DIFFERENCES IN STRESS AMONG HEALTHCARE WORKERS IN RURAL AND URBAN HEALTHCARE SETTINGS--THE ROLE OF SPIRITUALITY

by

Lisa Yancey

Liberty University

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

In recent years, stress has become an unspoken epidemic that has affected many working adults. Many adults spend much of their waking hours working, contributing to their stress. This quantitative study examined the relationship between spirituality and stress among rural and urban healthcare workers. The data for this study was collected through social media platforms, email, and word of mouth. An online survey consisting of ten demographic questions, twenty questions from the Spiritual Well-Being Scale, and ten questions from the Perceived Stress Scale was administered to healthcare workers at least 18 years old through an anonymous survey. Pearson correlations were used to analyze relationships between stress and spirituality among rural and urban healthcare workers. A multivariate analysis of variance (MANOVA) was used to determine if there were differences in stress and spirituality levels between rural and urban healthcare workers. The results confirmed the hypotheses that there would be a significant negative relationship between stress and spirituality among healthcare workers ($r(171) = -.33$, $p < .001$), a significant negative relationship between stress and spirituality among urban healthcare workers ($r(81) = -.28$, $p = .010$), and a significant negative relationship between stress and spirituality among rural healthcare workers ($r(88) = -.34$, $p = .001$). Finally, MANOVA did not find a difference in stress levels between rural and urban healthcare workers. These findings indicate a commitment to spirituality as a coping mechanism, promoting mental health benefits and improving one's well-being.

Keywords: stress, spirituality, coping, healthcare, rural, urban, rural healthcare workers, urban healthcare workers, mental health, Christianity, COVID-19 pandemic, spiritual well-being, mental wellbeing

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Dedication

I dedicate this dissertation to my family, who have shown me nothing but support over the last four years. My parents, who kept me on track and always reminded me, "When do you finish"? My sisters (Connie and Jennifer), who were always there for a discussion and to bounce off my ideas and for tolerating me when things got stressed. My brother (Corey) did not get to see me finish this through, but I know he would have been proud. My nieces and nephew (Zoey, Kaycee, Camryn, and Nolan), whom I hope to have been and continue to be a positive role model in their lives and who have had to put sleepovers on hold for the first couple of years of my journey. Thank you for the support and for taking this journey with me. I love you all!

Acknowledgments

I want to start by thanking my family. My family has been a source of continued encouragement and support over the last four years. My parents' encouragement has been instrumental in my drive to keep moving forward, to do my best, and to be my best. I know I have made them proud, as they do not ever let me forget. I want to express my deepest gratitude to my dissertation chair, Dr. Jerry Green, for his wealth of knowledge, prayers, and encouragement. His knowledge and feedback have made this journey easier. My gratitude also goes out to Dr. Jennifer Geyer for the reviews, for being able to see what I could not, and for the constructive criticisms and valuable suggestions. Dr. A, thanks for everything. You are the best cheerleader. Finally, I would like to thank all my friends and coworkers who have supported me in my journey. Thank you!

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CHAPTER 1: INTRODUCTION TO THE STUDY

Introduction

Healthcare workers encountered many demands and stress when providing quality treatment to patients (Su et al., 2007). These healthcare professionals experienced exhaustion, tension, and emotional distress, which negatively affected their mental health and quality of life (Çelmeçe et al., 2020). There was growing awareness of the significance of investigating and promoting well-being and delivering an effective healthcare system (Søvold et al., 2021). Promoting healthcare workers' well-being by providing current research was critical for managing the stress of the job (Sen et al., 2022). This dissertation investigated the relationship between stress and spirituality among healthcare workers in rural and urban healthcare settings.

Health disparities were frequently experienced by individuals residing in rural areas in the United States, primarily due to limited accessibility to healthcare services (Rural Health Information Hub, 2017). Rural residents have been characterized by a strong spiritual affiliation (Abell & Blankenship, 2019).

Spirituality provided a framework for finding meaning and purpose in times of difficulty (Lloyd et al., 2022; Manning, 2004) and was a source of strength and support for individuals experiencing difficulty (Sen et al., 2022; Manning et al., 2019). According to research, one's spirituality helped individuals deal with stress and misfortune (Ano & Vasconcelles, 2002). For instance, religious coping strategies, such as prayer, meditation, and asking for help from spiritual groups, were linked to improved mental health outcomes in the face of stress (Sen et al., 2022). More research needed to be conducted to

examine the impact of spirituality in this professional context, even though spiritual beliefs helped healthcare professionals cope with stress (Prazeres et al., 2020).

This study explored the relationship between stress levels and spirituality of healthcare workers in relation to rural versus urban areas. It analyzed these variables using a biblical foundation to interpret the study's results. The Bible was referenced to understand the significance of rural and urban settings, the importance of caring for the ill and needy, the principles of serving others and working with dedication and fairness, and the provision of coping skills for managing stress and hardships. The research highlighted the benefits and importance of integrating spirituality into stress management for healthcare professionals. By examining the connection between stress and spirituality of rural and urban healthcare professionals, this research sought to close this gap in the literature (Chow et al., 2022).

This research intended to create a quality support system that would provide resources and interventions that would be effective in different healthcare settings (Fischer et al., 2012). This study aimed to help improve the well-being and mental health support provided to rural and urban healthcare professionals by identifying spirituality-related mental well-being (Chow et al., 2021).

In conclusion, this dissertation investigated the association between spirituality and stress levels in rural and urban healthcare workers. The study sought to contribute to an established knowledge base of spirituality's role in promoting stress management through intervention and support systems.

Background

The World Health Organization ([WHO], 2020) defined workplace stress as the circumstances of individuals' reactions to work demands and pressures that exceed their cognitive and skill capacities, impeding their ability to manage such stressors. It was the subjective evaluation of a disparity between the demands placed upon an individual and the resources at their disposal to manage those demands within a given context (Giessing et al., 2019). Such demands included a lack of advancement in one's career, not being recognized on the job, job workload, organizational restriction, and personal conflicts with coworkers (Kath et al., 2013; Zhang et al., 2020), leading to stress (Palanci et al., 2021). Healthcare workers provided essential services to individuals in rural and urban areas, and their job was crucial in delivering high-quality healthcare services to patients within healthcare facilities (Wasik, 2020). Research indicated that job-related stress progressively became a concern in contemporary society (Achour et al., 2019).

Supporting healthcare workers' mental health has been a top priority for organizations in recent years (Afulani et al., 2021). Strategies for keeping healthcare workers psychologically safe became important tasks for administrators and managers within these organizations (d'Ettore et al., 2021; Selamu et al., 2019). Studies found that this support could be practical when provided through psychological first aid, training, education, and updated or new policies (Blake et al., 2021; Gray et al., 2021; Kaufman et al., 2020; Labrague & Santos, 2021; Matloob et al., 2020; Vagni et al., 2020).

Healthcare workers who experienced stress over the years attributed it to loss of power and daily routine, grief, mental and emotional exhaustion, clinical decision-making, changes in job roles, and feelings of depersonalization (Liberati et al., 2021; Lorente et al., 2021; Rao et al., 2021; Woon et al., 2020; Yang et al., 2021).

Psychological resources, however, aided in helping protect workers from traumatic experiences that may lead to stress and burnout (Di Giuseppe et al., 2021; Iran, 2021).

The healthcare workforce operated within diverse settings, including rural and urban areas (Rosenblatt et al., 2002). Healthcare professionals were crucial for delivering indispensable care and services to individuals who required them (Joseph & Joseph, 2016). The arduous demands of their profession frequently subjected them to elevated stress levels, potentially exerting considerable ramifications on their welfare, occupational contentment, and holistic standard of living (Søvold et al., 2021). Using developed coping mechanisms had been vital in managing stress and enhancing one's mental well-being (Labrague, 2021). Shaw et al. (2019) credited individuals' religious convictions with managing a level of stress. Rural and urban healthcare workers faced unique issues that were specific to them and affected them individually (Gold, 2020).

The healthcare environment in which professionals operated, whether in rural or urban settings, presented distinctive factors that could impact their stress levels (Gold, 2020). Healthcare providers in rural areas were presented with problems specific to rural living such as having limited resources and isolation, whereas urban areas provided a broader spectrum of services, resources, and prospects for professional advancement (Chipp et al., 2011). Urban environments presented additional stressors, such as high patient volumes and having less time to do one's job (McComiskey et al., 2018). Hence, it was imperative to distinguish the differences in coping among healthcare professionals in rural and urban healthcare environments to address them appropriately.

Spirituality provided support and strength during hardship and stress, establishing a sense of direction by providing a structure for understanding and interpreting the world

(Walsh, 2020). Using spirituality as a resource within healthcare environments was common regardless of needing to integrate spiritual elements into policy (Ibrahim et al., 2020). The Christian religious doctrine, which placed significant importance on faith, prayer, and communal practices, demonstrated a notable impact on the development of coping mechanisms and the promotion of overall wellness among individuals (del Castillo & Alino, 2020).

Problem Statement

This quantitative study addressed the need for a comprehensive understanding of the relationship between spirituality and stress levels among healthcare professionals in rural and urban areas. While the influence of spirituality on stress was recognized, there was a scarcity of research explicitly investigating the variations in coping outcomes and the correlation between mental outcomes and spirituality among healthcare workers. The findings of this research provided a deeper understanding of the challenges faced by healthcare practitioners in rural and urban work environments and the role of spirituality in fostering an effective coping strategy (Dolcos et al., 2021).

Rural and urban healthcare environments had unique challenges and strategies for coping with these challenges (Koinis et al., 2015; Wallace et al., 2009). Their coping strategies also differed (Hartley, 2004). For example, Chow et al. (2021) described rural healthcare workers as being more grounded in spiritual beliefs than their urban counterparts. While the potential influence of spirituality on stress management was recognized, there was a lack of research specifically investigating the variations in coping strategies and the correlation between mental health outcomes and spirituality among healthcare workers in rural and urban areas (Kuchinka, 2021).

Healthcare workers in rural healthcare settings endured working with insufficient resources, increasing workloads, and increased stress levels (Selamu et al., 2019). The non-urban healthcare workforce employed different coping strategies than those in urban settings, where resources were more readily available, though with distinct stressors, such as high patient volumes and a fast-paced work environment. Effectively managing stress and other mental health concerns was crucial for healthcare workers' job performance and well-being (Nowrouzi-Kia et al., 2021). Using spirituality to improve mental health wellness and decrease stress helped alleviate the mental health burdens brought on by stress in rural areas (Koenig, 2020). Developing strategies aligned with one's spiritual level aided rural healthcare workers in coping with mental health stress and reducing its impact on their jobs (Sen et al., 2022).

For this and other research, spirituality provided a framework for understanding and responding to stress and adversity, highlighting spirituality with faith, prayer, and reliance on a supreme being (Manning, 2014; Park, 2013). A belief in this framework influenced how individuals managed stress and other difficulties, including those encountered in the healthcare sector (Koenig, 2012; Rosmarin et al., 2019). However, the extent to which spirituality contributed to stress management among healthcare workers in rural and urban healthcare settings required further examination.

This research sought to address the existing gap in the literature by investigating the relationship between spirituality and stress levels among healthcare professionals in rural and urban healthcare environments. The study explored the relationship between stress and spirituality among healthcare workers in rural and urban areas and the differences that influenced this relationship. The research sought to develop strategies for

stress management aligned with spirituality among healthcare professionals in these environments.

Purpose of the Study

The purpose of this quantitative study was to investigate the association between spirituality and stress levels in healthcare workers in rural and urban healthcare settings. In addition, this study examined the relationship between stress levels and spirituality for both rural and urban healthcare workers. Finally, this study examined the difference in spirituality between rural and urban healthcare workers.

Research Question(s) and Hypotheses

Research Questions

RQ1: Is there a relationship between stress and spirituality among healthcare workers?

RQ2: Is there a relationship between stress and spirituality among urban healthcare workers?

RQ3: Is there a relationship between stress and spirituality among rural healthcare workers?

RQ4: Is there a difference between rural and urban stress and spirituality for healthcare workers?

Hypotheses

Hypothesis 1: There is a relationship between stress and spirituality among healthcare workers.

Hypothesis 2: There is a relationship between stress and spirituality among urban healthcare workers.

Hypothesis 3: There is a relationship between stress and spirituality among rural healthcare workers.

Hypothesis 4: There is a difference between rural and urban stress and spirituality for healthcare workers.

Assumptions and Limitations of the Study

Some assumptions impacted the study. Schieman (2008) found that religion and faith were personal to many people. It was assumed that the pandemic has significantly affected the coping mechanisms of healthcare workers (Cai et al., 2020). However, because participation was voluntary, the study depended on the participants' honesty in providing honest responses to the survey (Bhagavathula et al., 2020).

The study identified certain limitations relevant to this research approach. Individuals may have answered questions about their spirituality in a way that was thought to be more socially acceptable or favorable, as Demaio (1984) described. Another limitation noted by Pirutinsky et al. (2020) was that the research did not look at or compare non-religious ways of coping or pro-social behavior, which signal, and aid improved coping with stresses. The results might have been less potent because of self-reporting questionnaires rather than clinical assessments (Babore, 2020). The research also revealed that rural and urban healthcare workers have varying spiritual beliefs (Harris & Tao, 2022).

Theoretical Foundations of the Study

The theoretical foundation for this research employed frameworks, such as coping theory, social support theory, and religious coping theory, to understand the underlying relationship between spirituality and dealing with healthcare worker stress (Lazarus &

Folkman, 1984; Cohen & Wills, 1985; Pargament et al., 2000). Coping theory suggested that individuals used a variety of cognitive and behavioral strategies to manage stress and adversity (Lazarus & Folkman, 1984, p. 141). According to social support theory, individuals who perceived they had access to supportive relationships and resources were better able to cope with stressors (Cohen & Wills, 1985). Religious coping theory also suggested that spirituality and religious beliefs and practices could help manage resources for individuals facing stressful or traumatic events through cognitive-behavioral techniques (Pargament et al., 2000).

Due to limited resources and isolation, rural healthcare workers might have needed help accessing formal support systems, such as mental health services (Htay et al., 2021). While previous research showed that problems such as isolation and lack of resources were evident for rural healthcare workers (Van Houtven et al., 2021), others argued that healthcare workers who adhered to spiritual conviction might have been more resilient when faced with hardships (Ano & Vasconcelos, 2005). Additionally, due to rural communities' isolation and tight-knit nature, spirituality was more significant for these workers (Weinberger-Litman et al., 2020).

Likewise, while urban healthcare workers had greater access to formal support systems, they faced more challenges in developing supportive relationships due to the diverse nature of urban areas as opposed to rural areas (Berkman et al., 2000). Differing cultural norms and social supports between rural and urban areas made coping distinctive for each (Lu et al., 2020). For instance, Lu et al. (2020) suggested that rural individuals were more likely to depend on informal social support networks, such as family and

friends, whereas urban individuals were more prone to utilize more formal supports, such as mental health clinics and support groups.

This research helped clarify spirituality's role in rural and urban healthcare workers' responses to dealing with stress in healthcare. Using diverse theoretical frameworks, a more comprehensive and better understanding of the probable processes behind observed differences in coping techniques was developed.

Definition of Terms

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

Burnout – A condition that is believed to be caused by unmanaged long-term occupational stress, distinguished by sensations of energy depletion or tiredness, increasing mental distance from one's employment, or thoughts of pessimism or cynicism towards one's work, and diminished professional effectiveness (WHO, 2019).

Christian – A person who aligns with and accepts the substance of the Bible, maintaining traditional values and beliefs (Haugen, 2020).

Coping – This refers to the cognitive and behavioral strategies individuals employ to manage the stressors arising from internal or external demands of a given situation (Budimir et al., 2021).

Coping Strategy – This refers to the collection of cognitive and behavioral strategies, whether adaptive or maladaptive, that individuals employ to cope with stressful and adverse events (Finstad et al., 2021).

Healthcare Worker – A healthcare worker provides care and services to the ill and suffering, directly as physicians and nurses or indirectly as aides, laboratory technicians, or even medical waste handlers (Joseph & Joseph, 2016).

Level of Stress – The extent to which an individual is stressed (Davis-Roberts, 2006).

Pandemic – An epidemic that spreads worldwide (Grennan, 2019).

Religious Coping – Specifically turning to God to seek solace, support, and direction from a divine being, within the framework of organized religion or on a more informal path through individual spiritual practices (Carver et al., 1989).

Rural – Any non-urban territories, population, and housing (United States Census Bureau, n.d.).

Spirituality – Distinguished by the presence of faith, an exploration for significance and direction in one's existence, a perception of interconnectedness with others, and a surpassing of self, leading to a feeling of internal serenity and overall welfare (Delgado, 2005).

Stress – A physical and emotional response humans feel when facing life's challenges (National Center for Complementary and Integrative Health, 2022).

Stressor – Any occurrence, force, or circumstance that causes physical or emotional stress. They can be internal or external influences that need the afflicted person to change or develop coping techniques (American Psychological Association, n.d.).

Urban – urbanized areas of at least 50,000 people (United States Census Bureau, n.d.).

Work Environment – The space where individuals come together to accomplish their duties and produce results. The work environment, also known as the psychological climate, influences an individual's mental health (Donley, 2021).

Significance of the Study

Stress within the healthcare field created an awareness that could not be overlooked. The awareness of stress and spirituality among healthcare practitioners was

necessary for optimal well-being. This research provided significant context for the relationship between spirituality and stress in rural and urban healthcare settings. The knowledge gathered facilitated interventions and support systems specific to healthcare professionals' unique requirements and areas of work. This information facilitated viewpoints to improve healthcare workers' general welfare, job contentment, and capability to deliver high-quality healthcare services.

Examining the correlations and differences between stress levels and healthcare settings (rural vs. urban) among healthcare workers had practical implications for healthcare organizations and policymakers. Investigating stress levels in diverse healthcare settings helped devise strategies tailored to the distinctive obstacles healthcare professionals encountered in specific regions. This knowledge aided in developing specific interventions that assisted in alleviating stress and enhanced the work environment of healthcare professionals.

Summary

The study aimed to fill a significant gap in the existing literature by examining the correlation between stress levels and spirituality within healthcare settings. It provided practical implications for enhancing the quality of healthcare work environments and the overall experiences of healthcare professionals. Research on the relationship between stress and spirituality had shown comparable results. Studies indicated that healthcare workers in rural areas experienced more stress than those in non-rural areas (Owens, 2021; Waddel-Henowitch et al., 2021). Research also found that there were differences in the beliefs held in rural and urban areas (Chalfant & Heller, 1991; Peach, 2003). Coping theory, social support theory, and religious coping theory laid the theoretical foundation

for understanding the study's focus on the relationship between stress and spirituality (Lazarus & Folkman, 1984; Cohen & Wills, 1985; Pargament et al., 2000).

The study held significance because it had the potential to provide information for evidence-based practices and interventions that could improve the well-being and support of healthcare workers. The investigation's outcomes could facilitate the creation of improved policies, programs, and resources that foster the welfare of healthcare practitioners. This study could benefit the provision of healthcare services and elevate the general standard of care.

The study's biblical foundation focused on the New and Old Testaments of the Bible. Both Testaments referenced rural and urban life as important in following Jesus' teachings. The Bible emphasized serving and caring for others, relinquishing worries to God, and praying as a way of coping with life's sufferings (*New International Version Bible*, 1973/2011).

This chapter provided background for the research topic and offered a foundation and purpose for studying the topic. The chapter's purpose was also directed by integrating biblical foundations for the study. This chapter introduced the research questions, hypotheses, and definitions that guided the study. The next chapter provides a comprehensive review of the literature on the topic as well as a biblical understanding through the Biblical Foundations introduced.

CHAPTER 2: LITERATURE REVIEW

Overview

This literature review established the structural basis from which the research emerged. It focused on the material deemed relevant to the study objectives, examining aspects of rural and urban healthcare employees, their work environments, stress levels, and coping strategies. A literature study was conducted on stress for rural and urban healthcare workers (Manchia et al., 2022). This review discussed the biblical foundation and how healthcare workers were trained in this area using the Bible. The review aimed to help future researchers understand the environment of the prospective question and the research on the topic.

According to the American Psychological Association (n.d.), 71% of American workers experienced stress or tension during their workday. One-third or more of U.S. workers claimed to have chronic work stress, which could affect the health of workers as well as impact employers and organizations. The APA noted that the causes and types of stress experienced at work varied for many. The mission of providing care had become overwhelming for healthcare workers over the past few years (Koontalay et al., 2021).

Description of Search Strategy

The literature search technique used Liberty University's online Jerry Falwell Library, which generated findings from multiple databases. The literature review used the following databases: EBSCO, Emerald Insight, Google Scholar, JSTOR, ProQuest Central, PsycARTICLES, PsycINFO, SAGE Journals, Springer, and Wiley Online Library. These databases provided keyword searches by author, title, publication, and subject. Boolean searches used operators such as AND or OR, to combine or exclude

search terms. The following keywords and phrases were used to find relevant sources: “rural healthcare workers,” “rural,” “urban,” “urban healthcare workers,” “coping,” “mental health,” “Christianity,” “health,” “stress,” “COVID-19 pandemic,” “mega-church,” “spirituality,” and “spiritual well-being.”

In the biblical framework, a word study examined essential principles of dealing with a crisis. The words searched for in the study were rural, urban, crisis, coping, work environment, guidance, faith, and stress. All biblical verses utilized in this current research study and throughout this text originated from the New International Version Bible (1973/2011), described as the most widely used contemporary Bible translation (Perry & Grubbs, 2020).

Review of Literature

Healthcare Workers

According to the Centers for Disease Control and Prevention ([CDC], 2017) occupations in healthcare were the most rapidly growing division in the U.S. In 2021, 14% of all workers in the United States worked in the healthcare industry, accounting for 22 million healthcare workers (U.S. Census Bureau, 2021), making the healthcare profession the leading employer in the U.S. Worldwide, the number increased to 59 million (Joseph & Joseph., 2016). Healthcare workers included direct care workers who provided direct care, such as doctors and nurses, and indirect workers, such as medical waste handlers and aides. Healthcare providers encompassed primary care, nursing, and specialty care (MedlinePlus, 2020). The service area where they were employed governed their daily duties. Differences between healthcare workers did exist (U.S.

Census Bureau, 2021). One certainty was that the goal of the health professional was to care for those who were ill (Babiker et al., 2014).

Healthcare professionals encountered various occupational risks and infections (Theodoridou, 2014; Çelmeçe & Menekay, 2020). Infections and other stressors negatively affected healthcare professionals' mental, physical, and emotional well-being (Søvold, 2021). A cross-sectional survey of 702 Australian nursing and healthcare professionals found that these professionals had poor mental health and elevated levels of work-related stress (De Cieri et al., 2019). Using regression analyses, the authors found that work-related stressors and mindfulness were critical in determining employee mental health. Measuring 35 work-related stressors using the Health and Safety Executive Management Standards Indicator Tool (HSE-MSIT), De Cieri et al. (2019) concluded from the data that healthcare professionals felt elevated work-related stress. While studies have shown that distinct categories of stressors exist, Hasbrouk and Waddimba (2017) cited four themes of stressors from their research: organizational stressors, provider/staff-related, patient-related, and third-party-induced stressors.

Healthcare workers, especially doctors and nurses, experienced long work hours, changes in job roles, responsibilities, work environment, and their connections with coworkers, which led to burnout and depression (Teraoka & Kyougoku, 2019). Citing stress's impact on health, Anjum and Zhao's (2022) research findings were similar in that workload, work hours, job frustration, organizational policies, and coworker relationships were stressors that affected one's health. The yearly cost of stress among healthcare employees in the United States was $191 billion; one-third and one-half of them reported work stress as causing burnout (White et al., 2021). According to Medscape's 2019

National Physician Burnout, Depression, and Suicide Report, of the more than 15,000 physicians who responded, 42% expressed burnout, and 14% admitted having suicidal thoughts (Kane, 2019).

Primary Care

Primary care providers or PCPs oversaw one's complete health and care plan (MedlinePlus, 2020) and provided various preventative, wellness, and treatment services for common ailments (healthcare.gov, n.d.). Primary care providers included medical doctors, obstetricians/gynecologists, nurse practitioners, and physician assistants catering to a specific location, allowing the provider to focus on that area (MedlinePlus, 2020). Primary care was the foundation of a robust healthcare system that guaranteed favorable health outcomes and health fairness (Shi, 2012). Physicians were responsible for caring for and saving lives (Yardley et al., 2020; Bayerle et al., 2021). The duty of healthcare professionals not only imposed demands on them but also came with an inherent obligation and cost (Bayerle et al., 2021).

The Primary Health Care Performance Initiative (2017) characterized primary care services as first-contact accessibility, coordination, continuity, comprehensiveness, and person-centeredness. Within the primary care type of healthcare, physicians were often family doctors and often remained long-term providers (Muldoon et al., 2006), often coordinated services and treatments with experts, and could treat various health-related issues experts (healthcare.gov, n.d). This type of care, often administered by family doctors to a single patient, was patient-centered and longitudinal (Muldoon et al., 2006).

Nursing

Since the emergence of nurses, their roles and responsibilities changed, and they became an integral part of the healthcare system (Flaubert et al., 2021). Falling into the category of healthcare, those who trained to care for ill patients were licensed practical, registered, and advanced practice nurses (MedlinePlus, 2020). While the primary role was to provide direct patient care, including administering medications, preventing infections, assisting with activities of daily living, and clinical documentation (Digby et al., 2020), nurses were also required to promote health, prevent diseases, and educate patients (Babstable, 2021). Nurses provided care in hospitals, clinics, long-term care facilities, schools, and community health centers (Culley et al., 1996).

A 2007 study by Skillman et al. (2007) recognized that there were minor differences in age and sex between rural and urban registered nurses in the United States, but non-Whites and Hispanics were underrepresented in both age and sex. This same study found that 97.4% of urban registered nurses worked and lived in the same region and commuted less. A more recent study revealed that rural nurses were permanently interwoven with trauma-related events because they often resided and worked in the same rural community during their careers and were deeply rooted in the sociocultural characteristics of rural community life (Jahner, 2020). Participants coped with this by leaning on others, finding inner strength, striving to let go of the past, and undergoing transformational change through time. The effect of the social environment revealed that nurses needed to remain resilient to continue dealing with future traumatic occurrences in their community. Urban nurses had advanced degrees or at least a four-year degree (Skillman et al., 2007). In this study, most (60.4%) urban nurses worked full-time and

mostly in hospital settings. In addition to their regular job duties, nursing personnel could link information to other nurses and staff (Zhang et al., 2021).

Challenges in nursing have existed since the birth of the profession (Spring Arbor University Online, 2023). Some of the issues in nursing included a scarcity of nurses, a lack of incentives and work satisfaction, excessive turnover, and impaired competence (Ahmad & Shaheen, 2021). According to Ahmad and Shaheen (2021), despite these challenges, individuals used specific coping mechanisms to address these problems.

Specialty Care

Specialty care included services offered by health practitioners specializing in treating disorders affecting a particular bodily system (Politi et al., 2011). Specialty care healthcare workers included providers, nurse practitioners, and physician assistants practicing in pulmonary, nephrology, anesthesiology, gastroenterology, and many other areas (MedlinePlus, 2020). Specialists had in-depth, expert knowledge of a few illnesses within their respective fields because of their advanced education and training (Donohoe, 1998). They were competent in diagnostics and treatments beyond a generalist's training. For example, oncology nurses were found to be vital in delivering care to cancer patients, including coordinating care, educating patients and families, and managing symptoms (Rieger & Yarbro, 2003). Also, a review of nurse practitioners and physician assistants found that physician assistants in acute and critical care settings were able to provide high-quality care to patients in these specialist care settings (Kleinpell et al., 2019).

Specialty care healthcare workers faced various challenges in delivering specialized care (Politi et al., 2011). For example, a 2020 study found that a significant challenge between the increasing demand for rheumatologists and the existing workforce

was a critical concern for the rheumatology profession (Miloslavsky & Bolster, 2020). The need for specialized medical services among rural populations was partly heightened by the prevalence of chronic illness in rural settings (Deprez, 2004). Another study found that burnout was a significant problem among oncology nurses, with over half reporting symptoms of burnout (Kohli & Padmakumari, 2020).

Specialty care healthcare workers could improve the delivery of specialized care despite their challenges (Mitchell et al., 2019). One study found that advanced practice registered nurses (APRNs) played a key role in caring for older and elderly adults (Bakerjian, 2022). Integrating pharmacists into the healthcare team was found to improve patient outcomes in specialty care areas (Manolakis & Skelton, 2010).

Rural Healthcare Workers

According to Dobis et al. (2021), the rural population has transformed over the past ten years. In 2020, 46 million Americans lived in rural areas, or 14% of the population. Past studies found differences in procedures between rural and urban healthcare workers. According to MacQueen et al. (2018), rural healthcare professionals were often required to treat various illnesses and perform treatments in their communities without specific training. Although estimates varied by the type of provider, researchers discovered that only 12% of U.S. doctors worked in rural regions. A 2022 study of rural American physicians demonstrated that rural background was a strong and accurate predictor of rural practice and that new and seasoned doctors had distinct considerations when selecting a location (Hu et al., 2022). For example, the study found that patients' requirements, pre-negotiated service commitments or visa/immigration status, financial remuneration, environment similarity to their upbringing, and patient demands were more

likely to be the driving forces behind physicians selecting rural practice sites rather than social network proximity. Concerning work practices, rural nurses were found to have greater exposure and, therefore, practiced safer occupational methods and processes (Akinleye & Omokhodion, 2008). However, rural healthcare workers working in specific conditions and with certain diseases worked with the fear of being infected, had inadequate training, and lacked the desire to deal with certain diseases (Der et al., 2022).

According to the Rural Health Information Hub (2022), access to high-quality healthcare in rural areas depended on maintaining the healthcare workforce. Rural health professionals had to be appropriately licensed or certified, have the necessary education and training, and possess cultural competency to meet the rural community's needs (Rural Health Workforce, 2000). Many barriers in rural healthcare were not necessarily barriers to urban and metropolitan healthcare professionals. For example, fewer prospects existed for job progression and career advancement in rural areas. Burnout might result from understaffing due to greater workloads, increased job assignments, longer work shifts, and less schedule flexibility. Compared to urban healthcare professionals, rural healthcare professionals were paid less, received fewer benefits, and worked in low working conditions. Other research suggested a need for more healthcare professionals in rural areas and persistent, long-term openings (Hempel, 2015). Hempel stated that healthcare professionals were often difficult to retain in rural towns. In a study of general practitioners in rural Scotland, research reported better mean work gratification, fewer mean job stresses, and fewer mean negative job qualities than their counterparts in other regions in Scotland, primarily attributable to the more considerable proportion of female general practitioners working in rural regions (Eaton-Hart, 2022). However, this same

research reported that general practitioners in rural areas were more likely to want to retire from medicine entirely in the following five years.

With the growth of nonphysician providers, the provision of healthcare by nonphysicians such as nurse practitioners, physician assistants, and certified midwives was crucial to rural communities (Strickland et al., 2008). In a 2008 study of a statewide survey in Georgia, data found that rural providers were older, more experienced, but less educated and possessed fewer specialty qualifications than urban providers. This study also found that nonphysician providers working in rural communities felt safer and more relaxed. A survey of rural registered nurses (RN) in the United States found that while rural nurse practitioners were still in limited supply and there have been fewer doctors servicing rural populations recently, the number of rural registered nurses has continuously increased at a pace like that of urban registered nurse growth (Yates et al., 2022). This study found that half of the RNs studied had a bachelor's degree or higher.

In comparison, more than 70% of RNs in urban areas had a bachelor's degree or higher (Yates et al., 2020). Rural RNs were noticeably less varied than those they served. A 2019 study found that nurses with an improved rural fit were less likely to quit their present job or unit in the upcoming six months and fewer planned to leave their organization in the forthcoming three years when work satisfaction, resiliency, determination, involvement, and rural fit were considered together (Sellers et al., 2019). Despite the lack of defining qualities for rural nurses, Winter (2021) argued that certain qualities—such as sound judgment, the capacity for prioritization, proficiency in physical evaluation, and emotional and physical fortitude were crucial to their success.

An earlier study of low- and middle-income county nurses supported the idea that the most significant factors affecting rural nurses' job satisfaction were interpersonal interactions, the work environment, and supportive leadership (Jayasuriya et al., 2012). These results were consistent with previous qualitative research highlighting the value of people management in rural workplaces for maintaining a motivated workforce and delivering high-quality services (Irvin & Evans, 1995).

Work Environment. Nursing work environments deteriorated over the years (Ulrich et al., 2022). A rural work environment was different compared to an urban work environment. Resources were only sometimes available (Rural Opportunity Institute, 2023). For example, Taylor and Lee (2005) found that rural health providers needed more readily available access to computers since computers were used more than their urban peers for tasks such as email and teleconferencing. Some healthcare workers were deterred from wanting to continue working in rural areas because they felt isolated from peers and coworkers (Taylor & Lee, 2005). Baumann et al. (2008) concluded that the need for more government funding for rural institutions also made it challenging to keep personnel. While physicians and nurses made up only 25% and 38 %, respectively, in some rural communities (Nwanko et al., 2022), providers explained that the work environment was the second most common cause of work dissatisfaction (Wang et al., 2020).

Rural nurses in emergency departments and urgent care centers needed various clinical skills to treat complicated presentations, frequently with little assistance and funding (Beks et al., 2018). In other areas of healthcare, such as mental health, generalist nurses working in rural emergency departments and urgent care centers were routinely

required to assess and treat patients presenting with mental illness, often with little assistance from mental health expert services and little formal training. Beks et al. explained that when rurality increased, the patient-to-RN ratios rose. Remote healthcare institutions needed more resources to support and grow their employees, resulting in less employer support for personal progress for nurses in rural locations and geographic limitations.

A qualitative study in Kerala, India, evaluated the level of primary medical care experience and work conditions of rural doctors and illustrated the importance of increasing the quality of health services (Vallikunnu et al., 2014). In this study of 30 doctors, the researcher found that a lack of doctors led to a more significant workload for the current medical personnel, unfavorable working conditions, and low productivity. The study detailed that 90% of the doctors were not allowed enough time to examine, diagnose, and treat patients; twenty percent of doctors did not feel supported by management; and 60% of the doctors interviewed described not having any formal training on the administration of the job.

In a 2020 study, researchers enlisted 1244 primary care nurse practitioners from Arizona, California, New Jersey, Pennsylvania, Texas, and Washington to compare the work environments, job outcomes, and practices of rural and urban primary care nurse practitioners (Germack et al., 2020). The study discovered that although rural nurse practitioners worked an average of more extended hours than urban nurse practitioners, they spent their time similarly. Compared to urban nurse practitioners, a higher percentage of rural nurse practitioners reported operating freely in charge of their patients, working as the lone provider or just with one to two additional clinicians. The

researchers noted that in remote areas, a higher proportion of nurse practitioners reported being the sole medical professional in their practice or sometimes one to two other providers. Compared to urban nurse practitioners, a higher proportion of rural nurse practitioners worked in nurse-managed health facilities (22.3% vs. 17.1%), community health centers (24.5% vs. 20.6%), and other settings. Nurse practitioners spent an average of 32.1 hours a week providing direct care to patients, 5.73 hours a week coordinating patient care, and 2.41 hours a week providing care management services, quality assurance, and improvement accounted for 1.79 hours a week and 1.7 hours in leadership. Rural primary care nurse practitioners worked more hours, and many worked in smaller practices, which may be reason for why they were often tasked with being the primary care providers in rural areas (Friedberg et al.,2015; Germack et al., 2020). Small and rural settings amounted to nurse practitioners needing more structural support, such as access to a communication system with their patients and colleagues.

Stress. Stress exists in every job and was among many businesses and organizations' most prevalent health concerns (Mensah, 2021). Stress at work affected people's health globally (Mulugeta et al., 2021). The pressure could be slightly higher on healthcare and affect healthcare professionals' well-being more. Low wages, lack of social support, and dissatisfaction with one's job contributed to primary healthcare workers' stress (Asante et al., 2019). These contributions to stress affected U.S. healthcare workers at $191 billion yearly (White et al., 2021). Asante et al. (2019) concluded that improving healthcare workers' work environment and managing ways to reduce job stress might improve their well-being. Work stress of rural healthcare workers

proved to have a positive yet indirect effect on whether workers intended to leave their current jobs (Liu et al., 2019).

A study involving emergency room nurses in a rural part of Toronto sought to investigate the stressors that might lead to mental health issues and found that a lack of resources, worry about going outside of their area of expertise, and concerns regarding patients and their own privacy in the community were all problems faced by rural emergency nurses (Dekeseredy et al., 2020). These events also affected family members, as shown through angry outbursts, impatience, and withdrawal. Nurses who underwent work-related stress experienced physical and mental health impacts (Kilic et al., 2016). When nurses suffered from these mental health problems, patient care and safety were compromised (Van Bogaert, 2017). Rural health nurses were prone to anxiety, depression, burnout, and post-traumatic stress disorder (PTSD) (Dekeseredy et al., 2020), as was the case in a 2021 study where psychological stress and burnout affected the work of Kenyan providers. This study revealed that sustained high stress and burnout could decrease productivity and effectiveness, job satisfaction, and dedication to the job. As a result, there were dangers to patient safety, poor care quality, and negative attitudes toward patients. One of the goals of the World Health Organization (2017) in keeping patients safe was to reduce the stress and burnout of healthcare workers. In a study measuring burnout, adverse results, and well-being and psychological strain of thirteen rural doctors in Australia, researchers asserted that the level of stress and burnout among medical professionals varied by region (Rees et al., 2020). The strains of rural practice, such as social and professional isolation, increased the mental health of rural doctors.

Doctors had an increased risk of depression and suicide compared to other occupations. This increased risk affects patient care, interpersonal interactions, and job satisfaction.

Rural nurses were more susceptible to psychological discomfort than their urban colleagues due to the specific characteristics of their work. Globally, death rates were more significant in rural and isolated locations than in urban areas and cities (Disler et al., 2020). In rural areas, it was usual for nurses to work alone, give a broad spectrum of care to a diverse range of patients across their lifetime, and deal with various physical, psychological, and occupational health and safety difficulties while receiving little assistance (Jahner, 2022).

Coping Strategies. Effective treatments reduced turnover, health expenditures, absenteeism, and injuries due to heightened stress (White et al., 2021). There was a greater understanding of the short- and long-term effects of exposing nurses to psychologically upsetting traumatic experiences (Carmassi et al., 2020). Because of their practice locations and shorter emergency response times, rural nurses who experienced trauma were more susceptible to secondary traumatic stress and post-traumatic stress disorder (Jahner et al., 2022). A qualitative study by Jahner et al. showed a lack of mental healthcare in rural practice settings. Findings from this study exposed the effects of exposure to traumatic events on rural nurses, their underappreciated psychological health, and how they dealt with and maintained strength over time. In the study of nineteen rural nurses, Jahner et al. noted the social processes nurses used to maintain their strength. The first process nurses experienced was “relying on others” by seeking support and stability from family and friends (p. 886). The second process was “seeking and sustaining strength” through self-reflection (p. 886). In addition to the external and internal methods

practiced, nurses buried their emotions and suppressed memories to “leave the past behind,” both in and out of their control (p. 887).

While continuing to stay resilient, nurses felt they had undergone an unavoidable inward change (Jahner et al., 2022). In a recent qualitative study of rural nurse managers in western Canada, researchers studied the role of stresses, coping mechanisms, and resilience of nurse managers in rural settings (Udod et al., 2021). Udod et al. described resilience as a psychological trait that can negotiate, manage, and adjust to significant stress or trauma causes. Resilience as a coping mechanism developed as one of the fundamental characteristics for nurse managers, considering the recent focus given to stress, caregiver burnout, and moral distress across leadership positions. Building personal resilience was identified as being crucial in coping with work-related stress and adversity, maintaining job satisfaction, practicing self-care, and helping to address issues with workforce retention and staff well-being in response to the increasing pressures faced by rural nurses working within overburdened and under-resourced healthcare systems (Foster et al., 2019; Selamu et al., 2017). Udod et al. (2021) described coping strategies as how participants thought about and reacted to a particular situation that created the conditions for encouraging personal resilience. The coping strategies identified by Udod et al. included problem-solving, reconciliation of problems via introspection and perspective-shifting, loyalty towards one’s patients, and psychological support from coworkers, relatives, and friends—all of which helped nurse managers manage the demands of their day-to-day roles.

Selamu et al. (2017) described the health of healthcare professionals as crucial for the efficient operation of health systems in a qualitative study conducted with 52 frontline

healthcare workers working in facility-based and community-based facilities in rural Ethiopia. While identifying threats to the study participants, the research also identified various strategies for the participants to manage work stressors. Among the coping strategies mentioned for managing stress by rural healthcare workers were using peer relationships and social support. Along with resilience, enduring the work situation was an important coping mechanism for managing stressors. The most frequent coping strategy mentioned by these rural participants was improving their education to bolster their careers and economic situation. Other factors that participants identified as helpful in addressing the threats to well-being were recognition, adequate staffing levels, fair and appropriate workloads, good career development, and reasonable salary and benefits packages.

Urban Healthcare Workers

As cities expanded across the United States and the rest of the globe, medical professionals became an important sector of the healthcare system (Joubert, 2020). Researchers conducting a study on urban healthcare workers in 2007 found that while age and sex showed similarities, non-white registered nurses were marginalized (Skillman et al., 2007). Skillman et al. suggested that understanding the differences in education, work locations, and work patterns would help reduce shortages. In a study of general practitioners, urban general practitioners (GPs) thought of themselves as offering medical care and perceived rural general practitioners as medical companions (Pohontsch et al., 2018). Several factors influenced physicians' roles in urban areas. In a 2022 study, participants identified workload management, streamlined referral systems, integrated electronic health records, access to adequate financial and human resources, availability

of necessary equipment, and increased public involvement as crucial elements for the effective functioning of physicians (Shahabianmoghaddam & Zanganeh Baygi, 2022). Urban nurses often lacked this community sense while practicing (Bratt et al., 2014). Reath et al. (2019) suggested that healthcare professionals had to consider their demands when designing health services and the workforce to ensure fair access to healthcare and improved health outcomes.

Work Environment. The work environment of urban healthcare professionals was significant to those who worked in it. According to Baernholdt et al. (2018), aspects of urban nursing, such as nurse staffing, education, and experience, differed from rural nursing. As with other research, low job satisfaction was attributed to heavy workloads, poor working conditions, and low income (Millar et al., 2017). This same study also found that although money was a financial incentive for healthcare workers, it also questioned their capacity to uphold the principles and characteristics of public service. A 2018 study of urban and rural healthcare professionals in Serbia found that by fulfilling aspects of work motivation such as receiving recognition, positive work relationships, promotions, and supervisor support, urban healthcare professionals were more driven to work than they were happy with their jobs (Grujicic et al., 2018).

Urban healthcare workers experienced changes to maintain job satisfaction. Du Plessis et al. (2019) discovered that urban healthcare professionals in South Africa were more likely than their rural counterparts to leave their positions due to discontent with the nonavailability and access to technology and training. In this study, more participants were highly qualified and relied on the ability to find employment elsewhere.

Yasin et al. (2020) determined that many factors correlated with the job satisfaction of urban healthcare professionals, such as personal and societal issues. According to the 2019 review by Yasin et al., the job satisfaction of urban healthcare workers, specifically nurses, was affected by extrinsic factors. In Yasin et al.'s review of 38 studies, the most often cited criteria related to nurses' job satisfaction were their physical work environment, level of authority, and level of independence. Earlier reviews discovered that depending on the care practice, several factors impact nurses' pride in their jobs (Utriainen & KyngÄS, 2009). These factors included interpersonal relationships, patient care, and organizing nursing work.

In a study of urban registered nurses in Canada, researchers examined what and how registered nurses perceived their work (Wagner et al., 2013). Using the Spirit at Work tool, Wagner et al. determined that in the study of 147 nurses, "engaging work" accounted for 63% of inherent factors in the model's explained variance. Lewis and Malecha (2011) conducted a study to explore the impact of workplace incivility on nurses' work environments and productivity. Compared to nurses working in the typical work environment, those working in healthy settings reported lower workplace incivility scores (Lewis & Malecha, 2011). Abimbola et al. (2018) suggested that highly motivated healthcare staff had to meet the constant and shifting demand for healthcare services.

However, in work environments where healthcare employees experience demotivation, their work performance also deteriorated (Alfolabi et al., 2018). In a study on the current and future challenges in the nurse work environment, Smith (2018) concluded that an improved work environment could lead to higher nurse retention rates and improved patient outcomes. According to Hinno et al. (2011), 80% of nurses

attributed their quality of care at work to the support they receive on the job and described it as extremely high. Professional growth, sufficient staffing, supportive managers and management, and ensuring nursing competency also ensured a positive work environment.

Stress. Individuals counted on healthcare professionals to care for them, so the health of these professionals was vital to delivering quality medical treatment (American Medical Association, n.d.). The CDC described stress as "the result of pressures or tensions and how our body responded" (The Centers for Disease Control, 2022, “Healthcare Workers” section). The quality of patient care and the health and wellness of the patients were affected by healthcare workers' stress (Sigurdson, 2021). Stress at work was commonly recognized in the healthcare profession (Lee et al., 2021). For example, in 2018, researchers conducting a study of urban oncology healthcare providers found that the demands on cancer healthcare professionals working in urban hospitals, including their high caseloads, little control over their working environment, and organizational pressures, had been associated with higher stress and burnout (Saint-Louis & Senreich, 2018). Reduced job fulfillment resulted in unfavorable workplace effects, including absenteeism, burnout from stress, and a higher intention to leave the company (Yasin et al., 2020). By evaluating the quality of work life of 75 Indonesian nurses using The Quality of Work Life scale, researchers determined that the employees were affected by stress at work at a rate of 87.30%, suggesting a correlation between elevated stress levels and the nurses' quality of work life (Kusumawati & Damayant, 2020). The nurses' feelings of pressure determined these conclusions and other stresses at work. In a similar study, researchers concluded that psychosomatic stress and job satisfaction were

significantly correlated, indicating that nurses were partially satisfied with their jobs (Al-Khafajy et al., 2022).

Deng et al. (2020) explained that stress caused decreased sleep quality in nurses. A long-term lack of sleep could impair healthcare workers' job performance, making it hard to perform their duties (Medic et al., 2017). A study in urban China used the Pittsburgh Sleep Quality Index to determine the relationship between nurses' job stress and sleep quality (Deng et al., 2020). In this study of urban nurses, the logistic regression analysis presented findings that nurses' sleep quality was affected by job stress. Deng et al. concluded that as sleep quality declined, stress levels rose.

A qualitative study of fourteen oncology nurse interviews examined the source of nurses' work stress working in a Saudi Arabia teaching hospital (Wazqar, 2019). The study found the "extent of work stress" and "work-related stressors" to be the two main focuses of the study (p. 103). For rural healthcare workers, workload and staff shortages, emotional demands, lack of social support, language barriers, lack of respect from patients and family members, and cultural differences were some of the stress-related concerns (Wazqar, 2019). In another recent study, all 71 public hospital nurses admitted experiencing high-stress levels (Cohen & Venter, 2020). Cohen and Venter expressed that stress was usually created by nurses' shift schedules, working a second job for extra money, tense relationships with other health professionals, violent behavior of families and patients, fear of contracting infectious diseases, exposure to death and sick patients, and the up-close and personal nature of their work.

Stress frequently went untreated, leading to many other disorders, such as burnout, depression, and insomnia (Anupama et al., 2022). A cross-sectional study of

medical residents in south India found that 80% of the 251 participants reported being stressed, while 62% admitted to insomnia. The CDC (2022) reported that long and unbalanced shifts, the intensity and emotional strain of work, exposure to suffering and death, and the increased danger of contracting diseases and workplace violence all contributed to the difficult working conditions and frequent poor mental health results. Stress, burnout, sadness, anxiety, substance use disorders, suicidal thoughts, depression, and burnout all contributed to healthcare workers' health issues (Kelly et al., 2022). Burnout, caused by long-term work stress, was reported by 79% of physicians (The Centers for Disease Control, 2022). Similarly, a 2018 Physician Workload Survey reported that over half (52%) of physicians suffered burnout (Carpenter, 2018).

Coping Strategies. Despite the risk factors that could result in burnout and secondary stress, some safeguards lessened healthcare workers' chances of experiencing these phenomena, such as improving working conditions to increase job satisfaction and well-being (Lee et al., 2021). According to Saint-Louis and Senreich's (2018) research, such protective influences included support from within the organization and supervisory support, training and early detection of secondary traumatic stress and burnout, and social activities such as writing. Others contended that improving job happiness and self-care was the best strategy to prevent secondary traumatic stress disorder and burnout (Steinlin et al., 2017). In a study of 174 nurses at an urban children's hospital in Turkey, researchers found that almost half experienced secondary traumatic stress (Günüşen et al., 2018). Günüşen et al. concluded that secondary traumatic stress was less common in similar groups, i.e., hospice nurses and home care nurses within the U.S. The coping strategies identified in this study included social support, spirituality, and avoidance. In a

similar study by Hamama et al. (2019), the researchers concluded that providing social support within the organization was also necessary to strengthen the capacity for coping with stress sources. The stigma associated with seeking care, the belief that they can take care of themselves, or the fear of losing their medical licenses if they were found to have a mental disorder may prevent people in the health professions from recognizing the indicators of psychological stress (Kelly et al., 2022).

Training in leadership and resilience, stress-management techniques, and organizational measures are among burnout prevention and coping mechanisms (Banerjee, 2019). A 2018 study reported that almost 23% or one in four physicians acknowledged using alcohol as a stress reliever; 41% admitted to self-isolate, and 32% of the physicians in the study stated that they consumed junk food as a way of coping with stress (Kelly et al., 2022). Researchers concluded in another study of primarily suburban and urban locations that undiagnosed PTSD could influence increased rates of drug addiction and suicide among doctors (DeLucia et al., 2019). This study of 546 emergency physicians found that the most crucial factors for protection are strong family and workplace support. However, humor and other adaptable coping mechanisms were also beneficial. Another study conducted in 2019 evaluated the coping methods used by emergency physicians in response to occupational stress by creating and refining a coping scale (Greenslade et al., 2019). The research identified problem-focused coping (e.g., discussing the problem with a professional, discussing the issue with someone who has experienced the situation, and information seeking), positive emotion-focused coping (e.g., hardiness attitude, using humor, and optimistic thinking), and negative emotion-focused coping (e.g., drinking, risky behavior, and ignored problem) based on one's

disposition and the environment to modify stress in a variety of ways. This research was consistent with other research in that poor coping techniques have been consistently connected to negative views of stress management, poor psychological health, and burnout. New healthcare providers are also affected by burnout, as evidenced by a 2017 study that examined first-year medical and psychiatry residents at an urban teaching hospital (Chaukos et al., 2017). The study examined ten cross-sectional scales in a self-reporting study of first-year residents. The results reveal that approximately one-third of the residents did not utilize any coping skills and, therefore, had evidence of stress, worry, and fatigue.

Balayssac et al. (2017) expounded that stress in the workplace could be managed using coping skills. In this study of 1,332 responding pharmacists and pharmacy technicians, researchers examined the mechanisms for work-related stress as it related to burnout, depression, and anxiety using the Maslach Burnout Inventory (MBI) questionnaire and found that participants with burnout syndrome reported using fewer non-medical techniques to manage their work-related stress, such as leisure activities, psychotherapy, holidays, and time off. Other stress interventions included behavioral interventions such as cognitive behavioral coping skills (Clemow et al., 2018). A 2018 study of 92 urban medical center employees examined the efficacy of a standardized stress management program delivered in groups at the workplace versus improved usual care in lowering blood pressure. The study included a ten-week stress management program that emphasized cognitive behavioral coping skills and the usefulness of lowering blood pressure. The results indicated that the strategy utilized in the research

would be beneficial when applied on a broader scale to lower blood pressure in hypertensive individuals and professionals with demanding jobs.

Also, using the Maslach Burnout Inventory, another study involving 60 nurses working in Hazrat Fatima Hospital in Tehran in 2014, including head nurses and nurse supervisors, showed that training on coping strategies dramatically decreased nurse burnout (Bagheri et al., 2019). The study showed that teaching effective stress-coping strategies and group cognitive-behavioral therapy reduced nurse burnout.

The Impact of the COVID-19 Pandemic on Healthcare Workers' Stress

Studies showed that elevated levels of stress and the overall impact that COVID-19 had on the mental health of healthcare workers, including increased anxiety, increased post-traumatic stress, and increased depression (Dawood et al., 2022; Elvira et al., 2021; Jo et al., 2020; Xiao et al., 2020). Once the impact of the COVID-19 pandemic on healthcare workers was acknowledged, symptoms such as anxiety and stress could be treated (Galehdar et al., 2020; Al-Ghunaim et al., 2021). The COVID-19 outbreak strained healthcare personnel, who struggled to cope (Fang et al., 2021). Healthcare workers attempted to cope with both professional stresses at work and personal stress outside of work (Catania et al., 2021; Fang et al., 2021). Healthcare workers faced overwhelming mental and physical stress and were at a higher risk when encountering the COVID-19 virus (Abolfotouh et al., 2020).

The healthcare workers who served as first responders and on the frontlines were most susceptible and vulnerable to the psychological risks of the pandemic (Arafa, 2021; Salazar de Pablo et al., 2020; Gross et al., 2021). The Ebola outbreak in West Africa in 2014 proved that working in such a high-risk environment was incredibly stressful

(Mohammed et al., 2015). The fear and anxiety attributed to the COVID-19 pandemic were the leading causes of mental health symptoms (Brown & Schuman, 2021; Monteith et al., 2021). During the pandemic, direct healthcare providers were more susceptible to and experienced more anxiety, depression, insomnia, and other stresses than healthcare providers who were not providing direct care (Lai et al., 2020; Alshekaili et al., 2020; Amour et al., 2021). According to a recent study review of 65 studies, 22% of healthcare professionals suffered from mild to severe depression, anxiety, and post-traumatic stress disorder (Li et al., 2021). The National Institute for Health Care Management (NIHCM, 2021) reported that 69% of medical professionals claimed to have experienced depression, and 13% reported having had suicidal thoughts. This same study reported that compared to other health professionals, nurses, frontline staff, and younger employees reported more psychologically severe issues. Also, 64% of physicians reporting burnout were women.

As the challenges and events of the pandemic continued, research recognized the importance of not ignoring workers' psychological well-being (Bennett et al., 2020). The overwhelming fear, anxiety, and stress of COVID-19 impacting healthcare workers' mental health led to changes in the workers' mental well-being (Eftekhar et al., 2021; Golechha et al., 2022). Research found that shortly after working with COVID-19, the pressure and signs and symptoms of post-traumatic stress (PTSS) emerged (Yin et al., 2020; Liu et al., 2020).

COVID-19 directly and indirectly impacted the lives of both the urban and rural populations (Alshekaili et al., 2020; Hale et al., 2022). Many healthcare workers dedicated much of their time during the pandemic to saving the lives of those infected by

the deadly virus (Pandey & Sharma, 2020). As healthcare workers continued to work closely in treating and diagnosing the population affected by COVID-19, knowing how helpful faith and religion could be in lessening the psychological risk was valuable in maintaining the psychological well-being of healthcare workers (Chang et al., 2021).

Stress

Healthcare providers, such as doctors and nurses, experienced various kinds and levels of stress compared to other occupations (Teraoka & Kyougoku, 2019). Healthcare workers faced long working hours, higher responsibilities, distinct roles, relationships with peers and coworkers, and challenges in the work environment. Similar findings from earlier research on healthcare workers employed during previous pandemics indicated that they were under more significant mental strain (Rose et al., 2021). The MERS-CoV outbreak in Saudi Arabia triggered emotional stress due to the fear of having to work during that time (Khalid et al., 2016). Teraoka and Kyougoku (2019) noted that job-related stress from pandemics negatively affected the care they provided to patients as well as their well-being.

Frontline healthcare workers attributed their stress to fear, nervousness, and physical and emotional exhaustion (Rose et al., 2021). Staff shortages, a lack of adequate protective equipment, and concerns about spreading COVID-19 to family members and friends were felt by both nurses and physicians, further adding to their stress levels.

Healthcare workers' quality of life was significantly impacted during the COVID-19 pandemic (Çelmeçe & Menekay, 2020). In their study of 240 healthcare professionals, Çelmeçe and Menekay concluded that stress, quality of life, and anxiety showed a positive correlation with all variables examined (female, married, and those with

children). Caring for those infected with COVID-19 during the pandemic often led to stress brought on by fears of dying, aloneness, and anger. In Cai et al.'s (2021) study of 534 healthcare workers in Hubei during the COVID-19 pandemic, the stress level experienced by the workers was extremely high. An earlier survey of 310 healthcare professionals in Wuhan, China, revealed moderate to severe stress (Çelmeçe & Menekay, 2020).

Research indicated that elevated stress levels could lead to burnout (Gandi et al., 2011). Morgantini et al. (2020) conducted a study involving 2,707 healthcare professionals from 60 countries, revealing a significant positive association between stress and burnout. Another study exploring the connection between burnout, anxiety, and stress disorders during the COVID-19 pandemic found that medical professionals experienced elevated levels of mental health issues, including burnout (Sung et al., 2020). Kelly et al. (2022) observed that hospital employees in urban areas had a noticeably higher risk of burnout than those in rural areas and were less satisfied with their jobs regarding compassion. However, other research found no differences in burnout from stress among doctors in rural and urban areas (Ward et al., 2021).

Stress was a familiar experience for healthcare workers, and it was shown that they experienced greater stress than the public (Allen et al., 2020; Luan et al., 2020). Research showed that healthcare workers experienced new stressors during the 2019 COVID-19 pandemic such as stress related to high-risk exposure to self and others, supply shortages, and constant changes to hospital procedures and policies (Seitz et al., 2022). The 2019 pandemic brought on stress related to. According to Seitz et al., ongoing emotional and interpersonal stressors led to burnout in healthcare personnel at a rate of

25% to 76%. The level of stress experienced by healthcare workers, especially nurses, during the COVID-19 pandemic may have caused adverse psychological effects such as burnout, compassion fatigue, sadness, anxiety, impatience, and in rare circumstances, a post-traumatic stress reaction because of the high stress associated with caring for patients during a pandemic.

Coping Strategies

Among the processes found to benefit healthcare workers during the pandemic, encouragement and support from colleagues, family, and friends were central sources of support (Cai et al., 2020; Balanco-Donoso et al., 2021; Dong et al., 2020; Giusti et al., 2020). Hasbrouk and Waddimba (2017) described two types of coping strategies: 1) problem-focused coping and 2) emotion-focused coping. Problem-focused coping solved the problem or changed the cause of the stress, while emotion-focused coping aimed to lessen emotional adversity. In a study examining the physical and psychological symptoms that negatively affected the performance and daily activities of paramedics and sought a relationship between coping strategies and demographics, work influences, work and health behaviors, and socioeconomic features, researchers concluded that participants with more education or financial contentment were more prone to problem-oriented coping (Moskola et al., 2021).

Jiloha (2020) concluded that mental health was as important as physical health. De Cieri et al. (2019) found that overall well-being was enhanced when nursing and other healthcare workers practiced mindfulness. Delivering mental health care to healthcare workers was essential in managing the comprehensive healthcare system as the pandemic and COVID-19 continued (Krystal & McNeil, 2020). Therapy and other mental health

assistance provided by the organization played a crucial role in helping reduce workplace stress, as agreed upon by nurses, physicians, and other healthcare workers (Rose et al., 2021). Other researchers agreed that self-care, leisure, and productivity were critical in reducing stress and occupational dysfunction (Teraoka & Kyougoku, 2019).

Like others, Thai et al. (2021) believed that healthcare workers were psychologically affected by the SARS-CoV-2 infection. Thai et al. suggested that healthcare workers' fears and concerns regarding COVID-19 were more damaging than the physical side of the disease. The research of 1423 participants identified the most common coping strategies for healthcare working: adhering to the protective protocol, avoiding reading about the pandemic, and not going out in public as the most common coping strategies for healthcare workers. Those with clinical roles within the hospitals had more elevated feelings of stress and more strategies for coping with pandemic stress. A 2016 study that evaluated the aspects that reduced stress during the MERS-CoV epidemic found related results (Khalid et al., 2016). Participants in the 2016 study found the following stringent PPE guidelines like avoidance of public places helpful, and other behaviors like talking and motivating themselves, and participation in relaxation activities, such as praying and exercising, were used to support their coping strategies.

Religious or spiritual coping was not rare (Thuné-Boyle et al., 2011). Research in the United Kingdom saw that 73% of cancer patients benefited positively from religious or spiritual coping. Elliot and Daley (2013) also found this to be true with forensic healthcare professionals. Their findings established that emotion-focused coping strategies, such as religious ones, were used to combat psychological distress, burnout, and occupational stress.

Spirituality vs Religion

Although there may have been some overlap between the terms spirituality and religion, it was essential to note that they are distinct concepts with separate definitions and evaluation criteria (Arrey et al., 2016; Hyman & Handal, 2006). This study's primary emphasis was on spirituality. Nevertheless, it is crucial to stress that religion encompassed a spiritual dimension, and conversely, spirituality may also have been seen as having religious attributes.

According to Pargament and Mahoney (2009), spirituality may be defined as pursuing the holy. In a 2002 study, 65% of Americans identified as "religious and spiritual." Another 15% to 20% identified as "spiritual but not religious." Only 5% to 10% identified themselves as "religious but not spiritual." Lastly, another 5% to 10% of Americans claimed to be "neither religious nor spiritual" (Marler & Hadaway, 2002).

The concept of spiritual searching pertained to the belief in a divine entity or a higher power, wherein many aspects of an individual's life, whether positive or negative, might have been filled with sacred significance (Hill et al., 2000). The term "sacred" denotes an individual's lifelong exploration of a divine essence, establishing a bond with the sacred and developing a distinct personal trajectory, often independent of religious guidance

Psychologists have proposed many conceptions of spirituality and religion (Murgia et al., 2020; Vieten & Lukoff, 2022; Paloutzian & Park, 2021). Paloutzian and Park (2021) asserted that the field of psychology offered several definitions for the concepts of religiousness and spirituality throughout the last century. Each of these notions exhibited multidimensionality as a recurring theme. In the past, there was a lack

of distinction between spirituality and religiousness until the advent of secularism in the twentieth century (Zinnbauer et al., 1997). According to Koenig (2012),

> [Religion] involves beliefs, practices, and rituals related to the transcendent, where the transcendent is God, Allah, HaShem, or a Higher Power in Western religious traditions, or to Brahman, manifestations of Brahman, Buddha, Dao, or ultimate truth/reality in Eastern traditions. This often involves the mystical or supernatural. Religions usually have specific beliefs about life after death and rules about conduct within a social group. Religion is a multidimensional construct that includes beliefs, behaviors, rituals, and ceremonies that may be held or practiced in private or public settings but are in some way derived from established traditions that developed over time within a community. Religion is also an organized system of beliefs, practices, and symbols designed (a) to facilitate closeness to the transcendent and (b) to foster an understanding of one's relationship and responsibility to others in living together in a community. (p. 2)

In similar works, Peteet (1994) and Dollahite (1998) characterized religion as dedication, tradition, and commitment to one’s faith and doctrines. Studies by Lavorato Neto et al. (2018), Fowler (2017), and Florczak (2010) yielded comparable results. They described spirituality as having interconnectedness with external and internal dimensions. Spirituality often facilitated exploring concerns about human life's value and purpose (Arrey et al., 2016).

Spirituality was characterized by its multidimensional nature, as it covered diverse interpretations shaped by many cultural, religious, and philosophical viewpoints (de Brito Sena et al., 2021). Various viewpoints might have been considered, including

those of religious scholars, scientists, and those without specialist knowledge. Spirituality might have been seen as a coping technique for navigating crises and elevated stress levels. Furthermore, attributing positive importance to difficulties, especially within health-related matters, had been linked to spirituality. Several conceptual frameworks defined spirituality, including value systems, belief systems, developmental trajectories, and inner self connections. Additionally, spirituality had been described as an intrinsic encounter (Garg, 2017). It had been characterized as an individual's ability to make a profound connection with their being, other individuals, and the broader universe (Mitroff & Denton, 1999).

Krishnakumar and Neck (2002) proposed that spirituality might have been defined as a persistent pursuit of meaning and contentment in one's life. Koenig (2012) explained the following:

> Spirituality is distinguished from all other things— humanism, values, morals, and mental health—by its connection to that which is sacred, the transcendent. The transcendent is that which is outside of the self, and yet also within the self—and in Western traditions is called God, Allah, HaShem, or a Higher Power, and in Eastern traditions may be called Brahman, manifestations of Brahman, Buddha, Dao, or ultimate truth/reality. Spirituality is intimately connected to the supernatural, the mystical, and to organized religion, although it also extends beyond organized religion (and begins before it). Spirituality includes both a search for the transcendent and the discovery of the transcendent and it also involves traveling along the path that leads from nonconsideration to questioning to either staunch nonbelief or belief, and if belief, then ultimately to devotion and

> finally, surrender. Thus, our definition of spirituality is very similar to religion and there is a clear overlap. (p. 3)

Studies have demonstrated positive associations between religiosity and spirituality (R/S) and various beneficial outcomes for individual well-being (Di et al., 2023). Extensive research revealed a positive link between religiosity and spirituality (R/S) and overall health, encompassing both physical and mental well-being (Jung, 2020).

Rural Spirituality

There were disparities between rural residents and their urban and suburban counterparts regarding healthcare attitudes and spiritual expectations (Jones, 2021). Jones (2021) suggested that religion was more prevalent in rural places. Pham et al. (2019) asserted that spirituality served as a crucial coping mechanism during times of crisis, particularly among ethnic minorities and rural communities in the United States. Pham et al.'s research of rural North Carolina residents uncovered the concept of "spiritual engagement" (p. 2959), which was expressed by having a belief in prayer, scripture, sharing in one's faith with others, and other religious activities. Spiritual engagement played an important role in being able to cope. Arcury et al. (2000) also suggested that rural populations emphasized religion more than their urban counterparts.

Dunfee et al.'s (2021) mixed-methods study examining the effects of religion and spirituality on caregivers' coping mechanisms revealed that religion and spirituality significantly aided coping strategies by providing a sense of purpose and perspective, fostering inner tranquility and perseverance, and enhancing stability and social cohesion.

Urban Spirituality

In her original work, Kenel (1987) argued that spirituality needed to be people-oriented. The study also maintained that exploring religion and Christianity from an urban lens was useful as it could serve as a guide to exploring Christian values in a contemporary way. According to Mattis et al. (2019), there was agreement with Kenel's (1987) claim that the many aspects of urban settings, such as their dimensions, concentration, and diversity, played a significant role in shaping people's experiences with the divine, their religious beliefs, and their understanding of the idea of the holy.

The findings of Erşahin and Boz (2018) demonstrated that spirituality was naturally related to the human need for affiliation, security, transcendence, and communication. Spirituality also encompassed interpersonal connections. Their study also suggested that urban spirituality was guided by the need for safety, the need for communication, belonging, and transcendence. Healthcare workers who actively pursued their own spiritual beliefs may have had the capacity to address the unique needs of their patients while considering the broader aspects of familial interactions and environmental impacts.

Biblical Foundations of the Study

The biblical foundation of this study aimed to investigate the relationship between coping mechanisms, stress levels, and healthcare contexts (rural versus urban) among healthcare workers and their spirituality. Analyzing these variables through a biblical lens, with biblical insights and guidance, could inform one’s understanding and interpretation of the results. Historically, spirituality was prominent in the healthcare field, especially in nursing (Murgia et al., 2020).

The Bible includes suggestions for rural places and the people who lived there. The Old Testament (*New International Version*, 1973/2011) portrayed rural life as being close to the earth and God and a source of nourishment. For example, Adam was seen as the cultivator and custodian of Eden. Jesus performed miracles and preached many of his parables in rural areas in The New Testament. The Parable of the Sower in Matthew's Gospel, in which a farmer sows seeds in a field, was a parallel for spreading the gospel message (Matthew 13:1-23).

Similarly, the Bible also referenced urban and metropolitan areas, depicting them as cities of wealth and trade centers. For instance, Isaiah (*New International Version Bible*, 1973/2011) represented the city of Babylon as a symbol of commerce. The New Testament also described towns and cities as central for spreading the gospel. For instance, Jesus was often seen in urban areas to teach and perform miracles. The Bible depicted the early Christian church as rapidly expanding in metropolitan areas.

Although the Bible did not directly address healthcare professionals, it emphasized the significance of caring for the ill and the needy (Akpanika, 2020). For example, the book of James writes, “Is anyone among you sick? Let them call the elders of the church to pray over them and anoint them with oil in the name of the Lord” (*New International Version Bible*, 1973/2011, James 5:14). This chapter in James emphasized the responsibility of religious leaders in providing care for and consolation to the ill, and the belief in the healing power of prayer. James 2:14-17 also encouraged by explaining:

> What good is it, my brothers and sisters, if someone claims to have faith but has no deeds? Can such faith save them? Suppose a brother or a sister is without

> clothes and daily food. If one of you says to them, “Go in peace; keep warm and well fed,” but does nothing about their physical needs, what good is it?

Additionally, Jesus cured the ill and crippled, highlighting the spiritual significance of caring for those in need (Luke 13:10-17).

Serving others, particularly those in need of medical treatment, was a second principle, as seen in Mark 10:45, “For even the Son of Man did not come to be served, but to serve, and to give his life as a ransom for many. The Bible also urges us that whatever we do, we do for God, as described in Colossians 3:23-24 (*New International Version Bible*, 1973/2011):

> Whatever you do, work at it with all your heart, working for the Lord, not for human masters, since you know that you will receive an inheritance from the Lord as a reward. It is the Lord Christ you are serving.

These ideas may guide and motivate healthcare professionals who strive to serve people with compassion, expertise, and commitment.

The Bible contains several instructions on employment and the workplace. One of the critical topics of working with dedication and honor is expressed again in Colossians 3:23-24 (*New International Version*, 1973/2011). A second instruction is to treat people with respect and fairness, as it is written in James 2:8-9, "If you really keep the royal law found in Scripture, ‘Love your neighbor as yourself,’ you are doing right. But if you show favoritism, you sin and are convicted by the law as lawbreakers". The Bible instructs one to serve, even in our workplace, as described in Mark 10:45, "For even the Son of Man did not come to be served, but to serve, and to give his life as a ransom for

many.” Finally, as demonstrated in Romans 12:18, the Bible urges us to pursue peace and avoid disagreements at work.

Multiple verses in the Bible provide advice on managing stress. Philippians 4:6-7 is one of the most well-known, stating:

> Do not be anxious about anything, but in every situation, by prayer and petition, with thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus. (*New International Version*, 1973/2011)

When we pray, we offer gratitude and entrust our concerns to God. In Matthew 6:25-34, Jesus instructs us not to worry about life's essentials but to rely on what God will provide. Furthermore, 1 Peter 5:7 states, "Cast all your anxiety on him because he cares for you." These passages urge individuals to place their faith in God, to pray and offer gratitude, and to entrust one’s concerns to Him.

The Bible offers several ways to manage stress and life's trials and hardships (*New International Version*, 1973/2011). One way is to put one's faith in God and depend on His power, as expressed in Isaiah 41:10, "So do not fear, for I am with you; do not be dismayed, for I am your God. I will strengthen you and help you; I will uphold you with my righteous right hand". When we are anxious, we are encouraged to pray for guidance (Philippians 4:6-7). Paul offers another approach for coping with stress through thanksgiving as he described in 1 Thessalonians 5:16-18, "Rejoice always, pray continually, give thanks in all circumstances; for this is God's will for you in Christ Jesus." In addition, the Bible urges us to aid and support others to discover life's meaning and purpose, as seen in Galatians 6:2, "Carry each other's burdens, and in this way, you

will fulfill the law of Christ." Finally, the Bible instructs us to meditate on the word of God and seek wisdom, as seen in Psalm 119:105, "Your word is a lamp unto my feet, and a light on my path."

This research provided helpful information to assist healthcare workers in seeing the benefit of using spirituality to cope in stressful work environments. Some evidence showed that crises had led people to call upon their faith or religion (Unser & Riegel, 2022).

Summary

Healthcare professionals, particularly nurses in rural areas, reported experiencing more isolation and loss of anonymity (Owens, 2021). In comparison to healthcare workers in non-rural areas, rural healthcare workers had experienced far more stress and had issues acquiring support to care for their mental well-being in recent years (Waddel-Henowitch et al., 2021). Researchers had repeatedly found that positive religious/spiritual coping was related to improved mental health outcomes in the face of adversity (Thomas & Barbato, 2020). Current and past research had recognized differences in the belief systems between urban and rural areas (Chalfant & Heller, 1991; Peach, 2003). Metropolitan and urban regions had a more diversified population with more religious faiths (Bouma et al., 2022). In contrast, rural places often had a smaller population and a more homogeneous culture, which might have resulted in a stronger sense of community among members of the same denomination. It is important to remember that these were generalized tendencies, and there might have been differences in spiritual views and practices between urban and rural locations.

Christians believe the Bible commands everyone to love and serve others regardless of employment, location, or belief. Passages in the Bible reflect this servant attitude. For example, Matthew 25:40 writes, "Whatever you did for one of the least of these brothers and sisters of mine, you did for me" (*New International Version*, 1973/2011). This idea represents healthcare professionals in both rural and urban settings. Regardless of the circumstances, healthcare professionals were called to assist individuals in need.

Christians believe in the effectiveness of prayer and the direction of the Holy Spirit. During adversities, the teachings of Christianity urge followers to seek strength and guidance from God. Philippians 4:13 says, "I can do all things through Christ who strengthens me" (*New International Version*, 1973/2011). This passage reminds Christians that they can face any challenge with God's strength and guidance. Even though rural and urban healthcare professionals may have had specific problems and experiences owing to their location, Christians depend on God's power and direction in times of adversity.

This chapter presented an integrative review of the research literature. It examined the study's biblical foundation using scripture references to understand the constructs investigated in the study. The next chapter will provide a complete description of the study's procedures. The chapter will deliver an overview of the research design, discuss the recruitment of the participants needed for the study, and examine the study procedures, instrumentation, and measurement.

CHAPTER 3: RESEARCH METHOD

Overview

The purpose of this chapter was to define a research study that could help uncover how healthcare workers in rural and urban areas used spirituality as a coping strategy. This dissertation addressed this research gap by examining the relationship between stress and spirituality among healthcare personnel in rural and urban settings. The study aimed to quantitatively examine the potential impact of spirituality on the stress of healthcare personnel in diverse healthcare settings by examining their spirituality. This chapter also included a summary of the study's methodology. The study used the quantitative strategy to analyze the relationships of the variables described in the study. This chapter provided an overview of the research design, population, and justification for the sample, study protocols, instrumentation and measurements, operationalization of variables, data analysis strategy, delimitation, assumptions, and limitations.

Research Questions and Hypotheses

Research Questions

RQ1: Is there a relationship between stress and spirituality among healthcare workers?

RQ2: Is there a relationship between stress and spirituality among urban healthcare workers?

RQ3: Is there a relationship between stress and spirituality among rural healthcare workers?

RQ4: Is there a difference between rural and urban stress and spirituality for healthcare workers?

Hypotheses

Hypothesis 1: There is a relationship between stress and spirituality among healthcare workers.

Hypothesis 2: There is a relationship between stress and spirituality among urban healthcare workers.

Hypothesis 3: There is a relationship between stress and spirituality among rural healthcare workers.

H4: There is a difference between rural and urban stress and spirituality for healthcare workers.

Research Design

This study was conducted using the quantitative method to examine the role of spirituality on stress in healthcare workers in rural and urban settings. Using a quantitative research method allowed for statistically analyzing numerical data to test the hypotheses and answer the research question. A correlational design examined the relationship between the variables in the study using statistical methods to measure the degree of relationship between these variables (Bloomfield & Fisher, 2019).

A survey was used to gather information on this type of research. Jones et al. (2013) noted that surveys were useful when large populations are involved, which can provide better statistical power. Further, surveys can validate models and collect sizeable amounts of data.

Participants

The research design sought healthcare participants aged at least 18 years old, working full-time or part-time in rural or urban settings. The gender of the study

participants did not matter. The study's sample size was 174 participants. The inclusion criteria for this study included rural healthcare workers employed in rural and urban settings, encompassing direct care workers, those in support roles, and individuals in health management, if applicable. Study participants were recruited through social media sites like LinkedIn and Facebook (see Appendix A). Invitation through direct email and word of mouth was also used in recruitment. The research excluded participants under 18 and those who did not complete the survey. The recruitment message clarified the research goal and the expectations for participation, with no incentives or pay offered (see Appendix B).

The study adhered to the ethical rules of Liberty University's institutional review board (IRB) ethics committee and was granted ethical approval for the research. A screening process was conducted to ensure that potential participants met the eligibility criteria for the study. All participants were required to give informed consent before participating, with the right to withdraw from the study at any time.

The study utilized a power analysis to calculate the required sample size for the investigation. G*Power was employed for a power analysis for an independent sample t-test, identifying an adequate sample size using an alpha of .05, a power of 0.80, a medium effect size (d = 0.5), and two-tails (Faul et al., 2007). Each group was assigned an equal number of participants. Based on the assumptions, the required sample size was 128, with a 25% overage applied to ensure an acceptable number of participants.

Study Procedures

Purposive sampling was employed to select participants who could best support the study. Participants were recruited using various social media platforms and word of

mouth and only healthcare workers were asked to participate. The recruitment process included requesting permission from the health director of Lee County Health Department in Sanford, North Carolina, and using social media to recruit (see Appendix D & E). Approval was given by the county's health director, who allowed an email to be sent to the healthcare employees with a link to the survey for anonymous participation. Invitations to participate in the study were disseminated via written email invitations through the organization's email system and word-of-mouth (see Appendix F). The recruitment message contained the study's purpose and participation requirements. Participants were not given any compensation for participation (see Appendix B).

The IRB ethics committee granted ethical approval for the research to ensure adherence to ethical rules and safeguard the rights and well-being of the participants. All participants were required to give informed consent before participating and given the right to withdraw from the study at any time. A consent form and the researcher's contact information were included before beginning the survey (see Appendix C). The study was only utilized through an online format. The study's survey could only be accessed using the online application JotForm®.

Instrumentation and Measurement

The study was conducted using previously validated survey instruments. Various tools, such as questionnaires and surveys, were utilized. Each survey was chosen based on its relevance to the study issue and the population studied. The Spiritual Well-Being Scale measured Healthcare workers' spirituality (Paloutzian & Ellison, 1982). Stress was measured with the Perceived Stress Scale 10 (Cohen et al., 1983). The scales are included in the appendix.

Demographic Questions

The demographics of the population sets were analyzed through descriptive data analysis (see Appendix G). This included variables such as age, gender, ethnicity, marital status, level of education, type of employment, number of years as a healthcare worker, and type of church services attended.

Scales

Assessing spirituality involved using a scale that measured one's perceived quality of life, including both religious and existential dimensions. The Spiritual Well-Being Scale measured participants' satisfaction with life and overall well-being (Paloutzian & Ellison, 1982) (see Appendix H). This study used the Perceived Stress Scale (Cohen et al., 1983) to measure personal stress in individuals' lives (see Appendix I).

Spiritual Well-Being Scale (SWB)

The Spiritual Well-Being Scale (SWB), developed by Paloutzian and Ellison (1982, evaluates the perceived overall well-being. The scale is made up of twenty items, ten questions on the evaluation of religious well-being, while the other ten items pertained to the evaluation of existential well-being. The SWB scale included a subscale that measured Religious and Existential well-being. The Existential Well-Being Subscale (EWBS) evaluated the participant's perception of life's purpose and overall happiness with life. The Religious Well-Being Subscale (RWBS) allowed individuals to examine their connection with God (Paloutzian & Ellison, 1991).

The scales (RWBS, EWBS, and SWBS) exhibited good reliability. As reported in four separate investigations, the test-retest reliability coefficients for the RWBS ranged

from .96, .99, .96, and .88. The time intervals between the tests in these studies varied from 1 to 10 weeks (about two and a half months). The coefficients for the EWBS were 0.86, 0.98, 0.98, and 0.73. The coefficients for the total SWBS were .93, .99, .99, and .82 (Paloutzian, & Ellison, 1991).

The measure of internal consistency, sometimes referred to as the coefficient alpha, demonstrated a high reliability. In a study conducted by Bufford et al. (1991), the internal consistency coefficients for three different constructs were examined across seven samples. The coefficients for the construct of RWB varied from .82 to .94; for EWB, they ranged from .78 to .86; and for SWB, they ranged from .89 to .94 (Paloutzian & Ellison, 1991).

The SWBS had strong validity, as shown by the substance of its items. Previous studies showed that the items exhibited the anticipated pattern of clustering, forming distinct subscales known as RWB and EWB. Earlier studies also demonstrated that the SWBS served as a reliable and comprehensive measure of overall well-being, particularly emphasizing its ability to accurately detect diminished well-being. The variables of SWB, RWB, and EWB had a positive correlation with a positive self-concept, a sense of purpose in life, physical health, and emotional adjustment. According to Bufford et al. (1991), a negative correlation existed between these factors and poor health, emotional maladjustment, and lack of purpose in life.

The 20-item SWB instrument can be completed within 15 minutes. Each item is responded to using a 6-point Likert scale. The scale is defined by two ends, "Strongly Agree" and "Strongly Disagree," with intermediate gradations. Ten items in the assessment evaluated the concept of RWB and included the term "God" while ten

statements evaluated EWB without any religious implications. These statements inquired about life's happiness, meaning, and direction. Roughly 50% of the items were phrased negatively to mitigate any response bias (Paloutzian & Ellison, 1991).

The Spiritual Well-Being Scale yielded three main scores: Spiritual Well-Being, Religious Well-Being, and Existential Well-Being. The scoring for each SWBS item ranged from 1 to 6, with the higher numerical value indicating a better level of well-being. Items with negative wording were scored in the opposite direction. The positively written were numbered as follows: 3, 4, 7, 8, 10, 11, 14, 15, 17, 19, and 20. The scoring system for these questions was as follows: a response of "Strongly Agree" was assigned a score of 6, "Moderately Agree" was assigned a score of 5, "Agree" was assigned a score of 4, "Disagree" was assigned a score of 3, "Moderately Disagree" was assigned a score of 2, and "Strongly Disagree" was assigned a score of 1. The elements phrased negatively were assigned the following numbers: 1, 2, 5, 6, 9, 12, 13, 16, and 18. The scoring system for these questions was as follows: a response of "Strongly Agree" was assigned a score of 1, "Moderately Agree" was assigned a score of 2, "Agree" was assigned a score of 3, "Disagree" was assigned a score of 4, "Moderately Disagree" was assigned a score of 5, and "Strongly Disagree" was assigned a score of 6. To get the overall score for SWB, it was necessary to sum the scores of the favorably and negatively phrased questions. A spiritual well-being score falling within the range of 20 to 40 indicates a perception of diminished overall spiritual well-being. A spiritual well-being score falling within the range of 41 to 99 indicated a moderate level of spiritual well-being. A spiritual well-being score falling within the range of 100 to 120 indicated a heightened feeling of spiritual fulfillment (Paloutzian & Ellison, 1991).

The Religious Well-Being Score was used to assess an individual's perception of their spiritual connection with a higher power. The score identified an individual's experience with contentment and a relationship with a divine entity. The score for religious well-being was determined by the odd-numbered items 1, 3, 5, 7, 9, 11, 13, 15, 17, and 19. The cumulative score for religious well-being (RWB) was calculated by summing the values given to each item by the respondent, ranging from 1 to 6. A score falling within the range of 10 to 20 indicated a perception of an inadequate connection with the divine. A moderate level of religious well-being was indicated by a score falling within the range of 21 to 49. A score falling within the range of 50 to 60 indicated a favorable perception of an individual's connection with the divine. The Existential Well-Being score quantified an individual's degree of contentment and sense of meaning in life. The scores for existential well-being were represented by the even-numbered items, namely items 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20. A cumulative score for existential well-being (EWB) was determined by summing the values provided by the individual for each question; a score falling between the range of 10 to 20 indicated a diminished level of contentment with one's existence and maybe a dearth of understanding of one's life's purpose. A score falling within the range of 21 to 49 indicated a modest degree of life satisfaction and a sense of purpose. A score within the range of 50 to 60 indicated a notable degree of life satisfaction and a distinct feeling of purpose in one's life (Paloutzian & Ellison, 1991). Permission to use the scale was obtained by the scale's author (see Appendix J).

Perceived Stress Scale 10 (PSS-10)

The Perceived Stress Scale 10 (Cohen et al., 1983) is a ten-item test that examines an individual's impression of stress, emphasizing how these people felt overburdened and if things were unmanageable or unexpected within the past month. This Likert-type scale ranges from zero to four: never, almost never, sometimes, fairly often, and very often, with a reliability of 0.78. To compute the overall PSS score, the replies to the four affirmatively stated questions (items 4, 5, 7, and 8) are first inverted (i.e., 0 => 4; 1 => 3; 2 => 2; 3 => 1; 4 => 0). Items 1, 2, 3, 6, 9, and 10 are scored directly from 0 to 4, and items 4, 5, 7, and 8, conversely, from 4 to 0 (Campo-Arias et al., 2020). The PSS score is then calculated by adding all components together. Higher scores indicated greater stress levels.

The PSS-10 exhibited satisfactory internal consistency reliability ($\alpha = .78$) (Cohen & Williamson,1988). Additionally, the scores on the PSS-10 showed a moderate concurrent criterion validity with the level of stress experienced during a typical week ($r = .39$, $p < .001$). The scale exhibited reliability and internal structural validity (Cohen et al., 1983). The analysis was performed using IBM-SPSS software. Permission to use the scale was obtained by the scale's author (see Appendix K).

Cronbach's Alpha

Cronbach's alpha was a measure of internal consistency reliability that evaluated the degree to which a set of items in a questionnaire or survey quantified the same construct (Cronbach, 1951). In this study, Cronbach's alpha was used to assess the reliability of the survey instrument designed to measure rural healthcare employees' stress and spirituality. A high Cronbach's alpha indicated greater internal consistency and instrument reliability. If Cronbach's alpha value was less than 0.70, the items on the scale

were evaluated to determine whether any should have been omitted. Cronbach's alpha ensured that the results were reliable and that the survey instrument measured what it was designed to measure.

Operationalization of Variables

Rural Healthcare Setting – This nominal variable refers to the provision of medical services, healthcare facilities, and resources specifically tailored to meet the healthcare needs of individuals residing in urban areas.

Urban Healthcare Setting – This nominal variable refers to the provision of medical services, healthcare facilities, and resources specifically tailored to meet the healthcare needs of individuals residing in urban areas.

Spirituality – This interval variable is broad, complex, and subjective. It pertains to quality and meaning in life. It is associated with a connection to God, one's surroundings, nature, and others (Paul Victor & Treschuk, 2020).

Stress – This interval variable will be measured using the Perceived Stress Scale (Cohen et al., 1983) designed to help measure individual stress levels.

Data Analysis

The IBM SPSS program analyzed the data for this research. Numerical data was collected from participant surveys, and the data was prepared by recoding it where needed. The mean, median, and standard deviation were calculated for stress and spirituality variables.

A Pearson correlation assessed the relationship between spirituality and stress for Research Questions 1, 2, and 3. For Research Question 4, a multivariate analysis of variance (MANOVA) was used to determine if there were differences in stress and

spirituality levels between rural and urban healthcare workers. Levene's tests were conducted to assess the equality of variance for each dependent variable. A reliability analysis evaluated the internal consistency of the spirituality measures employed in the research, utilizing Cronbach's alpha. The findings from this analysis provided insight into how rural healthcare workers coped with stress in relation to their spirituality.

Delimitations, Assumptions, and Limitations

This study defined whether a relationship existed between rural healthcare workers' stress levels and their spirituality. It was important to clarify the delimitations as they could have impacted the validity and reliability of the research findings. Assumptions were views or theories a researcher accepted as accurate despite the lack of concrete evidence to support them. It was important to note the study's limitations as they might have impacted the findings' accuracy, reliability, or generalizability. These limits were identified and explained to help readers understand the influences on the study's findings and conclusions.

Delimitations

The study was limited only to participants working in rural and urban areas. The boundary of the study was set for healthcare workers, which allowed the study to be narrowed and not include the general population. Though not intentionally investigated, some urban participants' locations may have been metropolitan. Everyone who participated in the study may not have accurately disclosed their work locations.

Assumptions

There were some assumptions for the study that need to be discussed. This study assumed that rural healthcare workers had a higher level of spiritual wellness than urban

healthcare workers. It was also assumed that people of faith in rural regions preferred to observe more traditional values and practices, strengthening their spiritual well-being. Third, this research began during the COVID-19 pandemic when healthcare workers experienced a heightened stress level. Though the pandemic is over, healthcare workers may still be feeling the effects of the long-term stress brought on by the COVID-19 pandemic. Lastly, participants may not have been completely honest for fear that their identity will be discovered.

Limitations

This study had limitations. One limitation to consider was its generalizability. Findings from healthcare workers in rural or urban areas might not have applied to the entire population of healthcare workers in those areas. A second limitation was how the study participants viewed the term spirituality. Spirituality could have been perceived as faith-based and a belief in God, or it could have been a belief in a higher being, with that higher being not necessarily being God.

Summary

This study provided the field of psychology with an understanding of how rural healthcare workers can manage stress during stressful work circumstances while utilizing their spirituality. The study participants were rural healthcare workers who work in rural healthcare.

This chapter reviewed the study questions and hypotheses. The quantitative study was conducted using correlational research. The procedures, including recruitment of the participants, procedures, instrumentation, and data analysis, were described. To close the chapter, delimitations, assumptions, and limitations were discussed. The next chapter will

discuss the study results, including an overview, descriptive results, and the study findings.

CHAPTER 4: RESULTS

Overview

This study investigated the association between spirituality and stress levels in healthcare workers in rural and urban healthcare settings. Data were collected using a survey that included the Spiritual Well-Being Scale (SWBS) and Perceived Stress Scale 10 (PSS-10). The research questions guiding the study are as follows:

RQ1: Is there a relationship between stress and spirituality among healthcare workers?

RQ2: Is there a relationship between stress and spirituality among urban healthcare workers?

RQ3: Is there a relationship between stress and spirituality among rural healthcare workers?

RQ4: Is there a difference between rural and urban stress and spirituality for healthcare workers?

This chapter presented the data collection results and analyses to answer the research questions. First, descriptive statistics for the sample are presented. Next, the statistical findings for each research question are presented. Finally, this chapter concludes with a summary of the findings.

Descriptive Results

One hundred and seventy-four survey responses were received. One respondent did not complete any of the study instruments and was removed from the data. The responses of the remaining 173 participants were checked for missing values. There were 12 missing values for the SWBS and PSS-10 instruments, which was less than 1% of the

data. As the amount of missing data was minimal, the missing values were replaced with the mean.

Table 1 presented the demographic characteristics of the sample. The sample was split between rural (*n* = 90, 52.0%) and urban (*n* = 83, 48.0%) healthcare workers. Most participants were between 30 and 59 years of age (*n* = 125, 72.3%), a large majority of the participants were women (*n* = 146, 84.4%), and most participants identified their race as White (*n* = 93, 53.8%). Most participants held either a bachelor's degree (*n* = 55, 31.8%) or a graduate degree (*n* = 48, 27.7%). Most participants were married or in a cohabiting relationship (*n* = 89, 51.4%), and the most common income range in the sample was $50,000-$74,999 (*n* = 44, 25.4%). The majority of the participants reported that they had been in healthcare for 0-5 years (*n* = 37, 21.4%). Most participants were Christian (*n* = 124, 71.7%), and when participants were asked to rate the importance of their spirituality to them on a 1 to 10 scale, the average rating was 7.90 (*SD* = 2.61).

Table 1

Sample Demographic Characteristics

Variable	Frequency	Percent
Age		
18-20	5	2.9
21-29	25	14.5
30-39	41	23.7
40-49	43	24.9
50-59	41	23.7
60 or older	18	10.4
Setting		
Rural	90	52.0
Urban	83	48.0
Gender		
Female	146	84.4
Male	24	13.9

Other	2	1.2
No response	1	0.6
Race		
African American/Black	57	32.9
American Indian or Alaska Native	1	0.6
Asian	4	2.3
Latino	11	6.4
Multiple races	4	2.3
Other	1	0.6
White	93	53.8
No response	2	1.2
Education		
High school degree or equivalent	14	8.1
Some college but no degree	29	16.8
Associate degree	24	13.9
Bachelor's degree	55	31.8
Graduate degree	48	27.7
No response	3	1.7
Marital status		
Married or in a cohabiting relationship	89	51.4
Never married	46	26.6
Widowed	8	4.6
Separated	7	4.0
Divorced	15	8.7
Other	2	1.2
No response	6	3.5
Income		
$0-$9,999	7	4.0
$10,000-$24,999	8	4.6
$25,000-$49,999	40	23.1
$50,000-$74,999	44	25.4
$75,000-$99,999	24	13.9
$100,000-$149,999	30	17.3
$150,000+	8	4.6
Prefer not to answer	11	6.4
No response	1	0.6
Years in healthcare		
0-5	37	21.4
6-10	32	18.5

11-15	20	11.6
16-20	27	15.6
21-25	22	12.7
26-30	19	11.0
More than 30	14	8.1
No response	2	1.2
Religious affiliation		
Atheist	14	8.1
Buddhism	3	1.7
Christian	124	71.7
Islam	1	0.6
Jewish	1	0.6
Other	26	15.0
Prefer not to answer	2	1.2
No response	2	1.2

Composite scores were computed for the scales of the PSS-10 and SWBS. A single score was computed for stress by summing the items of the PSS-10 after reverse-coding negatively worded items. The possible score range for stress was 0 to 40, with higher values indicating greater stress levels. After reverse-coding negatively worded items of the SWBS, a score was computed for overall spirituality by summing all the SWBS items. The possible score range for spirituality was 20 to 120, where higher values indicated greater spirituality. The mean for spirituality indicated that most participants reported having moderate levels of spirituality.

Table 2 displayed descriptive statistics for the composite scores. The sample mean for stress indicated that, on average, the participants experienced stress sometimes. The mean for spirituality indicated that the participants had moderate levels of spirituality.

Table 2

Descriptive Statistics for Study Variables

Variable	Minimum	Maximum	Mean	Std. Deviation
Stress	0.00	31.00	16.06	6.33
Spirituality	25.00	120.00	92.90	20.06

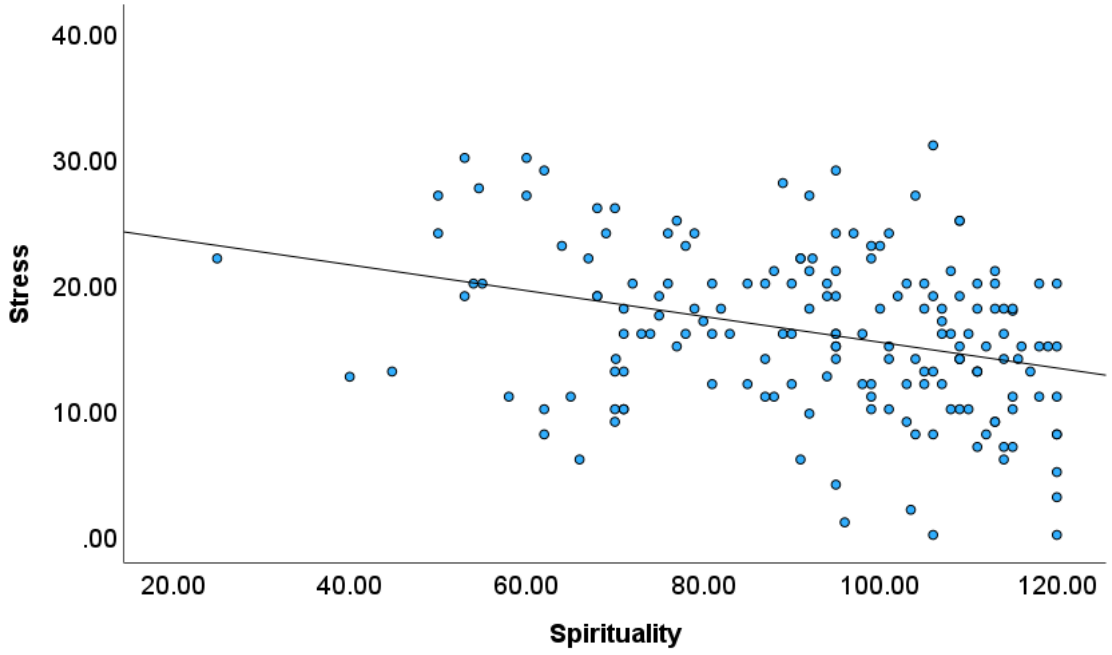
Study Findings

Stress and Spirituality Among Healthcare Workers

A Pearson correlation conducted an analysis to determine if there was a relationship between stress and spirituality among healthcare workers. The results, as shown in Figure 1, indicated a significant negative relationship between the two variables $r(171) = -.33$, $p < .001$. The equation for the regression line was stress = -0.10(spirituality) + 25.60. The standard error of the estimate for the regression line was 0.02, indicating that the data points lay close to the regression line. The confidence interval of the slope ranged from -0.15 to -0.06, an interval which did not contain the value of 0. The R-square = .11, indicating that 11% of the variance in stress was explained by spirituality. The null hypothesis was rejected, concluding that spirituality did significantly predict stress among healthcare workers.

Figure 1

Scatterplot of Stress and Spirituality

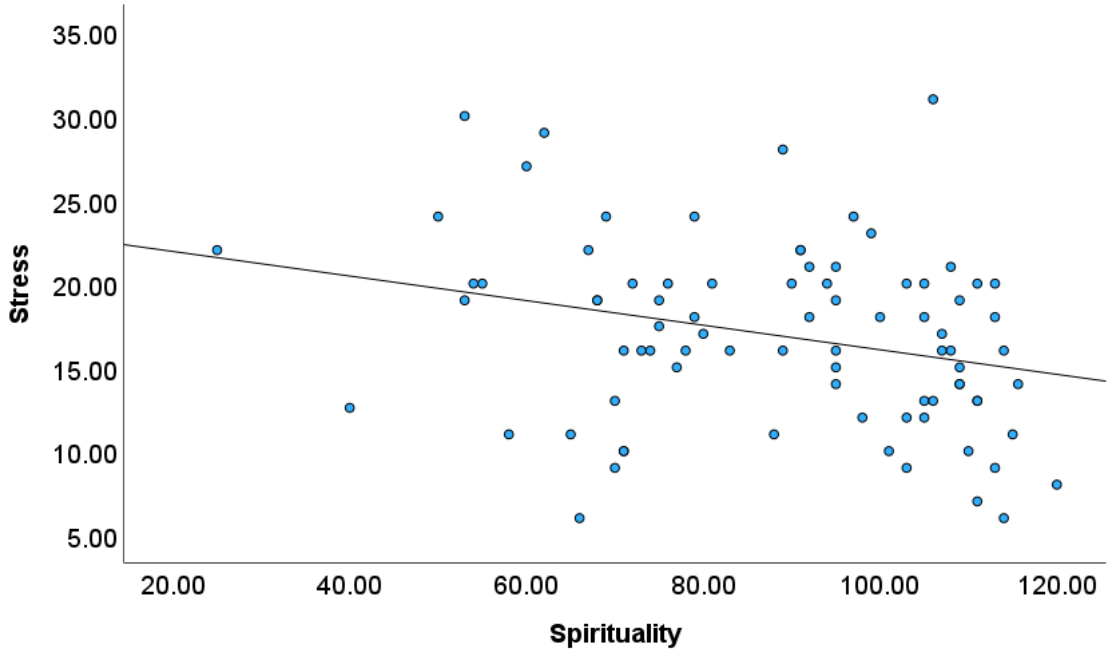


Stress and Spirituality Among Urban Healthcare Workers

A Pearson correlation analysis was conducted to determine if there was a relationship between stress and spirituality among urban healthcare workers. The results, as shown in Figure 2, indicated a significant negative relationship between the two variables $r(81) = -.28$, $p = .010$. The equation for the regression line was stress = -0.07(spirituality) + 23.39. The standard error of the estimate for the regression line was 0.03, indicating that the data points lay close to the regression line. The confidence interval of the slope ranged from -0.13 to -0.02, an interval which did not contain the value of 0. The R-square = .08, indicating that 8% of the variance in stress was explained by spirituality. The null hypothesis was rejected, concluding that spirituality significantly predicted stress among urban healthcare workers.

Figure 2

Scatterplot of Stress and Spirituality (Urban Only)

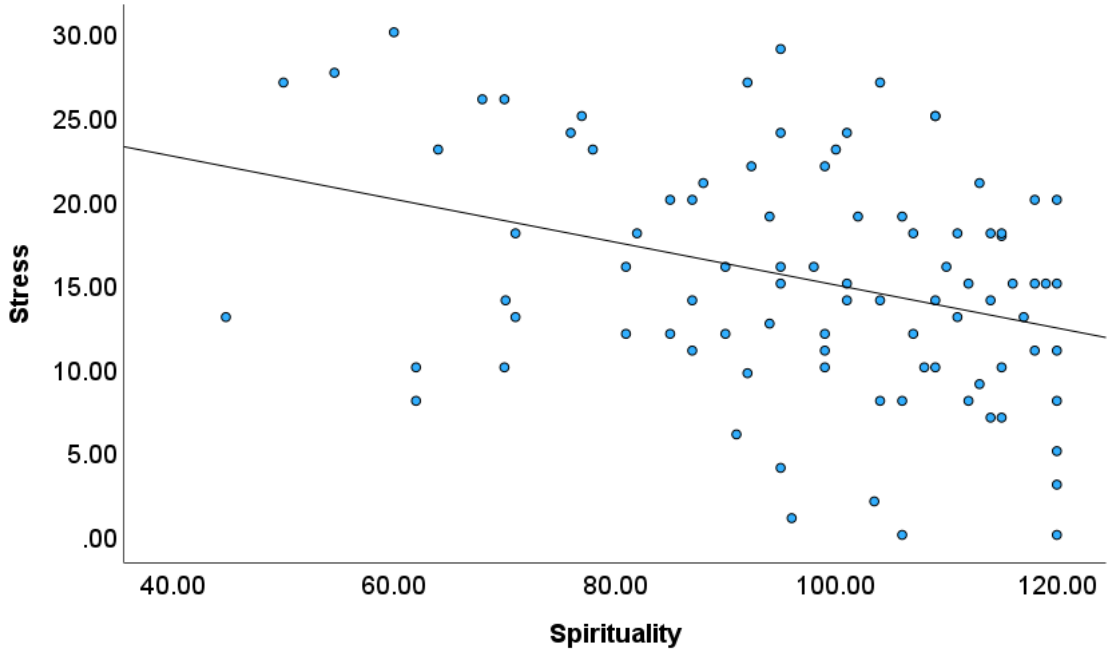


Stress and Spirituality Among Rural Healthcare Workers

A Pearson correlation analysis was conducted to determine if there was a relationship between stress and spirituality among rural healthcare workers. The results, as shown in Figure 3, indicated a significant negative relationship between the two variables $r(88) = -.34$, $p = .001$. The equation for the regression line was stress = -0.13(spirituality) + 27.73. The standard error of the estimate for the regression line was 0.04, indicating that the data points lay close to the regression line. The confidence interval of the slope ranged from -0.20 to -0.05, an interval which does not contain the value of 0. The R-square = .11, indicating that 11% of the variance in stress was explained by spirituality. The null hypothesis was rejected, concluding that spirituality significantly predicted stress among rural healthcare workers.

Figure 3

Scatterplot of Stress and Spirituality (Rural Only)



Stress and Spirituality by Setting

A multivariate analysis of variance (MANOVA) was conducted to determine if there were differences in stress and spirituality levels between rural and urban healthcare workers. Levene's tests were conducted to assess the equality of variance for each dependent variable. The results of the Levene's tests showed that the groups had unequal variance for stress (p = .026); the variances for spirituality (p = .082) were equal. As there were violations of equality of variance in the data, the Pillai's Trace multivariate test was interpreted, as this test was the most robust to violations of assumptions.

The Pillai's Trace multivariate test was significant, $F(2, 170) = 4.61$, p = .011, partial η^2 = .05, indicating that collectively there were differences in stress and spirituality levels between rural and urban healthcare workers. The hypothesis that there

is a difference between rural and urban stress and spirituality for healthcare workers was supported. Table 3 presents the results of the MANOVA.

Table 3

Multivariate Test Comparing Stress and Spirituality of Rural and Urban Healthcare Workers

Pillai's Trace	*F*	Hypothesis *df*	Error *df*	Sig.	Partial Eta Squared
0.05	4.61	2	170	.011	0.05

As the multivariate test was significant, an *F*-test (ANOVA) was computed for each dependent variable to determine the nature of the differences. The ANOVA for stress was insignificant, $F(1, 171) = 2.86$, $p = .093$, partial $\eta^2 = .02$, indicating no difference in stress levels between rural and urban healthcare workers. The ANOVA for spirituality was significant, $F(1, 171) = 8.58$, $p = .004$, partial $\eta^2 = .05$, indicating that rural healthcare workers ($M = 97.09$, $SD = 18.44$) had significantly higher spirituality than urban healthcare workers ($M = 88.34$, $SD = 20.85$). The complete descriptive statistics for stress and spirituality levels by setting were presented in Table 4. Figures 4 and 5 display boxplots of stress and spirituality, respectively, by setting.

Table 4

Descriptive Statistics for Stress and Spirituality by Setting

	Rural ($n = 90$)		Urban ($n = 83$)	
Variable	Mean	*SD*	Mean	*SD*
Stress	15.29	6.99	16.90	5.44
Spirituality	97.09	18.44	88.34	20.85

Figure 4

Boxplots of Stress by Setting

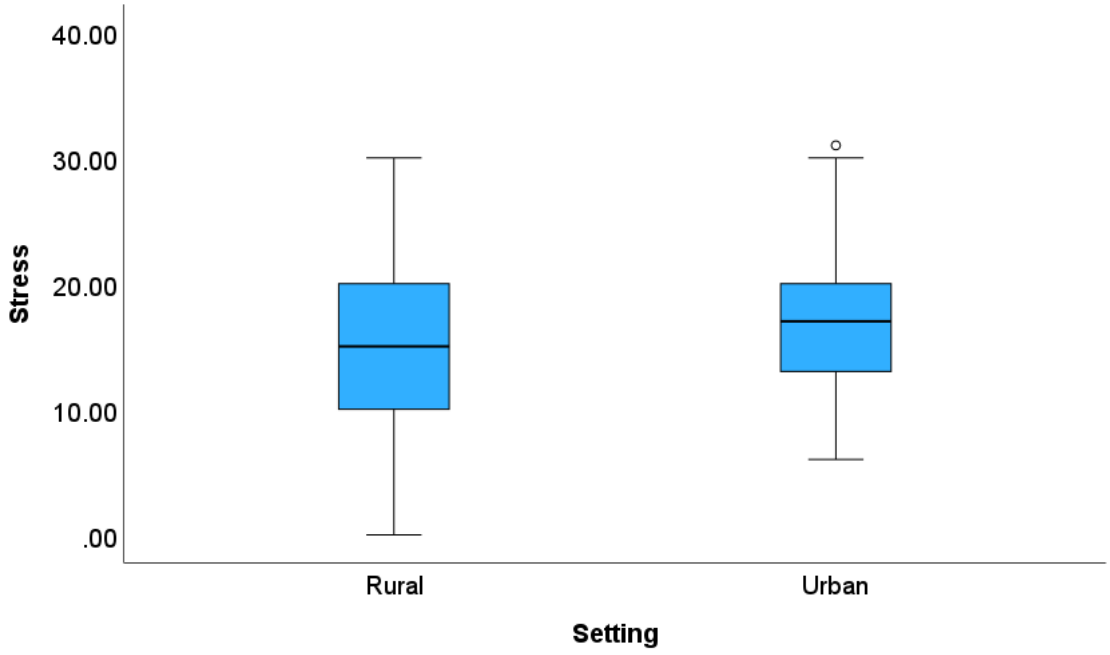
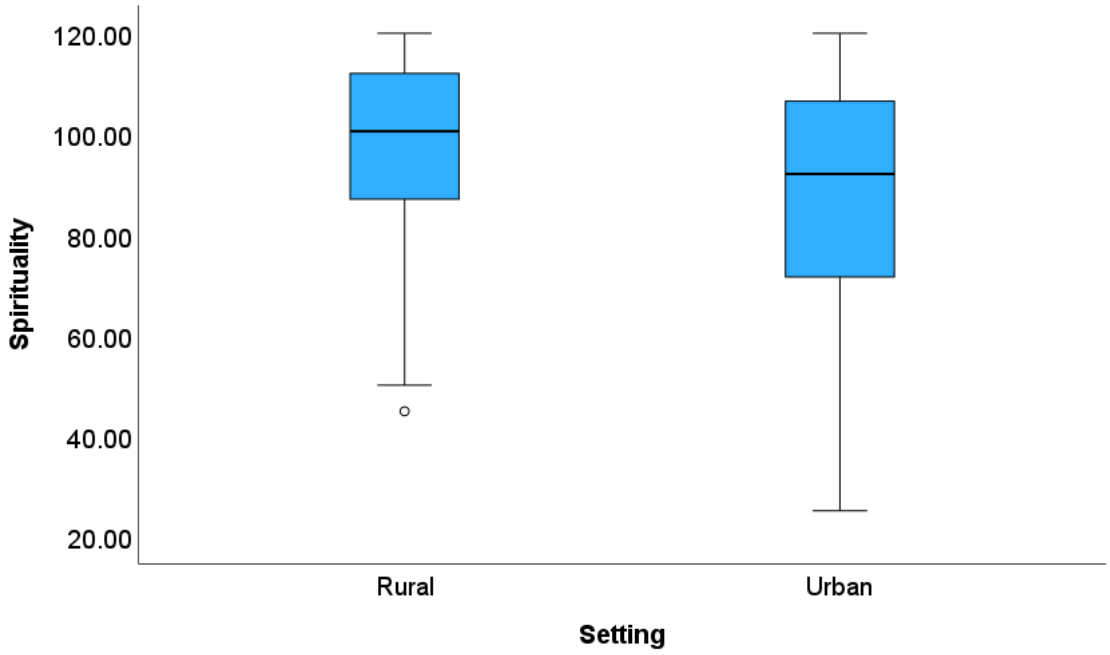


Figure 5

Boxplots of Spirituality by Setting



Summary

Survey responses from 173 healthcare workers were analyzed to investigate the association between spirituality and stress levels in rural and urban healthcare settings. The study used the Perceived Stress Scale and the Spiritual Wellbeing Scale, which were designed to measure one's perception of one's level of stress and how one viewed one's level of spirituality. A summary of the results is provided next.

For Research Question 1, Pearson correlations were computed to determine if there is a relationship between stress and spirituality among healthcare workers. The results showed that stress was negatively related to spirituality. For Research Question 2, a Pearson correlation found a negative relationship between stress and spirituality among urban healthcare workers. Similarly, for Research Question 3, a Pearson correlation found a negative relationship between stress and spirituality among rural healthcare workers. Finally, for Research Question 4, MANOVA did not find a difference in stress levels between rural and urban healthcare workers. The next chapter discussed these findings, including their implications, the study's limitations, and recommendations for future research.

CHAPTER 5: DISCUSSION

Overview

This study examined the association between spirituality and stress levels in healthcare workers in rural and urban settings. The aim was to determine if there is a correlation between healthcare worker stress in urban and rural locations. This chapter summarizes the findings, analyzes their relevance to existing research, and discusses how they fit into the biblical foundations discussed in Chapter 2. The chapter also includes a discussion of the study's implications, limitations, and recommendations for future research.

Summary of Findings

The following hypotheses guided the study: (1) the belief that there is a relationship between stress and spirituality among healthcare workers, (2) that there is a relationship between stress and spirituality among urban healthcare workers**,** (3) that there is a relationship between stress and spirituality among rural healthcare workers, and (4) that there is a difference between rural and urban stress and spirituality for healthcare workers. Four hypotheses were tested using 173 completed surveys from rural and urban healthcare workers. The first hypothesis was supported by a significant negative correlation between stress and spirituality, indicating that participants with higher levels of spirituality, religiousness, and existential well-being tended to have lower levels of stress. The second hypothesis was also supported by a significantly negative correlation between stress and spiritual well-being and existential well-being, indicating that participants with higher spiritual and existential well-being levels tended to have lower stress. Hypothesis 3 was supported by a significant negative correlation between stress

and spiritual well-being and existential well-being, indicating that participants with higher spiritual and existential well-being levels tended to have lower levels of stress. Finally, MANOVA conducted the fourth hypothesis, which revealed that rural and urban healthcare workers did not differ in stress levels. Still, rural healthcare workers had significantly higher spirituality levels than urban healthcare workers.

Discussion of Findings

This quantitative study examined the relationship between spirituality and healthcare workers' stress levels in rural and urban healthcare settings. The collected data showed how healthcare workers in these two locations experience stress in relation to their spirituality. Significant relationships were highlighted between stress and spirituality, and their importance shed light on the psychological and spiritual aspects of individuals' personal experiences. The findings have implications for organizations and individuals working in these settings.

The study sought to determine if there was a relationship between stress and spirituality among healthcare workers. A negative correlation was found between stress and the subscale scores. The results support the hypothesis that healthcare workers with higher levels of spirituality had a lower level of stress.

Stress and Spirituality Among Healthcare Workers

Research Question 1 examined the relationship between stress and spirituality among healthcare workers and revealed that stress was negatively related to spirituality. This confirms previous research that stress exists for healthcare workers. For example, stress was found to be common (Lee et al., 2021) and an occupational risk that contributed to stress for healthcare workers (Menekay, 2020). In addition to occupational

hazards, organizational, patient-related, staff-related, and third-party stressors contribute to healthcare worker stress (Hasbrouk & Waddimba, 2017). Because these stressors can lead to burnout, healthcare workers' desire and motivation to participate in spiritual activities to preserve their spiritual welfare may be diminished. The challenges that come with the stress of working in healthcare may make it difficult for healthcare workers to find the time and volition to support their spirituality.

The current study found that over half of the participants felt spirituality was important in their lives. Spirituality can help address and satisfy the need for affection, safety, and wholeness (del Castillo & Alino, 2020). While religious coping theory promotes religious beliefs and practices that can help individuals face stressful or traumatic times (Pargament et al., 2000), the present study suggests that stress may hinder healthcare workers from practicing or engaging in their spirituality. Liberati et al. (2021) found stress can lead to grief, mental and emotional exhaustion, and feelings of depersonalization, as well as impaired clinical decision-making.

Although spirituality can help individuals cope with stress, it may be that stress also hinders individuals' spiritual practices, suggesting a bi-directional relationship between stress and spirituality. While spirituality does help with managing stress, understanding this bi-directional relationship can be more involved. This study did not examine the bi-directional relationship between stress and spirituality, thus making it possible to study it in future research.

Because religious coping theory holds that spirituality and religious beliefs and practices can serve as managing resources for individuals facing stressful or traumatic events through cognitive-behavioral techniques (Pargament et al., 2000), the finding for

this research question challenges the theory. According to the theory, one would expect spirituality to increase as stress increases, suggesting that individuals would increasingly rely on spirituality to cope with stress.

Serving others and helping those in need are important tenets. However, serving others can lead to stress. Mark 10:45 shows how important it is to care for those in need, be selfless, and serve others (*New International Version Bible,* 1973/2011). According to Colossians 3:23-24, those who serve others must do so with due diligence.

Stress and Spirituality Among Urban Healthcare Workers

Research Question 2 examined the relationship between stress and spirituality among urban healthcare workers. Stress was significantly negatively correlated with spirituality, indicating that urban participants with higher spiritual and existential well-being levels tended to have lower levels of stress. Many factors contribute to urban healthcare workers' high stress levels, such as having high workloads and little control over their work environments (Saint-Louis & Senreich, 2018). Additionally, Kusumawati and Damayant (2020) evaluated urban nurses using the Quality of Work Life (WRQoL) scale. They found that they were affected by stress at a high rate, demonstrating stress's impact on healthcare workers.

Work stress in urban work environments can result in a lack of sleep, burnout, and work absenteeism (Yasin et al., 2020). Using the Pittsburg Sleep Quality Index, Deng et al. (2020) found a correlation between sleep quality and stress. Stress leading to sleep disruption and burnout in urban healthcare workers may result in decreased spirituality. In short, stress may have an adverse effect on spirituality in urban healthcare workers, again suggesting a bi-directional relationship between stress and spirituality. The

theoretical implications are that stress and spirituality may be complex and bi-directionally related. Spirituality plays a vital role in coping with stress, and healthcare workers may turn to prayer to cope with elevated levels of stress in the workplace (Günüşen et al., 2018). James, Mark, and Matthew emphasized the importance of relying on spiritual resources in times of adversity and crisis (*New International Version Bible,* 1973/2011). However, stress may be a barrier to accessing spiritual resources, warranting increased awareness of the role stress can play in interfering even with coping mechanisms.

The finding challenges religious coping theory. Based on religious coping theory, one would expect stress to decrease as spirituality increases, suggesting that urban healthcare workers with higher levels of spirituality would experience lower levels of stress. However, for this study, when spirituality decreased, stress went up, supporting the findings of the study.

To cope with the stress of work, the Bible outlines ways of managing it. It is conveyed in Isaiah 41:10, "So do not fear, for I am with you; do not be dismayed, for I am your God. I will strengthen you and help you; I will uphold you with my righteous right hand" (*New International Version Bible,* 1973/2011). When this is done, one becomes dependent on God and is strengthened. Philippians 4:6-7 explains that prayer and God's guidance are ways to approach the stress encountered in one's life. Meditation is another method used to alleviate stress and can directly guide personal lives. Psalm 119:105 maintains, "Your word is a lamp unto my feet, and a light on my path."

Stress and Spirituality Among Rural Healthcare Workers

Research Question 3 examined the relationship between stress and spirituality among rural healthcare workers. The results showed that stress was also negatively related to spirituality among rural healthcare workers, which was supported by previous research. Rural healthcare workers may experience specific challenges that are exclusive to them. For example, a lack of resources, professional isolation, increasing workloads, and working outside their scope of practice increased stress for these workers (Dekeseredy et al., 2020). Spirituality also played a key role as a coping mechanism during crises within rural communities (Pham et al., 2019).

Stress was significantly negatively correlated with spirituality, indicating that rural participants with higher spirituality levels tended to have lower levels of stress. This finding challenges religious coping theory. Based on religious coping theory, one would also expect stress to decrease as spirituality increases, suggesting that rural healthcare workers with higher levels of spirituality would experience lower levels of stress.

Biblical foundations also supported the study. In the Old Testament (*New International Version Bible*, 1973/2011), rural life was appreciated as a source of nourishment. However, it seems that no matter the location, rural or urban, healthcare workers are stressed, and that stress negatively relates to their spirituality, suggesting that stress and spirituality are complexly and bi-directionally related in urban and rural healthcare workers. Research Question 3 aligns with the biblical foundation of the study. In Philippians 4:6-7 Paul explained that anxiety and worry should be given to Christ Jesus through prayer. Jesus also teaches in Matthew 6:25-34 that we should not worry because God will provide the things we need.

Differences Between Rural and Urban Stress and Spirituality for Healthcare Workers

Research Question 4 investigated the differences between rural and urban stress and spirituality among healthcare workers. The results of Research Question 4 revealed that rural and urban healthcare workers did not differ in stress levels; however, rural healthcare workers had significantly higher spirituality levels than urban healthcare workers.

Although research provided evidence of various kinds of stressors between rural and urban healthcare workers (Dekeseredy et al., 2020; Yasin et al., 2020), both groups experienced elevated levels of work-related stress. However, stressors for rural healthcare workers may differ for urban healthcare workers and vice versa. For example, rural healthcare workers may have lower pay and benefits (Rural Health Workforce, 2000), while urban healthcare workers experience higher patient volume (Yasin et al., 2020).

However, the findings for Research Question 4 also revealed that rural healthcare workers had significantly higher spirituality levels than urban healthcare workers. Rural healthcare workers may have higher spirituality levels due to their closeness within smaller and close-knit communities and the increased social and spiritual connections within them; In contrast, urban nurses sometimes lack this sense of community (Bratt et al., 2014). Additionally, urban areas are more diversified than rural areas are and individuals with varied and diverse belief systems (Bouma et al., 2022). The smaller populations and harmonized cultures of rural areas may result in a stronger sense of community among members with similar spiritual beliefs. Chow et al. (2021) found that

compared to their urban counterparts, rural healthcare workers were more grounded in spiritual beliefs.

Healthcare worker stress seems attributable to the job, not location. Whether they work in rural or urban locales, healthcare workers experience similar levels of stress, which also leads to decreased spirituality in both groups. However, rural healthcare workers have higher levels of spirituality than urban healthcare workers. Pham et al. (2019) found that spirituality is crucial for coping in rural areas within the United States The findings of the present study suggest that rural healthcare workers may be able to deal with more stress than urban healthcare workers because the spiritual levels of rural healthcare are higher to start with.

According to social support theory, individuals who perceive that they have access to supportive relationships and resources are better able to cope with stressors (Cohen & Wills, 1985). The finding for this research question supports the theory. Rural healthcare workers have higher spiritual levels because of their smaller communities, which increase social and spiritual connections within them; urban nurses often lack a sense of community, which reduces social and spiritual connections (Bratt et al., 2014). Because of increased social and spiritual connections, according to social support theory, rural healthcare workers may be better able to cope with stress than their urban counterparts.

In The Old Testament (*New International Version Bible*, 1973/2011), rural life is compared to having a closeness with God. The New Testament also portrays a closeness to God. For example, Jesus is often seen in rural areas preaching and teaching, as in Mathew 13:1-23 as he told of the Parable of the Sower. In contrast, urban and

metropolitan areas portrayed wealth, power, and corruption as they did in the city of Babylon in the book of Isaiah.

Implications

The findings of this study can be applied to organizations, the field of psychology, clinicians, and the church. This study makes a significant contribution by adding current information to the body of psychology and the scientific community. First, the study shows that regardless of where healthcare workers work, they will still experience a level of stress because of the nature of the job. Findings also suggest that for both populations studied, stress is linked to decreased spirituality, which may have adverse effects on individuals. The findings imply that healthcare workers in rural locations have higher spirituality levels than those in urban locations. This suggests that healthcare workers in rural areas may be able to deal with more stress and may be able to deal with stress better than urban healthcare workers.

These findings allow practitioners to focus interventions accordingly. These interventions should consider the overall health and welfare of healthcare workers in both rural and urban groups. Healthcare administrators should target identifying job stressors in both rural and urban settings. Interventions should also focus on stress reduction and prevention in rural and urban settings because stress is linked to healthcare jobs and not necessarily locale. Spiritual support resources might also be made available to rural and urban healthcare professionals to help maintain spiritual health because of the adverse effect of stress on spirituality and because spirituality can serve as a protective factor against stress.

Clinicians in psychological practice may use the study's findings to introduce spirituality into interventions to promote the general well-being of healthcare workers. Spiritual practices such as prayer, meditation, and reflection can be incorporated into programs to help manage work-related stress and challenges (Sen et al., 2022). Spiritual leaders can focus on the negative relationship between stress and spirituality and use this knowledge to support the mental well-being of healthcare workers and those in the church by encouraging faith-based or religious-based activities.

The findings show that stress may have an adverse effect on spirituality, suggesting a bi-directional relationship between stress and spirituality. The theoretical implications are that stress and spirituality may be complex and bi-directionally related. The study findings contribute to the theoretical understanding that stress and spirituality may be more complexly related in healthcare workers than spirituality merely serving as a coping mechanism. The possible bi-directional relationship between stress and spirituality should be investigated further; however, the study was not designed to examine the bi-directional relationship between stress and spirituality.

Limitations

This study had several limitations. One limitation to consider is the limited generalizability of the findings (Lenzo et al., 2021). As mentioned in an earlier chapter, findings from healthcare workers in rural and urban areas may not apply to healthcare workers in all or other rural and urban areas. Different urban and rural areas may share some characteristics, but the demographics and ethnicities of healthcare workers in urban and rural areas are not homogenous.

Second, although an attempt was made to secure a diverse sample, certain characteristics may have impacted the results. The sample was predominantly female (84.4%), white (53.8 %), and identified mostly as Christian (71.7 %). Because of the lack of diversity, the study's results may not apply to other groups.

A third challenge involved the recruitment process. The study was promoted on Facebook, LinkedIn, SurveyCircle, and Reddit. A link was posted to specific groups on these platforms with the intention that only the intended audiences complete the surveys. There was no way of guaranteeing that participants who worked in either rural or urban healthcare environments completed the survey truthfully or were familiar with whether they worked in a rural or urban area. An earlier attempt was made to reach out to specific rural organizations, but no responses were received, and “no permission” was given.

Fourth, spirituality is subjective and can mean something different to everyone. For some, spirituality means religion and a belief in God. For others, one can be spiritual without being religious or believing in God, but they may still believe in a higher being. These differences may have led participants to understand the term differently, which may have influenced how they answered the survey questions. Additionally, because the study design was correlational, causal inferences cannot be drawn about the variables.

Lastly, the study used online social media platforms to recruit participants from different organizations and backgrounds. Spirituality and stress have different meanings across cultures and within rural and urban settings. Acknowledging these distinctions and a better understanding of them will give the study more significance and accuracy.

Recommendations for Future Research

The purpose of this research was to determine whether there was an association between spirituality and stress in healthcare workers in rural and urban settings. This study determined that rural and urban healthcare workers did not differ in stress levels, but they had significantly higher spirituality levels than urban healthcare workers. There are several recommendations for future research based on the findings of the study. This study will provide the field of psychology with an understanding of how rural healthcare workers can manage stress during stressful work circumstances while utilizing their spirituality as a coping process.

Conducting a longitudinal study could be useful to analyze the change in stress levels over years or one's career, which could change over years due to different work environments, one's spirituality, or one's work responsibilities. Conducting a qualitative study may be advantageous because it would allow the researcher to ask follow-up questions and would help explain why and how stress and spirituality are connected. This process would allow the researcher to better understand participants' feelings and behaviors toward stress and their beliefs on spirituality. Qualitative studies could also focus on some of the causes of stress experienced by healthcare workers.

Future research might also include how healthcare organizations could implement policies that promote mental health by reducing stress for employees. This research would allow organizations to see the correlation between stress and one's level of spirituality. Finally, research is recommended on the possible bi-directional relationship between stress and spirituality.

Summary

This study investigated the relationships between spirituality and stress levels in healthcare workers in rural and urban healthcare settings. Statistical analyses showed that stress was negatively related to spirituality for rural and urban healthcare workers, meaning that when stress increased, spirituality declined. Additionally, the study did not reveal any differences in stress levels between rural and urban healthcare workers but did find that rural healthcare workers had significantly higher spirituality levels than urban healthcare workers. Regardless of where the healthcare worker works, they will still experience stress because of the nature of the job. The findings of the study suggest that stress is linked to decreased spirituality, which may have adverse effects on individuals. Stress is a predictable and unavoidable feature of healthcare work, so finding positive ways to address the causes and treat its symptoms is imperative.

By understanding how stress affects work in healthcare, leaders and clinicians can better provide the best overall care when trying to help manage stress. Promoting spirituality to reduce stress in the workplace encourages the possibility of improving employees' well-being. Organizations, leaders, and clinicians can use spirituality to promote the overall well-being of healthcare workers. This research offers some awareness of the relationship between stress and spirituality among rural and urban healthcare workers, which will aid further research in psychology.

REFERENCES

Abolfotouh, M. A., Almutairi, A. F., BaniMustafa, A. A., & Hussein, M. A. (2020). Perception and attitude of healthcare workers in Saudi Arabia with regard to COVID-19 pandemic and potential associated predictors. *BMC Infectious Diseases, 20*(1), 719-719. https://doi.org/10.1186/s12879-020-05443-3

Achour, M., Binti Abdul Ghani Azmi, Ilhaamie, Bin Isahak, M., Mohd Nor, M. R., & Mohd Yusoff, Mohd Yakub Zulkifli. (2019). Job stress and nurses well-being: Prayer and age as moderators. *Community Mental Health Journal, 55*(7), 1226-1235. https://doi.org/10.1007/s10597-019-00410-y

Adriaenssens, J., De Gucht, V., Van Der Doef, M., & Maes, S. (2011). Exploring the burden of emergency care: Predictors of stress-health outcomes in emergency nurses. *Journal of Advanced Nursing, 67*(6), 1317-1328. https://doi.org/10.1111/j.1365-2648.2010.05599.x

Adriaenssens, J., De Gucht, V., & Maes, S. (2015). Determinants and prevalence of burnout in emergency nurses: A systematic review of 25 years of research. *International Journal of Nursing Studies, 52*(2), 649-661. https://doi.org/10.1016/j.ijnurstu.2014.11.004

Afulani, P. A., Ongeri, L., Kinyua, J., Temmerman, M., Mendes, W. B., & Weiss, S. J. (2021). Psychological and physiological stress and burnout among maternity providers in a rural county in Kenya: Individual and situational predictors. *BMC Public Health, 21*(1), 453-453. https://doi.org/10.1186/s12889-021-10453-0

Ahmad, I. & Shaheen, A. (2021). Nurses' shortage and challenges during internship: An emerging issue. *Journal of Postgraduate Medical Institute, 35*(4), 197. https://doi.org/10.54079/jpmi.35.4.2829

Akinleye, A. A., & Omokhodion, F. O. (2008). Work practices of primary health care workers in urban and rural health facilities in south-west Nigeria. *Té Australian Journal of Rural Health, 16*(1), 47-48. https://doi.org/10.1111/j.1440-1584.2007.00950.x

Akpanika, E. N. (2020). Religion and community-based services: Reinvigorating the diaconal ministry of the New Testament in Nigerian churches. *International Journal of Arts, Languages and Business Studies (IJALBS), 5*(2), 166-175. https://www.researchgate.net/profile/Emmanuel-Udoh-3/publication/351956096_religion_and_community-based_services_reinvigorating_the_diaconal_ministry_of_the_new_testament_in_nigerian_churches/links/60b20b6645851557baa6f614/religion-and-community-based- services-reinvigorating-the-diaconal-ministry-of-the-new-testament-in-nigerian-churches.pdf

Al-Ghunaim, T. A., Johnson, J., Biyani, C. S., & O'Connor, D. (2021). Psychological and occupational impact of the COVID-19 pandemic on UK surgeons: A qualitative investigation. *BMJ Open, 11*(4), e045699-e045699. https://doi.org/10.1136/bmjopen-2020-045699

Ali, Y. Y., Morad, A. D., & Sabri, P. R. (2019). Emotional intelligence dimensions as predictors of coping reactions to stress in nursing practitioners. *Fukushima Journal of Medical Science, 65(3),* 99-108. https://doi.org/10.5387/fms.2019-11

Alshekaili, M., Hassan, W., Said, N. A., Sulaimani, F. A., Jayapal, S. K., Al-Mawali, A., Chan, M. F., Mahadevan, S., & Al-Adawi, S. (2020). Factors associated with mental health outcomes across healthcare settings in Oman during COVID-19: Frontline versus non-frontline healthcare workers. *BMJ Open, 10(*10). http://dx.doi.org.ezproxy.liberty.edu/10.1136/bmjopen-2020-042030

Al-Khafajy, Z. A. A. T., Ali, B. R. M., Al-hussein, I. Q. K., Kadium, H. J., & Shehab, S. J. (2022). Psychosomatic Stress for Nurses During Day and Rotating Shift Work in Al-Najaf governmental Hospital's. *Journal of Pharmaceutical Negative Results, 13*(1), 1748-1757. https://doi.org/10.47750/pnr.2022.13.s01.209

American Medical Association. (n.d.). *Physician health and wellness*. https://code-medical-ethics.ama-assn.org/ethics-opinions/physician-health-wellness

American Psychological Association. (n.d.). Coping. In *APA dictionary of psychology*. Retrieved February 14, 2023, from https://dictionary.apa.org/coping

American Psychological Association. (n.d.). Coping strategy. In *APA dictionary of psychology*. https://dictionary.apa.org/coping-strategy

American Psychological Association (n.d.). The American workforce faces compounding pressure. Retrieved March 10, 2024, from https://www.apa.org/pubs/reports/work-well-being/compounding-pressure-2021

Anjum, A., & Zhao, Y. (2022). The impact of stress on innovative work behavior among medical healthcare professionals. *Behavioral Sciences, 12*(9), 340. https://doi.org/10.3390/bs12090340

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of clinical psychology*, *61*(4), 461-480. https://doi.org/10.1002/jclp.20049

Anupama, M., Kulkarni, H., & Nisarga, V. (2022). Perceived stress and insomnia among medical residents in South India: A cross-sectional study. *Annals of Indian Psychiatry, 6*(2), 142. https://doi.org/10.4103/aip.aip_140_21

Arcury, T. A., Quandt, S. A., McDonald, J., & Bell, R. A. (2000). Faith and health self-management of rural older adults. *Journal of Cross-Cultural Gerontology, 15*(1), 55-74. https://DOI:10.1023/A:1006741625617

Armour, C., McGlinchey, E., Butter, S., McAloney-Kocaman, K., & McPherson, K. E. (2021;2020;). The COVID-19 psychological wellbeing study: Understanding the longitudinal psychosocial impact of the COVID-19 pandemic in the UK; a methodological overview paper. *Journal of Psychopathology and Behavioral Assessment, 43*(1), 174-190. https://doi.org/10.1007/s10862-020-09841-4

Arafa, A., Mohammed, Z., Mahmoud, O., Elshazley, M., & Ewis, A. (2021). Depressed, anxious, and stressed: What have healthcare workers on the frontlines in Egypt and Saudi Arabia experienced during the COVID-19 pandemic? *Journal of Affective Disorders, 278*, 365-371. https://doi.org/10.1016/j.jad.2020.09.080

Arrey, A. E., Bilsen, J., Lacor, P., & Deschepper, R. (2016). Spirituality/Religiosity: A cultural and psychological resource among sub-saharan African migrant women with HIV/AIDS in Belgium. *PloS One, 11*(7), e0159488-e0159488. https://doi.org/10.1371/journal.pone.0159488

Asante, J. O., Li, M. J., Liao, J., Huang, Y. X., & Hao, Y. T. (2019). The relationship between psychosocial risk factors, burnout and quality of life among primary healthcare workers in rural Guangdong province: A cross-sectional study. *BMC Health Services Research, 19*(1), 447-447. https://doi.org/10.1186/s12913-019-4278-8

Babiker, A., El Husseini, M., Al Nemri, A., Al Frayh, A., Al Juryyan, N., Faki, M. O., ... & Al Zamil, F. (2014). Health care professional development: Working as a team to improve patient care. *Sudanese Journal of Paediatrics, 14*(2), 9. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4949805/

Babore, A., Lombardi, L., Viceconti, M. L., Pignataro, S., Marino, V., Crudele, M., Candelori, C., Bramanti, S. M., & Trumello, C. (2020). Psychological effects of the COVID-2019 pandemic: Perceived stress and coping strategies among healthcare professionals. Psychiatry Research, 293, 113366-113366. https://doi.org/10.1016/j.psychres.2020.113366

Baernholdt, M., Hinton, I. D., Yan, G., Xin, W., Cramer, E., & Dunton, N. (2018). Fall rates in urban and rural nursing units: Does location matter? *Journal of Nursing Care Quality, 33*(4), 326-333. https://doi.org/10.1097/NCQ.0000000000000319

Bagheri, T., Fatemi, M. J., Payandan, H., Skandari, A., & Momeni, M. (2019). The effects of stress-coping strategies and group cognitive-behavioral therapy on nurse burnout. *Annals of Burns and Fire Disasters, 32*(3), 184-189. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7155410/?report=classic

Bakerjian, D. (2022). The advanced practice registered nurse leadership role in nursing homes: Leading efforts toward high quality and safe care. *The Nursing Clinics of North America, 57*(2), 245-258. https://doi.org/10.1016/j.cnur.2022.02.011

Balayssac, D., Pereira, B., Virot, J., Collin, A., Alapini, D., Cuny, D., Gagnaire, J., Authier, N., & Vennat, B. (2017). Burnout, associated comorbidities and coping strategies in French community pharmacies-BOP study: A nationwide cross-sectional study. *PloS One, 12*(8), e0182956-e0182956. https://doi.org/10.1371/journal.pone.0182956

Banerjee, A. (2019). Physician heal thyself: Perspectives on burnout among doctors. *Perspect Med Res, 7*(1), 3-9. https://pimr.org.in/files-vol7-issue1-19/banerjee-vol-7-issue-1-2019.PDF

Barna. (2019, February). *Single practicing Christians tend to be in big cities.* https://www.barna.com/research/single-christians-big-cities/

Baumann, A., Hunsberger, M., Blythe, J., & Crea, M. (2007;2008;). Sustainability of the workforce: Government policies and the rural fit. *Health Policy (Amsterdam), 85*(3), 372-379. https://doi.org/10.1016/j.healthpol.2007.09.004

Bayerle, H., Ike, J. D., Logan, R. A., & Parker, R. M. (2021). Carrying a community their shoulders: Virgil's Aeneas and the duty of healthcare workers. *Journal of Health Communication, 26(*5), 312-316. https://doi.org/10.1080/10810730.2021.1920649

Beks, H., Healey, C., & Schlicht, K. G. (2018). 'When you're it': A qualitative study exploring the rural nurse experience of managing acute mental health presentations. *Rural and Remote Health, 18*(3), 180-190. https://doi.org/10.22605/RRH4616

Bennett, P., Noble, S., Johnston, S., Jones, D., & Hunter, R. (2020). COVID-19 confessions: A qualitative exploration of healthcare workers experiences of working with COVID-19. *BMJ Open, 10*(12), e043949-e043949. https://doi.org/10.1136/bmjopen-2020-043949

Berkman, L. F., Glass, T., Brissette, I., & Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium. *Social science & Medicine, 51*(6),843-857. https://doi.org/10.1016/S0277-9536(00)00065-4

Bhagavathula, A. S., Aldhaleei, W. A., Rahmani, J., Mahabadi, M. A., & Bandari, D. K. (2020). Knowledge and perceptions of COVID-19 among health care workers: Cross-sectional study. JMIR Public Health and Surveillance, 6(2), e19160-e19160. https://doi.org/10.2196/19160

Blake, H., Bermingham, F., Johnson, G., & Tabner, A. (2020). Mitigating the psychological impact of COVID-19 on healthcare workers: A digital learning package. International Journal of Environmental Research and Public Health, 17(9), 2997. https://doi.org/10.3390/ijerph17092997

Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. *JARNA: The Official Journal of the Australasian Rehabilitation Nurses' Association, 22*(2), 27-30. https://doi.org/10.33235/jarna.22.2.27-30

Bouchard, L. M., Kye Price, S., & Swan, L. (2020). The role of the contemporary Christian church in the rural American south: Philosophical approaches to operationalizing religion in research. *Social Work and Christianity, 47*(2), 47-64. https://doi.org/10.34043/swc.v47i2.100

Bouma, G., Arunachalam, D., Gamlen, A., & Healy, E. (2022). Religious diversity through a super-diversity lens: National, sub-regional and socio-economic religious diversities in Melbourne. *Journal of Sociology (Melbourne, Vic.), 58*(1), 7-25. https://doi.org/10.1177/14407833211011256

Bratt, M. M., Baernholdt, M., & Pruszynski, J. (2014). Are rural and urban newly licensed nurses different? A longitudinal study of a nurse residency programme. *Journal of Nursing Management, 22*(6), 779-791. https://doi.org/10.1111/j.1365-2834.2012.01483.x

Brown, S., & Schuman, D. L. (2021;2020;). Suicide in the time of COVID-19: A perfect storm. *The Journal of Rural Health, 37*(1), 211-214. https://doi.org/10.1111/jrh.12458

Bufford, R. K., Paloutzian, R. F., & Ellison, C. W. (1991). Norms for the spiritual well-being scale. *Journal of Psychology and Theology, 19*(1), 56-70. https://doi.org/10.1177/009164719101900106

Cai, H., Tu, B., Ma, J., Chen, L., Fu, L., Jiang, Y., & Zhuang, Q. (2020). Psychological impact and coping strategies of frontline medical staff in Hunan between January and March 2020 during the outbreak of coronavirus disease 2019 (COVID-19) in Hubei, China. *Medical Science Monitor, 26*, e924171-e924171.https://doi.org/10.12659/MSM.924171

Campo-Arias, A., Pedrozo-Cortés, M. J., & Pedrozo-Pupo, J. C. (2020). Pandemic-Related Perceived Stress Scale of COVID-19: An exploration of online psychometric performance [Escala de estrés percibido relacionado con la pandemia de COVID-19: una exploración del desempeño psicométrico en línea]. Revista Colombiana de Psiquiatría (English ed.), 49(4), 229–230. https://doi.org/10.1016/j.rcpeng.2020.05.001

Carmassi, C., Foghi, C., Dell'Oste, V., Cordone, A., Bertelloni, C. A., Bui, E., & Dell'Osso, L. (2020). PTSD symptoms in healthcare workers facing the three coronavirus outbreaks: What can we expect after the COVID-19 pandemic. *Psychiatry Research, 292*, 113312. https://www-sciencedirect-com.ezproxy.liberty.edu/science/article/pii/S016517812031204X?via=ihub

Carpenter G. (2018). Physician workload survey 2018. https://d6e8fe77545c73db8fab-08e2e97d24a69d8f65ea300e3216435e.ssl.cf1.rackcdn.com/2018/08/LS93719_PhysicianWorkloadSurveyReport_rw_v8_f.pdf.

Carver, C. S., Scheier, M. F., & Kumari Weintraub, J. (1989). Assessing coping strategies: A theoretically based approach. Journal of Personality and Social Psychology, 56(2), 267-283. https://doi.org/10.1037/0022-3514.56.2.267

Catania, G., Zanini, M., Hayter, M., Timmins, F., Dasso, N., Ottonello, G., Aleo, G., Sasso, L., & Bagnasco, A. (2021). Lessons from Italian front-line nurses' experiences during the COVID-19 pandemic: A qualitative descriptive study. *Journal of Nursing Management, 29*(3), 404-411. https://doi.org/10.1111/jonm.13194

Çelmeçe, N., & Menekay, M. (2020). The effect of stress, anxiety and burnout levels of healthcare professionals caring for COVID-19 patients on their quality of life. *Frontiers in Psychology, 11*, 597624-597624. https://doi.org/10.3389/fpsyg.2020.597624

Centers for Disease Control and Prevention. (2017, January 13). *Healthcare workers.* Centers for Disease Control and Prevention. https://www.cdc.gov/niosh/topics/healthcare/default.html

Centers for Disease Control and Prevention. (2022, May 11). *Newsroom feature: Health worker mental health*. Centers for Disease Control and Prevention. https://www.cdc.gov/niosh/newsroom/feature/health-worker-mental-health.html

Centers for Disease Control and Prevention. (2022, December 19). *Coronavirus disease 2019 (COVID-19*). Centers for Disease Control and Prevention. https://www.cdc.gov/dotw/covid-19/index.html

Chalfant, H. P., & Heller, P. L. (1991). Rural/Urban versus Regional Differences in Religiosity. *Review of Religious Research, 33*(1), 76–86. https://doi.org/10.2307/3511262

Chang, M., Chen, P., Lee, T., Lin, C., Chiang, K., Tsai, M., Kuo, H., & Lung, F. (2021). The effect of religion on psychological resilience in healthcare workers during the coronavirus disease 2019 pandemic. *Frontiers in Psychology, 12,* 628894-628894. https://doi.org/10.3389/fpsyg.2021.628894

Chaukos, D., Chad-Friedman, E., Mehta, D. H., Byerly, L., Celik, A., McCoy, T. H., & Denninger, J. W. (2017). Risk and resilience factors associated with resident burnout. *Academic Psychiatry, 41*(2), 189-194. https://doi.org/10.1007/s40596-016-0628-6

Chow, S. K., Francis, B., Ng, Y. H., Naim, N., Beh, H. C., Ariffin, M. A. A., Yusuf, M. H. M., Lee, J. W., & Sulaiman, A. H. (2021). Religious coping, depression and anxiety among healthcare workers during the COVID-19 pandemic: A Malaysian perspective. *Healthcare (Basel), 9*(1), 79. https://doi.org/10.3390/healthcare9010079

Citizen Advice (2022). Discrimination because of religion or belief. https://www.citizensadvice.org.uk/law-and-courts/discrimination/check-if-youre-protected-from-discrimination/religion-or-belief-discrimination/

Clemow, L. P., Pickering, T. G., Davidson, K. W., Schwartz, J. E., Williams, V. P., Shaffer, J. A., Williams, R. B., & Gerin, W. (2018). Stress management in the workplace for employees with hypertension: A randomized controlled trial. *Translational Behavioral Medicine, 8*(5), 761-770. https://doi.org/10.1093/tbm/iby018

Cohen J. & Venter WDF (2020). The integration of occupational-and household-based chronic stress among South African women employed as public hospital nurses. *PLoS ONE 15*(5): e0231693. https://doi.org/10.1371/journal.pone.0231693

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385-396. https://doi.org/10.2307/2136404

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310-357. https://doi.org/10.1037/0033-2909.98.2.310

Cohen, S., Williamson, G., Spacapan, S., & Oskamp, S. (1988). The social psychology of health. The social psychology of health.

Cohen, S. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health* (pp. 31–67). Sage Publications, Inc.

Colón-Bacó, E. (2010). The strength of religious beliefs is important for subjective well-being. *Undergraduate Economic Review, 6* (1). https://digitalcommons.iwu.edu/cgi/viewcontent.cgi?article=1068&context=uer

Crawford O'Brien, S. (2013). Handbook of religion and health, 2nd edition. by Harold Koenig, Dana King, and Verna Benner Carson. *Journal of the American Academy of Religion, 81*(2), 548-552. https://doi.org/10.1093/jaarel/lft005

Crisp, N., Brownie, S., & Refsum, C. (2018). Nursing & Midwifery: The key to the rapid and cost effective expansion of high quality universal healthcare. https://ecommons.aku.edu/eastafrica_fhs_sonam/232/

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika, 16*(3), 297-334.

Culley, J. M., Courtney, J. A., Diamond, L. M., & Bates, E. (1996). A continuing education program to retrain registered nurses for careers in client-focused community healthcare. *The Journal of Continuing Education in Nursing, 27*(6), 267-273. https://doi.org/10.3928/0022-0124-19961101-07

Davis-Roberts, G. (2006). *Sources of stress, levels of stress, and coping strategies of faculty and staff at northern Caribbean university* (Publication No. 3213128) [Doctoral dissertation, Andrews University]. Andrews University Digital Commons. https://dx.doi.org/10.32597/dissertations/320/

Dawood, B., Tomita, A., & Ramlall, S. (2022). 'Unheard', 'uncared for' and 'unsupported': The mental health impact of COVID-19 on healthcare workers in KwaZulu-natal province, South Africa. *PloS One, 17*(5), e0266008-e0266008. https://doi.org/10.1371/journal.pone.0266008

Dekeseredy, P., Landy, C. M. K., & Sedney, C. L. (2019). An exploration of work related stressors experienced by rural emergency nurses. *Online Journal of Rural Nursing and Health Care, 19*(2), 2-24. https://doi.org/10.14574/ojrnhc.v19i1.550

de Brito Sena, M. A., Damiano, R. F., Lucchetti G., & Peres, M. F. P. (2021). Defining spirituality in healthcare: A systematic review and conceptual framework. *Frontiers in psychology, 12,* 756080. https://doi.org/10.3389/fpsyg.2021.756080

del Castillo, F., & Alino, M. (2020). Religious coping of selected Filipino catholic youth. *Religions (Basel, Switzerland), 11*(9), 462. https://doi.org/10.3390/rel11090462

Delgado, C. (2005). A discussion of the concept of spirituality. *Nursing Science Quarterly, 18*(2), 157-162. https://doi.org/10.1177/0894318405274828

DeLucia, J. A., Bitter, C., Fitzgerald, J., Greenberg, M., Dalwari, P., & Buchanan, P. (2019). Prevalence of post-traumatic stress disorder in emergency physicians in the United States. *The Western Journal of Emergency Medicine, 20*(5), 740-746. https://doi.org/10.5811/westjem.2019.7.42671

DeMaio, T. J. (1984). *Social desirability and survey. Surveying subjective phenomena, 2,* 257.

Deng, X., Liu, X., & Fang, R. (2020). Evaluation of the correlation between job stress and sleep quality in community nurses. *Medicine, 99*(4). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7004582/

Deprez, R. (2004). Physician specialty practices strategic survival for rural hospitals: "access to health care" in rural areas usually means access to primary care. But improving access to specialty care can help rural hospitals stay alive. *Healthcare Financial Management, 58*(1), 76. https://go.gale.com/ps/i.do?id=GALE|A112451712&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=07350732&p=AONE&sw=w&userGroupName=anon%7E1914cce

Der, J. B., Grant, A. D., Grint, D., Narh, C. T., Bonsu, F., & Bond, V. (2022). Barriers to tuberculosis case finding in primary and secondary health facilities in Ghana: Perceptions, experiences and practices of healthcare workers. *BMC Health Services Research, 22*(1), 368-368. https://doi.org/10.1186/s12913-022-07711-1

DeRossett, T., LaVoie, D. J., & Brooks, D. (2021). Religious coping amidst a pandemic: Impact on COVID-19-related anxiety. Journal of religion and health, 60(5), 3161-3176. doi:10.1007/s10943-021-01385-5

Di, D., Cranney, S., Vaidyanathan, B., & Fitzgerald, C. A. (2023). Religion, spirituality, and mental health among scientists during the pandemic: A four-country study. *Zygon*, https://doi.org/10.1111/zygo.12912

Digby, R., Bolster, D., Hughes, L., Perta, A., & Bucknall, T. K. (2020). Examining subacute nurses' roles in a changing healthcare context. *Journal of Clinical Nursing, 29*(13-14), 2260-2274. https://doi.org/10.1111/jocn.15235

Disler, R., Glenister, K., & Wright, J. (2020). Rural chronic disease research patterns in the United Kingdom, United States, Canada, Australia and New Zealand: A systematic integrative review. *BMC Public Health*, 20(1), 1–7. https://doi-org.ezproxy.liberty.edu/10.1186/s12889-020-08912-1

Dobis, E. A., Krumel, Krumel, T. P., Cromartie, J. Jr., Conley, K. L., Sanders, A., & Ortiz, R. United States Department of Agriculture. (2021). *Rural America at a Glance: 2021 Edition.* https://www.ers.usda.gov/webdocs/publications/102576/eib-230.pdf?v=4409

Dolcos, F., Hohl, K., Hu, Y., & Dolcos, S. (2021). Religiosity and Resilience: Cognitive reappraisal and coping self-efficacy mediate the link between religious coping and well-being. *Journal of religion and health, 60*(4), 2892–2905. https://doi.org/10.1007/s10943-020-01160-y

Dollahite, D. C. (1998). Fathering, faith, and spirituality. *The Journal of Men's Studies, 7*(1), 3-15. https://doi.org/10.3149/jms.0701.3

Donohoe, M. T. (1998). Comparing Generalist and Specialty Care: Discrepancies, Deficiencies, and Excesses. *Arch Intern Med. 158*(15):1596–1608. https://doi:10.1001/archinte.158.15.1596

Donley J. (2021). The Impact of Work Environment on Job Satisfaction: Pre-COVID Research to Inform the Future. *Nurse leader*, *19*(6), 585–589. https://doi.org/10.1016/j.mnl.2021.08.009

Du, J., Dong, L., Wang, T., Yuan, C., Fu, R., Zhang, L., Liu, B., Zhang, M., Yin, Y., Qin, J., Bouey, J., Zhao, M., & Li, X. (2020). Psychological symptoms among frontline healthcare workers during COVID-19 outbreak in Wuhan. *General Hospital Psychiatry, 67*, 144-145. https://doi.org/10.1016/j.genhosppsych.2020.03.011

Dunfee, M. N., Brown, R. L., & Schoenberg, N. E. (2021). Perspectives on religious and spiritual coping among rural grandparent caregivers. *Journal of Family Issues, 42*(7), 1495-1515. https://doi.org/10.1177/0192513X20938857

Du Plessis, Y., Tawana, B., & Barkhuizen, N. E. (2019). A comparative analysis of the antecedents and consequences of employee satisfaction for urban and rural healthcare workers in KwaZulu-natal province, south Africa. *SA Journal of Human Resource Management, 17*(1), 1-9. https://doi.org/10.4102/sajhrm.v17i0.1080

Eaton-Hart, J. H., Gillies, J. C., & Mercer, S. W. (2022). How do the working lives of general practitioners in rural areas compare with elsewhere in Scotland? Cross-sectional analysis of the Scottish school of primary care national GP survey. *Rural and Remoted Health, 22*(2), 7270-7070. https://doi.org/10.22605/RRH7270

Eftekhar Ardebili, M., Naserbakht, M., Bernstein, C., Alazmani-Noodeh, F., Hakimi, H., & Ranjbar, H. (2021;2020;). Healthcare providers experience of working during the COVID-19 pandemic: A qualitative study. *American Journal of Infection Control, 49*(5), 547-554. https://doi.org/10.1016/j.ajic.2020.10.001

Ellison, C. W., & Smith, J. (1991). Toward an integrative measure of health and well-being. *Journal of Psychology and Theology, 19*(1), 35-45. https://doi.org/10.1177/009164719101900104

Elvira, S. D., Lamuri, A., Lukman, P. R., Malik, K., Shatri, H., & Abdullah, M. (2021). Psychological distress among greater Jakarta area residents during the COVID-19 pandemic and community containment. *Heliyon, 7*(2), e06289-e06289. https://doi.org/10.1016/j.heliyon.2021.e06289

Ersahin, Z., & Boz, N. (2018). Urban spirituality: Need for connectedness and communication. *Idealkent, 9*(25), 762-781. https://doi.org/10.31198/idealkent.487461

Fang, M., Xia, B., Tian, T., Hao, Y., & Wu, Z. (2021). Drivers and mediators of healthcare workers' anxiety in one of the most affected hospitals by COVID-19: A qualitative analysis. *BMJ Open, 11*(3), e045048-e045048. https://doi.org/10.1136/bmjopen-2020-045048

Faul, F., Erdfelder, E., Lang, A., & Buchner, A. (2007). GPower 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. Behavior Research Methods, 39(2), 175-191. https://doi.org/10.3758/BF03193146

Finstad, G. L., Giorgi, G., Lulli, L. G., Pandolfi, C., Foti, G., León-Perez, J. M., ... & Mucci, N. (2021). Resilience, coping strategies and posttraumatic growth in the workplace following COVID-19: A narrative review on the positive aspects of trauma. *International Journal of Environmental Research and Public Health, 18*(18), 9453. https://doi.org/10.3390/ijerph18189453

Fischer, F., Lange, K., Klose, K., Greiner, W., & Kraemer, A. (2016). Barriers and strategies in guideline implementation-A scoping review. *Healthcare, 4*(3), 36. https://doi.org/10.3390/healthcare4030036

Flaubert, J. L., Le Menestrel, S., Williams, D. R., & Wakefield, M. K. (2021). *The future of nursing 2020-2030: Charting a path to achieve health equity.* Chicago. https://www.ncbi.nlm.nih.gov/books/NBK573898/

Florczak, K. L. (2010). Gathering information on spirituality: From whose perspective? *Nursing Science Quarterly, 23*(3), 201-205. https://doi.org/10.1177/0894318410371836

Friedberg, M. W., Rosenthal, M. B., Werner, R. M., Volpp, K. G., & Schneider, E. C. (2015). Effects of a medical home and shared savings intervention on quality and utilization of care. *JAMA Internal medicine, 175*(8), 1362-1368. https://doi:10.1001/jamainternmed.2015.2047

Foster, K., Roche, M., Delgado, C., Cuzzillo, C., Giandinoto, J., & Furness, T. (2019). Resilience and mental health nursing: An integrative review of international literature. *International Journal of Mental Health Nursing, 28*(1), 71-85. https://doi.org/10.1111/inm.12548

Fowler, J. (2017). From staff nurse to nurse consultant: Spiritual care part 1: The importance of spiritual care. *British Journal of Nursing (Mark Allen Publishing), 26*(8), 478-478. https://doi.org/10.12968/bjon.2017.26.8.478

Fox, J., Merwin, E., & Blank, M. (1995). De facto mental health services in the rural south. *Journal of Health Care for the Poor and Underserved, 6*(4), 434-468. https://doi.org/10.1353/hpu.2010.0003

Galehdar, N., Kamran, A., Toulabi, T., & Heydari, H. (2020). Exploring nurses' experiences of psychological distress during care of patients with COVID-19: A qualitative study. BMC Psychiatry, 20(1), 489-489. https://doi.org/10.1186/s12888-020-02898-1

Gandi, J. C., Wai, P. S., Karick, H., & Dagona, Z. K. (2011). The role of stress and level of burnout in job performance among nurses. *Mental Health in Family Medicine, 8*(3), 181-194. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3314275/

Garg, N. (2017). Workplace spirituality and employee well-being: An empirical exploration. *Journal of Human Values, 23*(2), 129-147. https://doi.org/10.1177/0971685816689741

Germack, H. D., Harrison, J., Lusine, P., & Martsolf, G. R. (2022). Practice patterns, work environments, and job outcomes of rural and urban primary care nurse practitioners: MCRR. *Medical Care Research and Review, 79*(1), 161-170. https://doi.org/10.1177/1077558720974537

Giessing, L., Frenkel, M. O., Zinner, C., Rummel, J., Nieuwenhuys, A., Kasperk, C., Brune, M., Engel, F. A., & Plessner, H. (2019). Effects of coping-related traits and psychophysiological stress responses on police recruits' shooting behavior in reality-based scenarios. *Frontiers in Psychology, 10*, 1523-1523. https://doi.org/10.3389/fpsyg.2019.01523

Giusti, E. M., Pedroli, E., D'Aniello, G. E., Stramba Badiale, C., Pietrabissa, G., Manna, C., Stramba Badiale, M., Riva, G., Castelnuovo, G., & Molinari, E. (2020). The psychological impact of the COVID-19 outbreak on health professionals: A cross-sectional study. *Frontiers in Psychology, 11*. https://doi-org.ezproxy.liberty.edu/10.3389/fpsyg.2020.01684

Gold, J. A. (2020). Covid-19: Adverse mental health outcomes for healthcare workers. BMJ (Online), 369, m1815-m1815. https://doi.org/10.1136/bmj.m1815

Golechha, M., Bohra, T., Patel, M., & Khetrapal, S. (2022;2021;). Healthcare worker resilience during the COVID-19 pandemic: A qualitative study of primary care providers in India. *World Medical and Health Policy, 14*(1), 6-18. https://doi.org/10.1002/wmh3.483

Greenslade, J. H., Wallis, M. C., Johnston, A., Carlström, E., Wilhelms, D., Thom, O., Abraham, L., Crilly, J., & WES investigators. (2019). Development of a revised jalowiec coping scale for use by emergency clinicians: A cross-sectional scale development study. BMJ Open, 9(12), e033053-e033053. https://doi.org/10.1136/bmjopen-2019-033053

Grennan, D. (2019). What is a pandemic? *JAMA, 321*(9):910. https://doi:10.1001/jama.2019.0700

Gross, J. V., Mohren, J., & Erren, T. C. (2021). COVID-19 and healthcare workers: A rapid systematic review into risks and preventive measures. *BMJ Open, 11*(1), e042270-e042270. https://doi.org/10.1136/bmjopen-2020-042270

Grujicic, M., Jovicic-Bata, J., & Novakovic, B. (2018). Motivation and job satisfaction of healthcare professionals in urban and rural areas in the autonomous province of Vojvodina, Serbia. *Medicinski Pregled, 71*(1-2), 33-41. https://doi.org/10.2298/MPNS1802033G

Günüşen, N. P., Wilson, M., & Aksoy, B. (2018). Secondary traumatic stress and burnout among Muslim nurses caring for chronically ill children in a Turkish hospital. *Journal of Transcultural Nursing, 29*(2),146-154. https://doi.org/10.1177/1043659616689290

Gupta, N., Dhamija, S., Patil, J., & Chaudhari, B. (2021). Impact of COVID-19 pandemic on healthcare workers. *Industrial Psychiatry Journal, 30*(3), 282-284. https://doi.org/10.4103/0972-6748.328830

Hale, N., Meit, M., Pettyjohn, S., Wahlquist, A., & Loos, M. (2022). The implications of long COVID for rural communities. *The Journal of Rural Health, 38*(4), 945-947. https://doi.org/10.1111/jrh.12655

Hamama, L., Hamama-Raz, Y., Stokar, Y. N., Pat-Horenczyk, R., Brom, D., & Bron-Harlev, E. (2019). Burnout and perceived social support: The mediating role of secondary traumatization nurses vs. physicians. *Journal of Advanced Nursing, 75*(11), 2742-2752. https://doi.org/10.1111/jan.14122

Han, J., Meng, Y., & Qin, S. (2018). House Church: Investigating Chinese Urban Christians' Choice of Religious Practicing Site in Wuhan, China. *Religions, 9*(4), 100. https://doi.org/10.3390/rel9040100

Han, J., Meng, Y., Xu, C., & Qin, S. (2017). Urban residents' religious beliefs and influencing factors on Christianity in Wuhan, China. *Religions (Basel, Switzerland), 8*(11), 244. https://doi.org/10.3390/rel8110244

Harris, S., & Tao, H. (2022). The impact of US nurses' personal religious and spiritual beliefs on their mental well-being and burnout: A path analysis. *Journal of Religion and Health, 61*(3), 1772-1791. https://doi.org/10.1007/s10943-021-01203-y

Hasbrouck, M. A., & Waddimba, A. C. (2017). The work-related stressors and coping strategies of group-employed rural health care practitioners: *A qualitative study. American Journal of Industrial Medicine, 60*(10), 867-878. https://doi.org/10.1002/ajim.22753

Haugen, H. M. (2020). Norwegian Christian leaders: The term 'Christian values' is divisive and useless. *Religions 11*, 524. https://doi.org/10.3390/rel11100524

HealthCare.gov. (n.d.). U.S. Dept. of Health and Human Services.Retrieved February 15, 2023, from https://www.healthcare.gov/glossary/primary-care/

Heller, M. A., & Phillips, S. A. (2020). A new ethical beliefs scale. Ethics & Behavior,*30*(7), 496-513. https://doi.org/10.1080/10508422.2019.1668792

Hempel, S., Gibbons, M. M., Ulloa, J. G., Macqueen, I. T., Miake-Lye, I. M., Beroes, J.M., & Shekelle, P. (2015). Rural healthcare workforce: A systematic review. https://www.ncbi.nlm.nih.gov/books/NBK409502/

Hill, P. C., Pargament, K. I., Hood, R. W., McCullough, J., Michael E., Swyers, J. P., Larson, D. B., & Zinnbauer, B. J. (2000). Conceptualizing religion and spirituality: Points of commonality, points of departure. *Journal for the Theory of Social Behaviour, 30*(1), 51-77. https://doi.org/10.1111/1468-5914.00119

Hinno, S., Partanen, P., & Vehviläinen-Julkunen, K. (2011). Hospital nurses' work environment, quality of care provided and career plans. *International Nursing Review, 58*(2), 255-262. https://doi.org/10.1111/j.1466-7657.2010.00851.x

Htay, M. N. N., Marzo, R. R., Bahari, R., AlRifai, A., Kamberi, F., El-Abasiri, R. A., ... & Su, T. T. (2021). How healthcare workers are coping with mental health challenges during COVID-19 pandemic? A cross-sectional multi-countries study. *Clinical Epidemiology and Global Health, 11*, 100759. https://doi.org/10.1016/j.cegh.2021.100759

Hu, X., Dill, M. J., Conrad, S. S. (2022;2021). What moves physicians to work in rural areas? An in-depth examination of physician practice location decision. *Economic Development Quarterly, 36*(3), 245-260. https://doi.org/10.1177/08912424211046600

Hyman, C., & Handal, P. J. (2006). Definitions and evaluation of religion and spirituality items by religious professionals: A pilot study. *Journal of Religion and Health, 45*(2), 264-282. https://doi.org/10.1007/s10943-006-9015-z

Ibrahim, M. A., Isa, K. Q., Haji-Idris, H., Nawi, S., Teo, Y. C., Abdul Rahman, H., & Abdul-Mumin, K. H. (2020). Spiritual coping with stress among emergency and critical care nurses: A cross-sectional study. *Community Mental Health Journal, 56*(2), 287- 293.https://doi.org/10.1007/s10597-019-00486-6 https://doi.org/10.1007/s10597-019-00486-6

Irvine, D. M. & Evans, M. G. (1995). Job satisfaction and turnover among nurses: Integrating research findings across studies. *Nursing Research, 44*:246-253. https://doi.org/10.1097/00006199-199507000-00010

Jahner, S. A. (2020). *The psychologically traumatic experiences of rural registered nurses who live and work in the same community* (Doctoral dissertation, University of Saskatchewan). https://harvest.usask.ca/handle/10388/13059

Jahner, S., Penz, K., Stewart, N. J., Morgan, D., & Kulig, J. (2022). 'Staying strong': A constructivist grounded theory of how registered nurses deal with the impact of *trauma-related events in rural acute care practice*. Journal of Clinical Nursing, 32(5-6),879-893. https://doi.org/10.1111/jocn.16459

Jayasuriya, R., Whittaker, M., Halim, G., & Matineau, T. (2012). Rural health workers and their work environment: The role of inter-personal factors on job satisfaction of nurses in rural Papua New Guinea. *BMC health services research, 12*(156). https://doi.org/10.1186/1472-6963-12-156

Jiloha, R. C. (2020) COVID-19 and mental health. *Epidemiology International, 5*(1): 7-9. https://doi.org/10.24321/2455.7048.202002

Jo, S., Koo, B., Seo, W., Yun, S., & Kim, H. (2020). The psychological impact of the coronavirus disease pandemic on hospital workers in Daegu, South Korea. *Comprehensive Psychiatry, 103,* 152213-152213. https://doi.org/10.1016/j.comppsych.2020.152213

Jones, T. L., Baxter, M. A. J., & Khanduja, V. (2013). A quick guide to survey research. Annals of the Royal College of Surgeons of England, 95(1), 5-7. https://doi.org/10.1308/003588413X13511609956372

Jones, B. (2021). Spirituality among the terminally ill in a rural hospice program. Indian Journal of Palliative Care, 27(1), 183-185. https://doi.org/10.4103/IJPC.IJPC_257_20

Joseph, B., & Joseph, M. (2016). The health of the healthcare workers. *Indian Journal of occupational and environmental medicine, 20*(2), 71-72. https://doi.org/10.4103/0019-5278.197518

Joubert, S. (2020, January 17). Working in urban health: What you need to know. Northeastern University. https://www.northeastern.edu/graduate/blog/working-in-urban-health/

Jung, J. H. (2020). Belief in supernatural evil and mental health: Do secure attachment to God and gender matter? *Journal for the Scientific Study of Religion, 59*(1), 141-160. https://doi.org/10.1111/jssr.12645

Kane, L. (2019). Medscape national physician burnout, depression, and suicide report 2019. https://www.medscape.com/slideshow/2019- lifestyle-burnout-depression-6011056

Kath, L. M., Stichler, J. F., Ehrhart, M. G., & Sievers, A. (2013). Predictors of nurse manager stress: A dominance analysis of potential work environment stressors. *International Journal of Nursing Studies, 50*(11), 1474-1480. https://doi.org/10.1016/j.ijnurstu.2013.02.011

Kelly, D., Schroeder, S., & Leighton, K. (2022). Anxiety, depression, stress, burnout, and professional quality of life among the hospital workforce during a global health pandemic. *The Journal of Rural Health, 38*(4), 795-804. https://doi.org/10.1111/jrh.12659

Kenel, S. A. (1987). Urban psychology and spirituality. *Journal of Psychology and Theology,15*(4), 296-302. https://doi.org/10.1177/009164718701500405

Khalid, I., Khalid, T. J., Qabajah, M. R., Barnard, A. G., & Qushmaq, I. A. (2016). Healthcare workers emotions, perceived stressors and coping strategies during a MERS-CoV outbreak. *Clinical Medicine & Research, 14*(1), 7-14. https://doi.org/10.3121/cmr.2016.1303

Kilic, S. P., Aytac, S. O., Korkmaz, M., & Ozer, S. (2016). Occupational health problems of nurses working at emergency departments. *International Journal of Caring Sciences, 9*(3), 1008-1019. http://www.internationaljournalofcaringsciences.org/docs/30_parlar_originial_9_3 %281%29.pdf

Kleinpell, R. M., Grabenkort, W. R., Kapu, A. N., Constantine, R., & Sicoutris, C. (2019). Nurse practitioners and physician assistants in acute and critical care: A concise review of the literature and data 2008-2018. *Critical Care Medicine, 47*(10), 1442-1449. https://doi.org/10.1097/CCM.0000000000003925

Koenig, H. G. (2012). Religion, spirituality, and health: The research and clinical implications. *ISRN Psychiatry, 2012,* 278730-33. https://doi.org/10.5402/2012/278730

Koenig, H. G. (2020). Maintaining health and well-being by putting faith into action during the COVID-19 pandemic. *Journal of Religion and Health, 59*(5), 2205-2214. https://doi.org/10.1007/s10943-020-01035-2

Koenig, H. G., King, D. E., & Carson, V. B. (2012). *Handbook of religion and health* (2nd ed.). Oxford University Press.

Kohli, D., & Padmakumari, P. (2020). Self-care, burnout, and compassion fatigue in oncology professionals. *Indian Journal of Occupational and Environmental Medicine, 24*(3), 168-171. https://doi.org/10.4103/ijoem.IJOEM_201_19

Koontalay, A., Suksatan, W., Prabsangob, K., & Sadang, J. M. (2021). Healthcare workers' burdens during the COVID-19 pandemic: A qualitative systematic review. *Journal of Multidisciplinary Healthcare, 14,* 3015-3025. https://doi.org/10.2147/JMDH.S330041

Krishnakumar, S., & Neck, C. P. (2002). The what, why and how of spirituality in the workplace. J*ournal of Managerial Psychology, 17*(3), 153-164. https://doi.org/10.1108/02683940210423060

Krull, L. M., Pearce, L. D., & Jennings, E. A. (2021). How Religion, Social Class, and Race Intersect in the Shaping of Young Women's Understandings of Sex, Reproduction, and Contraception. *Religions, 12*(1), 5. https://doi.org/10.3390/rel12010005

Krystal, J. H., & McNeil, Robert L., Jr. (2020). Responding to the hidden pandemic for healthcare workers: stress. *Nature Medicine, 26*(5), 639. https://doi.org/10.1038/s41591-020-0878-4

Kuchinka, D. G. (2021). Spirituality and its impact on stress and subjective well-being among healthcare professionals. *European Journal of Management, 21*(1), 66-76. http://dx.doi.org/10.18374/EJM-21-1.5

Kuntz, K. M., & Gunderson, S. K. (2002). Non-normative and pro-social conformity: A study of rural and urban differences. *Journal of Undergraduate Research: University of Wisconsin-La Crosse, 5,* 233-239. https://www.uwlax.edu/globalassets/offices-services/urc/jur-online/pdf/2002/kuntz_and_gunderson.pdf

Kusumawati, D., & Damayant, N. (2020). The Analysis of Nurses' Quality of Work Life at Urban Hospital in Indonesia. *European Journal of Molecular & Clinical Medicine, 7*(5), 356-362. https://ejmcm.com/article_2874_6b2b68be7d39bef8a8f9dc545c45e4ac.pdf

Labrague, L. J. (2021). Psychological resilience, coping behaviours and social support among health care workers during the COVID-19 pandemic: A systematic review of quantitative studies. *Journal of Nursing Management, 29(*7), 1893-1905. https://doi.org/10.1111/jonm.13336

Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., Wu, J., Du, H., Chen, T., Li, R., Tan, H., Kang, L., Yao, L., Huang, M., Wang, H., Wang, G., Liu, Z., & Hu, S. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open, 3*(3), e203976-e203976. https://doi.org/10.1001/jamanetworkopen.2020.3976

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.

Lee, J., Clarke, S., & Lynn, F. (2021). Understanding the causes of work-related stress among registered nurses working with children at home: An integrative literature review. *Comprehensive Child and Adolescent Nursing, 44*(2), 90-121. https://doi.org/10.1080/24694193.2020.1745325

Lenzo, V., Quattropani, M. C., Sardella, A., Martino, G., & Bonanno, G. A. (2021). Depression, anxiety, and stress among healthcare workers during the COVID-19 outbreak and relationships with expressive flexibility and context sensitivity. Frontiers in Psychology, 12, 623033-623033. https://doi.org/10.3389/fpsyg.2021.623033

Leung, C. H., & Pong, H. K. (2021). Cross-sectional study of the relationship between the spiritual wellbeing and psychological health among university Students. *PloS one, 16*(4), e0249702. https://doi.org/10.1371/journal.pone.0249702

Lewis, P. S., & Malecha, A. (2011). The impact of workplace incivility on the work environment, manager skill, and productivity. *The Journal of Nursing Administration, 41*(1), 41-47. https://doi.org/10.1097/NNA.0b013e3182002a4c

Li., Y, Scherer, N., Felix, L., & Kuper, H. (2021). Prevalence of depression, anxiety and post- traumatic stress disorder in health care workers during the COVID-19 pandemic: A systematic review and meta-analysis. *PLOS ONE, 16*(3): e0246454, https://doi.org/10.1371/journal.pone.0246454

Lipka, M. (2015, July 19). Major U.S. metropolitan areas differ in their religious profiles. Pew Research Center. https://www.pewresearch.org/fact- tank/2015/07/29/major-u-s-metropolitan-areas-differ-in-their-religious-profiles/

Liu, J., Zhu, B., Wu, J., & Mao, Y. (2019). Job satisfaction, work stress, and turnover intentions among rural health workers: A cross-sectional study in 11 western provinces of China. *BMC Family Practice, 20*(1), 9-9. https://doi.org/10.1186/s12875-019-0904-0

Liu, Y., Zhai, Z., Han, Y., Liu, Y., Liu, F., & Hu, D. (2020). Experiences of front-line nurses combating coronavirus disease-2019 in China: A qualitative analysis. *Public Health Nursing (Boston, Mass.), 37*(5), 757-763. https://doi.org/10.1111/phn.12768

Lloyd, C. E. M., Mengistu, B. S., & Reid, G. (2022). "his main problem was not being in a relationship with god": Perceptions of depression, help-seeking, and treatment in evangelical Christianity. *Frontiers in Psychology, 13*, 831534-831534. https://doi.org/10.3389/fpsyg.2022.831534

Lu, S., Wu, Y., Mao, Z., & Liang, X. (2020). Association of Formal and Informal Social Support with health-related quality of life among Chinese rural elders. *International Journal of Environmental Research and Public Health, 17*(4), 1351. https://doi.org/10.3390/ijerph17041351

Luan, R., Pu, W., Dai, L., Yang, R., & Wang, P. (2020). Comparison of psychological stress levels and associated factors among healthcare workers, frontline workers, and the general public during the novel coronavirus pandemic. Frontiers in Psychiatry, 11, 583971-583971. https://doi.org/10.3389/fpsyt.2020.583971

Lucchetti, G., Koenig, H. G., & Lucchetti, A. L. G. (2021). Spirituality, religiousness, and mental health: A review of the current scientific evidence. *World Journal of Clinical Cases, 9*(26),7620–7631. https://doi.org/10.12998/wjcc.v9.i26.7620

MacQueen, I. T., Maggard-Gibbons, M., Capra, G., Raaen, L., Ulloa, J. G., Shekelle, P. G., Miake-Lye, I., Beroes, J. M., & Hempel, S. (2018). Recruiting rural healthcare providers today: A systematic review of training program success and determinants of geographic choices. *Journal of General Internal Medicine: JGIM,33*(2), 191-199. https://doi.org/10.1007/s11606-017-4210-z

Manchia, M., Gathier, A. W., Yapici-Eser, H., Schmidt, M. V., de Quervain, D., van Amelsvoort, T., Bisson, J. I., Cryan, J. F., Howes, O. D., Pinto, L., van der Wee, N. J., Domschke, K., Branchi, I., & Vinkers, C. H. (2022). The impact of the prolonged COVID-19 pandemic on stress resilience and mental health: A critical review across waves. *European neuropsychopharmacology: The Journal of the European College of Neuropsychopharmacology, 55,* 22-83. https://doi.org/10.1016/j.euroneuro.2021.10.864

Manning L. K. (2014). Enduring as lived experience: exploring the essence of spiritual resilience for women in late life. *Journal of religion and health, 53*(2), 352–362. https://doi.org/10.1007/s10943-012-9633-6

Manning, L., Ferris, M., Narvaez Rosario, C., Prues, M., & Bouchard, L. (2019). Spiritual resilience: Understanding the protection and promotion of well-being in the later life. *Journal of Religion, Spirituality & Aging, 31*(2), 168-186. https://doi.org/10.1080/15528030.2018.1532859

Manolakis, P. G., & Skelton, J. B. (2010). Pharmacists' contributions to primary care in the United States collaborating to address unmet patient care needs: The emerging role for pharmacists to address the shortage of primary care providers. *American Journal of Pharmaceutical Education, 74*(10), S7-S7. https://doi.org/10.5688/aj7410S7

Marler, P. L., & Hadaway, C. K. (2002). "Being religious" or "being spiritual" in America: A zero-sum proposition? *Journal for the Scientific Study of Religion, 41*(2), 289-300. https://doi.org/10.1111/1468-5906.00117

Mattis, J. S., Palmer, G. J. M., & Hope, M. O. (2019). Where our bright star is cast: Religiosity, spirituality, and positive black development in urban landscapes. *Religions (Basel,Switzerland), 10*(12), 654. https://doi.org/10.3390/rel10120654

McComiskey, C., Simone, S., Schofield, D., McQuillan, K., Andersen, B., Johannes, S., & Weichold, A. (2018). Professional Advancement for Advanced Practice Clinicians. *The Journal for Nurse Practitioners, 14*(1), 12-17. https://doi.org/10.1016/j.nurpra.2017.09.018

Medic, G., Wille, M., & Hemels, M. E. H. (2017). Short- and long-term health consequences of sleep disruption. *Nature and Science of Sleep, 9,* 151-161. https://doi.org/10.2147/NSS.S134864

MedlinePlus Medical Encyclopedia. Types of healthcare providers. National Library of Medicine. Retrieved from: February 16, 2023, from https://medlineplus.gov/ency/article/001933.htm

Mensah, A. (2021). Job stress and mental well-being among working men and women in Europe: The mediating role of social support. *International Journal of Environmental Research and Public Health, 18*(5), 249. https://doi.org/10.3390/ijerph18052494

Millar, R., Chen, Y., Wang, M., Fang, L., Liu, J., Xuan, Z., & Li, G. (2017). It's all about the money? A qualitative study of healthcare worker motivation in urban China. *International Journal for Equity in Health, 16(*1), 120-120. https://doi.org/10.1186/s12939-017-0616-9

Miloslavsky, E. M., & Bolster, M. B. (2020). Addressing the rheumatology workforce shortage: A multifaceted approach. *Seminars in Arthritis and Rheumatism, 50*(4), 791-796. https://doi.org/10.1016/j.semarthrit.2020.05.009

Mitchell, J. D., Haag, J. D., Klavetter, E., Beldo, R., Shah, N. D., Baumbach, L. J., Sobolik, G. J., Rutten, L. J., & Stroebel, R. J. (2019). Development and implementation of a team-based, primary care delivery model: Challenges and opportunities. *Mayo Clinic Proceedings, 94*(7), 1298-1303. https://doi.org/10.1016/j.mayocp.2019.01.038

Mitchell, J., & Weatherly, D. (2000). Beyond church attendance: Religiosity and mental health among rural older adults. *Journal of Cross-Cultural Gerontology, 15*(1), 37-54. https://doi.org/10.1023/A:1006752307461

Mitroff, I. I., & Denton, E. A. (1999). A Study of Spirituality in the Workplace. *Sloan Management Review, 40*(4), 83. https://go.openathens.net/redirector/liberty.edu?url=https://www.proquest.com/scholarly-journals/study-spirituality-workplace/docview/1302975383/se-2

Mohammed, A., Sheikh, T. L., Poggensee, G., Nguku, P., Olayinka, A., Ohuabunwo, C., & Eaton, J. (2015). Mental health in emergency response: Lessons from Ebola. The Lancet. *Psychiatry, 2(*11), 955-957. https://doi.org/10.1016/S2215-0366(15)00451-4

Monareng, L. V. (2012). Spiritual nursing care: A concept analysis. *Curationis (Pretoria), 35*(1), 28-28. https://doi.org/10.4102/curationis.v35i1.28

Monteith, L. L., Holliday, R., Brown, T. L., Brenner, L. A., & Mohatt, N. V. (2021). Preventing suicide in rural communities during the COVID-19 pandemic. *The Journal of Rural Health, 37*(1), 179-184. https://doi.org/10.1111/jrh.12448

Morgantini, L. A., Naha, U., Wang, H., Francavilla, S., Acar, Ö., Flores, J. M., Crivellaro, S., Moreira, D., Abern, M., Eklund, M., Vigneswaran, H. T., & Weine, S. M. (2020). Factors contributing to healthcare professional burnout during the COVID-19 pandemic: A rapid turnaround global survey. *PloS One, 15*(9), e0238217-e0238217. https://doi.org/10.1371/journal.pone.0238217

Moskola, V., Sandor, A. D., Susanszky, E., Szekely, A., Hornyak, I., Ozsvart, B., Neninger, T., & Balogh, Z. (2021). Examination of coping strategies among on-site paramedics. *European Journal of Mental Health, 16*(2), 184-195. https://doi.org/10.5708/EJMH.16.2021.2.9

Muldoon, L. K., Hogg, W. E., & Levitt, M. (2006). Primary care (PC) and primary health care (PHC): What is the difference? *Canadian Journal of Public Health, 97*(5), 409-411. https://doi.org/10.1007/bf03405354

Mulugeta, H., Tamene, A., Ashenafi, T., Thygerson, S. M., & Baxter, N. D. (2021). Workplace stress and associated factors among vehicle repair workers in Hawassa City, southern Ethiopia. *PloS One, 16*(4), e0249640-e0249640. https://doi.org/10.1371/journal.pone.0249640

Murgia, C., Notarnicola, I., Rocco, G., & Stievano, A. (2020). Spirituality in nursing: A concept analysis. *Nursing Ethics, 27*(5), 1327-1343. https://doi.org/10.1177/0969733020909534

National Center for Complementary and Integrative Health. U.S. Department of Health and Human Services, National Institutes of Health. (April 2022). Stress. Retrieved February 17, 2023, from https://www.nccih.nih.gov/health/stress#

New International Version Bible. (2011). Zondervan. (Original work published 1973)

Owens, R. A. (2021). Exploring family nurse practitioner professional identity formation at rural health care facilities. *Journal of the American Association of Nurse Practitioners, 33*(11), 975-982. https://doi.org/10.1097/JXX.0000000000000450

Özçevik Subaşi, D., Akça Sümengen, A., Şimşek, E., & Ocakçı, A. F. (2021). Healthcare workers' anxieties and coping strategies during the COVID-19 pandemic in Turkey. *Perspectives in Psychiatric Care, 57*(4), 1820-1828. https://doi.org/10.1111/ppc.12755

Palancı, Y., Mengenci, C., Bayraktaroğlu, S., & Emhan, A. (2021). Analysis of workplace health and safety, job stress, interpersonal conflict, and turnover intention: A comparative study in the health sector. *Health Psychology Report, 9*(1), 76-86. https://doi.org/10.5114/hpr.2020.9997

Paloutzian, R. F., Bufford, R. K., & Wildman, A. J. (2012). *Spiritual well-being scale: Mental and physical health relationships*. In Mark Cobb, Christina Puchalski, and Bruce Rumbold (Eds.), Oxford Textbook of Spirituality in Healthcare (pp. 353-358). Oxford: Oxford University Press.

Paloutzian, R. F., & Ellison, C. W. (1991). *Manual for the spiritual well-being scale*. Nyack, NY: Life Advance.

Paloutzian, R. F., & Park, C. L. (2013). *Handbook of the psychology of religion and spirituality*. NY: The Guilford Press.

Paloutzian, R. F., & Park, C. L. (2021). The psychology of religion and spirituality: How big the tent? *Psychology of Religion and Spirituality, 13*(1), 3-13. https://doi.org/10.1037/rel0000218

Pandey, S. K., & Sharma, V. (2020). A tribute to frontline corona warriors--Doctors who sacrificed their life while saving patients during the ongoing COVID-19 pandemic. *Indian Journal of Ophthalmology, 68*(5), 939-942. https://doi.org/10.4103/ijo.IJO_754_20

Pargament, K., Feuille, M., & Burdzy, D. (2011). The brief RCOPE: Current psychometric status of a short measure of religious coping. *Religions (Basel, Switzerland), 2*(1), 51-76. https://doi.org/10.3390/rel2010051

Pargament, K. I. (2020). Brief RCOPE Manual and Forms. (n.p.).

Pargament, K. I., Smith, B. W., Koenig, H. G., & Perez, L. (1998). Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion, 37*(4), 710-724. https://doi.org/10.2307/1388152

Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2004). Religious coping methods as predictors of psychological, physical and spiritual outcomes among medically ill elderly patients: A two-year longitudinal study. *Journal of Health Psychology 9*(6) 713-730. https://doi.org/10.1177/1359105304045366

Park, C. L. (2013). The meaning making model: A framework for understanding meaning, spirituality, and stress-related growth in health psychology. *European Health Psychologist, 15*(2), 40-47.

Paul Victor, C. G., & Treschuk, J. V. (2020). In Southard M. E. (Ed.), Critical literature review on the definition clarity of the concept of faith, religion, and spirituality. *Journal of Holistic Nursing 38*(1), 107-113. https://doi.org/10.1177/0898010119895368

Peach, H. G. (2003). Variation in religious affiliations between different populations: Metropolitan, rural, agricultural and elderly. *The Australian Journal of Rural Health, 11*(1), 18-21. https://doi.org/10.1046/j.1440-1584.2003.00474.x

Perry, S. L., & Grubbs, J. B. (2020). Formal or functional? Traditional or inclusive? Bible translations as markers of religious subcultures. *Sociology of Religion, 81*(3), 319-342. https://doi.org/10.1093/socrel/sraa003

Peteet, J. R. (1994). Approaching spiritual problems in psychotherapy: A conceptual framework. *Journal of Psychotherapy Practice & Research, 3*(3), 237–245.

Pham, T. V., Beasley, C. M., Gagliardi, J. P., Koenig, H. G., & Stanifer, J. W. (2019). Spirituality, coping, and resilience among rural residents living with chronic kidney disease. *Journal of Religion and Health, 59*(6), 2951-2968. https://doi.org/10.1007/s10943-019-00892-w

Physician burnout & moral injury: The hidden health care crisis. (2021). National Institute for Health Care Management. https://nihcm.org/publications/physician-burnout-suicide-the-hidden-health-care-crisis

Pirutinsky, S., Cherniak, A. D., & Rosmarin, D. H. (2020). COVID-19, mental health, and religious coping among American Orthodox Jews. Journal of Religion and Health, 59(5), 2288-2301. https://doi.org/10.1007/s10943-020-01070-z

Pohontsch, N. J., Hansen, H., Schäfer, I., & Scherer, M. (2018;2017;). General practitioners' perception of being a doctor in urban vs. rural regions in Germany-A focus group study. Family Practice, 35(2), 209-215. https://doi.org/10.1093/fampra/cmx083

Politi, M. C., Pieterse, A. H., Truant, T., Borkhoff, C., Jha, V., Kuhl, L., Nicolai, J., & Goss, C. (2011). Interprofessional education about patient decision support in Specialty care. Journal of Interprofessional Care, 25(6), 416-422. https://doi.org/10.3109/13561820.2011.596455

Prazeres, F., Passos, L., Simões, J. A., Simões, P., Martins, C., & Teixeira, A. (2020). COVID-19-related fear and anxiety: Spiritual-religious coping in healthcare workers in Portugal. International Journal of Environmental Research and Public Health, 18(1), 220. https://doi.org/10.3390/ijerph18010220

Primary Health Care Performance Initiative. (2019). High-quality primary health care: Coordination. *Improvement Strategies.* https://www.improvingphc.org/sites/default/files/Coordination May 2019.pdf

Rees, C. S., Craigie, M. A., Slatyer, S., Crawford, C., Bishop, M., McPhee, E., & Hegney, D. G. (2020). Pilot study of the effectiveness of a mindful Self-Care and resiliency program for rural doctors in Australia. *The Australian Journal of Rural Health, 28*(1), 22-31. https://doi.org/10.1111/ajr.12570

Religious Stereotypes vs. Reality in Urban, Suburban, and Rural American. (2022, April 15). American Communities Project. https://www.americancommunities.org/religious-stereotypes-vs-reality-in-urban -suburban-and-rural-america/

Religious Beliefs. (n.d.). *Law Insider.* Retrieved August 5, 2023 from https://www.lawinsider.com/dictionary/religious-belief

Rice, T. W. (2003). Believe it or not: Religious and other paranormal beliefs in the United States. *Journal for the Scientific Study of Religion, 42*(1), 95-106. https://doi.org/10.1111/1468-5906.00163

Rieger, P.T. & Yarbro, C. H. Role of the Oncology Nurse. In: Kufe, D. W., Pollock, R. E., Weichselbaum, R. R., et al., editors. Holland-Frei Cancer Medicine. 6th edition. Hamilton (ON): BC Decker; 2003. Available from: https://www.ncbi.nlm.nih.gov/books/NBK13570/

Rose, S., Hartnett, J., & Pillai, S. (2021). Healthcare worker's emotions, perceived stressors and coping mechanisms during the COVID-19 pandemic. *PloS One, 16*(7), e0254252-e0254252. https://doi.org/10.1371/journal.pone.0254252

Rosenblatt, R. A., Casey, S., & Richardson, M. (2002). Rural-urban differences in the public health workforce: Local health departments in 3 rural western states. *American Journal of Public Health (1971), 92*(7), 1102-1105. https://doi.org/10.2105/AJPH.92.7.1102

Rudolfsson, G., Berggren, I., & da Silva, A. B. (2014). Experiences of spirituality and spiritual values in the context of nursing - an integrative review. *The Open Nursing Journal, 8*(1), 64-70. https://doi.org/10.2174/1874434601408010064

Rural Health Information Hub. (2022). *Healthcare access in rural communities*. https://www.ruralhealthinfo.org/topics/healthcare-access

Rural Health Workforce. (2000, November 9). *In Rural Health Information Hub*. https://www.ruralhealthinfo.org/topics/health-care-workforce

Rural Opportunity Institute. (2023, February 7). *5 differences between working in rural versus urban communities* - Rural Opportunity Institute. https://www.ruralopportunity.org/5-differences-between-working-in-rural-versus-urban-communities/

Saint-Louis, & Senreich, E. (2018). The evaluation of a narrative intervention for health-care professionals in an urban oncology inpatient unit. *Urban Social Work., 2*(2), 176–190. https://doi.org/10.1891/2474-8684.2.2.176

Salazar de Pablo, G., Vaquerizo-Serrano, J., Catalan, A., Arango, C., Moreno, C., Ferre, F., Shin, J. I., Sullivan, S., Brondino, N., Solmi, M., & Fusar-Poli, P. (2020). Impact of coronavirus syndromes on physical and mental health of health care workers: Systematic review and meta-*analysis*. *Journal of Affective Disorders, 275*, 48-57. https://doi.org/10.1016/j.jad.2020.06.022

Schieman, S. (2008). The religious role and the sense of personal control. *Sociology of Religion, 69*(3), 273-296. https://doi.org/10.1093/socrel/69.3.273

Seitz, R., Robertson, J., Moran, T. P., Zdradzinski, M. J., Kaltiso, S. O., Heron, S., & Lall, M. D. (2022). Emergency medicine nurse practitioner and physician assistant burnout, perceived stress, and utilization of wellness resources during 2020 in a large urban medical center. *Advanced Emergency Nursing Journal, 44*(1), 63-73. https://doi.org/10.1097/TME.0000000000000392

Selamu, Hanlon, C., Medhin, G., Thornicroft, G., & Fekadu, A. (2019). Burnout among primary healthcare workers during implementation of integrated mental healthcare in rural Ethiopia: a cohort study. *Human Resources for Health., 17*(1). https://doi.org/10.1186/s12960-019-0383-3

Sellers, K., Riley, M., Denny, D., Rogers, D., Havener, J., Rathbone, T., & Cesare, C. G. (2019). Retention of nurses in a rural environment: The impact of job satisfaction, resilience, grit, engagement, and rural fit. *Online Journal of Rural Nursing and Health Care, 19*(1), 4. https://doi.org/10.14574/ojrnhc.v19i1.547

Sen, H. E., Colucci, L., & Browne, D. T. (2022). Keeping the faith: Religion, positive coping, and mental health of caregivers during COVID-19. *Frontiers in Psychology, 12*, 805019-805019. https://doi.org/10.3389/fpsyg.2021.805019

Shafranske, E. P. (2022). The Scientific Study of Positive Psychology, Religion/Spirituality, and Mental Health. *In Handbook of Positive Psychology, Religion, and Spirituality* (pp. 345-358). Cham: Springer International Publishing.

Shafranske, E.P. (2023). The Scientific Study of Positive Psychology, Religion/Spirituality, and Mental Health. In: Davis, E.B., Worthington Jr., E.L., Schnitker, S.A. (eds) Handbook of Positive Psychology, Religion, and Spirituality. Springer, Cham. https://doi.org/10.1007/978-3-031-10274-5_22

Shahabianmoghaddam, A., Zanganeh Baygi, M. (2022). Explaining the role of physicians in urban comprehensive health service centers after implementing health transformation plan in southeast of Iran: A qualitative study. *Health Scope. 11*(1): e121713. https://doi.org/10.5812/jhealthscope.121713

Shaw, S. A., Peacock, L., Ali, L. M., Pillai, V., & Husain, A. (2019). Religious coping and challenges among displaced Muslim female refugees. *Affilia, 34*(4), 518-534. https://doi.org/10.1177/0886109919866158

Shi L. (2012). The impact of primary care: A focused review. Scientifica, 2012, 432892. https://doi.org/10.6064/2012/432892

Skillman, S. M., Palazzo, L., Keepnews, D., & Hart, L. G. (2006). Characteristics of registered nurses in rural versus urban areas: Implications for strategies to alleviate nursing shortages in the United States. *The Journal of Rural Health, 22*(2), 151-157. https://doi.org/10.1111/j.1748-0361.2006.00024.x

Smith, J. G. (2018). The nurse work environment: Current and future challenges. *Journal of Applied Biobehavioral Research, 23*(1), e12126-n/a. https://doi.org/10.1111/jabr.12126

Søvold, L. E., Naslund, J. A., Kousoulis, A. A., Saxena, S., Qoronfleh, M. W., Grobler, C., & Münter, L. (2021). Prioritizing the mental health and well-being of healthcare workers: An urgent global public health priority. *Frontiers in Public Health, 9*, 679397-679397. https://doi.org/10.3389/fpubh.2021.679397

Spring Arbor University Online. (2023). *Challenges in nursing and tips for overcoming them*. https://online.arbor.edu/news/challenges-in-nursing

Steinlin, C., Dölitzsch, C., Kind, N., Fischer, S., Schmeck, K., Fegert, J. M., & Schmid, M. (2017). The influence of sense of coherence, self-care and work satisfaction on secondary traumatic stress and burnout among child and youth residential care workers in Switzerland. *Child & Youth Services, 38*(2), 159-175. https://doi.org/10.1080/0145935X.2017.1297225

Storch, E. A., Roberti, J. W., Bravata, E. A., & Storch, J. B. (2003;2004;). Strength of religious faith: A comparison of intercollegiate athletes and non-athletes. *Pastoral Psychology, 52*(6), 485-489. https://doi.org/10.1023/B:PASP.0000031527.02433.5b

Strickland, W.J. (Georgia Southern University, Statesboro, GA.), Strickland, D. L., & Garretson, C. (1998). Rural and urban nonphysician providers in Georgia. *The Journal of Rural Health, 14*(2), 109-120. https://doi.org/10.1111/j.1748-0361.1998.tb00612.x

Stroope, S. (2011). How culture shapes community: Bible belief, theological unity, and a sense of belonging in religious congregations. *Sociological Quarterly, 52(*4), 568-592. https://doi.org/10.1111/j.1533-8525.2011.01220.x

Su, T., Lien, T., Yang, C., Su, Y. L., Wang, J., Tsai, S., & Yin, J. (2007). Prevalence of psychiatric morbidity and psychological adaptation of the nurses in a structured SARS caring unit during outbreak: A prospective and periodic assessment study in Taiwan. *Journal of Psychiatric Research, 41*(1), 119-130. https://doi.org/10.1016/j.jpsychires.2005.12.006

Sung C. W., Chen C. H., Fan C. Y., Su F. Y., Chang J. H., Hung C. C., et al. (2020). Burnout in medical staffs during a coronavirus disease (COVID-19) pandemic. *The Lancet.* https://ssrn.com/abstract=3594567

Taylor, R., & Lee, H. (2005). Occupational therapists' perception of usage of information and communication technology (ICT) in Western Australia and the association of availability of ICT on recruitment and retention of therapists working in rural areas. *Australian Occupational Therapy Journal, 52*(1), 51-56. https://doi.org/10.1111/j.1440-1630.2005.00461.x

Teraoka, M., & Kyougoku, M. (2019). Structural relationships among occupational dysfunction, stress coping, and occupational participation for healthcare workers. *Work, 64*(4), 833-841. https://doi.org/10.3233/WOR-193045

Thai, T. T., Nguyen, T. H., Pham, P. T. T., Bui, H. H. T., & Bui, T. N. M. (2021). Healthcare workers' emotions, stressor experiences and coping strategies during the COVID-19 pandemic in Vietnam. *Risk Management and Healthcare Policy, 14*, 4281-4291. https://doi.org/10.2147/RMHP.S322929

Theodoridou, M. (2014). Professional and ethical responsibilities of health-care workers in regard to vaccinations. *Vaccine, 32*(38), 4866-4868. https://doi.org/10.1016/j.vaccine.2014.05.068

Thomas, J., & Barbato, M. (2020). Positive religious coping and mental health among Christians and Muslims in response to the COVID-19 pandemic. *Religions (Basel, Switzerland), 11*(10), 498. https://doi.org/10.3390/rel11100498

Thomas, T., Blumling, A., & Delaney, A. (2015). The influence of religiosity and spirituality on rural parents' health decision making and human papillomavirus vaccine choices. *Advances in Nursing Science, 38*(4), E1-E12. https://doi.org/10.1097/ANS.0000000000000094

Thuné-Boyle, I. C. V., Stygall, J., Keshtgar, M. R. S., Davidson, T. I., & Newman, S. P. (2011). Religious coping strategies in patients diagnosed with breast cancer in the UK. *Psycho-Oncology (Chichester, England), 20*(7), 771-782. https://doi.org/10.1002/pon.1784

Udod, S., Care, W. D., Marie Graham, J., Henriquez, N., & Ahmad, N. (2021). From coping to building nurse manager resilience in rural workplaces in western Canada. *Journal of Nursing Management, 29*(7), 2115-2122. https://doi.org/10.1111/jonm.13350

Ulrich, B., Cassidy, L., Barden, C., Varn-Davis, N., & Delgado, S. A. (2022). National nurse work environments - October 2021: A status report. *Critical Care Nurse, 42*(5), 58-70. https://doi.org/10.4037/ccn2022798

Unser, A. A., & Riegel, U. U. (2022). Making sense of the crisis: How religion shapes the attribution of meaning during the corona pandemic. *Zeitschrift Fur Religion, Gesellschaft Und Politik,* 1-24. https://doi.org/10.1007/s41682-022-00135-y

U.S. Census Bureau (2021). *22 million employed in health care fight against COVID-19.* Retrieved February 21, 2022, from https://www.census.gov/library/stories/2021/04/who-are-our-health-care-workers.html

U.S. Census Bureau. (n.d.). *Rural America*. Retrieved February 21, 2023, from https://mtgisportal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=49cd4bc9c8eb444ab51218c1d5001ef6

Utriainen, K., & KyngÄS, H. (2009). Hospital nurses' job satisfaction: A literature review. *Journal of Nursing Management, 17*(8), 1002–1010. https://doi.org/10.1111/j.1365-2834.2009.01028.x

Vallikunnu, V., Kumar, S. G., Sarkar, S., Kar, S. S., & Harichandrakumar, K. T. (2014). A Qualitative Study on Working Experience of Rural Doctors in Malappuram District of Kerala, India. *Journal of Family Medicine and Primary Care*, *3*(2),

Van Bogaert, P., Peremans, L., Van Heusden, D., Verspuy, M., Kureckova, V., Van de Cruys, Z., & Franck, E. (2017). Predictors of burnout, work engagement and nurse reported job outcomes and quality of care: A mixed method study. *BMC Nursing, 16*(1), 5-5. https://doi.org/10.1186/s12912-016-0200-4

Van Houtven, C., Miller, K., Gorges, R., Campbell, H., Dawson, W., McHugh, J., ... & Norton, E. C. (2021). State policy responses to COVID-19 in nursing homes. *Journal of Long-Term Care*. https://doi.org/10.31389/jltc.81

Vieten, C., & Lukoff, D. (2022). Spiritual and religious competencies in psychology. *The American Psychologist, 77*(1), 26-38. https://doi.org/10.1037/amp0000821

Villani, D., Sorgente, A., Iannello, P., & Antonietti, A. (2019). The role of spirituality and religiosity in subjective well-being of individuals with different religious status. *Frontiers in Psychology, 10,* 1525-1525. https://doi.org/10.3389/fpsyg.2019.01525

Wang, H., Jin, Y., Wang, D., Zhao, S., Sang, X., & Yuan, B. (2020). Job satisfaction, burnout, and turnover intention among primary care providers in rural China: Results from structural equation modeling. *BMC Family Practice, 21*(1), 12-12. https://doi.org/10.1186/s12875-020-1083-8

Waddell-Henowitch, C., Herron, R., Ramsey, D., Lawrence, B., de Jager, M., & Newall, N. (2021). Rural healthcare workers' experiences and needs during the initial stages of COVID-19. *Journal of Rural and Community Development*, *16*(4). https://journals.brandonu.ca/jrcd/article/view/2107

Wagner, J. I. J., Warren, S., Cummings, G., Smith, D. L., & Olson, J. K. (2013). Resonant leadership, workplace empowerment, and "spirit at work": Impact on RN job satisfaction and organizational commitment. *Canadian Journal of Nursing Research, 45*(4), 108-128. https://doi.org/10.1177/084456211304500409

Walsh, F. (2020). Loss and resilience in the time of COVID-19: Meaning making, hope, and transcendence. *Family Process, 59*(3), 898-911. https://doi.org/10.1111/famp.12588

Ward, Z. D., Morgan, Z. J., & Peterson, L. E. (2021). Family physician burnout does not differ with rurality. *The Journal of Rural Health, 37*(4), 755-761. https://doi.org/10.1111/jrh.12515

Wasik, M. A. (2020). The role of the nurse in improving the quality of healthcare. *Journal of Education, Health and Sport, 10*(4), 68-74. https://doi.org/10.12775/JEHS.2020.10.04.008

Wazqar, D. Y. (2019;2018;). Oncology nurses' perceptions of work stress and its sources in a university-teaching hospital: A qualitative study. *Nursing Open, 6*(1), 100-108. https://doi.org/10.1002/nop2.192

Weinberger-Litman, S. L., Litman, L., Rosen, Z., Rosmarin, D. H., & Rosenzweig, C. (2020). A look at the first quarantined community in the USA: Response of religious communal organizations and implications for public health during the COVID-19 pandemic. *Journal of religion and health*, *59*, 2269-2282. https://doi.org/10.1007/s10943-020-01064-x

White, C. H., Meier, N., & Swint, C. (2021). The implementation of a stress management program for health care workers through a rural occupational health clinic. *AAOHN Journal, 69*(4), 161-167. https://doi.org/10.1177/2165079920982406

Whitehead, B. R., & Bergeman, C. S. (2020). Daily Religious Coping Buffers the Stress-Affect Relationship and Benefits Overall Metabolic Health in Older Adults. Psychology of religion and spirituality, 12(4), 393–399. https://doi.org/10.1037/rel0000251

World Health Organization. (2020, September 17). *Keep health workers safe to keep patients safe*. https://www.who.int/news/item/17-09-2020-keep-health-workers-safe-to-keep-patients-safe-who

World Health Organization. Occupational Health. (19 October 2020). [accessed on May 14, 2023]. Stress at the workplace. Available from: https://www.who.int/news-room/questions-and-answers/item/ccupational-health-stress-at-the-workplace -:~:text=What is work-related stress,challenge their ability to cope.

Xiao, X., Zhu, X., Fu, S., Hu, Y., Li, X., & Xiao, J. (2020). Psychological impact of healthcare workers in China during COVID-19 pneumonia epidemic: A multi-center cross-sectional survey investigation. *Journal of Affective Disorders, 274,* 405-410. https://doi.org/10.1016/j.jad.2020.05.081

Yardley, S., Kinston, R., Lefroy, J., Gay, S., & McKinley, R. K. (2020). 'What do we do, doctor?' transitions of identity and responsibility: A narrative analysis. *Advances in Health Sciences Education: Theory and Practice, 25*(4), 825-843. https://doi.org/10.1007/s10459-020-09959-w

Yasin, Y. M., Kerr, M. S., Wong, C. A., & Bélanger, C. H. (2020). Factors affecting nurses' job satisfaction in rural and urban acute care settings: A PRISMA systematic review. *Journal of Advanced Nursing, 76*(4), 963-979. https://doi.org/10.1111/jan.14293

Yates, M. C., Auerbach, D. I., Staiger, D. O., & Buerhaus, P. I. (2023). Characteristics of rural registered nurses and the implications for workforce policy. *The Journal of Rural Health, 39*(1), 240-245. https://doi.org/10.1111/jrh.12707

Yin, Q., Sun, Z., Liu, T., Ni, X., Deng, X., Jia, Y., Shang, Z., Zhou, Y., & Liu, W. (2020). Posttraumatic stress symptoms of health care workers during the corona virus disease 2019. *Clinical Psychology and Psychotherapy, 27*(3), 384-395. https://doi.org/10.1002/cpp.2477

Zhang, C., Peng, D., Lu, L., Zhuo, K., Yu, K., Shen, T., Xu, Y., & Wang, Z. (2020). Individual perceived stress mediates psychological distress in medical workers during COVID-19 epidemic outbreak in Wuhan. *Neuropsychiatric Disease and Treatment, 16*, 2529-2537. https://doi.org/10.2147/NDT.S266151

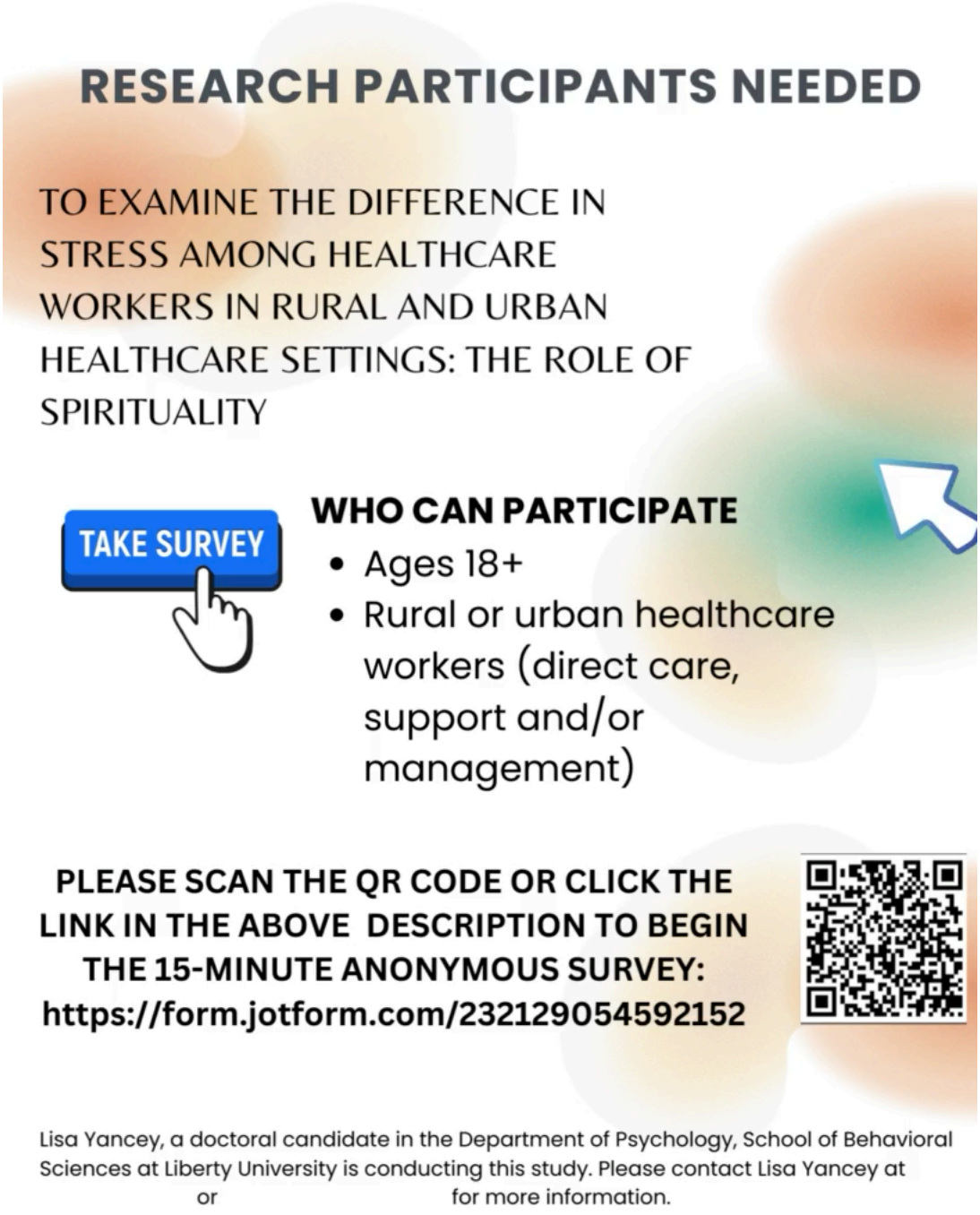
Zhang, H., Hook, J. N., Farrell, J. E., Mosher, D. K., Captari, L. E., Coomes, S. P., Van Tongeren, D. R., & Davis, D. E. (2018). Exploring Social Belonging and Meaning in Religious Groups. Journal of Psychology and Theology, 47(1), 3–19. https://doi.org/10.1177/0091647118806345

Zhang, L., Han, Y., Ma, Y., Xu, Z., & Fang, Y. (2021). Eastern perspectives on roles, responsibilities and filial piety: A case study. *Nursing Ethics, 28*(3), 327-345. https://doi.org/10.1177/0969733020934143

Zhang, H., Tang, L., Ye, Z., Zou, P., Shao, J., Wu, M., Zhang, Q., Qiao, G., & Mu, S. (2020). The role of social support and emotional exhaustion in the association between work-family conflict and anxiety symptoms among female medical staff: A moderated mediation model. *BMC Psychiatry, 20*(1), 266-266. https://doi.org/10.1186/s12888-020-02673-2

Zinnbauer, B. J., Pargament, K. I., Cole, B., Rye, M. S., Butter, E. M., Belavich, T. G., Hipp, K. M., Scott, A. B., & Kadar, J. L. (1997). Religion and spirituality: Unfuzzying the fuzzy. *Journal for the Scientific Study of Religion, 36*(4), 549-564. https://doi.org/10.2307/1387689

APPENDIX A: SOCIAL MEDIA FLYER



APPENDIX B: RECRUITMENT LETTER

Dear Potential Participant,

As a doctoral candidate in the School of Behavioral Sciences at Liberty University, I am conducting research on spirituality and stress in healthcare workers in rural and urban areas. The purpose of my research is to examine the relationship between spirituality and stress in different healthcare settings, and I am writing to invite you to join my study.

Participants must be 18 years of age or older and are currently working in a rural or urban healthcare setting. Participants will be asked to take an anonymous online survey. It should take approximately 10-15 minutes to complete the survey. Participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, click here or copy and paste this link into your web browser https://form.jotform.com/232129054592152 to complete the study survey.

A consent document is provided on the first page of the survey. The consent document contains additional information about my research. After you have read the consent form, please click the "next" at the bottom of the page to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the study.

Sincerely,

Lisa Yancey

Ph.D. Candidate in Industrial/Organizational Psychology

[redacted]

APPENDIX C: PARTICIPANT CONSENT FORM

Consent

Project Title: Difference in Outcomes Among Healthcare Workers in Rural and Urban Healthcare Settings: The Role of Spirituality
Principal Investigator: Lisa Yancey, Doctoral Candidate, School of Behavioral Sciences, Liberty University, Lynchburg, VA

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be at least 18 years of age, a healthcare worker, and working in a rural work setting. Taking part in this research project is voluntary.

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

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

The purpose of the study is to investigate the association between spirituality and stress among rural and urban healthcare workers.

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 survey including pertinent demographic information to assess stress, anxiety, and daily spiritual and coping experiences. This questionnaire should take at most 10-15 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 identifying spirituality as a place of solace and assistance for individuals coping with diverse work stressors and adversities. Through examining spirituality, psychology can understand how individuals employ their faith, beliefs, and spiritual practices as mechanisms for dealing with challenging circumstances. This examination aids the field of psychology by gaining a deeper understanding of the relationship between spirituality and stress thereby enhancing their knowledge regarding coping strategies.

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 responses will be anonymous.
- 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 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 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 the study is Lisa Yancey. If you have questions later, **you are encouraged** to contact her at [redacted]. You may also contact the researcher's faculty sponsor, [redacted], 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 IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is 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 using the information provided above.

APPENDIX D: PERMISSION REQUEST

October 2, 2023

[redacted]
Health Director
[redacted]
[redacted]
[redacted]

Dear [redacted],

As a graduate student in the School of Behavioral Sciences at Liberty University, I am researching how rural healthcare workers' spirituality influences coping with stress. The title of my research project is "Differences in Stress Among Healthcare Workers in Rural and Urban Healthcare Settings: The Role of Spirituality." My research aims to examine the relationship between spirituality and stress in different healthcare settings among healthcare workers, and I am writing to invite you and your staff to join my study.

Participants will be asked to complete an online survey. Participants will be presented with study information prior to participating. 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.

Sincerely,

Lisa Yancey
Ph.D. Candidate in Industrial/Organizational Psychology
Liberty University

APPENDIX E: SOCIAL MEDIA RECRUITMENT

Social Media Recruitment

ATTENTION HEALTHCARE WORKERS: I am conducting research as part of the requirements for a doctor of psychology degree at Liberty University. The purpose of my research is to better understand the differences in how rural and urban healthcare workers cope using what they view as spirituality. To participate, you must be 18 years of age or older and working in either a rural or urban healthcare setting. Participants will be asked to complete an anonymous online survey which should take about 15 minutes. If you would like to participate and meet the study criteria, please click here https://form.jotform.com/232129054592152. A consent document is provided as the first page of the survey to you.

APPENDIX F: LCHD PARTICIPANT APPROVAL LETTER

LEE COUNTY GOVERNMENT
Public Health

October 20th, 2023

To: Ms. Lisa Yancey

From: [redacted]

RE: Approval of your research request

Dear Ms. Yancey:

After a careful review of your research proposal entitled "Differences in Coping Outcomes Among Healthcare Workers in Rural and Urban Healthcare Settings: The Role of Spirituality," I have decided to grant you permission to contact our staff and invite them to participate in your study.

Check the following boxes, as applicable:

☐ I grant permission for Lisa Yancey to contact Lee County Health Department healthcare workers to invite them to participate in her research study.

X I will not provide potential participant information to Lisa Yancey, but I agree to provide her study information to Lee County Health Department healthcare workers on her behalf.

Sincerely,

[redacted]

APPENDIX G: DEMOGRAPHIC QUESTIONS

1. How old are you?
__18-20
__21-29
__30-39
__40-49
__50-59
__60 or older

2. In what type of healthcare setting do you currently work?
__ Rural
__ Urban
__ Other, not listed

3. What is your gender?
__ Female
__ Male
__ Other; Not Listed

4. Race
__ African American/Black
__ American Indian/Alaska Native
__ Asian
__ Latino
__ Native Hawaiian or other Pacific Islander
__ White
__ Multiple races
__ Other (list):

5. Highest level of education
__ Less than a high school degree
__ High School degree or equivalent (e.g., GED)
__ Some college but no degree
__ Associate degree
__ Bachelor's degree
__ Graduate degree

6. Marital Status
__ Married or in a cohabiting relationship
__ Widowed
__ Divorced
__ Separated

__ Never Married
__ Other

7. Which of the following best describes your personal income?
__ $0–$9,999
__ $10,000–$24,999
__ $25,000–$49,999
__ $50,000–$74,999
__ $75,000–$99,999
__ $100,000–$149,999
__ $150,000+
__ Prefer not to answer

8. Number of years worked in healthcare
__ 0-5
__ 6-10
__ 11-15
__ 16-20
__ 21-25
__ 26-30
__ More than 30

9. What is your religious affiliation?
__ Jewish
__ Christian
__ Islam
__ Hindu
__ Buddhism
__ Atheist
__ I prefer not to answer
__ Other

10. On a scale of 1-10, with 1 being the lowest and 10 being the highest, how important is your spirituality to you? _____

APPENDIX H: SPIRITUAL WELLBEING SCALE

SWB Scale

For each of the following statements circle the choice that best indicates the extent of your agreement or disagreement as it describes your personal experience:

SA	=	Strongly Agree	D	=	Disagree
MA	=	Moderately Agree	MD	=	Moderately Disagree
A	=	Agree	SD	=	Strongly Disagree

1.	I don't find much satisfaction in private prayer with God.	SA	MA	A	D	MD	SD
2.	I don't know who I am, where I came from, or where I'm going.	SA	MA	A	D	MD	SD
3.	I believe that God loves me and cares about me.	SA	MA	A	D	MD	SD
4.	I feel that life is a positive experience.	SA	MA	A	D	MD	SD
5.	I believe that God is impersonal and not interested in my daily situations.	SA	MA	A	D	MD	SD
6.	I feel unsettled about my future.	SA	MA	A	D	MD	SD
7.	I have a personally meaningful relationship with God.	SA	MA	A	D	MD	SD
8.	I feel very fulfilled and satisfied with life.	SA	MA	A	D	MD	SD
9.	I don't get much personal strength and support from my God	SA	MA	A	D	MD	SD
10.	I feel a sense of well-being about the direction my life is headed in.	SA	MA	A	D	MD	SD
11.	I believe that God is concerned about my problems.	SA	MA	A	D	MD	SD
12.	I don't enjoy much about life.	SA	MA	A	D	MD	SD
13.	I don't have a personally satisfying relationship with God.	SA	MA	A	D	MD	SD
14.	I feel good about my future.	SA	MA	A	D	MD	SD
15.	My relationship with God helps me not to feel lonely.	SA	MA	A	D	MD	SD
16.	I feel that life is full of conflict and unhappiness.	SA	MA	A	D	MD	SD
17.	I feel most fulfilled when I'm in close communion with God.	SA	MA	A	D	MD	SD
18.	Life doesn't have much meaning.	SA	MA	A	D	MD	SD
19.	My relation with God contributes to my sense of well-being.	SA	MA	A	D	MD	SD
20.	I believe there is some real purpose for my life.	SA	MA	A	D	MD	SD

APPENDIX I: PERCEIVED STRESS SCALE

Perceived Stress Scale - 10 items (PSS-10)©

INSTRUCTIONS:

The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each case, please indicate your response by placing an "X" over the circle representing HOW OFTEN you felt or thought a certain way.

	Never	Almost Never	Sometimes	Fairly Often	Very Often
	0	1	2	3	4
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 were outside your control?	○	○	○	○	○
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	○	○	○	○	○

PSS-10 – United States/English
PSS-10_AU2.0_eng-USori.doc

APPENDIX J: SPIRITUAL WELLBEING SCALE PERMISSION

[External] SWBS

Ray Paloutzian <[redacted]>
Thu 9/21/2023 12:23 PM
To:Yancey, Lisa <[redacted]>

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

Dear Lisa,

I received your note indicating that you have an interest in the Spiritual Well-Being Scale.

Below I copy and paste an email that I send in response to the many requests I get about the SWBS. It has information that may help you. All items mentioned in this email are available for use. They may be downloaded at no cost at the following website:
https://www.westmont.edu/psychology/raymond-paloutzian-spiritual-wellbeing-scale
—

Effective 2022, the SWBS and any of its translations are available gratis. They may be used at no cost for research, teaching, clinical practice, public speaking or other scholarship, so long as standard proper citations and credits are given in any publication or presentation of work done with the SWBS, and so long as the copyright byline (as appropriate to the language of the SWBS in use) appears at the bottom of all copies of the scale, whether paper, electronic, print, slides for visual presentation, or other.

The Manual for the SWBS and a research bibliography are also available. The Manual includes scoring instructions, norms, and interpretive information. The Research Bibliography (Excel Spreadsheet) contains most research up to about mid-2016. A shorter research bibliography may also be downloaded.

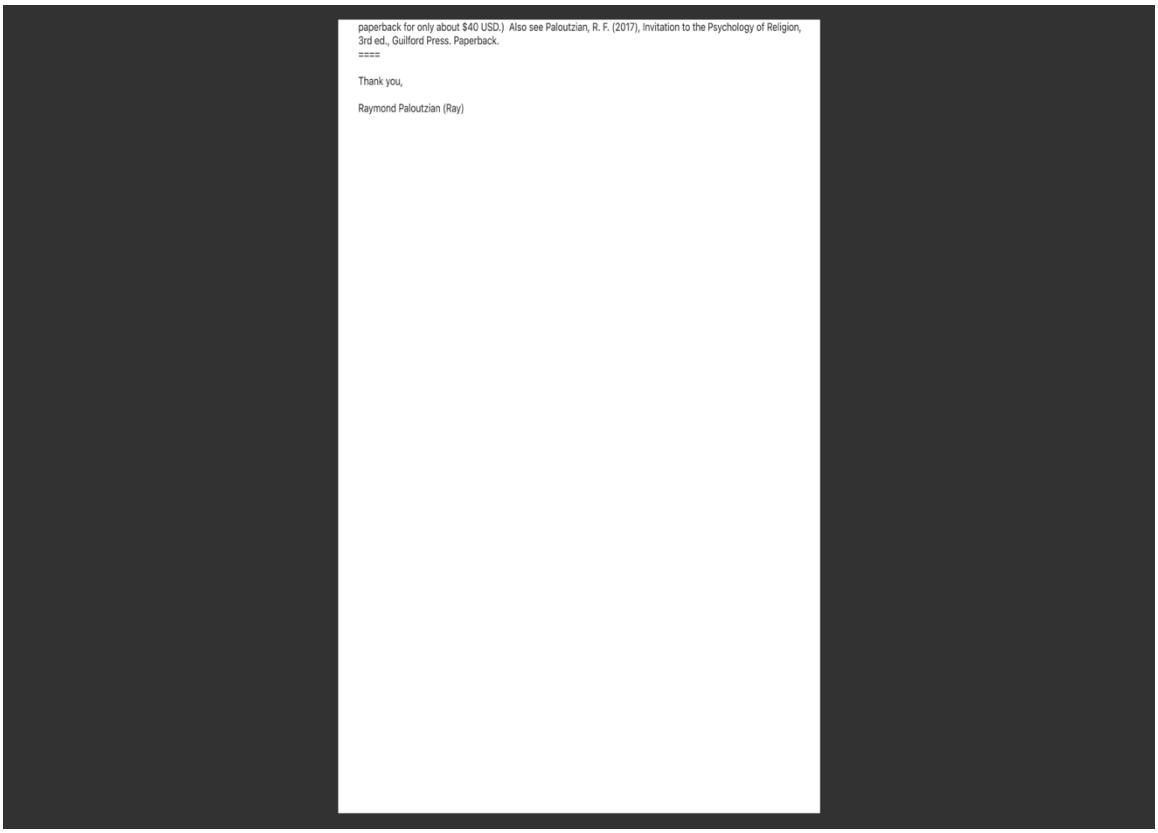
Translations of the SWBS: The SWBS has been translated from its original English into many languages, including but not limited to the following: Arabic, Cebuano, Chinese, Czech-Short Version, English Childhood Retrospective, English Short Version, French, Greek, Hindi, Indonesian, Italian, Korean, Malaysian, Norwegian, Persian, Polish, Portuguese, Spanish, Tagalog, Thai, Turkish, and Urdu.

Translating the SWBS: If you need to make a translation of the SWBS from English into another language, contact me --- I am able to authorize it.

Electronic administration: It is OK to use the SWBS electronically with, e.g., Survey Monkey or similar on a restricted website. The website has to be protected so that only your authorized research participants have access to it. The copyright line at the bottom of the PDF of the SWBS should show electronically, and the scale should be removed from the website at the close of data collection.

Data Analysis: If you plan on doing statistical analysis on scale scores: One thing that I always recommend is to analyze your data not only according to the SWBS total scores, but also according to the RWB and EWB subscale scores separately, in addition to the total SWBS scores. Of course total SWBS is made up of RWB + EWB. Fine. But RWB and EWB correlate only modestly, which is why they are two separate factors. And sometimes the RWB and EWB scores behave differently from each other, and not exactly the same as the behavior of the SWBS total. This means that looking at those two subscales can tell you something more, and something psychologically interesting that the SWBS total score cannot do by itself, i.e., it allows you to dig deeper. So I strongly recommend that you look at your data and do the same analyses all three ways. See the review paper by Bufford, Paloutzian, and Ellison (1991) as a nice example of how the scores can be meaningfully broken down in this way.

In addition, you may find it helpful to see the 2nd edition of Paloutzian and Park (2013) Handbook of the Psychology of Religion and Spirituality, 2nd ed., Guilford Press. It as a chapter on religion and spirituality, measurement of R and S, and other topics that may be related to your needs. (Also, it is available in



paperback for only about $40 USD.) Also see Paloutzian, R. F. (2017), Invitation to the Psychology of Religion, 3rd ed., Guilford Press. Paperback.
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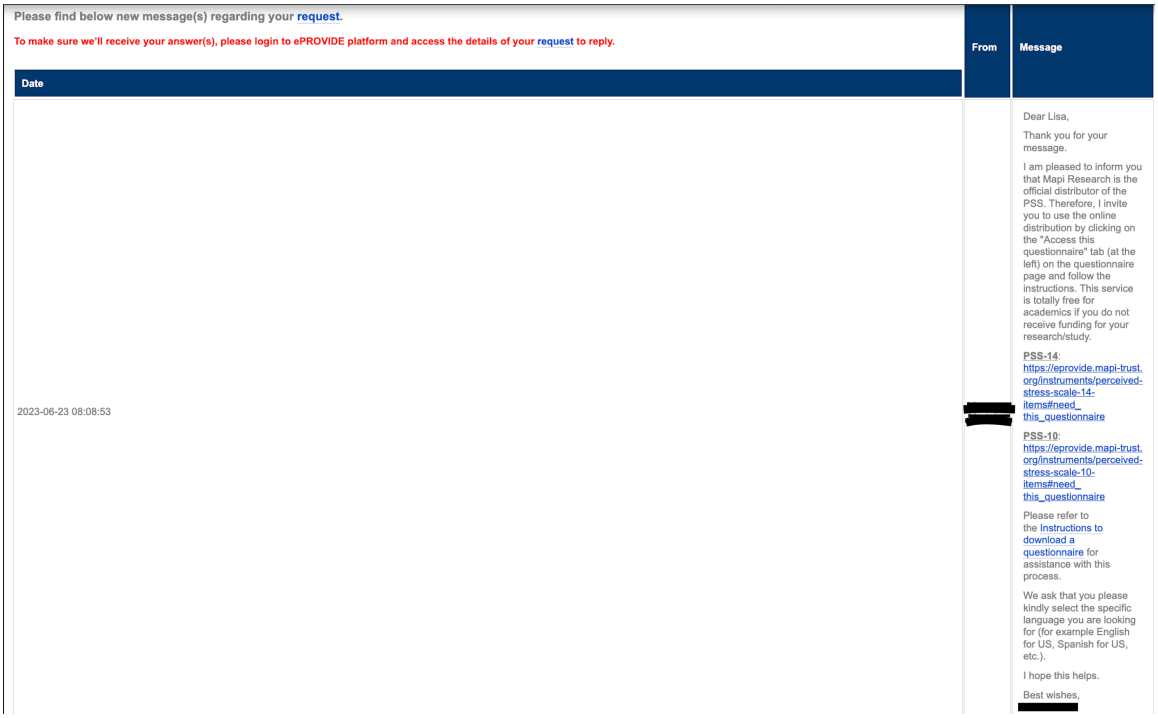
Thank you,

Raymond Paloutzian (Ray)

APPENDIX K: PSS-10 PERMISSION



Please find below new message(s) regarding your request.

To make sure we'll receive your answer(s), please login to ePROVIDE platform and access the details of your request to reply.

Date	From	Message
2023-06-23 08:08:53	[redacted]	Dear Lisa, Thank you for your message. I am pleased to inform you that Mapi Research is the official distributor of the PSS. Therefore, I invite you to use the online distribution by clicking on the "Access this questionnaire" tab (at the left) on the questionnaire page and follow the instructions. This service is totally free for academics if you do not receive funding for your research/study. PSS-14: https://eprovide.mapi-trust.org/instruments/perceived-stress-scale-14-items#need_this_questionnaire PSS-10: https://eprovide.mapi-trust.org/instruments/perceived-stress-scale-10-items#need_this_questionnaire Please refer to the Instructions to download a questionnaire for assistance with this process. We ask that you please kindly select the specific language you are looking for (for example English for US, Spanish for US, etc.). I hope this helps. Best wishes, [redacted]