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How Distress Prior to a Spiritual Health Consult is Associated with Patient-Reported and Clinical Outcomes

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Abstract

How Distress Prior to a Spiritual Health Consult is Associated with
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By: Skylar Gross

Introduction: Chronic diseases are the main contributor to hospitalization in the United States. Consequently, hospitalization has been shown to lead to distress, anxiety, depression, and compromised quality of life for patients. However, religiosity and spirituality has been shown to be an effective coping mechanism for mitigating distress due to hospitalization and chronic diseases. Specifically, hospital chaplains have been associated with decreased stress, anxiety, and depression, in addition to a decreased length of stay and risk of death. Therefore, the spiritual framework of coping suggests that spiritual coping can increase patients meaning-making and improve their overall mental and physical well-being.

Objective: The following study was conducted to understand how hospital distress prior to a spiritual health consult is associated with patient-reported and clinical outcomes. Patients underwent a chaplain consultation, and prior to the chaplain visit, patients' distress was assessed. After the chaplain visit concluded, patients' well-being and meaning-making were assessed through a self-report questionnaire. Lastly, patients' length of stay after the consult and readmission to the hospital within six months was assessed through accessing their respective medical records.

Methods: This prospective secondary data analysis used data from a longitudinal quasi-experimental waitlist crossover study which was conducted from August 2018 through June 2020. The first stage of the data collection was conducted from December 2018 through March 2019. Descriptives and frequencies were conducted for demographic variables; chi square tests, independent sample t-tests, and pearson correlations were conducted between predictor and outcome variables at the bivariate level.

Results: A total of 133 hospital patients in the Metro Atlanta area were recruited from 6 different hospitals and met eligibility criteria. Of patients who were eligible and provided informed consent, 123 participants completed the chaplain consult and survey. In addition, only 106 patients 'medical records could be accessed. The majority of participants reported high distress prior to the spiritual health consult (n=91;74.0%) of participants experienced high distress prior to the chaplain consult and were not readmitted into the same department within 6 months (n=75;70.8%). In addition, at the bivariate level, meaning-making and well-being were statistically significantly correlated ($p<.0001$). All other bivariate analyses resulted in null results.

Conclusions: The results from this study, despite mainly being null, suggest important preliminary and descriptive findings. Meaning-making and well-being were statistically significantly correlated, however, these two variables have similar constructs. Moreover, due to this study being observational, causal relationships could not be determined, and the findings could not be generalized. Therefore, further research can be conducted to further fill the gap in literature.

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Chapter 1: Introduction

Purpose

This study is part of a larger study that looked at the effects of a Compassion Centered Spiritual Health program on chaplain burnout as well as patient-reported outcomes. The following study was conducted to understand how hospital distress prior to a spiritual health consult is associated with patient-reported and clinical outcomes. Patients underwent a chaplain consultation, and prior to the chaplain visit, patients' distress was assessed. After the chaplain visit concluded, patients' well-being and meaning-making were assessed through a self-report questionnaire. Lastly, patients' length of stay after the consult and readmission to the hospital within six months was assessed through accessing their respective medical records.

Chronic Disease

Chronic disease is the leading cause of death and morbidity in the United States and is the highest contributor to health care costs (CDC, 2019). Seven out of ten deaths in the United States can be attributed to chronic diseases, with the top three being heart disease, cancer, and diabetes (CDC, 2019). In Georgia, the leading causes of death are cardiovascular diseases, as well as stroke and diabetes (Bayakly, 2019). In 2015, 6.3 million people in Georgia had at least one chronic disease and 2.5 million had two or more chronic diseases (Bayakly, 2019). Chronic disease in Georgia could cost $64.6 billion in medical costs and an additional $26.8 billion annually in lost employment activity because of the prevalence of chronic diseases (CDC, 2019).

The main risk factors of chronic diseases are tobacco use, poor nutrition, lack of physical activity, and alcohol use (Fine et al., 2004). While high consumption of fruits and vegetables has been linked to a small reduction in the risk of some major chronic diseases (Hung et al., 2004), fewer than 25% of Georgia residents in 2009 reported consuming five or more servings of fruits

and vegetables per day (County Health rankings, 2019). Moreover, in 2019, 17.5% of adults in Georgia use tobacco compared to the national average of 17.1% (Truth Initiative,2019). Fewer than half of Georgia residents achieve 150 minutes of moderate-intensity aerobic activity, which is the recommended amount of physical activity (GDPH, 2019). Lastly, in 2016, 16% of Georgia residents reported excessive drinking.

Low socioeconomic status is also a major risk factor for chronic diseases. With 22% of Georgia residents living below the poverty line, they are at an increased risk for chronic diseases. The unemployment rate in Georgia is 7.2% which is greater than the national average (Data USA, 2019). Socioeconomic status has an inverse relationship with the risk factors for chronic disorders, such as tobacco use, physical inactivity, and poor nutrition (Pampel et al., 2010). Moreover, the built environment in which people live affects lifestyle choices. For instance, people who live in disadvantaged neighborhoods have high chronic life stressors which makes this population at a higher risk to overeat, smoke, or drink to cope with daily life stressors (Pampel et al., 2010). Low-income neighborhoods have a higher density of tobacco retailers, which further increases the risk of smoking (Khullar, 2018). Low socioeconomic neighborhoods have less access to healthier foods, and there are also higher densities of fast-food restaurants in these neighborhoods (Khullar, 2018). These neighborhoods often have fewer parks, fewer sidewalks and insufficient lighting compared to higher socioeconomic neighborhoods. Therefore, the built environment of low socioeconomic neighborhoods makes it harder for individuals to get adequate exercise (Pampel et al., 2010). Lastly, low-income individuals experience greater barriers to accessing medical care (Khullar, 2018). The main reasons for these barriers are due to lack of education, complications with health insurance, and distrust of health care providers (Lazar & Davenport, 2018).

Hospitalization

Chronic diseases are the main contributor to hospitalization in Georgia. Out of the 133,419 hospitalizations in Georgia in 2012, 69.5% of them were due to heart disease and 17.9% were due to stroke (Bayakly, 2019). Additionally, 12,159 adults were hospitalized due to type two diabetes (Data *USA*, 2019). Georgia was ranked number six in the nation for the worst healthcare access, cost, and care in 2017 (Fiza Pirani, 2017).

Hospitalization can lead to increased distress, anxiety, depression, and compromised quality of life for patients (Medinas-Amorós et al., 2012). This may be due to social isolation, fear and stress of procedures, lack of adequate communication from medical personnel, hostility from medical personnel, separation from family and friends, change in daily activities, and a loss of autonomy (Gammon, 1998). Being admitted to a hospital brings about new surroundings, smells, colors, people and noises (Gammon, 1998). In a hospital, patients are no longer responsible for their self-care, nor can they eat or wash themselves on their schedule. Hospitalization also restricts visitations from family and friends and decreases individuals' privacy and confidentiality. Patients may not get adequate quality of care and compassion from medical personnel. All of these factors can lead to heightened psychological distress and decreased quality of life for patients (Msc & PhD, 1991).

Distress

Many chronic diseases require patients to make permanent life-style changes. Chronic diseases also obligate patients to manage themselves, which involves knowledge, skills, and discipline. This can lead patients to develop high distress due to the lifestyle changes required to manage their illness (Schokker et al., 2010). Higher distress and poor mental health can lead to an increased risk of chronic diseases (Vuotto et al., 2017). Clinically significant levels of distress

have been found to increase the risk of chronic diseases such as chronic obstructive pulmonary disease (COPD) and diabetes (McLachlan & Gale, 2018). Georgia is ranked 25th in the nation for mental distress. Georgians reported that 18.7% of the population experiences mental distress, with 19% of Georgians reporting poor mental health in the last 30 days. Georgia's mental health system ranks 23 in the nation, with 51 being the worst (CDC, 2018). This is important to acknowledge because it exposes Georgia's need for satisfactory mental health services.

Religion and Spirituality

Religiosity and spirituality can be used as coping mechanisms for mitigating distress due to hospitalization and chronic diseases. Ninety percent of the world is involved in some religious and spiritual practice. In the United States, 63% of adults believe in god, 53% reported religion being very important to them, and 33% reported looking to religion for guidance on what is right and wrong (NW, Washington, & Inquiries, 2019). Metro-Atlanta, however, has higher rates of religiosity and spirituality than the national average. Seventy-one percent of people in Atlanta believe in god and 59% say religion is very important to them. Forty-four percent of Atlantans say they look to religion mostly for guidance on what is right and wrong (NW et al., 2019).

Illness can cause spiritual distress, which can impair a patient's ability to experience meaning through life and connect to others. This is due to patients experiencing a decreased quality of life while facing illness (Drapeau et al., 2012). However, religiosity and spirituality have cognitive, experiential, and behavioral facets that can improve an individual's physical and mental health. Religious and spiritual coping allows for individuals to make meaning of their life and illness while seeking hope and comfort. Therefore, spiritual care may be a beneficial intervention when experiencing psychological distress due to illness (Koeing & David, 2009).

Chaplain Benefits

Chaplains are clinically trained ministers who provide spiritual, emotional, and religious care to patients and their family members to help them find strength and support while facing illness or trauma (*What Is A Chaplain?*, 2019). Chaplains are an integral part of the healthcare system. Chaplains are either referred to or requested by patients who need spiritual care and prayer. These consults can promote patients' coping of distress due to chronic diseases (Koeing & David, 2009). Patients who are visited by hospital chaplains have decreased anxiety, depression, and length of stays compared to patients who are not visited by hospital chaplains. Therefore, chaplain visits are associated with better physical and mental outcomes for patients (Jankowski et al., 2011).

Problem Statement

Hospital distress has been shown to be associated with poor mental and physical health. Because spirituality and religiosity have been shown to increase patients' mental well-being, chaplain visits could be used to support hospital patients in coping with their distress. However, chaplaincy is an emerging field with limited studies regarding its relationship with hospital distress, patient-reported outcomes, and clinical outcomes. This study will inform the medical field and public health practitioners on the relationships between distress and patients' well-being and meaning-making, as well as their length of stay in the hospital and hospital readmission, for patients who receive a chaplain consult.

To fill this gap in the literature, we conducted a study to explore the impact of Cognitively Based Compassion Training (CBCT) on chaplain residents. We then looked at whether the chaplains trained in CBCT and delivering Compassion-Centered Spiritual Health (CCSH) had more impact on patient outcomes. CBCT is a secularized compassion meditation

program adapted from the Tibetan Buddhist mind training tradition (Reddy et al., 2012). The main study compared the difference in patient outcomes by those who had a chaplain consult by a CBCT-trained chaplain versus a chaplain who did not receive CBCT training. For this thesis, we examined patients who received a chaplain consult, regardless of CBCT training. The patient-reported and clinical outcomes were assessed after the chaplain consult.

This thesis looked at how distress levels prior to a spiritual health visit were associated with post-visit patient-reported and clinical outcomes. The findings from this study could inform healthcare providers about the benefits of spiritual health practices. These results can be used to convey the importance of spiritual coping on hospital distress for chronic disease patients to improve their overall physical and mental well-being.

Theoretical Framework: Spiritual Framework of Coping

The framework used for this study was the spiritual framework of coping (Gall et al., 2005). This framework was modeled after the transactional model of stress and coping. Sears and Greene, the creators of the transactional model of stress and coping, conveyed how religious and spiritual coping styles are important for individuals' well-being (Gall et al., 2005). The theoretical framework of coping organizes and understands the diverse literature that surrounds spirituality, coping, and health by incorporating the dynamic and structural components. The concepts that make up this framework include personal factors (e.g. beliefs), primary and secondary appraisals (e.g. god attributions), coping behavior (e.g. prayer), coping resources (e.g. connection to nature), meaning-making (e.g. spiritual appraisal), and the outcome which is well-being (e.g. physical and emotional) (Gall et al., 2005). For this study, the spiritual framework of coping was adapted to understand the research question and how the variables interact. The constructs in the conceptual framework included: distress, spiritual coping, meaning-making,

well-being, and clinical outcomes. Distress was assessed prior to the chaplain consults, and the spiritual coping mechanism used was a chaplain visit. Both meaning-making and well-being were assessed through patient-reported outcomes. Readmission and length of stay were assessed for patients' clinical outcomes.

Chapter 2: Literature Review

Introduction

This literature review covers chronic disease as it pertains to hospitalization and worsened health outcomes. Hospitalization is discussed to understand the distress associated with the experience. Spiritual and religious coping for hospital distress are also covered. Lastly, an adapted theoretical framework of spiritual coping is described.

Chronic Disease

The top chronic diseases are heart disease and stroke, cancer, chronic obstructive pulmonary disease (COPD) and diabetes. Chronic diseases are the leading cause of death and disability in the United States and take an economic toll of $3.3 trillion in health care costs annually (Monica & California, 2017). Chronic diseases are responsible for seven out of ten deaths, which amounts to 1.7 million deaths per year. An estimated 59% of Americans suffer from at least one chronic disease, which can lead to long-term disability, reduced quality of life, and death (Monica & California, 2017). The leading risk factors of chronic disease are tobacco use, poor nutrition, lack of physical activity, poverty, unemployment, and alcohol use (*CDC*, 2019).

The southern states have the highest rates of chronic diseases and also have the worst health-related behaviors in the nation (Oates et al., 2017). Contributing factors to poor health-related behaviors are low socioeconomic status and low educational attainment (Oates et al., 2017). Compared to other regions in the U.S., the south has a higher percentage of the population that has low educational attainment, low employment, low income, and low healthcare coverage. Seventeen percent of the population in the south lives below the poverty line (Oates et al., 2017). Poverty is one of the leading contributors to chronic disease, possibly contributing to the 20% of

southerners who report fair or poor health (CDC, 2019). Southern states have a greater percentage of smokers, lower physical activity, less fruit and vegetable intake, and a higher percentage of individuals with chronic conditions than non-southern states (Oates et al., 2017).

Southern states have a higher proportion of African American individuals than the rest of the nation, with an African American population of 42% compared to 36% in the rest of the United State (Bayakly, 2019) In comparison to white men, African American males reported higher percentages of obesity, diabetes, high blood pressure, chronic heart disease, stroke, and chronic kidney disease (Oates et al., 2017). African Americans have been shown to have poorer health outcomes than non-African Americans (Pampel et al., 2010). The disparity results from social determinants like poverty, lack of education, racism, and discrimination. Environmental and community conditions like access to physical activity and healthy foods can also worsen health outcomes for this population (Bergmark & Sedaghat, 2017). All these factors can affect African Americans' health behaviors like poor diet, tobacco use, physical inactivity, and alcohol use. Lastly, African Americans have less access to healthcare and receive lower quality medical services compared to non-African Americans (REACH, 2019). Collectively, these findings indicate that southern states have higher incidences of chronic disease, poverty, in addition to a lack of access to healthcare.

Hospitalization

Chronic diseases are the highest contributor to healthcare costs and account for 75% of aggregate healthcare spending which accumulates to about $5300 spent per person per year (CDC, 2019). Individuals with one chronic disease are 7.5% more likely to be hospitalized than individuals who do not have any chronic diseases (Muenchberger & Kendall, 2010). However, the risk of hospitalization for patients with chronic diseases increases with every additional co-

morbid chronic condition. Individuals with four or more chronic diseases are 99 times more likely to be hospitalized than those who only have one chronic disease (Muenchberger & Kendall, 2010).

Hospitalization has been shown to lead to an increase in psychological distress, which ultimately affects the patient's well-being and ability to cope (Gammon, 1998). Distress due to hospitalization can be caused by unfamiliarity of the surroundings, loss of control, fear, and lack of information that patients often endure (Edmondson et al., 2014). Patients may not understand or may be confused about the consequences of their disease and procedures, may be unfamiliar with the use of medical terminology used by medical personnel, and can be distressed by a decrease in privacy and restricted visitations of family and friends (Gammon, 1998). Moreover, the flashing medical lights and noises made by medical machines in hospital patients' rooms further increase patients' anxiety. COPD patients report that change in habits, loss of control, in addition to the loss of autonomy and privacy, are the most stressful factors of hospitalization (Medinas-Amorós et al., 2012). Not only does the hospital stay adversely affect patients' health, but the financial burden of hospitalization causes patients added stress after discharge (Chhari & Mehta, 2016). These outcomes of hospitalization ultimately affect patients' mental and physical well-being, which can lead to slower recovery and quicker readmission (Edmondson et al., 2014).

Distress

Psychological distress is comprised of a wide range of mental health symptoms, like anxiety and depression (Karunanithi et al., 2018). Psychological distress is most likely due to an exposure to stressful events that threatens the physical or mental health of an individual with the inability to cope with the stressor and emotional burden effectively. The distress can disappear

either when the stressor subsides, or the individual learns to cope with the stressor effectively (Drapeau et al., 2012).

Chronic health conditions are a main contributor to psychological distress (Vuotto et al., 2017). Many chronic diseases require permanent life-style changes and self-management that entails knowledge, skills, and discipline. This can lead patients to develop high distress due to the lifestyle changes required to manage their illness (Schokker et al., 2010). Patients experiencing any levels of distress also have an increased risk of cardiovascular disease as well as COPD. However, the actual nature of the association is more uncertain (David M Clarke & Kay C Currie, 2009). Survivors of cancer that also had cardiovascular, endocrine, and pulmonary diseases had a significantly higher prevalence of emotional distress compared to cancer survivors who did not have additional chronic diseases (Vuotto et al., 2017).

Lastly, distress also affects patients' quality of life. Thirty percent of cancer patients experienced psychological distress and 25.6% reported having a poor quality of life (Vuotto et al., 2017). Patients who had more than one chronic disease had higher distress and a reduced quality of life compared to patients who only had one chronic disease (Keles et al., 2007).

Religious and Spiritual Coping

Religion can be defined as a tradition that forms from a group of people with common beliefs and practices that are sacred (Koeing & David, 2009). Spirituality is not a religious practice, but rather a personally defined custom that is free of any rules and regulations. The main elements of spirituality include meaning and purpose in life, connections to others, peacefulness, well-being, comfort, and joy (Anandarajah, 2001).

Religion and spirituality have been associated with an increased lifespan (Koeing & David, 2009). On the other hand, lack of religiosity and spirituality have been shown as a risk

factor of early death (Koenig, 2009). Individuals who do not attend religious services frequently have been reported to be four times more likely to die from chronic diseases like diabetes, cardiovascular disease, and also infectious diseases compared to those who do not attend religious services frequently (Koenig, 2009). Cardiac surgery patients who reported finding strength and comfort in their spiritual and religious faith decreased their risk of death six months post-surgery compared the patients who did not find strength and comfort in spirituality and religion (Anandarajah, 2001). Lastly, elderly patients who reported spiritual distress increased their risk of dying up to 28% (Büssing & Koenig, 2010).

Religious and spiritual coping are effective strategies to manage psychological distress. Religious and spiritual coping are the use of religious beliefs, attitudes, or practices that reduces emotional distress caused by stressful life events (Saad & Medeiros, 2012). A systematic review by Koeing et al. (2009) assessed the positive health effects of spiritual and religious coping. Before the year 2000, more than sixty studies reported patients coping with their illness and psychological distress through religion (Koenig, 2009). Furthermore, religion has been shown to be a coping mechanism for psychiatric patients. Over one-hundred studies have found that self-reported religiosity was inversely related to patients' depressive symptoms. Patients who used religious and spiritual coping decreased their depressive symptoms more than 50% faster than patients who did not (Koeing & David, 2009). Lastly, over half of patients surveyed at a center for psychiatric rehabilitation reported religious activities being the most common and beneficial alternative to healthcare (Koenig, 2009).

Chronic disease patients experience anxiety at high levels due to the stress of their disease. Therefore, spiritual coping has been shown to be beneficial for patients to address those mental and physical needs (Vuotto et al., 2017). For instance, rheumatoid arthritis and

gynecological cancer patients have used religion for pain management (Vuotto et al., 2017). Spirituality and religiosity also helped patients with type two diabetes and/or cardiovascular disease with resilience and strength to cope with living with a chronic disease (Unantenne et al., 2013). Consequently, emotional and spiritual needs that are not addressed can lead to reduced medical compliance, missed office visits, and reoccurrence of health problems (Pearce et al., 2012). Therefore, chaplain visits may be important for the health of patients because chaplain visits have been associated with better patient outcomes, decreased length of stay, and a more positive hospital experience (Jankowski et al., 2011).

Chaplain Visit

Hospital chaplains are spiritual health providers trained to take care of the emotional, spiritual, and religious needs of patients (*HCMA*, 2019). Hospital chaplains can be requested by patients, or they can be referred to patients by other medical care providers who think a patient could benefit from a spiritual health visit (*HCMA*, 2019). Chaplain visits can lead to better health outcomes, both physically and mentally, for hospital patients (McClung et al., 2006). Focusing on patients' spiritual health through chaplain visits can positively influence patient healing (McClung et al., 2006).

To become a healthcare chaplain, one has to earn a bachelor's or master's degree in areas such as religion or counseling as well as possibly becoming ordained by a religious group ("Clinical Pastoral Education—HealthCare Chaplaincy"). Clinical pastoral education (CPE) is required to become a professional Board-Certified Chaplain (*HCMA*, 2019). During CPE, students complete a chaplain internship to learn how to effectively listen and attend to patients. Students are required to have at least 400 hours of structured group and individual education (*HCMA*, 2019). Group education includes case study examples as well as feedback on ministry

practice. Residencies are also an important component of becoming a licensed healthcare chaplain. Residencies are usually twelve-months and full time, with residents working Mondays through Fridays (HealthCare Chaplaincy, 2020). During these residencies, chaplains provide spiritual care to patients while continuing their chaplaincy education.

During a chaplain visit, the chaplain will enter a patients' room and describe his or her role. After greeting the patient, and if the patient consents to be seen, the chaplain will assess their spiritual and mental health needs and offer pastoral care. This can include reciting prayers, providing encouragement, active listening, and acting as a liaison to other healthcare providers (Carlson, 2002).

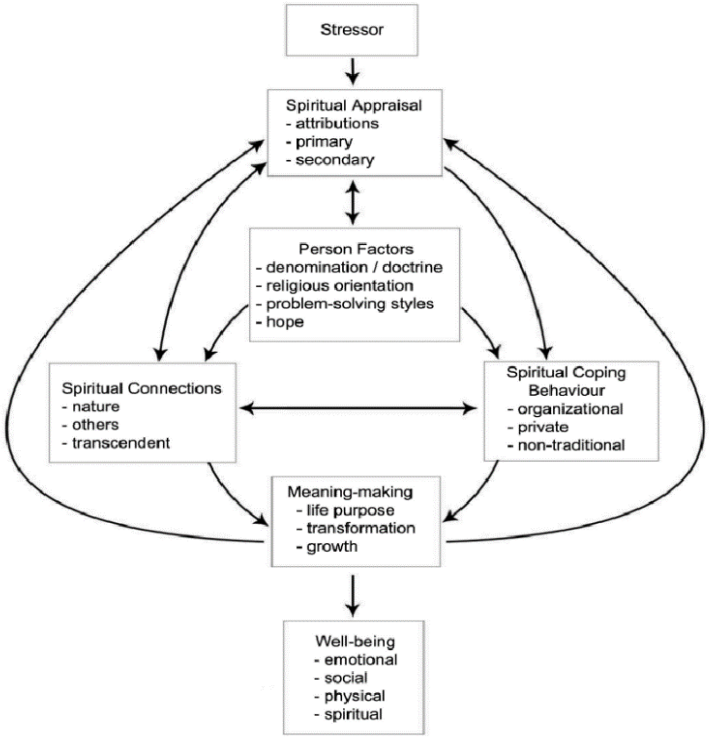
Focusing on patients' spiritual health through chaplain visits can positively influence the patients' healing (Büssing & Koenig, 2010). For instance, hospitals that provide chaplaincy services have significantly fewer hospital deaths compared to hospitals that do not provide chaplaincy services (Flannelly et al., 2012). Patients are more likely to die in the ICU if they did not get their spiritual needs met by a hospital chaplain (ACPE,n.d.) Lastly, adults with COPD who were visited by a hospital chaplain had lower anxiety at hospital discharge as well as having a decreased length of stay compared to those who were not visited by a chaplain (Flannelly et al., 2012). Increased chaplain visits are associated with better anxiety, depression, and health outcomes (Bay et al., 2008).

Theoretical Framework

This study used the Spiritual Framework of Coping (Gall et al., 2005). There have been limited studies using theoretical frameworks to understand how religiosity and spirituality are associated with patient-reported and clinical outcomes. The Spiritual Framework of Coping can help make sense of the roles that religion and spirituality play in clinical outcomes. The model of

spiritual coping is based off of the transactional model of stress and coping by Lazarus and Folkman (Gall et al., 2005) . The transactional model of stress and coping proposes that psychological stress has a special relationship with an individual and that the environment is seen by the individual as taxing or exceeding his or her resources and endangering his or her well-being (Berjot & Gillet, 2011). Well-being is then divided into cognitive appraisals and coping. Cognitive appraisal is the process of categorizing a situation and its various factors, with respect to well-being (Berjot & Gillet, 2011). Coping refers to the cognitive and behavioral efforts to reduce, tolerate, or defeat any internal or external factor that is causing stress (Berjot & Gillet, 2011).

Figure 1: Spiritual framework of coping



However, the Spiritual Framework of Coping has not been individually tested to understand each component of the model within a single study; instead, each aspect of the model has evidence emerging from different studies which supports its role in improving physical and mental health.

The concepts that make up the Spiritual Framework of Coping are stressors, spiritual appraisal, personal factors, spiritual connections, spiritual coping, meaning-making, and well-being. Spiritual appraisals involve initial attempts at making sense of stressors by attributing a causal origin, like god's will. The attempts to understand spiritual appraisal are associated with personal factors, like hope and meaning-making. Hope has been shown to help individuals construct meaning out of the stressor to provide a more confident and optimistic attitude (Gall et al., 2005). Psychosomatic medical research has shown that hope can affect physical healing and mental well-being (Karunanithi et al., 2018). Finding meaning has been shown to help an individual reduce levels of initial distress in order to engage in a coping behavior, like spiritual coping (Gall et al., 2005). Spiritual coping involves specific behaviors individuals use to respond to the stressor or related emotional reactions. Studies have shown that religious and spiritual coping can positively impact both psychological and physical health (Larson & Larson, 2003).

Spiritual coping behavior encompasses all religious and spiritual beliefs. Organizational religious behavior, as well as believing in god, has been associated with improving and maintaining health for long-term survival (Büssing & Koenig, 2010). Prayers and spiritual religious songs aid in the recovery of patients suffering from serious forms of mental distress and physical illnesses (Gall et al., 2005). Contemplation, meditation, and spiritual thoughts have been shown to improve health and well-being by decreasing stress (Gall et al., 2005). Adults who entered a spiritual intervention significantly decreased stress and increased participant well-being

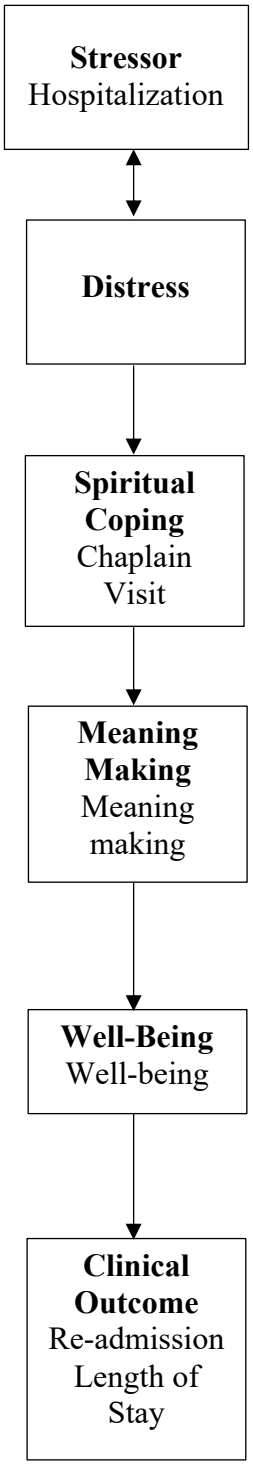
post-intervention (Tuck et al., 2006). In addition, cardiac transplant patients who used religion to cope had a significant decrease in anxiety (Bay et al., 2008).

The original study explored the effects of Cognitively Based Compassion Training (CBCT) on patient outcomes. CBCT is a secularized compassion meditation program adapted from the Tibetan Buddhist mind training tradition (Reddy et al., 2012). A pilot study explored the feasibility and impact of incorporating CBCT into the educational curriculum for chaplain residents. The pilot study had five aims which were to: 1) examine the impact of CBCT on burnout, compassion, and empathic accuracy among chaplains in training, (2) explore whether the impact persists through the end of the resident training, (3) evaluate the timing of the training within the existing curriculum to maximize its impact, (4) evaluate whether CBCT-informed interventions improve patient outcomes, and (5) explore chaplain and patient mediators of the impact of spiritual care consults on patient outcomes. The study randomized half of a chaplain class to receive a CBCT-based curriculum in the Fall semester, while the second half did not receive the CBCT curriculum until the Spring semester. Patient outcomes were measured after a chaplain consult to assess if patients who had a chaplain consult with a chaplain who received the CBCT training had better outcomes. The data obtained will be used to estimate efficacy and to inform a fully powered randomized controlled trial. However, for this thesis, all chaplain consults, regardless of receiving CBCT training or not, were considered together. This study explored the relationship of distress before a spiritual health consult with patient reported and clinical outcomes post-spiritual consult.

This study applied certain constructs from the Spiritual framework of Coping and incorporated additional constructs based on the literature. The constructs used in this study are stressor, spiritual coping, meaning-making, and well-being. For this study, the stressor for the

participants was hospitalization. Hospitalization has been shown to increase psychological distress and decrease quality of life (Keles et al., 2007). Therefore, the construct of distress had been added to this model before a spiritual health consult. The chaplain visit was then considered the spiritual health consult and was seen as supporting spiritual coping for the patient. A chaplain visit included religious and spiritual components to improve patient-reported and clinical outcomes. Meaning-making was used to assess how patients understand and make sense of their purpose in life, as well as their connection with their faith and peers. Patients' well-being was conceptualized as assessing patients' emotional health post-spiritual health consult. To assess patients' physical well-being, clinical outcomes included patient length of stay after the consult and hospital readmission.

Figure 2: Conceptual Framework of Spiritual Coping



Study Aim

The purpose of this quantitative study was to analyze how distress prior to a chaplain consult was associated with clinical and patient-reported outcomes. With vast research supporting the positive effects that religiosity and spirituality have on patient health outcomes, and the negative effects distress has on physical and mental health, it is important to understand the effect a chaplain visit can have on patients' distress and health related outcomes. However, there is a lack of scientific evidence evaluating chaplain visits. Understanding the relationship between distress and spiritual coping and their respective relationship with clinical and patient-reported outcomes, can aid in alternative approaches to healthcare. Therefore, this study assessed distress prior to a chaplain consult and the specific clinical and patient-reported outcomes following the spiritual health consult.

Chapter 3: Methods

Participants

The main study was conducted from August 2018 through June 2020. The first stage of the data collection was conducted from December 2018 through March 2019. A total of 133 hospital patients in the Metro Atlanta area were recruited and met eligibility criteria. Eligibility criteria included being a hospital patient at one of the five Emory hospitals, English-speaking, and being 18 years old or older. Exclusion criteria included being too cognitively compromised to provide informed consent. Once a participant was eligible, informed consent was obtained. Of patients who were eligible and provided informed consent, 123 participants completed the chaplain consult and survey. Patients who did not complete the survey were either too tired or were taken for testing or a procedure.

Procedures

The overall study was a longitudinal quasi-experimental waitlist crossover study assessing the effects of a spiritual health visit using two different spiritual health practices. Half of the hospital chaplains had CBCT, and the other half did not. However, this study did not differentiate or evaluate the two types of chaplain visits; rather, it used the complete dataset to assess the spiritual health visit. For this thesis, a prospective secondary data analysis was conducted with patients' data collected in the chaplain study. Before the chaplain visit began, researchers informed the patient about what the study entailed. After the patient agreed to participate, written informed consent was obtained to participate in the study, record the chaplain visit, permission to access their medical records for additional data. After informed consent was obtained, patients completed a 1-item distress measure. Next, chaplains conducted a spiritual consultation. After the chaplain visit, participants were asked to complete a 15-minute survey.

Survey Measures

Before the spiritual health consult, participants were asked what their average distress level had been for the past week on a scale from zero to ten (O'Donnell, 2013). Due to a non-normal distribution of data, distress was recoded into a dichotomous variable. As has been done in a previous study scores ranging from zero to three were categorized as "Low" Distress" scores ranging from four to ten were categorized as "High" Distress" (Cutillo et al., 2017).

Patient-reported outcomes of pastoral care in a hospital setting (PROM) was assessed using 18 items on a 5-point scale (Lobb et al., 2019). The 18 questions included three subscales: (1) feelings during the pastoral care visit, (2) feelings after the pastoral care visit, and (3) statements that describe the situation now. Answer options included: (1) Not at all, (2) Seldom, (3) Some of the time, (4) Most of the time, and (5) All of the time.

Feelings during the pastoral care visit was measured using 5 items. Sample items included: "During my meeting with the chaplain, I was listened to" and "During my meeting with the chaplain my faith and/or beliefs were valued". Cronbach's alpha for this subscale was .590, suggesting a poor internal consistency of scale items.

Well-being was assessed by the *feelings after the pastoral care visit* subscale, which included 5 items. Sample items included: "After meeting with the chaplain, I could be honest with myself about how I was really feeling". All five items were added up to compute a well-being scale score. The possible total score values could range from 5 to 25, with a higher score indicating greater well-being. Cronbach alpha for this subscale was .755, suggesting an acceptable internal consistency of scale items.

Meaning making was assessed by the *statements that describe me now* subscale, which included 8 items. Sampled items included: "I am a religious person" and "I feel a need to be

hopeful. All 8 items were added together to compute a meaning-making scale score. The possible total score values could range from 8 to 40, with a higher score indicating higher ability to make meaning. Cronbach alpha for this scale was .695, suggesting an acceptable internal consistency of scale items.

Medical Record Data

When searching the medical records with patient IDs collected at the time of the chaplain visit, 106 patient medical records were found. Age, gender, medical service, total length of stay, length of stay after consult, and readmission were collected. Medical records yielded eleven different medical services provided for the participants: (1) Oncology, (2) Emergency Medicine, (3) Neurology, (4) Surgery, (5) Radiology, (6) Internal Medicine, (7) Cardiology, (8) Gynecology, (9) Rehabilitation, (10) Orthopedics, (11) Psychology. Total length of stay was assessed by counting the number of days the patient was hospitalized. Length of stay after the consult was assessed by counting the number of days the patient was hospitalized after the spiritual health consult. Readmission to the hospital for the same inpatient medical service within six months was also assessed through the medical records and options were noted as either "yes" or "no". Gender options included "male" and "female".

Data Analysis

Data analyses were performed using IBM SPSS26. The predictor variable was distress, patient reported outcomes were meaning-making and well-being, and clinical outcomes were readmission and length of stay after the consult. Patient demographics were age, gender, hospital site, complete length of stay and medical service received. Due to the data for the PROMS scale being incomplete, expectation maximization was utilized to fill in the missing data. Expectation Maximization provided a maximum likelihood estimate of the covariance structure given the

available data. The expected values for the missing data were computed based on the conditional means from a regression equation given the existing data (Leah H. Rubin et al., 2007).

Participant demographics were assessed on a univariate level. Frequencies and percentages were reported for hospital site, medical service received, and gender. Mean and standard deviation were reported for length of stay and age. Feelings during the chaplain consultation were assessed on the univariate level as well. Frequencies were reported for feelings of being listened to, being able to talk about what was on their mind, that the situation was understood and acknowledged, their faiths and/or beliefs were valued, and that they focused on decisions about healthcare. Frequencies were additionally reported on distress. Lastly, mean and standard deviation were reported for meaning-making and well-being, as well as Cronbach alpha statistics to assess internal validity of the subscales.

Independent T-tests, Chi Square Test of independence, and Pearson correlations were conducted between predictor and outcome variables at the bivariate level. Independent T-tests were performed to examine associations between distress and well-being, distress and meaning-making, distress and length of stay after the consult, readmission and well-being, and readmission and meaning-making. A chi-square test of independence was performed to examine the association between distress and readmission. Lastly, Pearson correlations were performed to examine the associations between meaning-making and well-being, meaning-making and length of stay after the consult, and well-being and length of stay after the consult.

Chapter 4: Results

Univariate Analysis

To understand the demographics of the study sample, univariate analyses were conducted. The analyses resulted in a total of 123 participants in this study. Mean age of participants was 57.10 (SD=17.11) and 53.8% (n=57) were female (see Table 1). The average length of stay in the hospital was 10.00 days (SD=19.11) and the average length of stay in the hospital after the spiritual health consult was 5.11 days (SD=12.31). Participants primarily came from Clifton (n=46; 37.4%) and Midtown (n=38; 30.9%) Hospitals and were admitted into emergency medicine (n=44; 41.5%). The majority of participants were not readmitted within six months of the study (n=75; 70.8%). Lastly, 74.0% (n=91) of participants reported high distress.

Table 1: Patient Demographics

Site	**N**	**%**	**Mean/SD**
Clifton	46	37.4	
Midtown	38	30.9	
Wesley Woods	23	18.7	
Rehab	3	2.4	
Johns Creek	11	8.9	
St. Josephs	2	1.6	
Medical Service			
Oncology	7	6.6	
Emergency Medicine	44	41.5	
Neurology	7	6.6	
Surgery	20	18.9	
Radiology	2	1.9	
Internal Medicine	11	10.4	
Cardiology	2	1.9	
Gynecologist	3	2.8	
Rehab	4	3.8	
Orthopedics	2	1.9	
Psychiatric	4	3.8	
Readmission			
No	75	70.8	
Yes	31	29.2	
Gender			
Female	57	53.8	
Male	49	46.2	

Distress			
High	91	74.0	
Low	32	26.0	
Total Length of Stay			10.00/19.91
Length of Stay-After Consult			5.11/12.31
Age			57.10/17.11

During the meeting with the chaplain, 88.6% (n=109) of participants felt that they were listened to all of the time and 41.5% (n=51) of participants reported focusing on decisions about healthcare all of the time. Furthermore, 82.1% (n=101) of participants reported that they were able to talk about what was on their mind all the time and 83.7% (n=103) felt that their situation was understood and acknowledged all of the time. Lastly, 87.8% (n=108) of participants reported that their faith and/or beliefs were valued all of the time (See Table 2).

Table 2: Univariate statistics of patients' feelings during the spiritual consult

During my meeting with the Chaplain I felt…	**Not at all N(%)**	**Seldom N(%)**	**Some of the time N(%)**	**Most of the time N(%)**	**All of the time N(%)**	**Mean/SD**
I was listened to	-	-	2(1.6)	12(9.8)	109(88.6)	4.87/.38
We focused on decisions about my health care	13(10.6)	6(4.9)	25(20.3)	28(22.8)	51(41.5)	3.80/1.32
I was able to talk about what was on my mind	1(.8)	-	5(4.1)	16(13.0)	101(82.1)	4.76/.61
My situation was understood and acknowledged	-	-	3(2.4)	17(13.8)	103(83.7)	4.81/.45
My faith and/or beliefs were valued	3(2.4)	1(.8)	3(2.4)	8(6.5)	108(87.8)	4.76/.76

The majority of participants saw themselves as a spiritual person all of the time (n=79; 64.2%) and believed in god or in some higher being (n=115; 93.5%) all of the time. Sixty-seven and one-half percent (n=83) of participants describe themselves as a religious person all of the

time. The majority of participants feel a need to experience love and belonging all of the time (n=82; 66.7%) and feel a need to find meaning and purpose in life all of the time (n=77; 62.6%). Additionally, 69.9% (n=86) of participants feel they have something to be hopeful about all of the time and 40.7% (n=50) feel they are in control of their situation all of the time. Finally, 71.5% (n=88) of participants feel a need to be hopeful all of the time (See Table 4).

Table 3: Univariate statistics of patients' meaning-making

Statements that describe me now…	Not at all N(%)	Seldom N(%)	Some of the time N(%)	Most of the time N(%)	All of the time N(%)	Mean/sd
I see myself as a spiritual person	1(.8)	3(2.4)	14(11.4)	26(21.1)	79(64.2)	4.46/.85
I believe in god or in some higher being	-	-	2(1.6)	6(4.9)	115(93.5)	4.92/.33
I am religious person	6(4.9)	2(1.6)	14(11.4)	18(14.6)	83(67.5)	4.38/1.08
I feel a need to experience love and belonging	3(2.4)	6(4.9)	6(4.9)	26(21.1)	82(66.7)	4.45/.97
I feel a need to find meaning and purpose in life	4(3.3)	8(6.5)	11(8.9)	23(18.7)	77(62.6)	4.31/1.09
I feel a need to be hopeful	5(4.1)	3(2.4)	10(8.1)	17(13.8)	88(71.5)	4.46/1.03
I feel I have something to be hopeful about	3(2.4)	3(2.4)	11(8.9)	20(16.3)	86(69.9)	4.49/.94
I feel I am in control of my situation	16(13.0)	8(6.5)	22(17.9)	27(22.0)	50(40.7)	3.71/1.40

After the meeting with the chaplain, 86.2% (n=106) of patients felt that they could be honest with how they were feeling all of the time and 27.6% (n=43) felt that their levels of anxiety had lessened all of the time. A majority of participants felt they had gained a better perspective of their illness all of the time (n=45; 36.6%) and felt that things seemed to be under

control again all of the time (n=55; 44.7%). Lastly, 44.7% (n=55) of participants felt that they had a sense of peace they had not felt before (See Table 3).

Table 4: Univariate statistics of patients' well-being

After my meeting with the chaplain, I felt….	Not at all N(%)	Seldom N(%)	Some of the time N(%)	Most of the time N(%)	All of the time N(%)	Mean/SD
I could be honest with myself about how I was really feeling	1(.8)	1(.7)	3(2.4)	12(9.8)	106(86.2)	4.80/.60
My levels of anxiety had lessened	16(13.0)	15(12.2)	18(14.6)	31(25.2)	43(27.6)	3.57/1.41
I had gained a better perspective of my illness	28(22.8)	12(9.8)	11(8.9)	27(22.0)	45(36.6)	3.40/1.60
Things seemed to be under control again	15(12.2)	8(6.5)	17(13.8)	28(22.8)	55(44.7)	3.81/1.39
A sense of peace I had not felt before	18(14.6)	16(13.0)	11(8.9)	23(18.7)	55(44.7)	3.65/1.51

Bivariate Analysis

To understand how distress prior to a spiritual health consult is associated with the constructs of meaning-making and well-being, independent samples T-tests were performed between distress and well-being and distress and meaning making. To understand the relationship between distress and clinical outcomes, an independent samples t-test was performed between distress and length of stay after the consult (See Table 6). There was not a statistically significant association between distress and well-being ($t(121)=.95, p=.35$), distress and meaning-making ($t(121)=-.48, p=.63$) or distress and length of stay after the consult ($t(104)=-.55, p=.59$).

Table 5
Distress: Independent sample t-tests for well-being, meaning-making and length of stay

Variables	*High Distress Mean (SD)*	*Low Distress Mean (SD)*	*Mean Difference (SE)*	*t*	*df*	*p-value*
Well-being	18.98(4.70)	19.92(4.83)	.94(.97)	.95	121	.35
Meaning-making	35.29(4.35)	34.85(4.87)	-.44(.92)	-.48	121	.63
Length of Stay	5.46(13.56)	3.87(5.91)	-1.59(2.91)	-.55	104	.59

To understand how distress prior to a spiritual health consult is associated with clinical outcomes, a chi square test of independence was performed to examine the association between distress and the clinical outcome of readmission (See Table 5). There was no statistically significant association between these variables (χ^2=.435 (1, N=106); p=.509).

Table 6
Chi-Square test of independence for distress and readmission

Variables	*High Distress N(%)*	*Low Distress N(%)*	X^2	*p-value*
Readmission			.435	.509
Yes	23(27.7%)	8(34.8%)		
No	60(72.3%)	15(65.2%)		

To better understand the relationship between the constructs of well-being and meaning-making and clinical outcomes, independent samples T-test were performed between readmission and well-being and readmission and meaning-making (See Table 7). There was also not a statistically significant association between readmission and well-being (t(104)=1.17, p=.246) or readmission and meaning-making (t(104)=1.44, p=.152).

Table 7
Readmission: Independent sample t-test for well-being and meaning-making

Variables	*Readmission Mean(SD)*	*No Readmission Mean(SD)*	*Mean Difference (SE)*	*t*	*df*	*p-value*
Well-being	19.91(4.87)	18.70(4.86)	-1.21(1.04)	1.17	104	.25
Meaning-making	36.10(4.56)	34.74(4.34)	1.36(.94)	1.44	104	.16

Lastly, Pearson correlations were performed to examine the associations between well-being, meaning-making and the clinical outcome of length of stay after the consult. Results suggest a statistically significant association between meaning-making and well-being (r(121)=.331, p=.0001). However, there was not a statistically significant association between well-being and length of stay after the consult(r(104)=-.144, p=.140) and meaning-making and length of stay after the consult(p(104)=-.129, p=.186)

Table 8
Pearson Correlation for well-being, meaning-making and length of stay

Variables	*Well-being*	*Meaning Making*	*Length of Stay*
Well-being	1	.331**	-.144
Meaning-making	.331**	1	-.129
Length of Stay	-.144	- .129	1

**indicates p<.05

Based on these results, we can conclude that for this given sample, majority of participants reported high distress prior to the spiritual health consult. There was no association between distress prior to a spiritual health consult and patient-reported outcomes or clinical outcomes. There was no association between patient-reported and clinical outcomes for this sample. Multiple regression was going to be the next step, but due to null results, further analyses could not be conducted.

Chapter 5: Discussion

Overview

The main study was conducted to compare the difference in outcomes for patients who received a chaplain consult from a Cognitively Based Compassion Training (CBCT) trained chaplain versus those who had chaplain consults not from a CBCT trained chaplain. The purpose of this current study was to understand how distress prior to a spiritual health consult is associated with patient reported and clinical outcomes, regardless of chaplains CBCT training. To better understand the association, the PROMS scale, as well as clinical outcomes found in medical charts, were assessed using quantitative analysis. The Spiritual Framework of Coping guided the research question by providing an understanding of how the variables interact.

Summary of Key Results

The key findings from the study suggested that the majority of participants experienced high distress. This corresponds with the literature, which suggests that hospitalization leads to an increase in psychological distress (Gammon, 1998). The stressful nature of being hospitalized and having an illness would lead a patient experience greater distress and anxiety. The majority of participants were not readmitted into the same department within six months of the study. This could be due to the fact that many of the participants were from emergency medicine. Therefore, they may not have been readmitted to the emergency department, or they were readmitted to a different medical service. Based on the literature, chronic diseases such as heart disease and type two diabetes are the main reason for hospitalization and re-hospitalization *(Data USA*, 2019). Thus, patients who are originally admitted into emergency medicine may be readmitted into a specialty service.

The majority of participants reported positive perceptions during their chaplain consult. Focusing on patients' spiritual health through chaplain visits has been shown to positively influence the patients' healing (Büssing & Koenig, 2010). This could be due to the positivity a hospital chaplain creates, as well as the therapeutic nature of talking to someone. More so, patients who were visited by a hospital chaplain are less likely to die than those who do not get visited by a hospital chaplain (Flannelly et al., 2012). Therefore, the positive experiences during the chaplain consult could have affected patient reported and clinical outcomes; however, due to the poor internal reliability of this subscale, this association was not assessed.

The majority of all participants scored high on religiosity and spirituality. Religiosity and spirituality are associated with better health outcomes, as well as effective strategies to manage psychological distress (Koeing & David, 2009), which could explain the study's null results. The Spiritual Framework of Coping also states that spiritual coping behavior encompasses all religious and spiritual beliefs which has been associated with improving and maintaining health for long-term survival (Büssing & Koenig, 2010). Spirituality has been shown to improve health and well-being by decreasing stress (Gall et al., 2005). Moreover, this study took place in Atlanta, Georgia; and, Metro-Atlanta where rates of religiosity and spirituality are higher than the national average (Pew Research Center, 2020). Although the majority of participants had high distress, their deep-rooted spirituality and religiosity may have had an impact on their overall health and their positive outlook on life. Participants who consented to be in the study all agreed to a chaplain consult, and thus may have been more religious or spiritual at baseline than those who elected not to have the consult. Patients who are visited by a hospital chaplain have lower anxiety, depression, and length of stays compared to patients who are not visited by a hospital chaplain (Jankowski et al., 2011). Therefore, these participants may have had better

physical and mental outcomes than patients who were not visited by a hospital chaplain. This study did not assess patients who did not receive a chaplain consult and, therefore, no control group can account for potential differences.

Lastly, there was a significant association between well-being and meaning-making. This finding is most likely due to the conceptual similarity in the scales. Participants who scored high in meaning-making would most likely also score high in well-being. Moreover, the questions asked in the meaning-making scale were based on how spiritual, religious, and hopeful the participant was feeling after the spiritual consult. Which, due to the overall spiritual and emotional nature of a chaplain consult, could have swayed the participants answers. The well-being scale asked about participants anxiety, and sense of peace. Religiosity and spirituality have been associated with allowing individuals to make meaning of their life and illness while seeking hope and comfort as well as improving anxiety and depression (Koeing & David, 2009). Therefore, the significant association between these two variables is supported by literature. The Spiritual Framework of Coping explains this association as well by saying that finding meaning in life through religion and spirituality can positively impact mental and physical well-being (Larson & Larson, 2003).

Strengths and Limitations

Although this study yielded important preliminary results, it is important to acknowledge the limitations of the study design and methods. First, this study was a secondary data analysis. Therefore, the original study was not specifically designed to address how distress prior to a spiritual health consult is associated with patient reported and clinical outcomes (Cheng and Phillips, 2014). Moreover, this was an observational study and surveyed hospital patients at a single point in time. Consequently, observational studies limit the ability to make causal

inferences about observed associations (Tapia et al., n.d.). This study had a small sample size, which may decrease the statistical power of the study (Faber & Fonseca, 2014). However, there is limited existing research on these proposed and predictor variables. Therefore, more research needs to be conducted to understand how sample size effects the results. Furthermore, the original study's only pre-test measurement was distress. Therefore, to better understand the relationship between distress and a chaplain consult, depression and anxiety should be measured before and after the consult.

Despite these limitations, the study had notable strengths. There is very limited research on distress prior to a chaplain consult and its relationship with patient reported and clinical outcomes. Therefore, this study filled a gap in research and yielded preliminary results. This study further conveyed how hospital patients experience high distress, as well as how religious and spiritual the metro-Atlanta community is. This sample concluded positive feelings during the chaplain consult. For this given sample, distress prior to a spiritual health consult was not associated with patient reported and clinical outcomes. Although the results were not statistically significant, the findings can guide researchers for future studies. This study also used a theoretical model to help guide and better understand the research question.

Implications and Future Directions

Although the positive effects of religiosity and spirituality on psychological distress and hospital outcomes have been assessed, there is still very limited research in regards to chaplain consults for hospital patients (Koeing & David, 2009). Therefore, the research conducted for this study helped fill important gaps. To draw causal relationships, future research can be conducted and guided by this research question. A randomized control trial may be conducted where half of patients receive a chaplain consult and half do not, to assess the effects of a chaplain consult on

patient reported and clinical outcomes. It may also be beneficial to look at a broader sample population that does not identify as majority religious or spiritual to see how patient reported and clinical outcomes may differ based on patents spirituality and religiosity.

In this study, there were five different hospital sites with patients admitted into eleven different medical services. By recruiting participants from many hospital sites and services, a larger sample was able to be surveyed. This is beneficial for generalizability because more data on a wide variety of demographics can be gathered. On the other hand, focusing on fewer hospital sites and medical services may result in a smaller sample size, but can provide data with less statistical noise and variance. Therefore, future research should to think about these challenges and how to balance them.

Due to the poor internal consistency of *Feelings during the pastoral care visit* PROM subscale items, it would be important to reassess the scale used through inter-rater reliability and either create a new scale or look at well adapted existing scales. Lastly, it would also be important to look at other outcomes like pain and depression and how distress prior to a spiritual health consult is associated with those outcomes. Pain is one of the primary reasons to seek healthcare (Germossa et al., 2019). In addition, one in three hospitalized patients experience depression symptoms (Soshea Leibler, 2017). Therefore, it would be interesting and important to include these outcomes in a future study.

To conclude, it has been shown that hospitalization can lead to increased distress, anxiety, depression, and a compromised quality of life for patients. However, religion and spirituality can be used as coping mechanisms for handling distress due to hospitalization and chronic diseases (Medinas-Amorós et al., 2012). Although this study provided null results, it concluded that the sample population saw themselves as being very religious and spiritual, had

high scores in well-being and meaning-making, and that the majority of participants experienced high distress prior to a spiritual health consult. Consequently, although this study resulted in important preliminary and descriptive results, more research needs to be conducted to draw conclusions and causal relationships between these proposed predictor variables and the outcomes. In conclusion, this study provided important results to start filling the evident gap in the literature. The majority of the sample experienced high distress, had positive feelings during the chaplain consult and had higher scores for religiosity and spirituality. Further research can be done to strengthen the study findings in order create and implement effective public health interventions. Overall, this study helped improve upon research by providing important preliminary results on how distress levels prior to a spiritual health consult are associated with patient-reported and clinical outcomes post-consult.

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