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Worry in the Pews: Exploring Levels and Causes of Worry Among Church-goers

A dissertation
presented to
the faculty of the Department of Educational Leadership and Policy Analysis
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Doctor of Education in Educational Leadership

by

Jennifer M. Lee

December 2018

Dr. James Lampley, Chair

Dr. Tony Cartledge

Dr. Bill Flora

Dr. Pamela Scott

Keywords: Worry, Church, Christianity, Religion, Generalized Anxiety Disorder

ABSTRACT

Worry in the Pews: Exploring Levels and Causes of Worry Among Church-goers

by

Jennifer M. Lee

A large body of research indicates that worry, anxiety, and depression are present in the modern American psyche at increasingly high levels. Everyday worry can lead to further mental health issues, interpersonal problems, and reduced physical wellbeing and should be reduced when possible. Previous research has examined the benefits of church attendance with varied results; however, understanding the relationship between church attendance and everyday worry could be useful in reducing the effects of worry on this population.

The purpose of this quantitative study was to measure self-reported levels and causes of everyday worry among church-goers from three congregations and to examine the relationship among peers when sorted by frequency of church attendance and demographic group.

Participants completed demographic questions and the Penn State Worry Questionnaire online. The survey was distributed among 3 congregations in the Raleigh, North Carolina area. The 3 congregations represented a spectrum of churches from the Baptist tradition in an attempt to determine if there were significant differences among conservative, moderate, and liberal churches. Two hundred sixty-six usable surveys were returned, an 84% response rate.

Results from the statistical analysis indicated that more frequent church attendance was associated with less worry. Women tended to worry more than men, and younger people tended

to worry more than older people. There was no significant relationship between level of worry and church type (conservative, moderate, or liberal).

DEDICATION

This work is dedicated to my children Ashe and Zada, in the hope that they will be inspired to work hard and be brave. It is also dedicated to my parents Keith and Susan, who always encouraged me and never seemed surprised to find out I could do whatever I set my mind to. And finally, I dedicate this to my husband Daniel, who gave me the opportunity to pursue this degree.

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CHAPTER 1

INTRODUCTION

Now perhaps more than ever before the strain of everyday worry and anxiety is present in the lives of Americans. Recent research indicated that more individuals are living with depression and anxiety than ever in history. As few as 1%-2% of people born in the United States before 1915 ever suffered a major depressive episode; this rate had risen to 15%-20% of the population by the end of the 20th century (Twenge, 2011, p. 469). Similarly, extensive data indicated dramatic rises in anxiety, particularly among young people in the U.S. population (Twenge, 2011, p. 469). Additionally, young people reported high rates of pressure and anxiety to be successful (Twenge, 2011).

For some participation in a local church congregation is a form of self-care and well-being. Some research indicated the mental health benefits of church attendance. However, it is important to note that church attendance is difficult to track, as are the benefits. Rossi and Scappini (2014) stated that church attendance is “the most important and widely used measure to estimate the level of religious practice in a population,” but acknowledged the difficulty of accurately assessing the frequency of attendance (p. 249). They did, however, note that household structure did effect church attendance. Families including children between 6 and 12 years old were more likely to attend services than those without children (47.9% versus 39.2%) (Rossi & Scappini, 2014, p. 265). Despite variations in household structure, church attendance has decreased in the United States (Rossi & Scappini, 2014, p. 250).

In a longitudinal study in the United Kingdom data indicated that those who had consistently attended church (at least once a month) had higher wellbeing scores over those who attended less often or did not attend (Kaushal, Cadar, Stafford, & Richards, 2015). Similarly,

those who held “‘very strong’ religious beliefs” as young adults reported better mental health than those who had “‘little belief” (Kaushal et al., 2015). A different study in the United Kingdom examined the effects of a church service on anxiety in adults ages 32-60 years old (Maltby, 1998). Using the State Trait Anxiety Questionnaire 30 minutes before and after a church service, Maltby (1998) found that those in attendance reported a significant decrease in levels of state anxiety (p. 537).

While women were more likely to seek mental health care, they were also more likely to use their religion as a coping technique for handling mental health difficulties (King, Cummings, & Whetstone, 2005, p. 288). In a longitudinal study examining the effects of religion on the mental health of midlife women, King et al. (2005) found that women who regularly attended religious services demonstrated better mental health as well as physical health (p. 293). There are a number of studies that indicated the benefits of church attendance and religiosity on mental health in general. However, there is a need for increased research to determine the causes and levels of anxiety for church-going individuals.

A large proportion of the research related to anxiety and church attendance was intended to assess the mental health status of individuals who were already seeking mental healthcare. However very few studies address the everyday causes and levels of anxiety for those who are not seeking mental healthcare. In an attempt to identify more information about these stressors, the purpose of this study was to understand more about the everyday anxieties and concerns from a churchgoing population. Data were collected regarding the causes and levels of anxiety and analyzed between demographic groups, frequency of church attendance, and type of church.

Statement of the Problem

In the current political, social, and economic landscape of the United States, it appears that worry is high for many individuals. This worry is evident in newscasts, print materials, and social media. While a variety of metrics may indicate that the United States is thriving economically and socially, the perception among many is quite the opposite. According to Twenge (2011), “something about modern life is causing more people, particularly young people, to feel anxious and depressed” (p. 469). Despite the general tone of anxiety, there is little consistent data regarding the ways in which worry may be different for different segments of the adult population (Currin, Hayslip, & Temple, 2011). Furthermore, little is known about the worry habits of churchgoing populations in particular, a demographic that is frequently treated as separate from other demographics in politics and social sciences. In an attempt to assess the levels and causes of worry experienced by a churchgoing population, this nonexperimental quantitative study provided survey participants the opportunity to self-report about their worry habits.

The purpose of this comparative, nonexperimental quantitative study was to measure self-reported levels and causes of everyday worry among church-goers from three congregations and to examine the relationship among peers when sorted by frequency of church attendance and demographic group. The three congregations represented a spectrum of churches from the Baptist tradition in an attempt to determine if there were significant differences among more conservative, moderate, and liberal churches.

Research Questions

The following research questions were addressed in the study and data analysis.

Research Question 1

Is there a significant difference in the levels of worry as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches?

Research Question 2

Is there a significant difference in the General Worry factor scores as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches?

Research Question 3

Is there a significant difference in the Absence of Worry factor scores of the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches?

Research Question 4

Is there a statistically significant difference in the levels of worry as measured by the Penn State Worry Questionnaire among the five church attendance groups (one or less times per month, two times per month, three times per month, four times per month, or five or more times per month)?

Research Question 5

Is there a significant difference in the worry level as measured by the Penn State Worry Questionnaire between males and females who attend church?

Research Question 6

Is there a significant difference in the level of worry as measured by the Penn State Worry Questionnaire among the age groups surveyed (18-29, 30-39, 40-49, 50-59, 60-69, 70-79, and 80 or older)?

Significance of the Study

The results from this study will have a variety of uses. In particular this data is helpful for clergypersons who work in the local church context as they seek to find meaningful ways in which to minister to different segments of their congregations. Curriculum developers who write for church use can apply this data as they create materials that will be effective for their audiences. Finally, as some research suggests that incorporating spirituality and religion into treatment programs for anxiety and depression, the results of this study may help to design empirically based therapeutic programs (Stanley et al., 2011).

A body of research currently exists that examined the mental health benefits of religiosity, including an exploration into different racial and ethnic demographics. Pargament (1997) suggested that participation in religious service has psychological benefits “when motivated by intrinsic religiosity” (as cited in Sternthal, Williams, Musick, & Buck, 2012, p. 177). However, it appeared that a significant amount of this research dealt with individuals who were already seeking treatment of some kind for their anxiety and depression. Furthermore, the existing body of research was not designed for researchers to understand variabilities within congregations. The significance of this study was in its contributions to studying the everyday worries and anxieties of a sample that was not necessarily seeking mental health care. Rather, this study was designed to investigate the causes of everyday worry among those who may or may not have been seeking mental healthcare. Furthermore, comparing demographics within congregations allowed for an examination of a self-selected group as opposed to a random sample. Participating in a common congregation suggests that the individuals in the congregation felt a measure of connection with one another. An additional contribution of this study was in its design to compare a conservative, moderate, and liberal congregation. After research indicated

that church attendance may decrease anxiety levels, Maltby (1998) suggested further research into ways different religious expressions related to a reduction in stress (p. 538). This study had similar aims in determining if there are different levels and causes of worry for individuals who chose to attend different churches.

Definition of Terms

Throughout this study the terms *conservative*, *moderate*, and *liberal* were used. It should be noted that providing a strict definition for these terms is difficult as the meaning may change based on the context in which they are used. Smith (1990) wrote, “It is hard to place a rigorous definition on the poles of the continuum (and even harder to so label the way stations), because there is enough particularism among denominations and conflict over the use and meanings of terms that it is difficult to tailor a set of criteria that are exact and easily quantifiable” (p. 226). It should also be noted that all Baptist churches are autonomous, so within that denomination there can be a particularly large amount of variance. In order to provide clarity throughout the following chapters, the following terms are defined as follows:

Conservative: According to Kelley (1986), conservative or strict churches are marked by “absolutism” and “conformity” (as cited in Iannaccone, 1994, p. 1182). Further, “strict churches proclaim an exclusive truth- a closed, comprehensive, and eternal doctrine. They demand adherence to a distinctive faith, morality, and lifestyle” (Iannaccone, p. 1182). For the purposes of this paper, conservative Baptist churches are those that place restrictions on the leadership positions that could be held by women, are not open to participation of people who are homosexual and believe in the inerrancy of the Bible.

Moderate: Moderate churches are those who may restrict women from participating in some leadership positions, either by policy or by de facto limitations, are open to people who are

homosexual but limit their participation in leadership and may or may not affirm homosexual relationships and may or may not believe in the inerrancy of the Bible.

Liberal: As noted by Iannaccone (1994), liberal or lenient churches may be recognized for their “relativism, diversity, and dialogue” (p. 1182). Liberal churches have no limitations on the leadership positions that could be held by women, are open and affirming to people who are homosexual, and do not believe in the inerrancy of the Bible.

Limitations and Delimitations

This study was confined to three churches in North Carolina. While it can be expected that some similarities may be shared in other congregations or cities, there is a limitation on the generalizability of these results. Furthermore, each of these churches is connected to the Baptist tradition. No other denominational groups or religions were included in the study. It is also necessary to note that the majority of respondents identify as white. An additional limitation is related to the participants. Respondents elected to participate in the study of their own volition, so some potential participants may have elected not to participate based on their struggles with anxiety and worry. Finally, the researcher has personal connections to two of the three of these congregations. While the researcher made every effort to prevent personal bias from influencing communications or data collection from these congregations, it is possible that personal bias may be present.

Overview

The relationships between self-reported levels and causes of everyday worry among demographic groups from conservative, moderate, and liberal congregations were examined in this quantitative study. Chapter 1 includes an introduction to the topic, statement of the problem, research questions, significance of the study, definition of terms, and limitations. Chapter 2 is a

review of relevant and current literature related to the study. This includes topics such as mental health, worry, generational differences, and faith communities. The literature review establishes the context from which the current study was designed. Chapter 3 details the methodology of the research. Chapter 3 includes a review of the research questions, a description of where and how data was collected, the data collection method, and analysis method. In this study the methodology included collecting survey responses from attendees of three church congregations in North Carolina. Two hundred sixty-six individuals participated in the survey. Chapter 4 is an in-depth analysis of the data results. Chapter 5 provides a summary of the findings, includes recommendations for how the findings can be used in congregational and clinical practice, as well as suggestions for future research.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

Worry is a common and generally unproblematic side effect of everyday life. According to Babcock, MaloneBeach, Hou, and Smith (2012) worry is the “conceptual or cognitive component of anxiety and can be defined as a series of involuntary and uncontrollable negative cognitions about a future event in which the outcome is uncertain or cannot be resolved” (p. 413). Worry is typically verbal in nature, uncontrollable, and resulting in negative affect (McEvoy & Brans, 2013, p. 184; Topper, Emmelkamp, Watkins, & Ehring, 2014, p. 403). Individuals may use worry as a coping skill in a variety of ways. Borkovec suggested that worry may be a superstitious act to avoid catastrophe, avoidance of a fear, avoidance of looming problems, preparation for coping with a future event, and a motivating force (as cited in Kowalski, 2003, p. 131-2). Worry can lead to delayed decision making, can interrupt tasks, and can interrupt the ability to successfully process fear appropriately (Meyer, Miller, Metzger, & Borkovec, 1990, p. 487; McGowan & Behar, 2013, p. 91). However, when worry becomes excessive and out of control, it can be a sign of other serious mental health problems. Excessive worry is most commonly a symptom of Generalized Anxiety Disorder.

It is important to make a distinction between worry and rumination. Some research has been conducted into the difference between worry and rumination as defined as repetitive attention to and concern about depressive symptoms like sadness and the reasons for such symptoms based on past experiences (Hoyer, Gloster, & Herzberg, 2009, p. 2; Topper, Emmelkamp, Watkins, Ehring, 2014, p. 403). Rumination is more specific in nature than worry and is linked to depression. Worry may precede rumination as worry “mitigates that

uncomfortable arousal,” according to Babcock et al. (2012, p. 413). Hoyer et al. (2009) determined that worry is more likely to be viewed negatively and to be understood as interfering in life by those who experience worry. Worry is future-oriented, unlike rumination which is related to past and present circumstances (Hoyer et al., p. 4). Additionally, people can worry about anything while rumination is focused on the negative outcomes of past events.

Despite the distinctions between worry and rumination, the two constructs both frequently result in anxiety and depression and are generally treated similarly in a clinical setting (McEvoy & Brans, 2013, p. 184-185). The two are frequently combined into a construct referred to as repetitive negative thinking or perseverative thought (McEvoy, Watson, Watkins, & Nathan, 2013, p. 313; Ruscio, Seitchik, Gentes, Jones, & Hallion, 2011, p. 867-868). For the purposes of this paper we refer to the combination of worry and rumination as repetitive negative thinking. Repetitive negative thinking can be used for diagnostic purposes related to Generalized Anxiety Disorder and Major Depressive Disorder (McEvoy et al., 2013, p. 318; Ruscio et al., 2011, p. 872). It is a useful construct for both nonclinical and clinical levels of worry and rumination. McEvoy et al. (2013) found that frequent repetitive negative thinking may lead to susceptibility to other emotional disorders (p. 313).

Along with social anxiety and depression symptoms, worry is also commonly linked to interpersonal problems (Erickson, Newman, Siebert, Scarsella, & Abelson, 2016, p. 14). Not only is worry triggered by interpersonal strife, it may also lead to interpersonal strife. Worry may lead to feelings of dependency on others as well as sensitivity to rejection (Kowalski, 2003, p. 134). Erickson et al. (2016) indicated that worry could predict distress about interpersonal relationships and difficulties in both clinical and nonclinical worriers (p. 15). Viana and Rabian’s (2008) study of worry and attachment indicated a positive correlation between worry and

Generalized Anxiety Disorder symptoms and feelings of alienation from friends and maternal figures (p. 744). However, research conducted by Erickson et al. (2016) suggested that those who indicated high levels of worry were more likely to have also indicated high levels of “interpersonal traits, interpersonal problems, and daily social behaviors” as well as “greater self-reported warmth or affiliation” (p. 20). These findings suggest that frequent worriers also demonstrate a high level of care (Erickson et al., 2016, p. 23). Kowalski (2003) noted the “excessive reassurance-seeking” behaviors of those who experience high levels of worry. Worriers should look to a well-selected group of support persons for reassurance as well as expand their support networks in order to avoid alienating others with their worry.

Research indicates a strong connection between worry and anxiety sensitivity. Anxiety sensitivity is “the fear of anxiety-related sensations arising from the belief that these sensations pose social, physical, or psychological threat to the individual” (Viana & Rabian, 2008, p. 737) and is associated with pathological worry (Allan, Macatee, Norr, & Schmidt, 2014, p. 530). Anxiety sensitivity is connected to anxiety and panic disorders. Additionally, anxiety sensitivity is related to high levels of worry among nonclinical populations (Viana & Rabian, 2008, p. 737). Similarly, research has indicated distress tolerance, the ability to withstand difficult emotional states is associated with worry (Allan et al., 2014, p. 532). Distress tolerance appears to have some type of genetic component as well (Allan et al., 2014, p. 532).

Penney, Miedema, and Mazmanian (2014) suggested that worry may be associated with intelligence due to the evolutionary requirement to assess and respond to threats (p. 90). As such, a high level of worry would reflect the inability to appropriately interpret threats. However, the research about the connection between worry and intelligence is mixed (Penney et al., 2014, p. 91) In part, the mixed results of research may be attributed to increased test or performance

anxiety for individuals who experience a high level of worry. Penney et al., (2014) found that worry and rumination was positively associated with verbal intelligence in both clinical and nonclinical samples, leading to their suggestion that “verbally intelligent individuals are able to consider past and future events in greater detail, leading to more intense rumination and worry” (p. 92). In a study examining self-perception of abilities among normal, high, and clinical worriers, Gentes and Ruscio (2014) found that high worriers perceived their functioning to be less than the normal worriers, and those with Generalized Anxiety Disorder perceived their functioning to be lower than both other groups (p. 523).

Generally, people worry about their physical health, relationships with others, and the future (Kowalski, 2003, p. 129). Hoyer et al. (2009) suggested that worry “is a better indicator of an underlying vulnerability factor” (p. 7). One common evidence-based instrument for evaluating worry, the Worry Domains Questionnaire, asks respondents to report on worry related to “relationships, lack of confidence, aimless future, work incompetence, and financial and physical threat” (LaBerge, Fournier, Freeston, LaDouceur, & Provencher, 2000, p. 431). Commons, Greenwood, and Anderson (2016) found that people worry about their mental health as well as their physical health (p. 349). The National Institute of Mental Health (2016) noted that common causes of worry associate with Generalized Anxiety Disorder include health, money, concerns about work, the physical and overall well-being of children, being late, and running the day-to-day tasks of a home (National Institute of Health, 2016, para. 5).

A March 2018 Gallup poll found that top worries of the American population include access and affordability of healthcare (55%), followed by crime and violence (51%), federal spending and the budget deficit (51%), and the availability of guns (51%) (Jones, 2018, para. 2). Healthcare has typically been a common worry since Gallup has been collecting such data and

has been the highest or tied for highest concern since 2013. Worries about race relations have spiked in recent years, while affordable energy and unemployment have moved to the bottom of the list. Per Jones (2018), Democrats were more likely to be “a great deal” worried about healthcare (72%) than Republicans (39%) (para. 6).

Worry, Anxiety, and Depression

Medical professionals should screen for high levels of worry, even among those who have not reached clinical levels of worry, in order to prevent clinical depression and anxiety (Korte, Allan, & Schmidt, 2016, p. 46, Topper et al., 2014, p. 404). Research indicated that even among non-clinical worriers, there is a higher incidence of anxiety and depression than in those who do not worry (Chapman, Kertz, & Woodruff-Borden, 2009, p. 70). For many, high levels of trait worry is a common factor in life, despite not meeting the diagnostic criteria for emotional disorders. Ruscio and Borkovec (2004) found that not only do most self-reporting high worriers not have Generalized Anxiety Disorder (GAD), but also that they believed their worry is problematic (p. 1469-1470). Research suggested that while those with GAD have a higher average score on the Penn State Worry Questionnaire than high worriers who were not diagnosed with GAD, there was significant overlap on the scores (Ruscio & Borkovec, 2004, p. 1473). Generally, when individuals with high levels of worry do not meet the diagnostic standard for Generalized Anxiety Disorder it is due to their high worry not lasting long enough, not having enough symptoms of GAD, or not being worried about multiple life domains (Gentes & Ruscio, 2014, p. 520). Kertz and Woodruff-Borden (2011) determined that subthreshold GAD can lead to significant impairment, and as such, practitioners should familiarize themselves with symptoms and treatments in order to assist patients who present with some symptoms (p. 1-2).

Rather than defining worry as a simple binary, worry is better understood as being classified by levels (Korte, Allan, & Schmidt, 2016, p. 46; Ruscio & Borkovec, 2004). According to Ruscio and Borkovec (2004) worry “reduces control over negative thinking regardless of the trait worry level of the individual” (p. 1479). High levels of worry do not typically turn into GAD, but individuals can move back and forth across the clinical threshold, using needed medical resources and experiencing negative symptoms (Gentes & Ruscio, 2014, p. 526).

Excessive worry is the primary diagnostic symptom of GAD (Kowalski, 2003; Hoyer et al., 2009; Thielsch, Andor, & Ehring, 2015). Patients diagnosed with Generalized Anxiety Disorder demonstrated a lower threshold for worry, worry more, and worry for longer than those who do not have a GAD diagnosis. However, both those with and without GAD indicated worrying about similar topics including career, finances, and relationships (Thielsch et al., 2015, p. 532). The National Institute of Mental Health (2016) described signs of GAD including high levels of worry about daily life, uncontrollable worry or nervousness, negative metacognitions about worry, restlessness, an inability to relax, loss of concentration, difficulty sleeping, feeling tired, body aches, problems swallowing, shaking or twitching, irritability, sweating, and frequent trips to the bathroom (para. 3). According to Hoffman, Dukes, and Wittchen (2008) approximately 5.7% of the population will experience GAD at some point in their lives (p. 73). People are typically symptomatic for GAD for 5-10 years prior to diagnosis and treatment (p. 73). Kertz and Woodruff-Borden (2011) found that those experiencing GAD were likely to be younger than those who were low worriers or high worriers with GAD. Additionally, GAD was more common among European American people. The study indicated that those with GAD did not differ from the other groups in sex, education level, or marital status. (p.7-8).

Thielsch et al. (2015) noted that worrying about worrying, or metacognitions about worry, lead to additional worry, perhaps even more so than stress or trait worry (p. 532, 539). People who suffer from GAD frequently underestimated their cognitive and social abilities, finding in themselves flaws that are not able to be objectively measured (Gentes & Ruscio, 2014, p. 519). Those with GAD seem to be perfectionists, a quality that Gentes and Ruscio (2014) suggested may lead to more worry and frustration (p. 519). Kowalski (2003) explained that those who are diagnosed with GAD likely have genetic factors related to their high levels of stress and generally have family members who may also struggle with worry (p. 126).

When considering depression and anxiety, common mental health problems, it should be noted that high rates of comorbidity exist between the two. Research from Lamers et al. (2011) conducted in the Netherlands suggested that as many as 63% of those with a current anxiety disorder were also experiencing a depressive disorder, when considering lifetime depression, the figure rose to 81%. Individuals experiencing comorbid anxiety and depression were more likely to have experienced a childhood trauma, to have been younger at the first onset of their mental health disorder, and to experience symptoms for longer (Lamers et al., 2011, para. 3). Anxiety preceded depression in 57% of comorbid cases; patients with preceding anxiety were more likely to be symptomatic for longer, to be older at onset, and to have more fear symptoms than those who first experienced depression (Lamers et al., 2011, para. 3).

People who worry and are anxious may also have physiological problems. It is not uncommon for mental health problems to be related to somatic disorders. During anxious moments, adrenaline and noradrenaline are released in the body, along with hormones that are associated with on-going stress (Ellison, Burdette, & Hill, 2009, p. 664). These chemical responses can take a physical toll on the body, leading to on-going physical disorders, problems

concentrating, restlessness, sleep troubles, headache, gastro-intestinal problems, muscle tension, high blood pressure, cardiovascular disease, and decreased immune system functioning (Ellison et al., 2009, p. 664; Gentes & Ruscio, 2014, p. 518). Bruce et al. (2017) determined that a higher allostatic load is related to morbidity and mortality among a variety of populations (p. 2).

Allostatic load is the "accumulation of physiological perturbations as a result of repeated or chronic stressors in daily life" and is measured by hormone level and other biological markers (Bruce et al., 2017, p. 2). Long-term worry can become highly problematic not just for mental health but also for physical health. The effects of systematic stress on the body is an area needing more research.

Despite understanding the negative outcomes associated with worry, worriers with and without GAD may also have positive beliefs about worry and use worry in a superstitious manner in an attempt to ward off negative events (Ruscio & Borkovic, 2004, p. 1480). Positive beliefs about worry can include the idea that the worry will help solve the worrisome problem, that it has a protective factor against the potentially negative event, and that the worrier is a more conscientious and/or motivated person (Hebert, Dugas, Tulloch, & Holowka, 2014, p. 3). While some research indicates that positive beliefs about the utility of worry may lead to increased worry, Prados (2010) found no association (p. 220).

Researchers have named various psychological constructs that lead to a fuller understanding and diagnosis of GAD. Individuals with GAD typically demonstrated a lower distress tolerance than those without GAD (Allan et al., 2014, p. 532). Research into anxiety sensitivity and distress tolerance indicated that the constructs could be helpful transdiagnostic risk factors for both Major Depressive Disorder (MDD) and GAD (Allan et al., 2014, p. 537). Intolerance of uncertainty was associated with more symptomatic GAD (Khawaja & McMahon,

2011, p. 189). Khawaja and McMahon (2011) found that meta-worry was a distinguishing factor between groups of no worry, high worry, and GAD subjects indicating that it could be a highly sensitive measure for evaluating GAD (p. 190). Both intolerance of uncertainty and meta-worry were associated with other personality disorders including Obsessive Compulsive Disorder, social phobia, and depression (p. 183).

Chapman et al. (2009) determined that perceived control and worry were closely related (p. 74). Among African American and European American young adults, both psychological distress and perceived control were related to worry; however, worry among African Americans was more likely to be predicted by psychological distress while European Americans were more likely to worry as a result of a lack of perceived control (Chapman et al., 2009, p. 74). Chapman et al. (2009) also suggested that some disorders related to mental health may be more likely to be diagnosed in different racial groups and recommend further research in the area of race and mental health (p. 70). While a definitive cause for GAD has not been determined, anxiety sensitivity, distress tolerance, and perceived control are contributing factors to pathological levels of worry.

Diagnosis and Treatment

Many tools for evaluating worry exist. Typically these tools are either Free Recall Instruments (FRI) or Structured Instruments (SI). The most common FRI is the Worry and Anxiety Questionnaire (Dugas, Freeston, Lachance, Provencher, & Ladouceur, 1995), while the most common SI is the Penn State Worry Questionnaire. Another common SI is the Worry Domains Questionnaire (Tallis, Davey, & Bond, 1994; LaBerge et al., 2000, p. 431). Both systems of evaluation provide challenges; the FRI challenge participants to name their concerns in the moment, which may be difficult. However, SI can be suggestive to test-takers (LaBerge et

al., 2000, p. 430-1). GAD and other clinical diagnoses are generally made using the criteria found in the *Diagnostic and Statistical Manual*, which is currently in its fifth edition.

Worry is typically evaluated and measured using the Penn State Worry Questionnaire (PSWQ), a tool that Topper et al. (2014) referred to as the “gold standard assessment” of worry (p. 405). The PSWQ consists of 16 Likert scale questions, five of which are negatively worded and receive reverse scores. Scores can range from 16 to 80, and scores higher than 50 may lead to a diagnosis of GAD in questionnaire participants (Wuthrich, Johnco, and Knight, 2014, p. 657). The PSWQ evaluates trait worry and particularly examines the frequency, intensity, and controllability of worry over time and across different arenas of life (Topper et al., 2014, p. 403-4). Meyer et al. (1990), the developers of the tool, determined that the PSWQ is not affected by social desirability, is valid across cultures, and established the high internal consistency (.93) and test-retest reliability (.92) (p. 494). Van Rijsoort, Emmelkamp, and Vervaeke (1999) mention that the PSWQ highly correlates with depression and anxiety evaluated by the Beck Depression Inventory (Beck et al., 1961) and the State Trait Anxiety Inventory (Spielberger, 1983) respectively (p. 298). The mean score is 48.8 (Commons et al., 2016, p. 351). Wuthrich et al. (2014) do note that the reverse scored items may be more difficult for older respondents due to the negative wording (p. 658). Zlomke (2009) states that the PSWQ maintains its reliability and validity through online administrations and recommends using that format for research (pp. 841, 843).

Treatment for worry-related disorders frequently includes the use of medication. Most often selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), other serotonergic medications, or benzodiazepines are prescribed (National Institute of Mental Health, 2016, para. 11). Another therapeutic method for treating GAD is

participation in Cognitive Behavioral Therapy (CBT). CBT works to address problematic thought and behavior patterns by equipping patients with skills. Compared to no treatment, CBT typically produces useful results, but only approximately 50% of clients who receive CBT treatments demonstrate high end-state functioning (McGowan & Behar, 2013, p. 91). McGowan and Behar (2013) indicated that “the lack of an identifiable core fear in worry and instead a broad range of poorly defined stimuli and future-oriented potential negative events limits our ability to design efficacious behavioral exposure-based treatments for GAD” (p. 91). Instead, they advocated for an evidence-based stimulus control treatment that is easily taught and disseminated to practitioners who can help clients identify specific fears (McGowan & Behar, 2013).

Spiritually Integrated Therapy (SIT) is another option for individuals seeking treatment for mental health needs. Rosmarin, Pargament, Pirutinsky, and Mahoney (2010) explained that the “rationale for treatment may be presented in a spiritual framework, maladaptive spiritual beliefs are targeted explicitly, and spiritual/religious practices can be purposefully included as behavioral activation strategies with the intention of increasing positive emotions such as gratitude and hope” (p. 799). Pargament (2007) explained that human nature dictates that spirituality will be part of any psychotherapy process; the therapist can choose to engage the spirituality of the client or not (p. 14-15). In a study examining the efficacy of SIT for religious Jews experiencing anxiety symptoms, researchers determined that treatment resulted in significantly fewer negative symptoms such as stress, depression, intolerance of uncertainty, and worry, significantly increased positive religious coping, and significantly decreased negative religious coping (Rosmarin et al., 2010, p. 806-807). SIT must be conducted by a skilled and

trusted clinician who can be sympathetic to the individual's religious and spiritual life and continue to work with the client to create a healthy and productive spiritual life and coping skills.

Economic and Human Burden of GAD

Individuals who are diagnosed with GAD bear heavy financial and human costs connected to their anxiety. Hoffman et al., (2008) determined that those with pure GAD, that is no other comorbid diagnoses, had 1.5 to 5.4 impaired days in the past month (p. 87). This level of impaired days is equivalent to MDD, arthritis, ulcers, diabetes, and autoimmune disease. Additionally, the quality of life for people with GAD is significantly less in the domains of role functioning, mental and physical health, vitality, and physical pain than those without GAD. The impairments in regard to quality of life and role functioning is comparable to those with substance use disorders (Hoffman et al., 2008, p. 87). Individuals with comorbid diagnoses have higher economic costs.

Beyond the individual level, GAD is a burden on the medical system. Hoffman et al. determined that GAD had a higher estimated per patient cost than any other anxiety disorder (p. 88). People with GAD frequently see specialists unrelated to mental health because their anxiety is misdiagnosed or mistreated in the primary care setting related in increased medical spending (Revicki et al., 2011). Kertz and Woodruff-Borden (2011) found that GAD diagnoses were associated with additional emergency room visits, visits to medical specialists, increased testing, and medication (p. 4). Due to misdiagnosis and physical symptoms, people with GAD were twice as likely to see a gastroenterologist than a psychiatrist (Hoffman et al., 2008, p. 88).

The economic and human burden of GAD is well established. Additionally, Kertz and Woodruff-Borden (2011) also determined that individuals with high worry who do not meet the diagnostic criteria for GAD also deal with significant human costs. However, they did not find

an economic burden associated with subthreshold GAD (p. 7-8). Bereza, Machado, and Einarson (2009) suggested that additional research is needed to determine the full cost of GAD in a private-payer insurance system, particularly for underdiagnosed or untreated GAD (p. 1306).

Generational Differences

Popular media frequently emphasizes differences among generations within the United States. Allen, Allen, Karl, and White (2015) stated the importance of remembering that generational differences are also connected to biological stages, and that generations also represent different abilities and physiological stages (para. 7). Nonetheless, generational differences do exist and relate to various arenas of life. Allen et al. (2015) indicated that interpretation of historical events will vary based on generational differences (para. 8).

Millennials (loosely defined as those who were born from the early 1980s to the early 1990s) were socialized earlier than their older counterparts and were raised using the internet (Allen et al. 2015, para. 16, 18). Research conducted by Allen et al. (2015) indicated that Millennials are more entitled than either Baby Boomers or Generation X groups; there was no significant difference between Baby Boomers and Generation X (para. 44).

Generational Differences Related to Worry, Anxiety, and Depression

Research studying worry and generational differences have not yielded consistent results (Brock et al., 2011, p. 290). Nonetheless, results have produced themes that are important for the continued research of generational differences. Young adults typically report more worry than older adults (Babcock et al., 2012; Gould & Edelstein, 2010; Hunt, Wisocki, & Yanko, 2003). Older adults generally report higher satisfaction with their lives (Brock et al., 2011, p. 290). In one study of adults 70-99 years old, Brock et al. (2011) found that 17% of respondents reported no worries, 46% rarely worried, and 37% had some worries (p. 292). The three highest domains

of worry reported were related to health, social issues, and financial concerns (Brock et al., 2011, p. 292). Babcock et al. (2012) suggest that older people may experience less worry because they are less future-oriented than younger people (p. 413). Using the Socioemotional Selective Theory, Gould and Edelstein (2010) suggested that lower levels of worry in older populations may be related to the shorter anticipated lifespan (p. 759). Additionally, worry was positively associated with the more life events that occurred within the previous year (Babcock et al., 2012, p. 421). Older adults may be experiencing less major life events, with less resultant worry. It should be noted that older adults who are still in the workforce are more worried than those who are retired, but the oldest old (85 years or older) worry more than those 65-74 years old (Gould & Edelstein, 2010, p. 759). Despite the evidence that older adults worry less than younger adults, Wuthrich et al., (2014) noted that geriatric anxiety “is associated with increased functional and cognitive impairments, healthcare use, psychological distress, and mortality” (p. 657).

Women appear to worry more than men, and young women worry more than older women (Gould & Edelstein, 2010; Hunt et al., 2003). In fact, nonclinical young women may be indicating levels of worry that could qualify them for treatment (Gould & Edelstein, 2010, p. 763). Young adults may have more coping skills for dealing with worry than older adults (Hunt et al., 2003). However, younger adults report less ability to regulate emotion (Gould & Edelstein, 2010, p. 760). Gould and Edelstein (2010) determined that those who worried frequently had less control over their feelings of sadness (p. 764). Young women demonstrate significantly less emotional regulation than young men (Gould & Edelstein, 2010, p. 763). Additionally, those who reported having more control over their outward expression of emotion reported less worry (Gould & Edelstein, 2010, p. 764).

Hunt et al. (2003) compared the worry of adults 18-25 years old with the worry of adults 65-86 years old. The study did not find any correlation between education and worry but determined that single people may report more worry than married or widowed participants (p. 554). Unsurprisingly, those who reported financial worries were more likely to have higher levels of worry (Hunt et al., 2003, p. 554). Young men were more likely to report worrying about “family concerns” while women in general reported more worry about finances (Hunt et al., 2003, p. 554-555). Older adults appeared to worry significantly more about “family concerns, health, and world issues” than younger adults (Hunt et al., 2003, p. 555). Both groups seemed to worry about “finances, personal concerns, [and] social conditions” at similar rates (Hunt et al., 2003, p. 555). Gould and Edelstein (2010) suggested that young adults may be more worried about career, school, and social issues, while older adults are likely to be concerned with health problems (p. 759).

Recent research indicated that more individuals are living with depression and anxiety than ever in history. As few as 1%-2% of people born in the United States before 1915 ever suffered a major depressive episode; this rate had risen to 15%-20% of the population by the end of the 20th century (Twenge, 2011, p. 469). Similarly, extensive data points indicated dramatic rises in anxiety, particularly among young people in the U.S. population (Twenge, 2011, p. 469). Among older patients anxiety and depression were “associated with reduced mental and physical health outcomes and poorer quality of life” (Stanley et al., 2011, p. 334). While suicide rates were lower than in previous decades, that success may be attributed to the use of SSRI antidepressants, rather than an indicator of improved mental health. Between 1996 and 2008 the rate of antidepressant use among Americans jumped from 5.8% to 10.1% (Twenge, 2011, p.

470). Gains in some measures of mental health wellness did not extend to every metric. Young people reported high rates of pressure and anxiety to be successful (Twenge, 2011).

Additionally, young adults were more likely to seek treatment for mental health concerns (Currin et al., 2011, p. 319). Young women in particular tended to have the most positive attitudes towards seeking mental healthcare (Currin et al., 2011, p. 320). In recent decades, however, attitudes towards mental healthcare have improved and stabilized (Currin et al., 2011, p. 334).

Religion

Religion is generally assumed to be beneficial to health, social relationships, and civil well-being, all of which also support a healthy economy (Steiner, Leinert, & Frey, 2010, p. 11). Steiner et al. (2010) suggested that extrinsic indicators of religiosity are beneficial to the community and may result in satisfaction and happiness among those who attend religious services (p. 17). Additionally, they suggest the structure of Protestant churches allows for greater participation and leadership than the structure of Catholic churches, which seems to result in higher levels of reported happiness (Steiner et al., 2010, p. 18). Koenig and Vaillant (2009) found little evidence to suggest an association between church attendance and mortality. However, they did find a significant connection between church attendance and overall subjective well-being for people who lived to be 70 years old (p. 122). These positive findings may be attributed to a variety of factors including social support, positive attitudes, and opportunities for engagement (p. 123). It should be noted, however, that any weekly gathering of older adults would be likely to include those who are healthy and mobile.

While some research indicated the mental health benefits of church attendance, it is important to note that church attendance is difficult to track, as are the benefits. Rossi and

Scappini (2014) stated that church attendance is “the most important and widely used measure to estimate the level of religious practice in a population,” but acknowledged the difficulty of accurately assess the frequency of attendance (p. 249). Brenner (2011) explained that while approximately 40% of Americans self-report that they attended church in the previous week, that number is inaccurate (p. 19). It is likely that self-reported levels of church attendance are somewhere between 10 and 18 percentage points higher than the reality of church attendance in a given week (Brenner, 2011, p. 34). Household structure did affect church attendance. Families including children between 6 and 12 years old were more likely to attend services than those without children (47.9% versus 39.2%) (Rossi & Scappini, 2014, p. 265). Despite variations in household structure, church attendance has decreased in the United States (Rossi & Scappini, 2014, p. 250). Overall, church attendance in the United States is dramatically less than in recent history. Audette and Weaver (2016) report that nearly one-fifth of Americans are religiously unaffiliated, up 138% since 1990 (p. 245-246).

Religion and Worry, Anxiety, and Depression

The construct of religion is complicated, so research on the relationship between religion and anxiety must reflect the variety of components. Religion is related to the organization, personal action, and belief of an individual, while spirituality deals more with internal experience (Shreve-Neiger & Edelstein, 2004, p. 380). However, religion and spirituality seem to have generally positive effects on well-being (Ellison et al., 2009; Shreve-Neiger & Edelstein, 2004). Religious people tend to live longer than nonreligious people (Bruce et al., 2017; Sullivan, 2010). Sullivan (2010) reports that Mainline Protestants and Jews have the lowest levels of mortality in a study including several religious and denominational groups as well as nonreligious people (p. 740). Bruce et al. (2017) suggest that this benefit may be as much as a

55% reduction in mortality for frequent churchgoers (more than once a week) over nonchurchgoers (p. 2). Sullivan (2010) attributes the longevity of churchgoing people to the social support gained from the faith community (p. 742).

The benefits of practicing religion may be in influencing healthy lifestyles, social cohesion, and choices that minimize stress (Bruce et al., 2017; Ellison et al., 2009). According to Bruce et al. (2017) people who go to church typically are of a higher socioeconomic and health status, have a higher education level, and spend less time seeking social support than those who do not attend church (p. 5). Additionally, healthy relationships and social interactions may lead to needed resources that can be used in times of stress (Ellison et al., 2009, p. 657). Rasic, Robinson, Bolton, Bienvenu, and Sareen (2011) determined that the benefits of religious participation may also be related to the physical well-being of those are well enough to attend services, and therefore should be included in research (p. 849). There is some evidence to indicate that the extrinsic and social behaviors may be associated with lower levels of anxiety, while more private religious behaviors may be associated with higher levels of anxiety (Maltby & Day, 2003; Shreve-Neiger & Edelstein, 2004).

In addition to the positive social benefits of religion, belief in a divine entity may lead to better coping skills for daily life, and a belief in the afterlife may provide perspectives that lead to tranquility and calmness (Ellison et al., 2009, p. 658). However, belief in sin may also be connected with an increase in anxiety (Ellison et al., 2009, p. 659). Participation in worship seems to have positive effects on mental health, including anxiety and distress, and services may provide an outlet for emotional release (Ellison et al., 2009; Shreve-Neiger & Edelstein, 2004). Research on prayer has yielded mixed results, but it may be positively associated with anxiety relief from long-term problems (Ellison et al., 2009; Shreve-Neiger & Edelstein, 2004).

Maltby and Day (2003) examined orientations towards religion and the relationship these orientations may have with participants' appraisals of stressful situations. Those who indicated an extrinsic orientation of religion understood stressful situations to be more threatening and or to evoke feelings of loss; Maltby and Day (2003) indicated that this finding is consistent with previous research that has associated extrinsic religious orientation with less psychological well-being (p. 1217). Alternately, those who were more intrinsically or quest oriented were less likely to view stressful challenges as threatening or sad; rather, they were more likely to view the challenge as an opportunity grow as an individual (Maltby & Day, 2003, p. 1217). The researchers concluded that stress appraisals could be important indicators for the positive or negative effects of religion on coping (Maltby & Day, 2003, p. 1217).

Religious practices including participation in worship services may lead to overall health benefits including decreased levels of stress and depression and lower rates of mortality (Stanley et al., 2011, p. 334). In a longitudinal study Rasic et al. (2011) determined that people who attended worship services were less likely to have attempted suicide (p. 850). These positive effects may be related to the benefits of growing up in a religious home and with a family that had secure attachments (Rasic et al., 2011, p. 851-2). While church attendance was negatively associated with suicide attempts, attendance was not significantly associated with fewer major depressive events or anxiety disorders (Rasic et al., 2011, p. 852). Schwadel and Falci (2012) found little relationship between church attendance and mental health outcomes when looked at with a wide lens. However, within evangelical protestant and mainline protestant groups, results were significant. For mainline protestants lower attendance was associated with more depressive symptoms. Evangelicals with high attendance reported higher depressive symptoms than those who only attended regularly (p. 29).

Shreve-Neiger and Edelstein (2004) recommended increased research into the benefits of religion for older adults as “there is growing evidence to suggest that this population taps into some of the more positive and healthful aspects of religion” (p. 393). As such, some researchers discuss a need for continued research into the benefits of using religion and spirituality in the therapeutic setting (Stanley et al., 2011, p. 334). Stanley et al. (2011) determined that 83% of older adults seeking mental healthcare for anxiety and depression believed it was important to include spirituality in the therapeutic setting, and 61% of those sampled indicated the importance of discussing religion in the therapeutic setting (p. 338-9).

In a longitudinal study in the United Kingdom data indicated that those who had consistently attended church (at least once a month) had higher wellbeing scores over those who attended less often or did not attend (Kaushal, Cadar, Stafford, & Richards, 2015). Similarly, those who held “‘very strong’ religious beliefs” as young adults reported better mental health than those who had “‘little belief” (Kaushal et al., 2015). Other research indicated mixed results on the effects of religiosity or religious coping and anxiety (Toburen & Meier, 2010, p. 128). In a study that involved working on unsolvable tasks, Toburen and Meier (2010) found that those who had been primed with religious language worked longer at the task but felt more anxiety than those who had not been primed. There did not appear to be different result for those who self-identified as religious and those who identified as Atheist/Agnostic/Other (Toburen & Meier, 2010, p. 137). Another study in the United Kingdom examined the effects of a church service on anxiety in adults ages 32-60 years old (Maltby, 1998). Using the State Trait Anxiety Questionnaire 30 minutes before and after a church service, Maltby (1998) found that attendance in the service indicated a significant decrease in levels of state anxiety (p. 537).

Just as different demographics may have been more likely to report different attitudes toward mental health and mental healthcare, different demographics seemed to receive different benefits from religious practice. Some studies suggested that black and Hispanic Americans may receive more mental health benefits from participating in religious communities than white Americans (Sternthal et al., 2012, p. 172). This phenomenon may be related to the cultural identity for minority groups that took shape and was reinforced in the church setting (Sternthal et al., 2012, p. 172). Sternthal et al. (2012) found that different components of religious life had different effects on different racial or ethnic groups; for white Americans, service attendance, self-forgiveness, meaning, and interpersonal forgiveness decreased anxiety; black Americans had decreased anxiety related to meaning, and interpersonal forgiveness (p. 175). Hispanic Americans indicated an increase in anxiety related to religious saliency, while black Americans saw an increase in anxiety related to congregational criticism (Sternthal et al., 2012, p. 175). Sternthal et al. (2012) determined that the discrepancy among demographics may be related to social factors within the minority groups that externally prioritize participation in church communities.

While women were more likely to seek mental health care, they were also more likely to use their religion as a coping technique for handling mental health difficulties (King, Cummings, & Whetstone, 2005, p. 288). In a longitudinal study examining the effects of religion on the mental health of midlife women, King et al. (2005) found that women who regularly attended religious services demonstrated better mental health as well as physical health (p. 293). While a number of studies indicated the benefits of church attendance and religiosity on mental health in general, there is a need for increased research to determine the causes and levels of anxiety for church-going individuals.

According to Rasic, Kisely, and Langille (2011) 25% of the population will have experienced serious depression by the end of adolescence (p. 389). As with other demographics, research related to religion and its effects on adolescents has been mixed; however, it does appear that the positive relationships related to religious participation may be beneficial for adolescents as well (Rasic et al., 2011, p. 390). There does appear to be an important distinction between the importance one places on religion and actual attendance at religious services in determining its effects on adolescents. Attendance appeared to have protective value for suicidal ideation and substance abuse for teenaged females, while teenaged males who reported believing religion was important were less likely to use marijuana and attendance appeared to be protective against binge drinking (Rasic et al., 2011, p. 391).

Attitude towards religion does appear to be an important factor in understanding its benefits or detriments on mental health (Dezutter, Soenens, & Hutsebaut, 2006, p. 808). Dezutter et al. (2006) determined that attitudes and orientations were significantly related to psychological distress and well-being unlike attendance or belief salience (p. 816). The researchers also suggested that those who think literally demonstrate a higher need for closure and are less open to new experiences and flexible with identities. This literal understanding of religion may make these people more “likely to appraise stress and change as threatening and to engage in rigid and maladaptive coping mechanisms, which, in turn, create a vulnerability to negative well-being” (Dezutter et al., 2006, p. 816).

Types of Churches

In studying the potential advantages and disadvantages of religious participation, it may also be important to examine the types of churches that populations are attending. Even among Christian groups churches can vary greatly in a number of capacities. Smith (1990) suggested

that it may be helpful to classify church groups “along a continuum from fundamentalism to liberalism” (p. 226). Storm and Wilson (2009) recommended understanding conservative and liberal churches as “different socioecological strategies in a multiple-niche environment” (p. 22).

Within Christianity Fundamentalists are generally understood to be the most conservative. This expression of Christianity developed from writings first published in 1909 as a reaction to modern liberalism. Fundamentalists typically believe in Biblical inerrancy, individual salvation after accepting Christ, Christ’s imminent return, and an evangelical call to convert non-Christians, in addition to most widely-held Protestant beliefs (Smith, 1990, p. 226; Woodberry & Smith, 1998, p. 35). Woodberry and Smith (1998) acknowledged that the lack of cohesive theological beliefs make it difficult to accurately identify conservative Protestants (p. 25). However, conservative Protestants were more likely to restrict the roles of women in leadership in the church body (Woodberry & Smith, 1998, p. 38). Conservative Protestants in the American South also tended "to be more separatistic and socially conservative than Northern Conservative Protestants" due to the unique historical experience in the South (Woodberry & Smith, 1998, p. 30-31).

Liberal denominations or churches can be found on the opposite end of the continuum. Liberal Christians generally were more concerned with social action, justice, and reform than the afterlife, support scientific advancement, are not concerned with Biblical literalism, the factual account of miracles, or Christ’s imminent return (Smith, 1990, p. 226). Smith (1990) noted that moderates fall between these two extremes and may hold any of the beliefs described above or differently nuanced beliefs altogether (p. 226). According to Storm and Wilson (2009) liberal churches were more likely to encourage independence and responsibility than conservative churches (p. 5). Classifying denominations or individual churches can be difficult as the criteria

may change or be clouded by relativism. Smith (1990) noted that in particular Baptists seemed to have the most difficulty in naming the exact denomination to which they belong (p. 236). This is likely due to the theological importance Baptists place on the autonomy of the local church.

Iannaccone's (1994) research on understanding strict churches can help to further understand the functional differences among more conservative and liberal churches. Kelly explained that strict churches were bastions of "absolutism, conformity, and fanaticism" while lenient churches embraced "relativism, diversity, and dialogue" (as cited in Iannaccone, 1994, p. 1182). Strict, or conservative churches were more likely to "proclaim an exclusive truth- a closed, comprehensive, and eternal doctrine. They demanded adherence to a distinctive faith, morality, and lifestyle" (Iannaccone, 1994, p. 1182). Additionally, those who attended more strict churches were more likely to have lower income and education than those who attended more lenient churches (Iannaccone, 1994, p. 1201). Storm and Wilson (2009) indicated that in the United States religious participation was negatively correlated to wealth, social rank, and education (p. 2). However, those who participate in more strict congregations were more likely to give time and money to their churches and to identify as committed members (Iannaccone, 1994, p. 1205). Individuals who participate in strict congregations were more likely to attend more often (Storm & Wilson, 2009, p. 2).

In a study examining conservative, moderate, and liberal religious groups, Glover (1997) determined that conservatives were significantly less likely to articulate moral reasoning than moderates or liberals, among whom there was no significant difference (p. 251-2). This indicated that conservatives are more likely to make decisions on moral questions based on their interpretation of divine law rather than on other principles (Glover, 1997, p. 253). Storm and

Wilson (2009) suggested that the structure of conservative religion gives authorities the decision-making power, freeing the general congregation to simply be obedient (p. 4-5).

Religious people may also choose to engage in political action that connects with their religious beliefs. Leege and Welch (1989) suggested that the connection between religion and politics is "real and should not be ignored" (p. 154). Research from Audette and Weaver (2016) indicates that congregations that are active in the political arena have higher attendance than nonpolitical congregations, and congregations that become more political are likely to gain members (p. 254). However, the rise of the Religious Right in American politics is associated with less religious involvement for individuals who identify as liberal (Audette & Weaver, 2016, p. 245).

Chapter Summary

This chapter contained a detailed background into the construct of worry, including its relationship with comorbid personality disorders, diagnosis, and treatment. Further included was information related to generational differences, particularly as it related to mental health and worry. Information was also given about religion, religion and mental health, and types of churches in regard to conservative, moderate, and liberal. Chapter 3 explains the methodology of this quantitative research study including research questions, instrumentation, and population. Chapter 4 presents the data analysis portion of the findings. Chapter 5 summarizes the study, including conclusions and recommendations for further research.

CHAPTER 3

RESEARCH METHODS

To assess the levels and sources of worry experienced by a churchgoing population, I conducted a nonexperimental quantitative study that provided survey participants the opportunity to self-report about their worry. The purpose of this quantitative study was to measure self-reported levels and sources of worry among church-goers from three congregations and to examine the relationship among peers when sorted by demographic group. The three congregations represent a spectrum of churches in an attempt to determine if there are significant differences among more conservative, moderate, and liberal churches.

To most effectively address the research questions described above, I chose to design a comparative, nonexperimental quantitative research study using a survey. A nonexperimental design indicates that the research does not include any type of intervention or manipulation of the participants. Rather, nonexperimental design seeks to describe and quantify observed data. In this instance the study seeks to collect data about levels and causes of worry experienced by individuals. Additionally, a comparative design is used when a researcher is attempting to evaluate differences among groups of participants. For the purposes of this study these groups were sorted by frequency of church attendance, age group, gender, and type of church. Survey-based research allows the investigator to collect data about participants' attitudes, experiences, beliefs, and more. As noted by McMillan and Schumacher (2010), surveys can help in making generalizations about a population given the survey results of the sample (p. 23).

This design of this quantitative study was guided by the six guiding principles of scientific, evidence-based educational research. These principles ensure that research is conducted in order to answer meaningful questions through empirical research, is connected to a

larger conceptual framework, uses appropriate methodology, uses clear and consistent reasoning, has the potential to be replicated and generalized, and is shared within the academic community for review (McMillan & Schumacher, 2010, p. 6-7). Each of these principles contributes to the academic rigor of the study but also helps the research make a useful contribution to the larger body of research.

Research Questions and Null Hypotheses

The following research questions were addressed in the study and data analysis.

Research Question 1

Is there a significant difference in the levels of worry as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches?

Ho1: There is not a significant difference in the levels of worry as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches.

Research Question 2

Is there a significant difference in the General Worry factor scores as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches?

Ho2: There is not a significant difference in the absence of worry as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches.

Research Question 3

Is there a significant difference in the Absence of Worry factor scores of the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches?

Ho3: There is not a significant difference in the Absence of Worry factor scores of the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches.

Research Question 4

Is there a statistically significant difference in the levels of worry as measured by the Penn State Worry Questionnaire among the five church attendance groups (one or less times per month, two times per month, three times per month, four times per month, or five or more times per month)?

Ho4: There is no significant difference in the levels of worry as measured by the Penn State Worry Questionnaire among the five church attendance groups (one or less times per month, two times per month, three times per month, four times per month, or five or more times per month).

Research Question 5

Is there a significant difference in the worry level as measured by the Penn State Worry Questionnaire between males and females who attend church?

Ho5: There is no significant difference in the reported worry levels between males and females who attend church.

Research Question 6

Is there a significant difference in the level of worry as measured by the Penn State Worry Questionnaire among the age groups surveyed (18-29, 30-39, 40-49, 50-59, 60-69, 70-79, and 80 or older)?

Ho6: There is not a significant difference in the level of worry as measured by the Penn State Worry Questionnaire among the age groups surveyed.

Instrumentation

To determine the level of worry reported by survey participants, I used the Penn State Worry Questionnaire (PSWQ) (Appendix A). The PSWQ is in the public domain. According to van Rijsoort, Emmelkamp, and Vervaeke (1999) the PSWQ “was developed as a trait measure for worry and more specifically to measure aspects of clinically significant worry” (p. 298). Among nonclinical and clinical samples the instrument maintains a high internal consistency (Cronbach's alpha range: 0.90-0.95) (van Rijsoort et al., 1999, p. 298). Findings from administration of the PSWQ tend to be significantly similar to findings from the Beck Depression Inventory (Beck et al., 1961) and the State Trait Anxiety Inventory (STAI; Spielberger, 1983) (van Rijsoort et al., 1999, p. 298). Van Rijsoort et al. (1999) found the PSWQ to be “useful for a non-clinical population” (p. 306). The instrument has 16 questions, 5 of which are reverse scored (items 1, 3, 8, 10, and 11). Potential scores of the PSWQ range from 16-80, with a higher score indicating more intense trait worry.

The PSWQ was originally intended as a unifactorial measure of worry. However, subsequent research studies and practical use suggest that within the unifactorial measure two other useful factors emerge (Hazlett-Stevens, Ullman, & Craske, 2004, p. 361). These two factors are the General Worry Factor that includes the scores of the positively worded questions

and the Absence of Worry Factor that includes the scores of the negatively worded questions. The score range for the General Worry Factor is 11-55 and the score range for the Absence of Worry Factor is 5-25.

In addition to the PSWQ, participants were asked to respond to demographic questions related to their gender, age, church attendance, and where they attend church. Finally, given a list of 30 potential causes for worry, participants were asked to rank their top five causes.

Population

I surveyed adult churchgoers in three Raleigh, North Carolina congregations. Participants were a representative sample of Baptist churchgoers. Each participant church was connected to at least one larger Baptist organization such as the Southern Baptist Convention, the Cooperative Baptist Fellowship, and/or the Alliance of Baptists. This selection provided a more focused study and useful conclusions and recommendations for the future. However, while the churches selected for participation were limited, they represented a wide range of theological, social, and political beliefs. By including three churches, there was a large number of participants invited to participate in the study. Subgroups included the age ranges indicated above, males, females, groups associated by their frequency of church attendance, and those who attend a conservative, moderate, or liberal church. There were 266 study participants.

Data Collection

Prior to conducting the survey, the Institutional Review Board (IRB) of the participating institution granted permission for research with human subjects. A variety of Baptist churches in the geographic range were initially contacted for potential participation in the study. From the potential participants, three churches emerged who were both willing to participate and also fit the theological criteria needed. The senior pastors of each congregation confirmed their

willingness to participate in the research and to share the survey with their congregation members via email.

Data collection occurred by email. Participants received an email that included information about the survey and the link to the survey from their church's email administrator. The body of the email contained a brief introduction and description of the type of research being conducted. It also explained that only adults who attended the particular churches included in the study should participate, that participation required participation in an online survey, and that participation was voluntary. It concluded with the link to the survey. The full text of the email is found in Appendix B. Upon clicking the link participants were informed that their participation and responses would be confidential and that there would be no effort to identify individuals. Finally, participants were notified that taking the survey was voluntary, and they could discontinue participation at any point while taking the survey. Appendix C contains the full text of the informed consent text. Prior to accessing the actual survey participants were asked to indicate their desire to participate. If consent was not extended, the survey was closed. The entire survey did not take longer than 10 minutes for each participant. The survey was active for 1 month to allow for participants to have time to complete it and participants received a reminder they could participate after 2 weeks.

Data Analysis

Data from the participant surveys were compiled in one Microsoft Excel file and then imported into IBM-SPSS version 23.0 data file. Six research questions and the corresponding null hypotheses were developed. IBM-SPSS was used for each of the statistical analyses used in the study. An alpha level at .05 was used throughout this study.

Research questions 1-3 were addressed using a one-way analysis of variance (ANOVA) to evaluate the relationship between level of worry, General Worry factor, and Absence of Worry factor and church type. The factor variable, the church type, included three levels: conservative, moderate, and liberal. The dependent variable was the PSWQ score or scores on the two other factors. Assuming the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise difference among the means of the three groups. A Tukey procedure was selected for the multiple comparisons if equal variances are assumed.

Research question 4 was addressed using a one-way analysis of variance (ANOVA) to evaluate the relationship between levels of worry and frequency of church attendance. The factor variable, church attendance, included five levels: one or less times per month, two times per month, three times per month, four times per month, or five or more times per month. The dependent variable was the level of worry reported. Assuming the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise difference among the means of the three groups. A Tukey procedure was selected for the multiple comparisons if equal variances are assumed.

Research question 5 was addressed using an independent-samples t test to evaluate the relationship between levels of worry and gender. The test variable was PSWQ score and the grouping variable was male or female. For a statistically significant relationship between the grouping variables and the test variable, the appropriate follow-up tests were conducted (Green & Salkind, 2011).

Research question 6 was addressed using a one-way analysis of variance (ANOVA) to evaluate the relationship between levels of worry and age groups. The factor variable, age, included seven levels: 18-29, 30-39, 40-49, 50-59, 60-69, 70-79, and 80 or older. The dependent

variable was the level of worry reported. Assuming the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise difference among the means of the three groups. A Tukey procedure was selected for the multiple comparisons if equal variances are assumed.

Chapter Summary

This chapter served as an explanation of the methodology of this quantitative research study. Included were an introduction, research questions and hypotheses, a description of the instrumentation, an overview of the population, information regarding data collection, and the methods for data analysis. Chapter 4 presents the data analysis of the findings. Chapter 5 is a summation of the study, including a report on the findings and conclusions, as well as recommendations for further research.

CHAPTER 4

FINDINGS

The purpose of this quantitative study was to explore the relationship between self-reported levels of worry among various demographics of a church-going population as measured by the Penn State Worry Questionnaire (PSWQ). The survey had three sections. The first included demographic information including gender, age, and frequency of church attendance. The second section of the survey was optional and provided participants the opportunity to share their top three causes of worry. The final section of the survey was the Penn State Worry Questionnaire. The Penn State Worry Questionnaire is a 16-item instrument that requires participants to respond statements about their worry habits on a 1-5 Likert-type scale. The study was designed to measure the level of worry across age, gender, frequency of church attendance, and type of church attended.

The target population of this study included members and regular attenders of one of the three participating Baptist churches in Raleigh, North Carolina. The churches were selected for the study based on their theological beliefs that defined them as either a conservative, moderate, or liberal congregation. The nonrandom sample consisted of people who chose to participate in the survey after receiving the online link to it by email from their church email administrator. Two hundred sixty-seven of returned surveys were usable. Those deemed unusable were eliminated because of incomplete responses. The response rate was 84%.

There were 266 participants included in this study. Approximately 66% (175) identified as female. The ages of the participants ranged from 18 to over 80 years old. Self-reported church attendance ranged from less than one time per month to over five times per month. Finally, 79%

of the sample attended the moderate church, 12% attended the liberal church, and 9% attended the conservative church. All demographics collected for this study are displayed in Table 1.

Table 1

Gender, Age Range, Attendance, and Church Type Information

Variable	N	%
<u>Church Type</u>		
Conservative	25	9.4
Moderate	210	78.9
Liberal	31	11.7
Total	266	
<u>Gender</u>		
Male	91	34.2
Female	175	65.8
Total	266	
<u>Age</u>		
18-29	25	9.4
30-39	21	7.9
40-49	37	13.9
50-59	59	22.2
60-69	58	21.8
70-79	55	20.7
80 or older	11	4.1
Total	266	
<u>Monthly Attendance</u>		
1 time or less	10	3.8
2 times	29	10.9
3 times	59	22.2
4 times	137	51.5
5 or more times	31	11.6
Total	266	

Results

The research questions were used to understand the self-reported levels of worry among a church-going population. The research questions examined levels of worry across demographic group as well as across type of church. Responses to the optional questions regarding the causes of worry are included in Table 5.

Research Question 1

Is there a significant difference in the levels of worry as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches?

H₀₁: There is not a significant difference in the levels of worry as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches.

A one-way analysis of variance was conducted to evaluate the relationship between type of church and level of worry as measured by the PSWQ. The factor variable the type of church included three levels: conservative, moderate, and liberal. The dependent variable was the PSWQ score. The ANOVA was not significant, $F(2, 266) = 2.21, p = .112$. Therefore, H₀₁ was retained. The strength of the relationship between type of church and PSWQ scores as assessed by η^2 was small (.02). The results indicate that the PSWQ score was not significantly related to church type. The means and standard deviations for the three church groups are reported in Table 2 and boxplots are displayed in Figure 1.

Table 2

Means and Standard Deviations of Church Type by PSWQ Score

Church Type	N	M	SD
Conservative	25	45.64	14.67
Moderate	210	43.66	13.46
Liberal	31	48.94	11.56

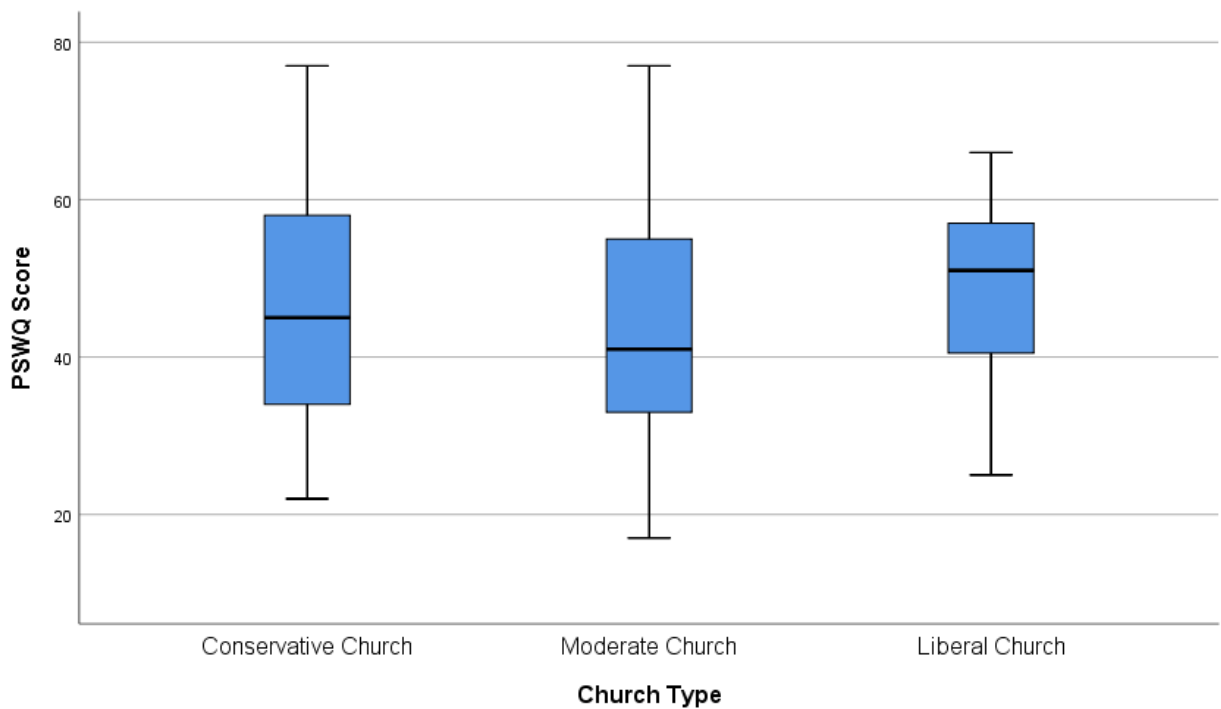


Figure 1. Boxplot of PSWQ Scores by Type of Church

Research Question 2

Is there a significant difference in the General Worry factor scores as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches?

Ho2: There is not a significant difference in the absence of worry as measured by the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches.

A one-way analysis of variance was conducted to evaluate the relationship between type of church and General Worry factor as measured by the PSWQ. The General Worry factor is determined by responses to items 2, 4, 5, 6, 7, 9, 12, 13, 14, 15, and 16 on the PSWQ. The factor variable the type of church included three levels: conservative, moderate, and liberal. The dependent variable was the General Worry factor score. The ANOVA was not significant, $F(2, 266) = 2.57, p = .078$. Therefore, Ho2: was retained. The strength of the relationship between type of church and General Worry factor as assessed by η^2 was small (.02). The results indicate that the General Worry factor was not significantly related to church type. The means and standard deviations for the three church groups are reported in Table 3 and boxplots are displayed in Figure 2.

Table 3

Means and Standard Deviations of Church Type by General Worry Factor

Church Type	N	M	SD
Conservative	25	28.84	12.94
Moderate	210	27.08	10.92
Liberal	31	31.71	8.68

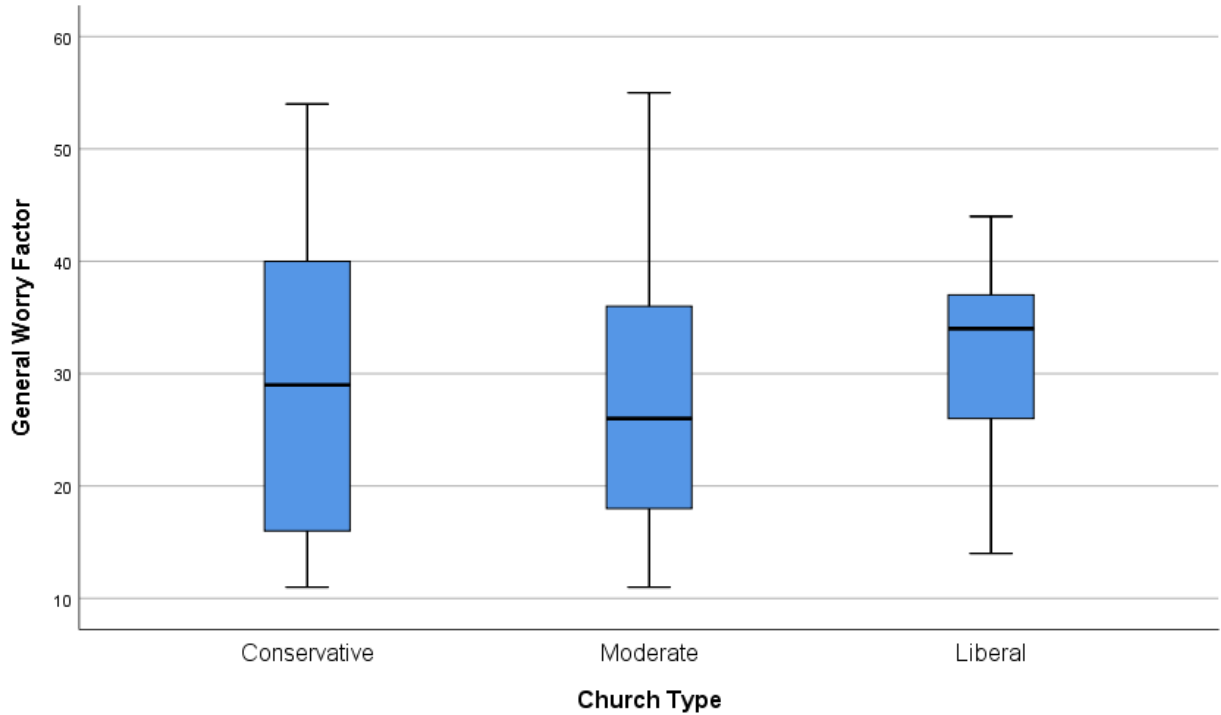


Figure 2. Boxplot of General Worry Factor Scores by Type of Church

Research Question 3

Is there a significant difference in the Absence of Worry factor scores of the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches?

Ho3: There is not a significant difference in the Absence of Worry factor scores of the Penn State Worry Questionnaire between church-goers who attend conservative, moderate, or liberal Baptist churches.

A one-way analysis of variance was conducted to evaluate the relationship between type of church and Absence of Worry factor as measured by the PSWQ. The Absence of Worry factor is the sum of responses to items 1, 3, 8, 10, and 11 on the PSWQ. The factor variable the type of church included three levels: conservative, moderate, and liberal. The dependent variable was the Absence of Worry factor score. The ANOVA was not significant, $F(2, 266) = .34, p = .710$.

Therefore, Ho3: was retained. The strength of the relationship between type of church and General Worry factor as assessed by η^2 was small ($<.01$). The results indicate that the Absence of Worry factor was not significantly related to church type. The means and standard deviations for the three church groups are reported in Table 4 and boxplots are displayed in Figure 3.

Table 4

Means and Standard Deviations of Church Type by Absence of Worry Factor

Church Type	N	M	SD
Conservative	25	16.80	4.56
Moderate	210	16.58	4.11
Liberal	31	17.23	3.79

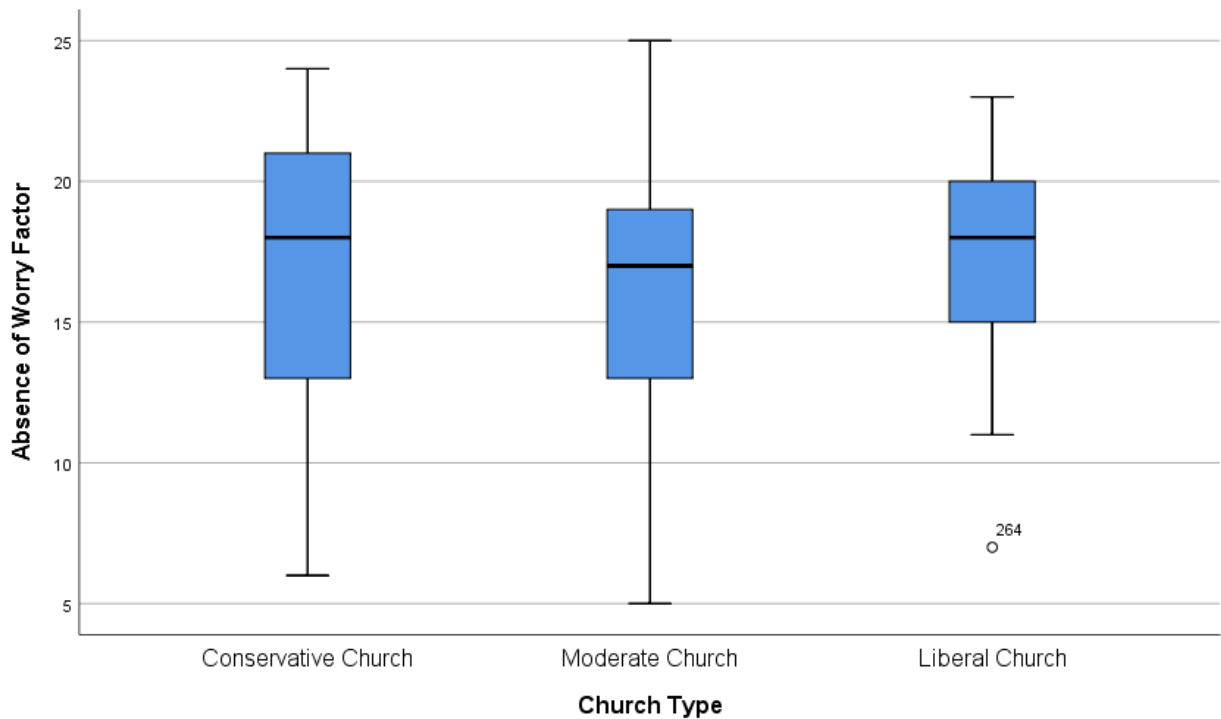


Figure 3. Boxplot of Absence of Worry Factor Scores by Type of Church

Research Question 4

Is there a statistically significant difference in the levels of worry as measured by the Penn State Worry Questionnaire among the five church attendance groups (one or less times per month, two times per month, three times per month, four times per month, or five or more times per month)?

Ho4: There is no significant difference in the levels of worry as measured by the Penn State Worry Questionnaire among the five church attendance groups (one or less times per month, two times per month, three times per month, four times per month, or five or more times per month).

A one-way analysis of variance was conducted to evaluate the relationship between church attendance and level of worry as measured by the Penn State Worry Questionnaire. The factor variable, the church attendance factor, included five levels: attending church one time or less per month, attending two times a month, attending three times per month, attending four times per month, and attending five times per month. The dependent variable was the PSWQ score. The ANOVA was significant, $F(4, 266) = 3.90, p = .004$. Therefore, Ho4: was rejected. The strength of the relationship between church attendance and PSWQ score as assessed by η^2 was medium (.06).

Because the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise differences among the means of the five groups. A Tukey procedure was selected for the multiple comparisons because equal variances were assumed. There was a significant difference in the means between the group that attended church one time or less per month and the group that attended four times per month ($p = .020$). However, there was not a significant difference between any other groups. It appears that attending church four times a

month is associated with a reduction in worry levels as measured by the PSWQ. The 95% confidence intervals for the pairwise differences, as well as the means and standard deviations for the five church attendance groups are reported in Table 5. Table 6 features the Confidence Intervals of Pairwise Differences for church attendance groups and boxplots are displayed in Figure 4.

Table 5

Means and Standard Deviations of Church Attendance Groups

Church Attendance Per Month	N	M	SD
1 time or less	10	55.60	13.17
2 times	29	49.10	14.86
3 times	59	46.02	14.02
4 times	137	42.36	12.39
5 times or more	31	44.46	13.43

Table 6

95% Confidence Intervals of Pairwise Differences of Church Attendance

Church Attendance Per Month	1 time or less	2 times	3 times	4 times
1 time or less				
2 times	[-6.75, 19.74]			
3 times	[-2.77, 21.93]	[-5.10, 11.28]		
4 time	[1.41, 25.07] *	[-.64, 14.13]	[-1.96, 9.28]	
5 times or more	[-.40, 25.86]	[-3.10, 15.56]	[-4.86, 11.16]	[-7.70, 6.67]

*Significant at .05.

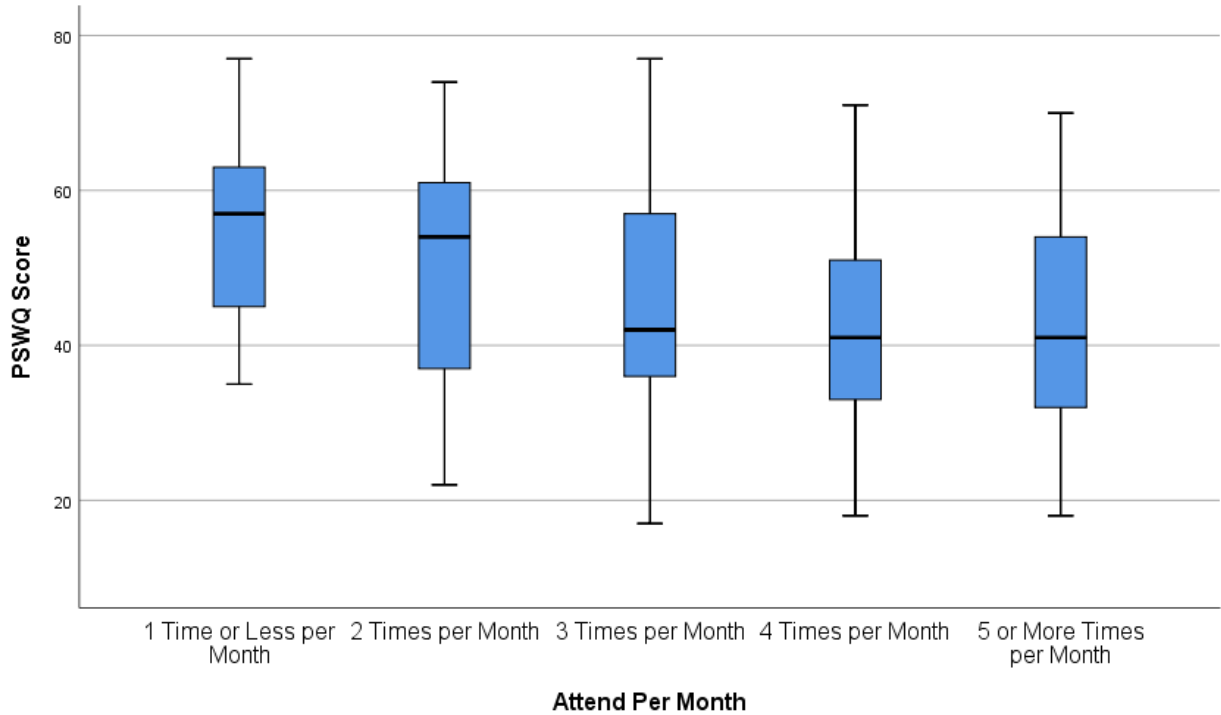


Figure 4. Boxplot of PSWQ Scores by Attendance Per Month

Research Question 5

Is there a significant difference in the worry level as measured by the Penn State Worry Questionnaire between males and females who attend church?

Ho5: There is no significant difference in the reported worry levels between males and females who attend church.

An independent-samples t test was conducted to evaluate whether the mean amount of worry differed between male and female participants. The PSWQ score was the test variable and the grouping variable was male or female. Levene's test for equality of variances was significant, so equal variance was not assumed. The test was significant, $t(224.10) = -5.80, p = < .001$.

Therefore, Ho5: was rejected. Men ($M = 38.63, SD = 10.73$) tended to score lower on the PSWQ than women ($M = 47.50, SD = 13.71$). The 95% confidence interval for the difference in means

was -11.89 to -5.86. The η^2 index was .11, which indicated a medium effect size. Female church-goers tended to score significantly higher than male church-goers on the PSWQ. Figure 5 shows the distributions for the two groups.

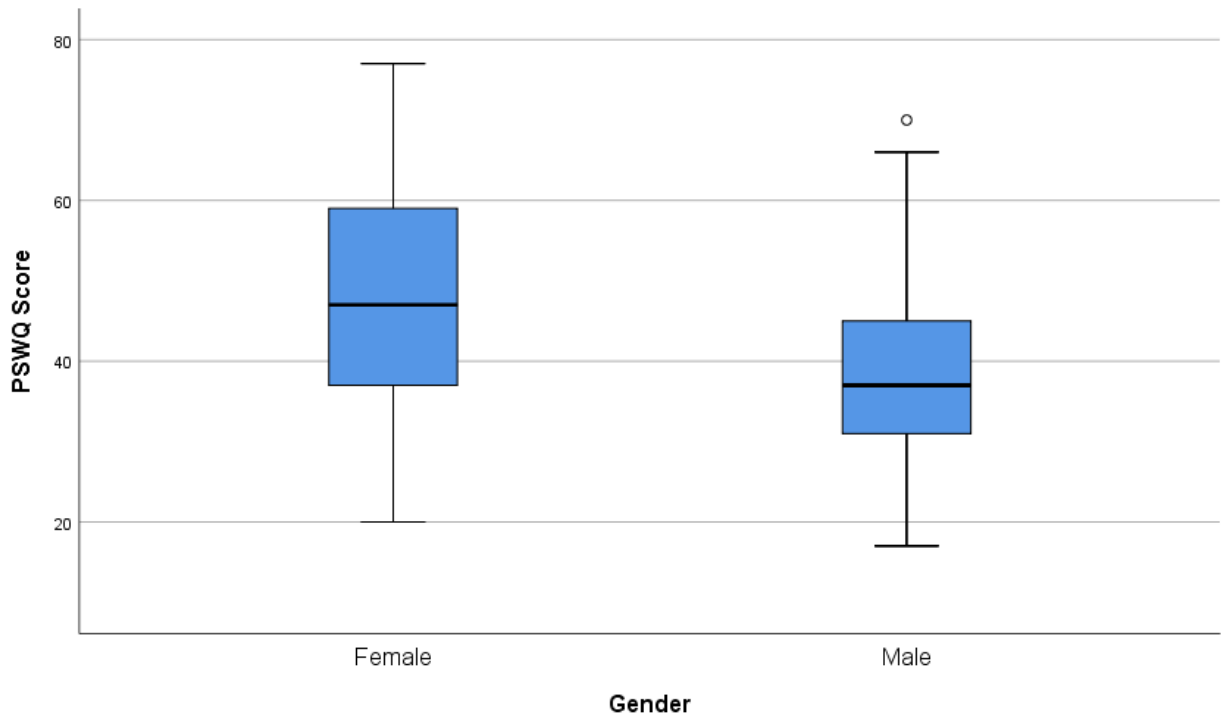


Figure 5. Boxplot of PSWQ Score by Gender

Research Question 6

Is there a significant difference in the level of worry as measured by the Penn State Worry Questionnaire among the age groups surveyed (18-29, 30-39, 40-49, 50-59, 60-69, 70-79, and 80 or older)?

Ho6: There is not a significant difference in the level of worry as measured by the Penn State Worry Questionnaire among the age groups surveyed.

A one-way analysis of variance was conducted to evaluate the relationship between age group and level of worry as measured by the Penn State Worry Questionnaire. The factor

variable age group included seven levels: 18-29, 30-39, 40-49, 50-59, 60-69, 70-79, and 80 or older. The dependent variable was the PSWQ score. The ANOVA was significant, $F(6, 265) = 7.38, p = < .001$. Therefore, H_0 was rejected. The strength of the relationship between age group and PSWQ score as assessed by η^2 was large (.15).

Because the overall F test was significant, post hoc multiple comparisons were conducted to evaluate pairwise difference among the means of the seven groups. A Tukey procedure was selected for the multiple comparisons because equal variances were assumed. There was a significant difference in the means between the 18-29 year old group and the 50-59 year old group ($p < .001$), 18-29 year old group and the 60-69 year old group ($p < .001$), 18-29 year old group and the 70-79 year old group ($p < .001$), the 18-29 year old group and the 80 and older group ($p = .050$), the 30-39 year old group and the 70-79 year old group ($p = .012$), and the 40-49 year old group and the 70-79 year old group ($p = .008$). However, there was not a significant difference between other groups. It appears that as church-goers age, generally they worry less. The means and standard deviations for the seven age groups, are reported in Table 7. Table 8 contains the 95% Confidence Intervals for each age group and boxplots are displayed in Figure 6.

Table 7

Means and Standard Deviations for Age Groups

Age Group	N	M	SD
18-29	25	55.60	13.29
30-39	21	51	14.17
40-49	37	49.38	14.29
50-59	59	41.71	12.23
60-69	58	41.74	12.16
70-79	55	39.89	10.92
80+	11	42.09	12.95

Table 8

95% Confidence Intervals of Pairwise Differences of Age Groups

Age Group	18-29	30-39	40-49	50-59	60-69	70-79
30-39	[-6.44, 15.64]					
40-49	[-3.44, 15.88]	[-8.57, 11.81]				
50-59	[4.99, 22.79]*	[-.19, 18.77]	[-.16, 15.49]			
60-69	[4.93, 22.78]*	[-.24, 18.76]	[-.21, 15.49]	[-6.93, 6.87]		
70-79	[6.71, 24.71]*	[1.54, 20.68]*	[1.56, 17.42]*	[-5.17, 8.81]	[-5.17, 8.87]	
80+	[.01, 27.01]*	[-4.98, 22.79]	[-5.52, 20.10]	[-12.63, 11.87]	[-12.62, 11.92]	[-14.52, 10.12]

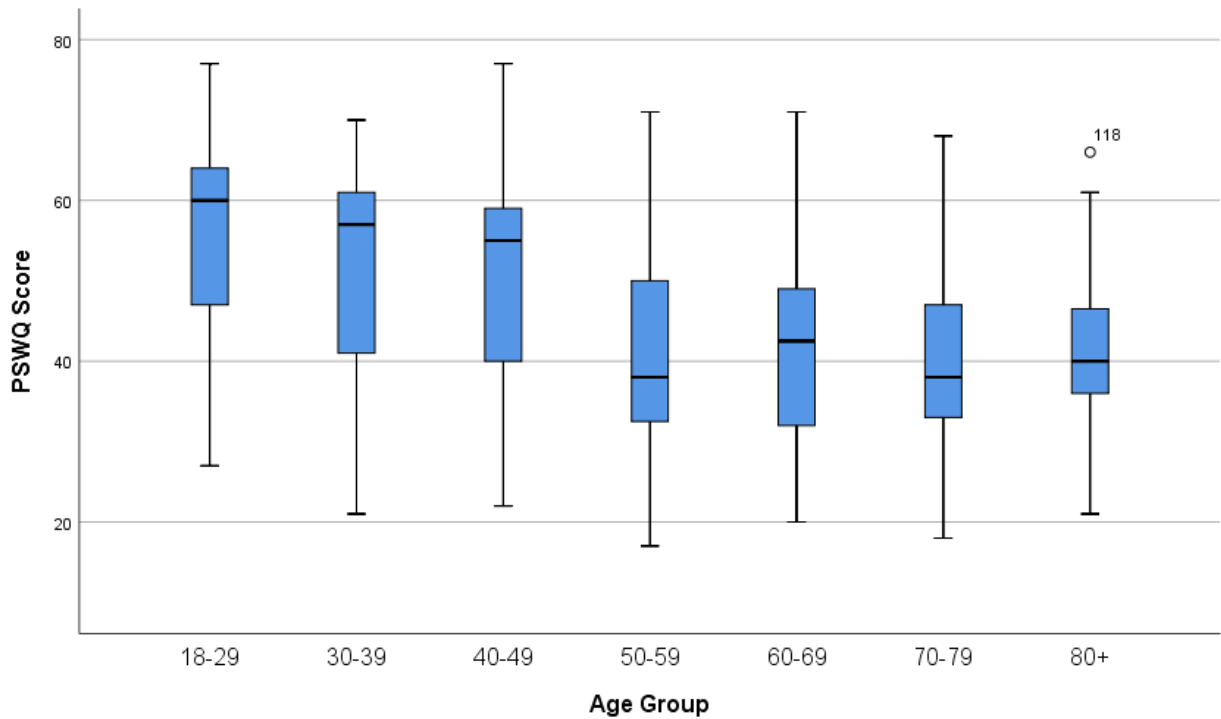


Figure 6. Boxplot of PSWQ Score by Age Group

In addition to determining the reported level of worry, survey participants were invited to report on their most common causes of worry. Table 9 represents the compiled data from the optional free response question regarding causes of worry. Surveys that were otherwise incomplete are included in the analysis and table below. Responses were grouped by type and are organized by church type. Percentages represent the percent of responses in each category from each church and so may not equal 100%.

Table 9

Causes of Worry by Church Type

Cause of Worry	Conservative (N=31) %	Moderate (N=250) %	Liberal (N=37) %
Finances	32.3	32	27
Politics	9.7	9.6	56.8
Family Wellness	16.1	31.2	10.8
Children/Grandchildren	9.7	32.8	13.5
Personal Health	16.1	28.4	10.8
Future Life Event/Stage	3.2	11.2	24.3
Relationships	12.9	10.4	13.5
Work/Duty	9.7	12.8	13.5
World/Culture	-----	10.8	18.9
Emotions	9.7	2.4	8.1
Environmental Degradation	-----	.8	10.8
Time Management	-----	4	5.4
Safety	3.2	1.6	-----

CHAPTER 5

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

The purpose of this study was to measure the self-reported levels of everyday worry among church-going adults as measured by the Penn State Worry Questionnaire (PSWQ). The study was crafted to examine the interaction between church type, church attendance, gender, age, and level of worry. Additionally, participants could choose to share their most frequent sources of worry.

Participants in the study were individuals who were associated with one of three churches in a mid-sized city in the southeast. Churches were selected on the basis of their conservative, moderate, or liberal theology. Participants were all 18 years old or older. There were 266 participants from the three churches that participated in the survey for an 84% response rate. The primary instrument for the study was the Penn State Worry Questionnaire (Appendix A). The PSWQ is a commonly used survey tool for evaluating clinical levels of anxiety and includes two factors- the absence of worry factor and general worry factor. Other questions pertained to demographic information and optional free responses regarding most common causes of worry.

Each church sent an email to its regular attendees that included a link to the survey. All surveying occurred online using a web-hosted survey platform. Participants self-reported all questions, including demographic information and frequent causes of worry. The final section of the survey was the PSWQ that includes 16 questions to which participants respond on a Likert-type scale ranging from “not at all typical of me” (1) to “very typical of me” (5). The sum of the PSWQ responses formed the score. Possible scores ranged from 16 to 80.

The statistical analyses reported in Chapter 4 were in response to the six research questions and corresponding null hypotheses presented in Chapter 3. Research questions 1, 2, 3,

4, and 6 were analyzed using a one-way analysis of variance to examine the mean scores across group and PSWQ score. Research question 5 was analyzed using an independent samples t-test. The level of significance used in the statistical analysis was .05. Descriptive statistics were also used to analyze participants' responses to their most frequent causes of worry.

Summary of the Findings

Participants reported the following demographics. There were 175 females or 65.79% and 91 or 34.21% males. The age range with the largest number of participants was 50-59 years old and included 22.18% of participants. Next was 60-69 years old with 21.8% of participants, followed by 70-79 years old that included 20.68% of the sample. The third largest group (13.91%) fell within the 40-49 years old range, 9.4% were between 18-29 years old, 7.89% were between 30-39 years old. The smallest age range was 80 years or older, which included 4.14% of the sample. Most participants (51.5%) reported attending church four times per month, followed by 22.18% reporting attendance three times per month, 11.65% reporting attending five or more times per month, 10.9% attending twice monthly, and 3.76% attending one or fewer times per month. Finally, 210 or 78.95% of the sample attended the moderate church, 31 or 11.65% attended the liberal church, and 25 or 9.4% attended the conservative church.

In research questions 1, 2, and 3 the scores of the Penn State Worry Questionnaire were compared between the three types of churches examined. While the liberal church had the highest mean scores on the PSWQ (48.94) and the General Worry factor (31.71), the main effect was not significant when compared with the scores of the other two churches. Curiously, the liberal church also had the highest mean score on the Absence of Worry factor (17.23), where one might expect it to have the lowest score. Despite the higher score, the main effect was not

significant. There does not appear to be any relationship between the type of church one attends (conservative, moderate, or liberal) and one's self-reported level of worry.

The relationship between level of worry and church attendance was explored in research question 4. In general more frequent church attendance was associated with lower PSWQ scores. Those who reported attending church one or fewer times per month (3.8%) had the highest PSWQ score ($M = 55.60$), significantly higher than those who attended church four times per month ($M = 42.36$). The benefits of church attendance appeared to drop off after four or more monthly attendances; those who attended five or more times per month (11.60%) did not report a significantly lower level of worry ($M = 44.36$) than those who attended least frequently ($M = 55.60$).

Research question 5 was designed to explore the level of worry between men and women. As anticipated, men reported a significantly lower level of worry ($M = 38.63$) than women ($M = 47.50$). This finding is consistent with previous literature that determined women, particularly young women, were most likely to experience higher levels of worry (Gould & Edelstein, 2010; Hunt et al., 2003).

Finally, levels of worry across age ranges were compared in research question 6. There were several significant main effects. People typically worry less as they get older. Participants 18-29 reported the highest level of worry ($M = 55.60$) and participants age 70-79 reported the lowest ($M = 39.89$). This finding is supported by previous studies examining the effect of aging on worry (Babcock et al., 2012; Gould & Edelstein, 2010; Hunt et al., 2003). There was a slight increase in worry between those 70-79 and 80-89; however, the increase was not statistically significant. It is possible that this finding could suggest that as individuals approach the near-

certain end of their lives, they begin worrying more. Further research would be necessary to determine a cause for an uptick in worry.

Study participants were also invited to share their most common causes of everyday worry. As was expected based on previous research, finances, politics, family wellness, and personal health were the top causes mentioned (LaBerge et al., 2000, p. 431). The liberal church was significantly more likely to report worrying about politics (56.8%) than the conservative (9.7%) or moderate (9.6%) churches. Additionally, the liberal church was significantly more likely to express worrying about environmental degradation (10.8%) than the conservative (0%) or moderate (.8%) churches.

Conclusion

Three of the six research questions explored in this study had a significant main effect. The data indicated that people who attended church more often generally experienced lower levels of everyday worry. However, the type of church attended had no effect on the level of worry or absence of worry. Men reported significantly less worry than women, and older people tended to report significantly less worry than younger people.

All people experience some degree of worry, and those who participated in this study reported a mean PSWQ score of 44.46. In a clinical setting scores ranging between 45-51 indicate further analysis that may reveal clinical anxiety (Salzer, Stiller, Tacke-Pook, Jacobi, & Leibing, 2009). The mean PSWQ score of people with Generalized Anxiety Disorder was 67.35 according to Behar, Alcaine, Zuellig, and Borkovec (2003). In a 1995 study seeking to obtain the norm score of the PSWQ in the American population Gillis, Haaga, and Ford (1995) found that the mean score for adults under age 45 was 43.5 and for those 45 and over, the mean was 38.9 (p. 452). While understood within the framework of PSWQ score norms and diagnostic cut offs, it is

clear that worry is a legitimate concern and increasingly so for many. Using the most sensitive cut-off scores for diagnosing clinical anxiety, many participants in this study could have been experiencing clinically significant levels of anxiety. Furthermore, it is not apparent from this study that a church-going population has significantly less worry than a nonchurch going population.

Among those surveyed individuals who attended church once or fewer times per month reported the highest level of worry. In a 2011 report on the religious habits of the American public Baylor University and Gallup determined that people who attended religious services once a month reported more mental health issues in the last month than any other segment of the population. In contrast, those who attended services several times a week reported the fewest (Mencken, Froese, & Morrow, 2011, p. 12). The stark similarity in these results suggests that this subgroup of church attenders may be particularly vulnerable to mental health issues including worry. Further research is needed to ascertain the contributing factors of worry for this group, but two potential causes emerge: this group could experience particular guilt or shame over their imperfect attendance, or they could be especially busy, and have quantitatively more reasons to worry.

While there was a great deal of overlap in causes of worry indicated by the three churches, the areas of divergence in common causes of worry prove to be interesting. The variety in responses (environmental degradation, politics, and personal safety, for example) could be related to the theology of the church. While conservative churches are more likely to be concerned about personal sin, liberal churches tend to place more of an emphasis on systemic evil and the individual's role in the system (Dahan & Monogan, 2016; Glover, 1997; Iannaccone, 1994). In that case it would be logical for liberal church-goers to be concerned with politics, the

environment, and the future while conservative church-goers would be more worried about personal concerns. In general people tend to be concerned with similar worries, but individual contexts are critical for understanding variation.

It is common for theological liberalism or conservatism to correlate with political liberalism or conservatism. Among the three churches the liberal church reported a higher level of worry ($M = 48.94$) than the conservative ($M = 45.64$) or moderate churches ($M = 43.66$). Given the summer 2018 timeframe for data collection, this higher mean score could be related to the political environment in which nearly all branches of the United States government are controlled by political conservatives. Researchers from Baylor University and Gallup found that political conservatives were less likely than moderates or liberals to feel that they worried too much or to report feeling “on edge” (Froese & Franzen, 2011). Results from the present study seem to indicate that liberals may experience slightly more worry in general, a reality reflected in other research.

The findings indicate that being a committed part of a church community may be beneficial in regard to everyday worry. However, the higher levels of worry reported by younger people, women, and infrequent attenders should be a cause of concern for those who provide programming, community, and pastoral care for those groups. For those who understand their church to be a place of respite and fellowship, providing opportunities to mitigate worry may be critical. Encouraging church attendance may be a useful means of reducing worry levels, but interactions at church should be meaningful and provide nonanxious opportunities for engagement and connection. Additionally, church leaders should work to educate attendees about self-care and mental health in an attempt to ensure the best possible results of church engagement.

Recommendations for Practice

The findings from this study could be used to make many recommendations. The following recommendations are practical means by which those who work with church-going populations can help congregants decrease their everyday worry:

1. Everyday worry can be an early warning sign of clinical anxiety and possibly depression, those in church leadership need to be able to evaluate worry and be able to make a referral to a licensed mental health professional (Chapman et al., 2009, p. 70).
2. Church leaders should resource their congregations with evidenced based coping strategies for stress relief, including meditation and mindfulness to mitigate worry.
3. Church leaders should learn communication and pastoral care methods that allow them to be a nonanxious presence for congregation members.
4. Knowing that church should be a place of respite from worry, church governance should be configured in such a way that volunteers have opportunities for self-care. Church leaders should seek ways to engage volunteers without adding to their worry load.
5. Understanding that individuals who attend church once a month are likely to experience the highest levels of worry, church leaders should review their communication habits to erase any guilt or shame associated with infrequent church attendance. Instead, these leaders should develop systems of acceptance and hospitality.
6. While most churches hold their primary worship opportunities on Sunday morning, churches should explore other times for worship attendance in the hope of finding a time that could work for people with complicated schedules.
7. Christian education curriculum developers should use this and similar research findings to develop curriculum pieces that are relevant to the demographics of their audience (age,

gender, type of church, church attendance, causes of worry, etc.) in order to achieve the best results.

Recommendations for Future Research

The following list details recommendations for potential areas for continued research:

1. The present study determined that there was a significant decrease in the level of worry between those who attended church one or fewer times per month and those who attended four times per month. Further research could seek to determine the ideal level of church attendance and church engagement as it relates to reducing worry level.
2. In this study church attendance was intentionally left open to interpretation by the participants. A future study could attempt to understand if particular types of church activity are more beneficial than others (for example, a service project compared with a traditional worship service). This area of research could lend itself to a qualitative design.
3. Each participant church in this study was a Baptist church. Replicating this study with other denominations may result in useful information for church leaders and possibly important feedback on the teachings of different Christian denominations.
4. This study could be replicated with other religions, in other locations, and with other races or ethnicities. Churches in this study were predominantly white. Including more diversity in the study could result in useful information regarding cross-cultural levels and causes of worry and appropriate interventions for anxiety.
5. All participants in this study were adults. Replicating this study with children and teenagers may provide beneficial information about ways to reduce the rapidly increasing levels of anxiety in younger populations.

6. The oldest group surveyed in this study reported a slight increase in their level of worry. Continued research into potential causes for that increase could help public health officials, church leaders, individuals, and caregivers better understand the latest stages of life.
7. Qualitative research could be conducted to determine why or how individuals felt that their church engagement helped to decrease their worry.

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APPENDICES

APPENDIX A

Survey Instrument

Demographic Questions

- 1) Are you male or female?
- 2) Circle your age group: 18-35, 36-55, 56-65, 66 and older.
- 3) On average, do you attend church less than one time per month, 1-3 times per month, or four or more times per month?
- 4) What church do you attend?
- 5) In the space provided, share your top three causes for worry (optional).

The Penn State Worry Questionnaire (PSWQ)

(Meyer, Miller, Metzger, & Borkovec, 1990)

Instructions: Rate each of the following statements on a scale of 1 (“not at all typical of me”) to 5 (“very typical of me”). Please do not leave any items blank.

	Not at all typical of me					Very typical of me
1. If I do not have enough time to do everything, I do not worry about it.	1	2	3	4	5	
2. My worries overwhelm me.	1	2	3	4	5	
3. I do not tend to worry about things.	1	2	3	4	5	
4. Many situations make me worry.	1	2	3	4	5	
5. I know I should not worry about things, but I just cannot help it.	1	2	3	4	5	
6. When I am under pressure I worry a lot.	1	2	3	4	5	
7. I am always worried about something.	1	2	3	4	5	
8. I find it easy to dismiss worrisome thoughts.	1	2	3	4	5	
9. As soon as I finish one task, I start to worry about everything else I have to do.	1	2	3	4	5	
10. I never worry about anything.	1	2	3	4	5	
11. When there is nothing more I can do about a concern, I do not worry about it anymore.	1	2	3	4	5	
12. I have been a worrier all my life.	1	2	3	4	5	
13. I notice that I have been worrying about things.	1	2	3	4	5	
14. Once I start worrying, I cannot stop.	1	2	3	4	5	
15. I worry all the time.	1	2	3	4	5	
16. I worry about projects until they are all done.	1	2	3	4	5	

APPENDIX B

Recruitment Letter

Dear [Church Name] worshipper,

My name is Jenny Lee. I am a doctoral candidate at East Tennessee State University (ETSU). I am doing a study that involves examining the levels and causes of everyday worry among church-going people. I am looking for people who attend this church and are 18 year old or older. This study involves an online survey which should take about 5-10 minutes to complete. Please think about participating. Participation is voluntary. If you have any questions please contact me at (828) 290-8876 or leejm3@etsu.edu.

If you want to learn more about this survey please follow the link here:
https://www.surveymonkey.com/r/PMBC_Raleigh

Sincerely,
Jenny Lee

APPENDIX C

Informed Consent Prior to Survey

Dear Participant:

My name is Jenny Lee, and I am a doctoral candidate at East Tennessee State University. I am working on a Doctor of Education in Educational Leadership. In order to finish my studies, I need to complete a research project. The name of my research study is "Worry in the Pews: Exploring Levels and Causes of Worry Among Church-goers."

The purpose of this study is to examine the causes and levels of worry among church-going populations. I would like to give a brief survey to you using Survey Monkey. It should only take about 5 minutes to finish. You will be asked questions about your demographic categories and how or if you worry. Since this study deals with worry, the risk is some emotional distress.

Survey replies will be confidential. Individual replies will not be identified.

Taking part in this study is voluntary. You may decide not to take part in this study. You can quit at any time and you can exit the online survey form if you want to stop completely.

If you have any research-related questions or problems, you may contact me, Jenny Lee, at (828) 290-8876. I am working on this project together with my advisor, Dr. James Lampley. You may reach him at (423) 439-7619. Also, you may call the chairperson of the IRB at ETSU at (423) 439-6054 if you have questions about your rights as a research subject.

Sincerely,
Jenny Lee

VITA

JENNIFER M. LEE

- Education: East Tennessee State University, Johnson City, TN
Ed.D., Educational Leadership, December 2018
Concentration: Higher Education Leadership
Campbell University, Buies Creek, NC
M.Div., with Languages, May 2011
Campbell University, Buies Creek, NC
B.A., Religion, May 2008
- Professional Experience: Director of Christian Education, First Presbyterian Church,
Sanford, NC, 2016-Current
Membership Director, Girl Scouts of the United States of America
Sanford, NC, 2015-2016
Doctoral Research Fellow, East Tennessee State University,
Johnson City, TN, 2014-2015
Minister of Youth and Recreation, First Baptist Church,
Asheville, NC, 2010-2014
- Publications: Lee, J. (2018, August) Fear Not: A Letter to a Young Clergy
Woman. *Fidelia Magazine*.
Lee, J., Owens, M., & Lampley, J. (2015, Spring) Educational
Leadership and Policy Analysis Support and
Encouragement Study. *Journal of Academic Administration
in Higher Education*.
Lee, J. (2015, April) Holy Tension: Advocacy in Action.
Cooperative Baptist Fellowship Blog.
Lee, J. & Bratton, T. (2013, November) Trail Marks: Students,
Parents, Ministers Share the Journey of Faith. *Baptists
Today*.
Lee, J. (2013, January) Dinner and a Survey: Young Adults Crave
Community, Yet Space for Spiritual Searching. *Baptists
Today*.
Lee, J. (2012, May/June) In Mountains and Mysteries: A Theology
of Place. *Immerse Journal*.
- Presentations: Lee, J. (2015, June). *Payday and Auto Title Loans: An
Introduction*. Tennessee State Meeting at Cooperative
Baptist Fellowship National General Assembly.
Lee, J., Owens, M., & Lampley, J. (2015, May). *Educational
Leadership and Policy Analysis Support and
Encouragement Study*. International Conference on
Learning and Administration in Higher Education,
Nashville, TN.

Lee, J. & Lampley, J. (2015, May). *Anachronistic Education: One-Room Schools in 1950s and 1960s East Tennessee*. Intellectbase International Consortium, Nashville, TN.

Lee, J. & Bratton, T. (2014, March). *Trail Marks*. Cooperative Baptist Fellowship of North Carolina General Assembly, Greensboro, NC.

Honors and Awards:

Best Paper Award, International Conference on Learning and Administration in Higher Education, 2015

Outstanding Presentation Excellence Award, International Conference on Learning and Administration in Higher Education, 2015

Outstanding Senior, Campbell University Religion Department, 2008

Theta Alpha Kappa, National Honor Society for Religious Studies and Theology, Inducted Spring 2007