written to better understand private prayer. To assist you in answering these questions, scales are provided which consist of several numbers along with corresponding descriptions. Please circle **ONE** number on each scale that corresponds with the description that best indicates how you have privately prayed **during the past month** (other than during religious attendance). [In the questions that refer to “God”, feel free to substitute other words or phrases such as “Higher Power”, etc.]

***** If you do not pray in private, please go directly to question #21. *****

1. During the average week of this past month, I prayed approximately:

0	1	2	3	4	5	6	7
No	One	Two	Three	Four	Five	Six	Seven
days/ week	day/ week	days/ week	days/ week	days/ week	days/ week	days/ week	days/ week

***** If you have not prayed during the past month, please go directly to question #21. *****

2. On the day(s) that I did pray, I would estimate that I typically prayed _____ time(s) during the course of the day. (Please fill in **one number** that is your best estimate).

3. My prayers typically lasted for approximately:

1	2	3	4	5	6	7	8
A few seconds	1/2 min	1 min	2 min's	3-5 min's	6-10 min's	11-20 min's	21+ min's

Directions Part 2: Now, using the scale provided below, please answer the following questions according to how often **during the past month** your prayers included each of the activities described below. For example, if you circle the number “4”, this indicates that “About half the time” your prayers **during the past month** included the described activity. (Note: Some prayers combine these different activities. Also, do not be concerned if some items appear to overlap with one another.)

	Never	Little of the time	Some half the time	About of the time	Much of the time	Most of the time	All of the time
	1	2	3	4	5	6	7
4. I made specific requests.	1	2	3	4	5	6	7
5. I offered thanks for specific things.	1	2	3	4	5	6	7
6. I tried to be open to receiving new understanding of my problems.	1	2	3	4	5	6	7
7. I worshiped God.	1	2	3	4	5	6	7
8. I admitted inappropriate thoughts, feelings, and behaviors.	1	2	3	4	5	6	7
9. I expressed my appreciation for my circumstances.	1	2	3	4	5	6	7
10. I tried to be receptive to wisdom and guidance.	1	2	3	4	5	6	7
11. I made various requests of God.	1	2	3	4	5	6	7
12. I confessed things that I had done wrong.	1	2	3	4	5	6	7
13. I praised God.	1	2	3	4	5	6	7
14. I opened myself up to God for insight into my problems.	1	2	3	4	5	6	7
15. I thanked God for things occurring in my life.	1	2	3	4	5	6	7
16. I asked for assistance with my daily problems.	1	2	3	4	5	6	7
17. I acknowledged faults and misbehavior.	1	2	3	4	5	6	7
18. I devoted time to honoring the positive qualities of God.	1	2	3	4	5	6	7

Directions Part 3: Please rate the degree to which prayers have an effect using the following two questions (#s 19 and 20):

19. I believe that my prayers have an effect on my life.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

20. I believe that my prayers have an effect on other people's lives.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

Directions Part 4: Please indicate on question # 21, where you would place your beliefs:

21. My religious beliefs are most closely related to (**Check One**):

Catholicism ____

Protestantism:

Baptist ____ Episcopalian ____ Methodist ____

LDS (Mormon) ____ Lutheran ____ Presbyterian ____

Other Protestant (please specify) _____

Judaism:

Conservative ____ Reformed ____ Orthodox ____

Buddhism ____

Hinduism ____

Muslim ____

New Age ____

Atheism ____

Agnosticism ____

Other (please specify) _____

Email Approval from Dr. Michael Rapoff

From: Michael Rapoff <[REDACTED]>
Sent: Saturday, April 23, 2022 10:46 AM
To: Pittman, Katina <[REDACTED]>
Subject: [External] Re: Permission to use the MPI

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Katina,
Sorry for my late response. I haven't been on my desktop for awhile.
You have my permission to use the Multidimensional Prayer Inventory for your research.
Attached is the original article with the full measure in the appendix and also attached is a Word document that has only the prayer types items and scoring instructions.
You may want to use some of the questions from the version in the paper or just the prayer types.
Please keep me informed on how your research is progressing.
Michael Rapoff, Ph.D.
Professor Emeritus, Pediatrics
[REDACTED]

From: Pittman, Katina
Sent: Thursday, April 21, 2022 9:42 PM
To: [REDACTED]
Subject: Permission to use the Multidimensional Prayer Inventory

Hello Dr. Rapoff,

I am requesting to please use the multidimensional prayer inventory for my research study. I am working on my dissertation with plans to examine the different prayer types in the inventory in relation to stress. I do not have access to the scoring tool. I would greatly appreciate your approval of my using this inventory and also granting access to the scoring tool.

Thank you
Katina Pittman

Perceived Stress Scale

Perceived Stress Scale

A more precise measure of personal stress can be determined by using a variety of instruments that have been designed to help measure individual stress levels. The first of these is called the **Perceived Stress Scale**.

The Perceived Stress Scale (PSS) is a classic stress assessment instrument. The tool, while originally developed in 1983, remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress. The questions in this scale ask about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the number of times you felt a particular way; rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

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?

Figuring Your PSS Score

You can determine your PSS score by following these directions:

- First, reverse your scores for questions 4, 5, 7, and 8. On these 4 questions, change the scores like this:

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

- Now add up your scores for each item to get a total. **My total score is _____.**
- Individual scores on the PSS 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 14-26 would be considered moderate stress.
 - ▶ Scores ranging from 27-40 would be considered high perceived stress.

The Perceived Stress Scale is interesting and important because your perception of what is happening in your life is most important. Consider the idea that two individuals could have the exact same events and experiences in their lives for the past month. Depending on their perception, total score could put one of those individuals in the low stress category and the total score could put the second person in the high stress category.

***Disclaimer:** The scores on the following self-assessment do not reflect any particular diagnosis or course of treatment. They are meant as a tool to help assess your level of stress. If you have any further concerns about your current well being, you may contact EAP and talk confidentially to one of our specialists.*

Demographic Survey

Demographic Survey

- 1) Are you African American?
- 2) Are you 18 years of age or over?
- 3) Have you prayed within the last month?
- 4) What is your religious affiliation?
- 5) What is your gender?

Appendix B.

Permission Letter

[Insert Date]

[Recipient]

[Title]

[Company]

[Address 1]

[Address 2]

[Address 3]

Dear [Recipient]

As a graduate student in the department of Community Care and Counseling at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The title of my research project is "Examining the belief in prayer, frequency of prayer, prayer types and level of stress in a sample of African American adults." The purpose of my research is to determine how prayer impacts stress levels in African American adults.

I am writing to ask if you could please send out the research advertisement to your church members by email so that they will be aware of the study. Those who are willing to participate can use the web address in the ad to participate. I am asking for your permission to utilize members of your church who are willing to participate in my research study.

The participants will be asked to complete a survey online. Participants will be presented with informed consent information prior to gaining access to the survey. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please respond by email to [REDACTED]. A permission letter document is attached for your convenience. The research advertisement is also attached.

Sincerely,

Katina Pittman

Advertisements and Permission Letters

Permission Response Template

[Date]

[Recipient]

[Title]

[Company]

[Address 1]

[Address 2]

[Address 3]

Dear Katina Pittman:

After careful review of your research proposal entitled "Examining the belief in prayer, frequency of prayer, prayer types and level of stress in a sample of African American adults," I have decided to grant you permission to do the following that we have checked below.

Please check those that you provide permission for.

I agree to send study information to members of our church on Katina Pittman's behalf.

I am requesting a copy of the results upon study completion and/or publication.

Sincerely,

[Official's Name]

[Official's Title]

[Official's Company/Organization]

Informed Consent Form

Consent

Title of the Project: Examining Belief in Prayer, Frequency of Prayer, Prayer Types and Levels of Stress in a Sample of African American Adults

Principal Investigator: Katina Pittman, LPC, Doctoral Student, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be an African American adult aged 18 years or over who has prayed at least once within the last month. Taking part in this research project is voluntary. Your participation will remain anonymous.

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

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

The purpose of the study is to evaluate the impact of belief in prayer, frequency of prayer, and prayer types, on perceived stress levels in African American Adults.

What will happen if you take part in this study?

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

1. Complete an anonymous online survey via Survey Monkey. The survey will take approximately 10 minutes to complete.

How could you or others benefit from this study?

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

Benefits to society include providing counselors who work with African Americans information regarding the different types of prayer used by African Americans and how the belief in the efficacy of prayer, frequency of prayer, and these prayer types affect perceived stress levels.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant survey responses are anonymous. The researcher will not be able to link survey responses to specific participants who provided the responses.
- Data will be stored on a password-locked computer. After three years, all electronic records will be deleted.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free

to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

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

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

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

The researcher conducting this study is Katina Pittman. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. Pamela Moore, at [REDACTED].

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

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

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

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher/study team using the information provided above.

I have read and understood the above information.

Do you agree to the above terms? By clicking Yes, you consent that you are willing to answer the questions in this survey. You must click Yes in order to be able to participate in the survey.

Recruitment Flyer

Research Participants Needed

Examining the belief in prayer, frequency of prayer, prayer types and level of stress in a sample of African American adults

- Are you an African American who is 18 years of age or older?
 - Have you prayed within the last month?

If you answered yes to both of the questions listed above, you may be eligible to participate in a research study.

The purpose of this research study is to determine if belief in prayer impacts frequency of prayer and if this in turn impacts stress levels. The researcher also hopes to determine if specific types of prayer impact belief in prayer, frequency of prayer, and stress levels.

Participants will be asked to complete a survey online. The survey should take approximately 10 minutes to complete. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

If you would like to participate, please click here <https://www.surveymonkey.com/r/K6XK6H7> to complete the survey.

A consent form will be the first page of the survey. Participants will be required to click yes to consent to participate in the study before being allowed to complete the survey. It will take approximately 10 minutes to complete the survey.

Katina Pittman, a doctoral candidate in the department of Community Care and Counseling at Liberty University, is conducting this study.

Please contact Katina Pittman by email at [REDACTED] for more information.

Social Media Advertisements

Facebook

ATTENTION: I am conducting research as part of the requirements for a Doctor of Education degree at Liberty University. The purpose of my research is to better understand how prayer impacts stress levels in African American adults. To participate, you must be an African American who is age 18 or over who has prayed within the last month. Participants will be asked to complete an anonymous online survey, which should take about 10 minutes to complete. If you would like to participate and meet the study criteria, please click the link provided at the end of this post. A consent document will be provided as the first page of the survey. Please review this page, and if you agree to participate, click the "proceed to survey" button at the end.

To take the survey, click here: <https://www.surveymonkey.com/r/K63867X>

Twitter

Are you an African American who is age 18 or over? Have you prayed within the last month? Click here for information about a research study on prayer and stress levels: <https://www.surveymonkey.com/r/K63867X>

Instagram

Are you an African American who is 18 years of age or over? Have you prayed within the last month? Click the link in my bio for information about a research study on prayer and stress levels or copy this link into your browser <https://www.surveymonkey.com/r/K63867X>