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"If you talk to God, you are praying; if God talks to you, you have schizophrenia" : distinctions between psychosis and spiritual experience among Christians

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ABSTRACT

Many clients within the current system who are diagnosed with psychotic spectrum disorders, such as schizophrenia, present with what mental health professionals often consider to be hallucinations and delusions with religious or spiritual content. However, these presentations often have striking similarities to spiritual experiences, in which an individual may report having a prophetic-type experience or some type of otherworldly communication that is embedded within their value and belief-system. The present study seeks to explore how these attributions are made and which contextual factors are associated with individuals' interpretations of these ambiguous presentations. A sample of 177 Christian adults living in the United States were surveyed to explore how variation in religious beliefs are related to the way Christians interpret ambiguous psychotic-like spiritual presentations. This mixed-method study investigates how variations in religiosity predicts Christians' understandings of these ambiguous presentations as either being rooted in a religious/spiritual experience or indications of psychopathology. Results suggested that religiosity predicted whether or not participants' relied on religious or psychological/medically-based meaning-making frameworks to understand the ambiguous presentation in the vignette. Specifically, those with stronger beliefs in divine communication, higher reliance on God, and more frequent participation in religious activities were more likely to interpret the vignette as representing a religious experience and less likely to understand the vignette as being rooted in mental illness even after controlling for several background characteristics. Additionally, mental health professionals included in the present study were

more likely to interpret the vignette as being indicative of mental illness and less likely to interpret it as a religious experience than those who have not worked in the field, while controlling for the same covariates. These findings indicate that even highly religious mental health professionals may have different understandings of ambiguous psychotic-like spiritual presentations than their highly religious clients. The findings of the present study offer support for the integration of a Biopsychosocial-spiritual model of care, in order to create more space for potential spiritually-based interpretations that clients may hold, despite the entrenchment of medicalized thought in the current mental health system. This study has important implications for both diagnosis and treatment with clients with psychotic-like spiritual experiences and emphasizes the need for greater attention to issues related to religion and spirituality in the education of mental health professionals.

"IF YOU TALK TO GOD, YOU ARE PRAYING; IF GOD TALKS TO YOU, YOU HAVE SCHIZOPHRENIA": DISTINCTIONS BETWEEN PSYCHOSIS AND SPIRITUAL EXPERIENCES AMONG CHRISTIANS

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"We are not human beings having a spiritual experience; we are spiritual beings having a human experience." Pierre Teilhard de Chardin

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CHAPTER I

Introduction

The present study seeks to explore the ways that religious beliefs are associated with Christians' understandings of psychotic-like presentations. Many people who have been diagnosed with psychotic spectrum disorders experience what we consider to be hallucinations or delusions with religious/spiritual content. Some of these ambiguous signals include hearing the voice of God, a god, or gods; seeing a vision of a religious being; communicating with otherworldly spirits; and so forth. While many clients appear with these presenting concerns in psychiatric hospitals and other mental health clinics, there are also many with these ambiguous presentations outside the mental health system and even in mainstream media (e.g., television shows about psychic mediums communicating with spirits). Research suggests that distinguishing between psychotic and spiritual experiences can be difficult and complicated (Jackson & Fulford, 1997); however, this seems to be an area where many scholars and practitioners seem to have strong beliefs about the nature of these types of experiences. Two accessible frameworks that are often used to make sense of ambiguous psychotic-like spiritual experiences are the medical model that currently underlies the field of mental health and religious/spiritual explanations.

Despite the ambiguity in these psychotic-like spiritual presentations, the medical model that is currently in place in the United States and many other Westernized countries relies on the differentiation of these two phenomena. Mental health professionals often need to interpret these presentations in their assessment of clients and make difficult diagnostic and treatment related decisions when working with clients who present with these types of concerns. Several studies

have examined the ways that mental health professionals make these distinctions; however, many of these studies also discuss how the religiosity gap likely represents a key difference in attributions made by mental health professionals and laypeople (Sanderson, Vandenberg, & Paese, 1999; Eeles, Lowe, & Wellmnn, 2003; O'Connor & Vandenberg, 2005). To my knowledge there are no studies that have examined how laypeople make these attributions, and scholars researching this topic note that more research is needed specifically examining the relationship between individual religious beliefs and their attributions. Laypeople, much like mental health professionals, interpret ambiguous psychotic-like spiritual experiences and likely have beliefs about the nature of these types of experiences. It is important to understand how laypeople interpret these presentations, as this represents the larger social context for clients who present with these concerns. Understanding these interpretations can help contextualize individual ambiguous experiences for mental health professionals by providing insight into the ways that family members, friends, and those who present with these experiences understand and interpret them.

In this study, I examine Christians' interpretations of psychotic-like spiritual experiences and the relationship between their interpretations and their religious/spiritual beliefs. More specifically, are Christians who are open to the possibility of modern prophetic experience more likely than Christians who do not believe in prophetic experience to understand ambiguous religious/psychotic experiences as being based in religious or spiritual truth, rather than psychopathology? Secondary research questions also examine the way that reliance on God and participation in religious activities are associated with attributions about these ambiguous experiences as being religious/spiritual in nature or indicative of mental illness.

This study relates to social work because it seeks to explore attitudes toward psychotic-like presentations so that we can develop a better understanding of some of the ways that psychotic symptoms may be conceptualized among certain religious groups. By gaining more insight about this, we can better understand possible stigma that may develop, as well as gaining access to religious phenomenology about the meaning behind psychotic-like spiritual experiences. Additionally, this topic relates to social work practice because results may point to the need to alter the way that diagnosis and treatment are conceptualized for religious clients and families. If the findings reveal that people in the United States do understand some psychotic-like processes as being spiritually based as is hypothesized in the present study, it seems important to consider expanding our current conceptualization of clients and treatment to more fully include a spiritual dimension, such as that proposed in the Biopsychosocial-spiritual model of care.

There are some limitations regarding the scope of this question. Ideally, this research would explore the ways that these distinctions between religious and psychotic experiences were made among members of various religious groups. However, due to feasibility and resource constraints, I needed to limit the scope of this study. At this stage, by focusing on Christian perspectives—a religious group whose viewpoint may already be well-represented in the United States—I may be privileging the voices of an already privileged group. With that said, I urge future researchers to build on this exploratory study to include other religious and spiritual traditions present in the United States.

CHAPTER II

Literature Review

The present study seeks to explore the ways that religious beliefs are associated with Christians' understandings of psychotic/spiritual presentations. My specific research question asks, among Christians, are those who are open to the possibility of modern prophetic experience more likely than those less open to prophetic experience to understand ambiguous religious/psychotic presentations as being based in religious or spiritual truth, rather than psychopathology? In order to contextualize this question and formulate the basis for its relevance to social work, this section outlines previous research that has been done on this distinction between psychosis and mystical, prophetic type experiences. Below I use attribution theory to frame my question and then explore the ways that historical and modern scholars have conceptualized distinctions between psychosis and spiritual experience. Research addressing the ways that mental health professionals and laypersons continue to make these distinctions today is also outlined and discussed. Additionally, since the present study specifically examines these distinctions as they relate to Christian beliefs, I also explore some of the distinctions and areas of overlap between presentations that could be interpreted as being rooted in either psychotic symptomology or a prophetic experience as they relate to the Christian tradition.

Theoretical Basis

The theoretical framework underlying the proposed study is attribution theory, specifically as it applies to the psychology of religion. Attribution theory was developed in the

early 20th century but continues to be widely used in the field of social psychology today (Aronson, Wilson, Akert, & Fehr, 2012). Attribution theory drew on ideas from various fields of thought such as naïve psychology, person perception, self-presentation, locus of control research, theory of emotion, and research on self-perception (Jones & Davis, 1965; Kelly, 1967). Fritz Heider is credited with the development of this theory, and is commonly referred to as the father of attribution theory (Aronson, Wilson, Akert, & Fehr, 2012). Heider began to develop the basis for attribution theory in the 1920s and 1930s and theorized that much like scientists, laypeople attempt to understand the causes of events and behavior and that people develop their own explanations for why various events occur (Heider, 1958). There have been several important developments to the field of attribution theory, including Heider's seminal work, *The Psychology of Interpersonal Relations*, which was published in 1958. Thibaut and Riecken (1955) outlined a generic model for the entire field of attribution, which will be discussed below. Further theoretical developments were expounded in Kelley's (1967) work, in which he proposes the covariation model. Later, Shaver (1975), Miller (1976), Greenwald (1980), Thompson (1981), and Spilka (1982) also contributed noteworthy developments to the field that will be addressed below.

Despite these developments and approaches toward attribution theory, many of the core ideas have remained intact since Heider's (1958) original conceptualization. Rather, much of the research conducted on this topic since the mid-1980s has been focused on application of the theory to specific social phenomena. Spilka, Shaver, & Kirkpatrick (1985) present an attribution theory as it applies to the psychology of religion, in which they examine when and why religious versus non-religious attributions are made about events or situations. The literature review below outlines some of the key models and concepts of attribution theory, which will provide a

context for the particular theory outlined by Spilka and colleagues (1985). This theory will serve as the primary theoretical basis for this thesis. I will then present the basic concepts from Spilka and his colleagues' (1985) theoretical formulation and explain how they apply to the present study.

The generic model that underlies much of the field of attribution theory states that antecedents lead to attributions, which in turn lead to consequences (Thibaut & Riecken, 1955). In this sequence, the term antecedent represents all of the stimuli present before an attribution can be made. This includes available information, beliefs that an individual holds, and motivations that underlie behavior (Thibaut & Ricken, 1955; Jones & Davis, 1965). In the present study, antecedents include a case vignette and prior beliefs about prophecy. Some of the motivations include social influences (e.g., social desirability) that can lead participants to give biased responses. These motivations will be further discussed later in the chapter. Attributions refer to the explanations that people use to understand the causes of events or behavior. In the present study, this refers to whether religious/spiritual or psychopathological explanations are endorsed. Lastly, consequences are understood to reflect the impact that attributions have, specifically the ways that attributions influence behavior, attitudes, and expectations (Thibaut & Riecken, 1955). Consequences will not be explored in this study, though it represents a potential area for future research.

Within the antecedents—attributions—consequences chain, *attribution theories* refer to explanations of the first link in this chain, namely, the relationship between the antecedents and the attribution. On the other hand, *attributional theories* focus on the second link in this chain—the relationship between attributions and their consequences (Thibaut & Riecken, 1955). The present study focuses exclusively on attribution theory by examining the relationship between

antecedents and attributions. More specifically, I examine the association between religious and spiritual beliefs and attributions of psychopathology versus spiritual experiences.

Heider (1958) noticed that people tend to follow similar patterns when making attributions about events or behavior. Upon further analysis, he found that people tend to rely on internal attributions in some situations and external attributions in others. A key insight of Heider (1958) is that people tend to overestimate the relevance of characterological or dispositional traits (internal attributions), while underestimating the role of the environment or factors outside of one's control (external attributions) (Jones and Nisbett, 1972). Because of the frequency with which this occurs, this has come to be known as the correspondence bias, or the "fundamental attribution error" (Ross, 1977) and often impacts our attitudes and impressions of people since we naturally tend to assume behavior is tied to something that is essential to one's character or personality (Heider, 1958).

Kelley (1967) expanded on Heider's (1958) theory by developing a covariation model that focuses largely on interpersonal attributions. In this model, Kelley (1967) suggests that people consider multiple sources of information when making attributions and forming perceptions about the actions and character of others. He explains that attributions are based on three factors—consensus, distinctiveness, and consistency. Consistency is the only factor that will be discussed in this review because it directly relates to the present study. Kelly (1967) explained that consistency information refers to how stable a given response is over time and situation. According to this covariation model, participants in the present study are likely to rely on information gained in previous religious/spiritual experiences as well as previous exposure to psychosis when making attributions. For example, if someone has encountered a profound religious or spiritual experience, such as a conversion experience or witnessing someone

speaking in tongues, they are likely to draw from these experiences when making attributions. Likewise, if an individual has experience with psychosis, such as having a family member or close friend who has experienced hallucinations or delusions with religious content, they are likely to consider this information when making attributions. Both of these factors will be assessed in the present study through survey questions that target past exposure.

Though Heider (1958) and Kelly (1967) are best known for their contributions to attribution theory, there were additional theoretical developments throughout the 1970s and 1980s that examined under what circumstances people tend make attributions. Notably, this research shows that people tend to make attributions in order to make meaning or establish intentionality behind a certain event (Buss, 1978), to gain a sense of control (Shaver, 1975), or to monitor one's self-esteem (Greenwald, 1980; Spilka, 1982). When one's worldview is called into question, individuals tend to make attributions that allows the event to "fit in" with the present belief system, without having to drastically modify or change core beliefs (Buss, 1978). Thompson (1981) explains that when someone's meaning/belief system is challenged by a tragedy, reestablishing and finding a way to maintain and restore this belief system becomes central. Attributions are often used as a way to give people the reassurance that there is some sort of predictability to these events and that they have some level of control over their environment (Thompson, 1981). Lastly, Miller and Ross (1975) and Miller (1976) found that attributions tend to function as a way of maintaining or boosting one's self esteem through reliance on a self-serving bias, in which people tend to make internal attributions for their successes and may be more likely to make external attributions for their own failures.

Religion has served as a meaning-making system for people throughout recorded history and provides space for attributions to be made in regard to intentionality, perceived loss of

control, and challenged self-esteem (Spilka, Shaver, & Kirkpatrick, 1985). Religious belief systems have been used to make sense of many aspects of life, ranging from something as potentially mundane as the weather to something as significant and consequential as human suffering (Spilka et al., 1985). Within the context of mental health in particular, religious attributions have been made suggesting that the cause of certain symptoms or sets of behaviors are brought about by the will of God, possession by spirits or demons, or can serve as some sort of divine punishment. Further, some experiences or presentations have been attributed to other religious phenomena such as divine or otherworldly communication. Spilka and his colleagues (1985) have attempted to better understand and predict when these types of religious attributions are made versus when non-religious attributions are utilized.

Spilka and his colleagues (1985) build upon previous attribution research and posit that reliance on religious versus non-religious attributions are determined by the interaction of four primary factors: characteristics of the attributor, context of the attributor, characteristics of the event, and context of the event. Thus, whether or not an individual will interpret an event as being religiously based or an instance of mental illness depends on the availability and accessibility of religious or naturalistic explanations from personal history and experiences of socialization, in combination with environmental and situational indicators (Spika, Shaver, & Kirkpatrick, 1985).

In considering the characteristics of the attributor, important and predictive factors include an individual's upbringing, education, and other experiences of socialization (Spilka et al., 1985). Spilka and colleagues (1985) explain that the earlier an individual is introduced to religious socialization the more likely he or she is to rely on religious attributions. Additionally,

perceived closeness to God and religious fundamentalism are also associated with a greater frequency of religious attributions (Spilka et al., 1985).

The context of the attributor can be understood to represent the accessibility of a religious versus naturalistic meaning-belief system (Spilka et al., 1985). Spilka and colleagues (1985) explain that even individuals who may consider themselves to be atheists or non-religious people have had a certain degree of exposure to religious ideas due to socialization and the prevalence of religious ideas in mainstream society and culture. They also assert that even individuals who are devoutly religious have access to non-religious meaning-belief systems to which they could attribute events. Despite the idea that all people have access to both religious and non-religious meaning-belief systems, Spilka and colleagues (1985) explain that whichever system predominates in the individual's worldview is more likely to be called upon when making attributions. Upon gauging this level of accessibility, the attributor next weighs the characteristics and context of the event and appraises whether or not their prevailing meaning-belief system adequately explains the event.

The characteristics of the event refers to how compatible the event is with the attributor's current understanding of their favored meaning-belief system. In other words, people who favor religious explanations are more likely to attribute events as being religious when they are easily assimilated into or "fit in" with their current belief system (Spilka et al., 1985). For example, natural disasters hold some level of congruence with the belief in punitive God and people with this belief would be more likely to attribute a devastating earthquake to religious sources; however, someone who viewed God as loving and forgiving would be more likely to attribute this to naturalistic explanations.

Lastly the context of the event is relevant in assessing the believability of the available explanation (Spilka et al., 1985). One example of this could be seen if several people fainted while praying together in a church or temple, this may be understood as a sort of meaningful religious experience. In contrast, if several people fainted in a restaurant or science lab, naturalistic and environmental explanations would likely be relied on.

Each of these four factors—characteristics and context of both the attributor and the event—are also affected by the degree to which the attributor perceives that each explanation provides a source of control or a way to maintain or build a positive self-concept (Spilka et al., 1985). Spilka and colleagues (1985) explain that holding the view of a benevolent and loving God is associated with higher self-esteem. Therefore, attributions that focus on some dispositional quality of God (e.g., as being protective, loving, etc.) are associated with enhanced self-esteem. An example of this can be seen when an individual attributes a difficulty, loss, or other misfortune to the idea that "God only gives people what they can handle." In this example, the individual is boosting or maintaining their self-esteem by assuming that God must think highly of their resilience or other internal factors.

The theoretical framework outlined above underlies the present study and will guide my hypotheses. At this point, I will shift the focus and discuss how attribution theory will guide my analysis.

The present study seeks to explore the association between beliefs and attributions made to ambiguous stimuli. The study will examine whether participants make religious or non-religious attributions to a short vignette of a person whose comportment could be interpreted as either spiritual or psychotic, and how these attribution decisions are related to participants' religious/spiritual beliefs. To complete this exercise, participants will rely on attribution

processes, which research suggests is shaped by individuals' preexisting meaning-belief system (Spilka et al., 1985). Though there are some limits due to the attribution being measured in a controlled setting rather than taking place in spontaneous interaction, it seems as though this will represent a "meaning-making" or intentionality-seeking attribution process. Although attribution theorists also assert that sense of control and self-esteem monitoring can also influence the attribution-making process, it is unlikely that these will figure largely into the process in the present study because the event participants are responding to is a hypothetical exercise rather than an actual event.

Based on Spilka and colleagues' (1985) theory, the characteristics and context of the attributor and event will likely come into play. Characteristics of the attributor (demographic information) and context of the attributor (accessibility of religious beliefs) will be assessed through the use of a survey and are expected to impact whether religious or non-religious attributions are made to explain an ambiguous event. Characteristics of the event will remain constant across participants through the use of a clinical vignette. However, context of the event may be difficult to control, and this may represent a potential limitation in the study. Since the survey will be administered electronically, it is difficult to control for the environment in which each participant completes the survey. It is possible that some participants may complete the survey after attending a religious service, while others completing the survey may be father removed from this, which may impact the accessibility of each of these meaning-making belief systems.

Antecedents to the attribution will include information presented, beliefs, and any motivations that may exist. In the present study, information presented will remain constant, and religious/spiritual beliefs will be assessed through the use of a survey. Potential motivators

include the social influences that can lead to a bias response, such as the social desirability bias, or attempt provide the "correct response." This may be true for those who are aware of the pervasiveness of the medical model as well as those who may feel social pressure to align with their Church's views. Other potential motivators may exist for people who have had a similar religious/spiritual experience or psychotic episode to the one presented in the vignette or who have a close friend or family member who has experienced either of these. These participants may feel motivated to respond in a certain way due to this being an emotionally charged topic.

Historical and Modern Contexts for Interpreting Religious-Psychotic Experiences

While attribution theory is the conceptual lens that will be used to explain the process of attribution making by participants in this study, other scholars and theorists have examined the relationship and overlap between religious experience and psychopathology as mental illness was being formally codified in Western society. Most notably, William James began considering this topic in some detail in the early 20th century, and there continues to be debate and confusion between what necessarily marks something as a religious experience or a pathological experience. James examined this distinction through the lens of radical empiricism and phenomenology, in which he focused largely on the experience and particular meaning of these events (James, 1902). James ultimately concluded that religious experience and "insanity" stem from the same mental processes, but differed in how the mystic experience was interpreted emotionally. Negative emotional reactions were thought to be indicative of "insanity," while religious mysticism was associated with more positive emotions (James, 1902).

James also presented four additional qualities that mark a mystical experience. The first quality James identified is ineffability, which describes the experience as being nearly impossible to express verbally. James suggests that individuals who experience mystical experiences will struggle to find words that can describe it fully (James, 1902). Second, James suggests that mystical experiences have a "Noetic Quality," in which these experiences often produce a moment or state of deep insight and knowledge (James, 1902). Next, he describes these states as being transient, or short-lived experiences, and lastly, James (1902) explained that they are generally passive in that their coming and going is outside of human control. Ultimately, James (1902) conceives of spiritual and psychotic experiences as being distinct, though difficult to diagnose precisely because of their similarities.

Several early psychoanalytic thinkers also presented varying interpretations of religious belief and religious experience, most notably Freud and Jung. On one end of the spectrum, Sigmund Freud viewed any form of religious belief or practice to be representative of infantile wish fulfillment that he viewed as neurotic and entirely pathological (Freud, 1927). Freud (1927) believed religion in general to be the result of mass delusion and conceptualized it as being largely Oedipal and defensive in nature. Specifically, Freud understood God to be a projection of one's father and viewed religious structures to be inherently defensive. In contrast, Jung understood religious/spiritual experiences to be rooted in a deeper and more profound perceptual experience (Jung, 1938). He explained that spiritual and religious experiences occur when an individual is able to successfully access part of the collective unconscious by utilizing archetypal energy (Jung, 1938). This coincides more with a transpersonal framework, which stresses the importance of religious and spiritual beliefs and experiences as a fundamental

component of the self rather than delusional thinking that is a smokescreen for underlying psychic conflicts (Cortright, 1997).

Around the same time as these scholars were writing about religion and psychology, a massive surge in scientific psychiatry was underway that worked to codify different mental disorders. Following the Western model of medicine, mental illness was conceptualized in much the same way as physical illness. Emil Kraepelin is considered to be the father of scientific psychiatry and helped to establish this medical model for psychiatric disorder by developing a diagnostic system of classification that allowed professionals to more clearly diagnose clients based on their observed and reported symptoms (Kihlstrom, 2002). In this system of classification, Kraepelin famously specified the diagnostic criteria of dementia praecox, which serves as the precursor to our modern understanding of schizophrenia (Boyle, 2012). Kraepelin argues that dementia praecox is a brain disorder that emerges from organic causes and understood it to be degenerative in nature (Krapelin, 1919). The early work of Kraepelin and others introduced a new conceptual frame alongside other explanations for thinking about psychotic-like symptoms that is rooted deeply in medicine, and which is evident in contemporary understandings of mental disorders.

Though the diagnostic procedures have developed since Kraepelin's original conceptualization, an underlying medical model still structures the mental health field.

Within the modern mental health system in the United States criteria for diagnosis is now outlined in the 5th edition of the Diagnostic and Statistical Manuel of Mental Disorders (American Psychiatric Association, 2013). However, when looking to the DSM-V for guidance about how to distinguish between religious and psychotic experiences, there is very limited information and guidelines. The DSM tends to make broad-sweeping statements such as

"hallucinations may be a normal part of a religious experience in certain cultural contexts" (p. 88) and "in some cultures, visual or auditory hallucinations with religious content (e.g., hearing God's voice) are a normal part of religious experience" (p. 103). Although these are described as potentially non-pathological experiences by the professional psychological and psychiatric community, it provides little guidance about how to assess or evaluate these experiences further.

Contemporary medical explanations and religious explanations represent two different and often incompatible understandings of psychotic-like symptoms. These are two dominant and pervasive systems of thought that people living in the United States have access to (Spilka et al., 1985). Scholars disagree about the role and applicability of each system in the role of understanding psychotic-like symptoms. On one hand, Kihlstrom (2002) presents an argument in favor of the medical model, and he suggests that psychiatric symptoms can be studied empirically and have natural causes. He explains that much like physical illness, mental illness is characterized by a set of observable symptoms that have a known etiology and a predictable course. Kihlstrom (2002) further supports Kraepelin's articulation of his diagnostic system, and argues that diagnosis is a useful and clear-cut way to classify different forms of human experience, thought, and behavior. Kihlstrom (2002) suggests that we further expand this diagnostic system in order to use more precise measurements to assess for deficits in cognitive and emotional functioning. Despite the support Kihlstrom (2002) offers for the medical model, there is no mention or discussion of differential diagnosis for ambiguous cases, such as those that include religious or spiritual components.

Murray, Cunningham, and Price (2012) touch on the overlap between religious experience and psychopathology from a medical perspective through their application of modern diagnostic standards to important figures in the Christian tradition. The authors evaluated the

behavior and written expressions of Abraham, Moses, Jesus, and Saint Paul, focusing on such events as Abraham being stopped from sacrificing his son by the presence of an angel (Genesis 22:9-12), Moses' vision of the burning bush (Exodus 3:2), Jesus calming the storm on the sea (Mark 4:38-40), and Saul's vision of Jesus on the road to Damascus (Acts 9:1-19, 22:6-13, 26:9-16). Based on their interpretation and analysis of these events, Murray and associates propose that they were each diagnosable with psychotic-spectrum disorders based on criteria outlined in the DSM. The tone of the article seems to take more of an objective attempt to fit each of these religious figures' experiences into the current system. However, Murray and colleagues do not use this as a way of delegitimizing the experiences of these figures or the profound impact that they have had on society. Rather, they conclude "that some of civilization's most significant religious figures may have had psychotic symptoms that contributed to inspiration for their revelations" (p. 424). Murray and colleagues cited the motivation for their analysis as being rooted in an attempt to promote, "compassion and understanding" for those living with psychotic symptoms today (p. 424). They proposed that those living with what the medical model considers to be psychotic disorders today may have an equally important religious and philosophical impact on our civilization moving forward.

While some scholars argue for a strictly or predominantly medical/psychological interpretation of psychotic-like symptoms, others prefer to frame experiences that have psychotic-like, mystical characteristics as being rooted in spiritual encounters, despite their resemblance to psychotic symptomatology. This seems to be partly in attempt to depathologize spiritual experiences through alternative conceptualizations and avoidance of stigmatizing labels.

In contrast to Kihlstrom's (2002) perspective, Jackson and Fulford (1997) present an analysis on the application of the medical model that specifically critiques its ability to

distinguish between religious and psychotic experiences. Jackson and Fulford (1997) argue that these two types of experience differ in neither form nor content. They propose that the field needs to reconceptualize mental illness, so that we are able to bear in mind that symptoms of psychosis are so deeply rooted in the individuals' values and belief systems, that they cannot be extracted from this context when interpreted by mental health professionals (Jackson & Fulford, 1997). Ultimately, Jackson and Fulford explain that pathologizing human experience is incredibly value-laden, and as a field we should consider ways to step away from our understanding psychopathology through the lens of the medical model.

Hornstein (2013) also presents a major critique of the medical model, in which she argues that the importance of taking a phenomenological approach in order to allow individuals to make meaning of their own experiences. She challenges the use of a diagnostic system by citing countless first-person accounts of psychosis. Hornstein (2013) argues that the existence of thousands of these narratives that have been published by "voice hearers" and others with psychotic-like symptoms, suggests that the current system does not match or adequately represent the internal experience of those we diagnose with psychosis. Hornstein's (2013) underlying proposition is that the multiplicity of narratives, which may include ideas about modern prophetic experiences, are just as important to consider as medical explanations that may be endorsed by those with psychotic-like presentations. Hornstein (2013) asserts that using the DSM and the medical model in general as a tool to understand experience is insufficient and is very far removed from the subjective accounts of "madness" or "hearing voices" that predominate today.

Both Hornstein (2013) and Torn (2011) emphasize the importance of individual interpretations of one's own experience. However, Torn (2011) extends this view by arguing

that modern Western society as a whole pathologizes psychotic experiences, rather than giving individuals the space to explore experiences and establish meaning on their own. Instead, the medical model that prevails in Westernized countries, such as the United States, tends to respond almost immediately with antipsychotic medication or institutionalization (Torn, 2011). Though Western use of the medical model tends to discredit spiritual explanations for psychotic phenomena, there are still many countries, communities, and cultures that invoke spiritual explanations for psychic distress (Gopaul-McNicol, 1997). In many non-Western cultures, what the DSM-V would classify as psychotic is often viewed and welcomed as some sort of spiritual awakening, as opposed to a mental deficit (Gopaul-McNicol, 1997; Heriot-Maitland, 2008). Heriot-Maitland (2008) explains that in many of these societies, people with schizophrenia have better prognoses than those who receive the same diagnosis in Western countries, which he attributes as being related to the way mystical/psychotic experiences are appreciated and valued in these communities.

In summary, there is much debate about whether psychotic-like experiences are the manifestation of a medical disease or if they represent some heightened perceptual experience or form of religious/spiritual truth. This debate has been ongoing in the US for more than a century and continues to be discussed by scholars today. Two dominant systems of thought in the US—the contemporary medical model and religious/spiritual explanations—tend to be readily accessible to both scholars and the lay public when making attributions about psychotic-like presentations. However, the ways that people draw on these larger systems as well as their own beliefs and experiences to construct attributions about psychotic-like presentations is not well understood. The next section reviews the extant body of research that has begun to explore the ways that mental health professionals and laypersons make these distinctions.

Interpretations of Ambiguous Psychotic/Religious Experiences

Limited research has explored the ways mental health and religious professionals distinguish between psychotic and religious/spiritual experiences, and there has been even less research that explores how laypeople make these distinctions. The existing studies that have investigated this issue will be summarized in the following sub-sections.

Interpretations Made by Professionals.

Despite research that has been done suggesting psychotic-like experiences are nearly impossible to differentiate (Jackson & Fulford, 1997), mental health professionals are still tasked with the responsibility of deciding whether or not to diagnose and treat mental illness in their clients who may display an ambiguous presentation. Below I will outline three studies that specifically address the distinctions made between psychosis and religious experience by mental health professionals in the field. Then, I will discuss a final study that examines the ways that pastors and pastoral counselors in the Presbyterian Church make these assessments.

Sanderson and colleagues (1999) asked 67 mental health professionals in a Midwestern urban area to make assessments of 18 different vignettes. This sample included 36 licensed clinical psychologists, 22 clinical psychology graduate students, five masters level therapists, two counseling psychologists, and one Psy.D. student who were recruited from a variety of state and local placements, including conventions, agencies, and clinical psychology programs. The vignettes varied on six dimensions of religious experience (person affected by experience, relationship/proximity to God, information communicated in prophetic-type experience, mode of communication, identity of spirit presence, and literal interpretation of self-punishment) and three levels of conventionality (conventional, less conventional, and non-conventional).

Standardized survey questions followed each of the vignettes and were used to assess the degree to which participants viewed each of the presentations as being an "authentic religious experience" or representative of psychopathology (Sanderson, Vandenberg, & Paese, 1999). The authors also asked two questions that assessed participants' degree of belief in the Christian Bible, which was used as a predictor in the analysis. They found that the more conventional the religious beliefs and actions were, the more likely mental health professionals were to rate the vignette as being representative of an authentic religious experience and the less likely they were to attribute this experience to psychopathology. Conversely, less conventional religious beliefs and actions were more likely to be pathologized and less likely to be understood as an authentic religious experience. This led them to conclude that mental health professionals rely on social norms to make attributions about the psychotic and/or spiritual content of the vignettes. Although interpreting hypothetical vignettes is not the same as diagnosing clients, the authors suggested that mental health professionals may not be suited to make assessments of psychotic-like spiritual experiences, since they have limited training and proficiency in understanding spiritual issues (Sanderson et al., 1999).

In another study, O'Connor and Vandenberg (2005) sought to explore the attributions mental health professionals made about presentations that could be interpreted as either religious or psychotic in nature. They used a total of 15 different vignettes (12 of these were focused on psychotic-like religious experiences and three were distractor vignettes). Of the 12 religious vignettes, three different religious were represented (i.e., Catholicism, Mormonism, and the Nation of Islam), and each religion had four vignettes that varied on identification (religious affiliation identified and religious affiliation not identified) and threat (presence of threat to harm and no presence of threat to harm) (O'Connor & Vandenberg, 2005). Each of the 110

participants was randomly given three target vignettes and the three control vignettes (O'Connor & Vandenberg, 2005). In this study, participants were recruited from agency and organizational settings, graduate programs, and private-practices, and respondents included 23 master's level clinical psychologists, 29 doctoral level clinical psychologists, 42 master's level social workers/licensed clinical social workers, three doctoral level social workers, four medical doctors, one doctor of education, and eight licensed professional counselors (O'Connor & Vandenberg, 2005, p. 612). In addition to the vignettes, a pathological beliefs questionnaire was administered that assessed the degree to which participants' attributed these experiences to various forms of psychotic symptomatology (e.g., delusions, hallucinations, etc.) (O'Connor & Vandenberg, 2005). Results showed that vignettes that contained Catholic beliefs were least likely to be viewed as pathological, Mormon beliefs were viewed as more pathological, and beliefs associated with Nation of Islam were perceived to be the most pathological. Moreover, when the religious tradition was identified in the case vignette, mental health professionals were less likely to pathologize Catholic and Mormon beliefs; however, there were no differences found for beliefs associated with Nation of Islam in the identified and not identified conditions (O'Connor & Vandenberg, 2005). They found that participants were much more likely to pathologize beliefs when a threat to harm was identified. One potential reason for their incongruent findings about the Nation of Islam were the core beliefs that may have been perceived as threatening by some participants[1] (O'Connor & Vandenberg, 2005). O'Connor and Vandenberg (2005) concluded that less mainstream beliefs or beliefs that are less familiar to the

[1] In the vignettes where the Nation of Islam is identified, the authors describe an individual who believes that "a spaceship, the Mother Wheel, has been hovering over the United States since 1929, and will some day kill all white people in America." Even if a direct threat to harm (homicidal ideation) was not included, this likely could have been perceived by participants to represent some impending threat to harm.

person making the assessment are more likely to be pathologized, despite the DSM's directive to consider beliefs in the context of the religious subculture. They argue that more training is needed around religious and spiritual development in professional education (O'Connor & Vandenberg, 2005). Since they did not collect data about the religious beliefs of the participants, the authors recommended that this information be captured in future studies.

Eeles and colleagues (2003) assessed how 14 mental health professionals make distinctions between spiritual and psychotic experiences. Unlike the two previous studies that used standardized questionnaires, Eeles and colleagues (2003) conducted semi-structured interviews to capture participants' attributions of psychotic-like presentations. Additionally, this study included mental health nurses in the United Kingdom rather than a combination of psychologists, social workers, graduate students, counselors, doctors of medicine/education in the U.S. They sought to gain more insight into which characteristics of an experience are weighed more heavily when making these difficult assessments, how these characteristics are used to distinguish between spiritual experiences and psychopathology, and what role personal religious beliefs play in making these assessments (Eeles, Lowe, & Wellman, 2003). Unlike previous studies, Eeles and colleagues (2003) asked participants specifically about their views of spiritual experiences and about their own religious/spiritual beliefs. A thematic analysis of the interviews showed that the nurses tended to focus on the nature, outcome, and context of the experience when making assessments. This analysis also revealed that several nurses referred to their own religious belief systems to help them assess ambiguous clinical vignettes. The authors mention that due to the limitations of the study, they were not able to further evaluate the role of religious/spiritual beliefs in forming these assessments (p. 203). However, they note this as a limitation to their study and point to it as an area for future research.

Overall, these three studies all seek to explore the ways that mental health professionals make distinctions between ambiguous presentations that could be interpreted as either representative of a psychotic episode or religious/spiritual experience. Sanderson (1999) argued that mental health professionals rely on social norms when making diagnoses, and that less conventional presentations (i.e., those that do not conform to mainstream religious practices or standards) were more likely to be viewed as a form of psychopathology and were less likely to be considered an authentic religious experience. Similarly, O'Connor and Vandenberg (2005) concluded that more mainstream beliefs (e.g., those associated with Catholicism and Mormonism) are less likely to be pathologized than beliefs associated with less popular religious traditions (e.g., Nation of Islam), especially when they are explicitly identified as being tied to a particular religious tradition. These two studies both point to the influence that larger dominant religious traditions play in the attribution making process of the ambiguous vignettes. A major limitation of both studies is that they did not ask participants about their own personal religious beliefs, so it is not possible to disentangle whether their findings were due to the influence of predominant religious systems, their own beliefs, or a combination of the two. Lastly, Eeles and colleagues (2003) found that mental health nurses consider multiple factor when constructing attributions, including the nature of the experience, the outcome of the experience, and the context of the individual when making distinctions between psychotic and spiritual experiences. They also noted that some participants referenced their own religious beliefs when making assessments, which suggests that personal religious beliefs may play a role (Eeles et al., 2003).

All of these studies have substantial limitations that call into question the accuracy of their findings. These are all exploratory studies that seek to shed light on a virtually unexplored area of research. Though they are topically related, the content of the vignettes and the questions

asked varied across studies. Since there is no standardized vignette or set of survey questions that was used in all of the studies, which makes it difficult and complicated to compare findings across studies. Moreover, one consistent limitation is that none of these studies formally and thoroughly examined the role of participants' religious/spiritual beliefs in making assessments between spiritual and psychotic experiences.

A fourth study conducted by Dehoff (2014) did explicitly examine the role of personal religious beliefs in making attributes about psychotic-like experiences. This study differed from the three previous studies because it included only individuals with strong ties to the religion and did not use a vignette to assess attributions. Rather, Dehoff (2014) asked participants to describe experiences that were reported to them that they interpreted as spiritual as well as those reported that they interpreted as psychopathological . Dehoff (2014) examined how 20 pastors and pastoral counselors ordained in the Presbyterian Church in the US interpreted mystical and spiritual experiences, including reported instances of hearing God's voice, sensing God's presence, and seeing a vision of Christ. Through a series of structured interviews, the author concluded that the pastors and pastoral counselors relied on Scripture, beliefs of the Presbyterian religion, and personal experience to distinguish whether these experiences were attributed to religious experience or psychotic processes. Although there was no comparison group of individuals without formal religious training, this study suggests that personal religious beliefs are used in the process of constructing attributions about ambiguous situations, and this may be especially true for individuals with deep religious convictions. Even though Dehoff (2014) noted religious/spiritual sources as being an important tool for making distinctions between psychopathology and religious/spiritual experience, she did not specifically ask about participants' particular religious/spiritual beliefs in her interview. She notes that a diversity of

belief exists even within the specific Christian denomination examined in this study, and thus recommends that further research is needed to capture variation in personal beliefs and how this relates to the attribution formation process (Dehoff, 2014).

Interpretations made by the Lay Population in the United States.

Though several studies have examined the factors at play when mental health and religious professionals attribute certain experiences to either religious or psychotic causes, there are very few studies that examine these same themes among the lay public in the United States. However, laypeople, much like mental health professionals, make attributions about the causes of psychotic-like spiritual experiences, which may present in family members, friends, and others who may preach or share these experiences publicly. This presents a gap in the field where research is needed to examine the ways that religious beliefs impact understandings of religious or psychotic experiences that may be ambiguous. The few studies that do exist assessing public attitudes and understandings of psychosis focus largely on identification of schizophrenia as a form of spirit or demonic possession, punishment from God (Compton, Eserberg, & Broussard, 2008), or more broadly assess interpretations of ambiguous supernatural phenomena (Rice, 2003).

Compton, Esterberg, and Broussard (2008) conducted a study in which they examined how 127 African Americans residing in a southeastern inner city viewed causes of schizophrenia. They found that nearly 50 percent of respondents attributed at least one or more esoteric factors as being a cause of schizophrenia. Thirty percent of the sample attributed two or more esoteric factors as being the cause of schizophrenia. Some of the esoteric beliefs included schizophrenia being rooted in possession by evil spirits (endorsed by 28%) and schizophrenia serving as

punishment from God (endorsed by 20% of participants) (Compton et al., 2008). These results show that even in a Westernized nation where medical explanations of mental disorder abound, religious beliefs can still have a strong hold on individual attribution about the causes of schizophrenia. Although these findings are certainly not generalizable to the US population, they provide a rare look into the influence of spiritual beliefs on perceptions of mental health.

Another study conducted by Rice (2003) examined the religious and paranormal beliefs that prevail in the United States. He attained a sample from the Southern Focus Poll conducted by the Institute for Research in Social Science at the University of North Carolina in 1998, in which roughly 1,200 phone calls were made to random telephone numbers across the country. Since this typically yields a larger percentage of Southern residents, survey weights were used to generalize this to a national sample (Rice, 2003). Rice (2003) found that a majority of people hold various spiritual and paranormal beliefs. He reported that 59 percent of the population believes that people on Earth can be possessed by the Devil, 60 percent believe in extra sensory perception, 42 percent believe in ghosts/spirits of the dead being present in certain situations, and 59 percent believe in spiritual healing. While these results show the high prevalence of paranormal and certain spiritual beliefs in the United States public, he notes that these beliefs do not seem to be influenced in any systematic way by religiosity (Rice, 2003). Despite the quality of the evidence gathered in this study and the representativeness of the sample, Rice (2003) did not address the ways in which these beliefs impact understanding or perceptions of mental illness.

Limitations to the Existing Literature on the Interpretations of Ambiguous Psychotic/Religious Experiences.

Though much of the research addressed in the sub-sections above represents exploratory work that has laid the groundwork for future studies to further address interpretations of ambiguous psychotic-like spiritual experiences, there are a few key limitations, including not studying respondents' religious beliefs, not using a vignette that is actually ambiguous, and not studying interpretations made by laypersons. These limitations are discussed below.

One major shortcoming is that the existing studies have failed to systematically explore the role of participants' own religious and spiritual beliefs in making attributions about psychotic-like presentations. Neither Sanderson and colleagues (1999) nor O'Connor and Vandenberg's (2005) assessed participants' religious or spiritual beliefs. Although Eeles and colleagues (2003) did include questions about participants' religious/spiritual beliefs in their interview, this was not thoroughly explored. They recommended this as an area of focus for future research, since it seems to be an important factor in making attributions about spiritual-type experiences. Dehoff (2013) shows that religious professionals in the Presbyterian Church (US) drew from sources of religious belief and knowledge in order to make distinctions between spiritual experience and psychotic processes, but she did not explore variations in belief among participants or the relationship between variation in beliefs and attributions.

A second limitation of the research presented above lies within the content of the vignettes used to assess interpretations of psychotic-like religious experiences. The main limitation to the vignettes used in Sanderson's study is lack of consistency across measures of conventionality, and the main limitations discussed about O'Connor's study are presence of threat to harm and lack of ambiguity associated with this. The vignettes developed by Sanderson

and colleagues (1999) did not appear to vary on conditions of conventionality in a systematic way[2]. This may have impacted their findings by overemphasizing the significance of conventionality in participants' assessments, which could have potentially overshadowed the significance of the different dimensions of religious experience that were explored (e.g., relationship/proximity to God, information communicated in prophetic-type experience, mode of communication, etc.). Additionally, O'Connor and Vandenberg (2005) used vignettes that varied in the presence homicidal ideation based on newfound religious convictions.[3] However, this does not actually seem to represent an ambiguous psychotic-like experience, so it is not surprising that homicidal ideation was viewed as pathologized by mental health professionals in this study. It seems clear that when self-injurious behavior or homicidal ideation is included in the vignettes, mental health professionals are more likely to understand them in terms of pathology, regardless of religious content or the identified religious belief system. What is needed is a more ambiguous vignette to help access how these attributions are made.

Lastly, there has been very little research that has been done exploring layperson's beliefs and interpretations of psychotic-like religious/spiritual experiences. Conclusions drawn from studies on mental health professionals may not be transferrable to assertions about the general population due to the presence of a religiosity gap. According to a 2014 Gallup Poll, 86 percent

[2] For example, in some cases the unconventional measure depicted someone giving away his/her children's belongings, while in another vignette the unconventional measure depicted someone cutting off his/her hand (p. 609-610). It seems clear that self-injurious behavior in almost any context would be viewed as pathological by mental health professionals, since it represents a danger to oneself, which is widely considered to be an indicator of mental illness. Even ardent Christians would likely view cutting off one's hand as dangerous, extreme, and likely pathological.

[3] For example, one vignette stated that in reaction to finding out that his ex-girlfriend was dating someone else, Frank "had considered killing her in order to keep her from having sex, as he has become convinced that this is the ultimate defilement of the sanctity of the body" (B. Vandenberg, personal communication, October 13, 2014).

of the population in America believes in God, while far fewer mental health professionals hold this same belief (Sanderson et al., 1999; Crosby & Bossley, 2012; Delaney, Miller, & Bisono, 2013). Therefore, practitioners may be less likely to espouse a religious worldview and interpretive lens that is more common among laypersons (Hill & Pargament, 2008). This would suggest that asking a broader sample to provide their interpretations of religious/psychotic experiences would yield different results.

Methodological Implications for the Current Study.

Given the findings and limitations of the research outlined above, the aim of the present study is to explore the ways that variations in religious beliefs among Christians are associated with their interpretation of ambiguous psychotic-like religious experiences. More specifically, the present study will seek to determine whether there is a relationship between various dimensions of religious beliefs (e.g., belief in prophecy) and interpretation of an ambiguous case vignette. An assessment tool was created for the present study which drew on the strengths, but overcame some of the limitations, of the tools discussed above. This tool will be used to access attributions of lay Christian adults in the US. The three limitations in prior research will be addressed in the present study.

First, the present study will explicitly ask participants about their individual religious and spiritual beliefs in order to measure variation in beliefs that exist among Christians within and across different denominations. Since this study will specifically explore Christian beliefs about prophecy, there will be several questions that seek to address specific beliefs about historical and modern prophetic experiences and the perceived closeness one has to prophetic-type experiences. In addition, participants will be asked whether they identify with any particular denomination

within Christianity, assess their belief in the Bible, the age of introduction to the Christian tradition, and perceived closeness to God. Several questions about religious practices (e.g., attendance of Christian services, prayer, etc.) will also be included in the survey to tap into behavioral aspects of religious beliefs. These questions will be asked systematically with standard questions and response options.

Second, the present study seeks to expand on previous research by developing and using an ambiguous vignette, which tells of an individual's experience that could be reasonably be interpreted as either psychotic or spiritual in nature. This vignette will not include any self-injurious, suicidal, or homicidal ideation, which may signal mental illness rather than being an ambiguous prompt. Rather it will focus on a perceptual prophetic-type experience that has clear religious content, but also contains some psychotic-like features that make it difficult to discern the etiology of the presentation.

Third, this study will expand on previous research by exploring the attributions made by a lay Christian population. Because of the religiosity gap that exists between mental health professionals and the general public, the findings outlined by Sanderson and colleagues (1999), Eeles and colleagues (2003), and O'Connor and Vandenberg (2005) cannot be generalized to the American lay public. This study seeks to address the research gaps identified by using a systematic approach to assessing an understudied population that often plays a large role in the treatment and overall experience of those who may be diagnosed with psychosis.

Importance of the Present Study

The relationship between religious/spiritual beliefs and mental health have been understudied. The present study focuses on a specific aspect of this area of research, namely, whether religious beliefs are related to the ways that individuals interpret psychotic-like presentations. This study seeks to fill some of the gaps in mental health research, education, and practice and to call attention to areas where more work is needed.

Hill and Pargament (2008) explain that when religion and spirituality are explored in psychological and psychiatric research they tend to be included as auxiliary measures, even though they have been found to be reliable and consistent predictors of positive mental and physical health. A central aim of this study is to foreground religiosity/spirituality in the study of mental health, thus making a needed contribution in this line of research.

Hill and Pargament (2008) attribute the disregard for religion and spirituality in the mental health literature as partially stemming from the religiosity gap between mental health professionals/researchers and the general public. This may point to a divide in the way that mental health practitioners and their lay patients and families of patients understand mental health problems. Since mental health professionals' tend to be less religious than lay people, the present study seeks to target a sample of lay Christians who may be able to better understand the cultural context of potentially religiously-based experiences that seems to be missed when asking mental health professionals to make these assessments. By collecting the interpretations of family members, friends, and those who may have had psychotic-like spiritual experiences, this study seeks to draw attention to this divide and spur discussion about how to overcome this divide (e.g., integrating this understanding into the education of mental health professionals). By doing this, mental health professionals can begin to more fully grasp the importance of a family's

religious/spiritual beliefs and the potential ways these may be applied to their understanding of psychotic-like spiritual experiences. It is possible that the religiosity gap may make mental health professionals more likely to rely on biomedical explanations for ambiguous psychotic-like spiritual presentations, which could potentially lead to instances in which mental health professionals may overlook, downplay, or invalidate clients' beliefs if they do not rely on the same biomedical explanations for interpreting their experiences. In short, it is likely that there are missed opportunities to incorporate religious and spiritual aspects into the therapeutic process and intervention, which may be related in part to this divide between mental health practitioners and their clients.

While Hill and Pargament (2008) focus primarily on the need for greater emphasis on religion and spirituality specifically within mental health research, they also touch on how religion and spirituality tend to be overlooked in the education of mental health professionals. Social work, in particular, is known for taking a multi-systems approach to client care. It is even written into the Social Work Code of Ethics that social workers educate themselves and continue to strive toward cultural competence with regard to religion (National Association of Social Workers, 2008). However, despite this ethical commitment, the importance of religion and spirituality are often neglected when it comes to discussions of cultural competence, leaving social workers (like other mental health practitioners) potentially disconnected from the realities of their clients (Hill & Pargament, 2008). Placing a greater emphasis on issues related to religion and spirituality in social work education has obvious implications for social work practice, as it impacts clinicians' approaches to the diagnosis and treatment of those with psychotic-like spiritual experiences as well as psychotic spectrum disorders with religious or spiritual content. Mental health professionals hold a great deal of power in diagnosing ambiguous presentations

and determining relevant treatment strategies for a client's presenting concerns. Mental health professionals are trained to view certain presentations as signs of psychopathology due to the emphasis of Westernized and medicalized thought in the current mental health system (Torn, 2011), which may lead them to overlook or dismiss possible spiritual motivations that underlie behavior. Thus, the education of mental health professionals, including social workers, may not fully encourage clinicians to embrace the DSM's recommendations to consider an individuals' cultural or sub-cultural context when making diagnostic assessments. Misdiagnosing an experience as a psychotic disorder can have profound negative effects on clients, as psychotic diagnoses often carry intense stigma, and are commonly associated with social isolation, other forms of discrimination (McCarthy-Jones & Davidson, 2013), as well as the unnecessary use of antipsychotic medication (Torn 2011).

In summary, the present study is intended to make several key contributions to the field. First, it seeks to expand upon the previous literature by addressing a gap in the research examining the relationship between religiosity and lay Christians' interpretations of an ambiguous psychotic-like spiritual presentation. Relatedly, this topic will help to foreground religion in the study of mental health and highlight some of the ways in which these two fields are interconnected. Next, the present study is also intended to begin to bridge the divide between mental health practitioners and laypeople, by bringing greater awareness about the intersection between clients' religious beliefs and their beliefs about mental illness to the literature. This can be used to help inform clinicians in their work with clients who present with ambiguous experiences and encourage consideration about how to overcome the religiosity divide between clinicians and clients. Lastly, this study seeks to call into question the ways that mental health professionals are trained to make distinctions between psychotic and spiritual experiences in

light of the religiosity gap that exists between clients and practitioners. It seems likely that a greater emphasis is called for in the education of mental health professionals, in order to more thoughtfully and respectfully approach diagnosis and treatment with clients' who present with these concerns.

One potential way to address the lack of attention to religious/spiritual issues is by expanding social work orientations within the field of mental health and beginning to make better use of these frameworks. Although the field of social work tends to favor multi-system approaches, Sharfstein (2005) argues that psychiatry has "allowed the biopsychosocial model to become the bio-bio-bio model" (p. 3). He explains that pharmaceutical companies have contributed to the creation of a mental healthcare system that is dominated by the use of psychotropic medication, even when other treatment options may be clinically indicated (Sharfstein, 2005). Further, King (2000) outlines the ways that the current model is insufficient in meeting the needs of clients' spiritual health, and proposes that a Biopsychosocial-spiritual approach represents a more integrated and holistic model of care. McCarthy-Jones and Davidson (2013) also call for a shift toward integrating spirituality into this model and discuss the ways that the current system does not meet the existential or spiritual needs, specifically of those who hear voices because of the biomedical emphasis that underlies the way we conceptualize and treat clients who report hearing voices. The present study is in agreement with these new theoretical developments, which underscores the importance of making spirituality a key part of social work frameworks, and mental healthcare more generally.

By studying this topic and addressing its potential relevance to the field of social work and mental health, this could lead to the development of alternative treatment options that tend to be outside of the mainstream clinical focus. Many who are diagnosed with psychotic spectrum

disorders today, such as schizophrenia, find current treatment options to be inadequate. Between 25 to 30 percent of clients do not respond to antipsychotic medication (Shergill, Murray, & McGuire, 1998) and many clients feel that relying primarily on medication as a treatment option is dehumanizing and lacking consideration for the whole person (Warren & Bell, 2000; Thornhill, Clare, & May, 2004; Rofail, Heelis, & Gournay, 2009). Therefore it seems necessary that we develop new ways to meet the needs of families and clients who may present with ambiguous religious/psychotic experiences and who endorse religious or spiritual explanations for their experience and make these more accessible to the general public. This study seeks to help protect the sacred experiences of clients and their families and to help create space for these interpretations in the current mental healthcare system. Gaining deeper insight into the way lay Christians' interpret these ambiguous presentations and how that is contextualized by religious beliefs will hopefully promote a safer and more open environment for individuals and families to disclose these experiences to mental health professionals.

Summary

Attribution theory tells us that many factors are at play when people interpret the causality of situations and events occurring around them, including dominant social frameworks. Two prominent and often competing frameworks that are at play in the United States are religiously and medically/physiologically based explanations. According to the United States Census Bureau (2012), 76 percent of the adult population identified as Christian in 2008, so it is likely that Christian religious explanations are fairly accessible to the majority of people living in the US today. Second, due to the pervasiveness of medical thought, medical explanations are also accessible when making attributions. Both of these larger social frameworks inform

individual attributions that can be made in attempt to understand the causes of ambiguous psychotic-like presentations with religious/spiritual content.

The present study seeks to explore how religious beliefs influence the attributions made by lay Christians about presentations of psychosis as being either rooted in spiritual or psychopathological causes. This study will expand on previous literature by examining the role religious/spiritual beliefs among Christians play in making these distinctions. Attribution theory underlies the present study and informs us that people have access to both religious and non-religious meaning-making systems. Dominant religious attributions embrace Christian explanations for psychotic-like presentations, such as mystical and prophetic experience. Leading non-religious attributions involve medical and physiological explanations for extraordinary or unusual behavior, such as the presence of a mental illness or brain disorder. A majority of people living in the United States today have access to both of these social frameworks, so the present study seeks to examine which factors influence participants' willingness to endorse either of these explanations. Factors that will be specifically examined in the following analyses include dimensions of religious belief, as well as reliance on God, participation in religious activity, race, age, gender, level of education, marital status, denominational affiliation, employment status, income, length of time identifying as Christian/belonging to a religious house of worship, and whether or not participants have worked as mental health professionals. The next chapter will outline the instrument and method that will be used this study.

Given the fact that Christianity is the dominant religious tradition in the United States (United States Census Bureau, 2012), the present study seeks to specifically access variations in beliefs among Christians. However, it is important to acknowledge that the Christian voice

represents an already privileged religious group, and I have reservations about the implications of privileging this perspective. In my initial conceptualization, I hoped to compare the ways that findings varied across religious traditions, while keeping in mind how religious beliefs varied among affiliation and how that related to understandings of psychosis in a religious context. However, due to the limited time and resources needed to obtain sufficient members of participants from multiple religious traditions, I chose to narrow the scope of this study as a way of making it more feasible for a Master's thesis. As such, this study is considered to be exploratory with the hope that future studies will include a broader range of religious and spiritual traditions.

CHAPTER III

Methodology

The present study seeks to examine whether variation in religious beliefs is related to Christians' understandings of psychotic-like experiences. Is variation in belief about modern prophecy associated with the attributions Christians make about an ambiguous vignette that can signify the presence of psychosis and/or communication with God? Specifically, are Christians who believe in the existence of modern prophecy more likely to view the ambiguous presentation as a prophetic experience, and not psychosis, than Christians who do not believe in modern prophecy? In this study, I intend to (a) explore variation in Christian's own religious spiritual beliefs and beliefs about mental illness, and (b) assess the relationship between participants' own religious/spiritual beliefs and the interpretation they make about psychotic-like spiritual experiences. Secondary research questions will address the ways that Christians' reliance on God and participation in religious activities are also associated with their understanding of ambiguous psychotic-like spiritual presentations.

The present study uses a mixed-methods approach, containing 35 multiple choice questions with fixed response options that will be analyzed quantitatively and one open-ended question that will be interpreted qualitatively. More specifically, a concurrent nested design will be used in the present study, in which one qualitative question is embedded in a primarily quantitative survey (Tashakkori & Teddlie, 2010). See Appendix C for the survey instrument. The quantitative portion was created to collect standard information from respondents on their interpretations of an ambiguous stimuli, religious/spiritual beliefs, beliefs about mental illness, and demographic characteristics. The one open-ended question is included to allow respondents

to describe in their own words their understanding of the attributions they made about the vignette. This open-ended question was included to gather descriptive information that would not otherwise be represented through the use of fixed response options (Morse, 1991). This gives participants the opportunity to explain how they made their decision about whether the person in the vignette was experiencing a psychotic or religious/spiritual experience and to identify specific factors that went into their attribution process that might not otherwise be captured with strictly quantitative measures. Ultimately, the use of mixed methods design provides a unique opportunity to combine the benefits of both quantitative and qualitative research that is particularly useful when studying an underexplored topic (Engel & Schutt, 2013).

Sample

Eligible participants for the present study included English-speaking adults living in the United States who identify as Christian. I used convenience sampling and snowball sampling to recruit participants (described below). My target sample size was fifty participants or more. The survey was administered electronically using Qualtrics, a free online survey generator.

A two-part recruitment strategy was used for the present study, based on convenience sampling. The first strategy involved using social media and email to recruit individuals in my personal network. I (a) posted a link of the survey on social media (i.e., Facebook) and (b) sent emails to friends and family members who do not use Facebook, requesting that they complete the survey. I then asked if they would share or pass along this survey to others whom they know who identify as Christian (snowball sampling). Second, I contacted the Christian Appalachian Project, which is an organization that does charity work in the Appalachian region of the U.S. I have a relationship with a leader within that group, who I asked to distribute my survey

electronically to past and present volunteers (via post on their social media page with a link to the survey). This allowed me to access a more diverse sample, particularly in relation to geographic region and denominational affiliation. Initially, I had also intended to recruit parishioners from my local church in a northeastern state and ask individuals to complete paper versions of the survey. I contacted the pastor at my local Catholic Church, who granted me permission to pass out printed surveys after mass on Saturdays and Sundays in order to assure that I was able to access a group of practicing Christians. However, the electronic version of the survey reached more participants than I had initially expected and a large percentage of these respondents were active churchgoers. Therefore, this third recruitment strategy was not utilized.

One main limitation to convenience and snowball sampling is that I was only be able to reach people who come from similar backgrounds as myself, my friends, and family members. Therefore, it likely left out large segments of the Christian population in the U.S. Given the exploratory nature of this study, the use of nonprobability sampling strategy is not intended to generalize to a designated population.

A sample size of at least 50 participants was needed to conduct regression analyses. This target sample size appeared to be a feasible goal, given the recruitment strategies described above. However, if obstacles arose with meeting the sample size requirements, I was prepared to explore the use of alternative recruiting strategies, which would have needed to be submitted as an addendum to my original Human Subjects Review research proposal.

Ethics and Safeguards

Prior to administering this survey, a proposal was submitted to and approved by the Human Subjects Review board at Smith College School for Social Work (see Appendix B for Smith College Human Subject Committee's Approval Letter). This proposal outlined the study's purpose, design, risks, benefits, confidentiality, and other pertinent information to assure that necessary safeguards were in place.

Participants completed the electronic survey anonymously. Qualtrics does not collect any identifying information from participants (e.g., names, email addresses, IP addresses). Participants were asked to consent electronically by selecting "I agree" or "I disagree" after reading the informed consent information presented before they begin the survey (see Appendix A).

All research materials collected was stored in a secure location and will be stored for three years in accordance with federal regulations. All electronically stored data was password protected during the storage period. All participants were provided with my school email address and the contact information for the Smith College School for Social Work Human Subjects Review Committee in case any questions or concerns arose with regard to the study. Though it was not expected that the survey would arouse distress in participants, it remained possible that some participants may have felt discomfort after taking the survey (e.g., if a family member suffered from a psychotic disorder). In anticipation of this unlikely occurrence a toll-free counseling phone number was provided at the end of the survey should the need arise.

By participating in this study, respondents contributed to the further development of an area of research that is of potential importance, but that has not been studied in depth. No compensation was provided to participants.

Data Collection

Data was collected for the present study from a survey that gathered participants' interpretation of an ambiguous vignette, information on religious beliefs, beliefs about mental illness, and data on demographic characteristics. Nearly all data was collected using standard survey questions with identical response options, which facilitated quantitative and statistical analysis of the responses. Several questions included an option for participants to specify their own response, if the given response options were not sufficient. These write-in responses were either recoded as one of the existing response categories, or were coded as "other" during the quantitative analysis. See Appendix C for the survey vignette and questionnaire.

The organization of the questionnaire proceeded in the following manner. First, respondents read a short vignette (440 words at 8.4 reading level according to the Flesch-Kincaid Grade Level scale). The vignette was created for this study after reviewing past vignettes and incorporating feedback from a pilot study of five individuals. The vignette was self-developed because those used in previous studies did not meet the specific aim of the present study. Since I was unable to find a vignette from prior studies that actually seemed to be ambiguous, one was created which displays an individual with a moderate amount of psychic distress, as well as religious ideation and seemingly believable religious experience. The person described in the vignette receives messages from God to follow a new life mission, requiring him to quit his current job, give away his possessions, move to a new city, and begin a career as a massage

therapist who is able to heal clients' ailments through hands-on spiritual healing. From a mental health perspective, the individual experiences a dramatic shift in mood, sleep disturbances, delusions of grandiosity, auditory hallucinations, and delusional thought processes; however, none of these are named as such to avoid priming. On the other hand, from a religious/spiritual perspective, these same phenomena could be understood as a calling from God to change his life course and engage in divine healing, akin to figures in the Bible. The demographic information of the person in the vignette was less specific than vignettes used in other studies (Sanderson et al., 1999; O'Connor & Vandenberg, 2005) in an attempt to limit the influence of pre-judgments that may play a role in shaping attitudes. After the vignette was created, a pilot test was conducted to assess the extent to which the content of the vignette was clear, believable, and truly ambiguous. Feedback from pilot study participants led me to make a few small emendations. Particularly, certain behaviors of the vignette character were removed because participants reported them as being too bizarre, thus skewing the vignette toward a mental health interpretation. The revised vignette was more balanced and ambiguous.

After reading the vignette, respondents completed questions that fell into five sections. The first part consisted of four items that ask participants about their attributions of the person described in the vignette. This consisted of two questions that are adapted from Sanderson and colleagues' (1999) survey, that assess judgment about the character's experience. Response options followed a Likert scale ranging from 1="Clearly a religious experience" to 6="Clearly something other than a religious experience" and 1="Clearly anchored in reality, not at all pathological" to 6="Clearly not anchored in reality, definitely pathological." The third question asked participants about the basis for their answers to the questions above. Finally, the last question in part one was open-ended, and asked which parts of the vignette stood out when

participants were making their assessments in the preceding questions. I then analyzed the written responses to identify themes that emerged in respondents' descriptions of the evidence that led to their responses in the previous four questions. I conducted a pilot test for the questions in Part One, which prompted some minor alterations to the format of the questions.

Part two of the survey included a series of six items intended to assess participants' particular religious beliefs around communication with God and other religious beings. Participants were asked to rate the extent to which they agreed or disagreed with four statements on a six-point Likert scale, ranging from "Strongly Agree" to "Strongly Disagree." These questions assessed belief in prophetic experiences of biblical figures, others living today, individuals' in the respondents' Church, and their belief that God will try to communicate with them in the future. The two remaining questions include "Yes," "No," and "Unsure" response options, and assessed whether respondents know someone personally who has received messages from God or if respondents' believe God has tried to communicate with them in the past. Each of these six items were developed for this survey.

Part three consisted of a series of 12 questions that focused on assessing religious involvement, practices, and beliefs. These questions examined the frequency that participants read the Bible, attend religious services, pray, and other activities (see questionnaire in Appendix C). The fourth section was used to assess participants' attitudes about mental illness, particularly psychosis. Many questions examined participants' beliefs/attitudes about mental illness through a religious lens. Respondents were asked five questions about psychosis as punishment from God, belief in religious healing, and the etiology of psychosis, among others (see Appendix C). The final section collected data on demographic information including age, gender, race/ethnicity, marital status, level of education attained, employment status, and annual

household income. Demographic information was included to describe the sample and to use for subgroup analysis and statistical controls.

In drafting the vignette and the survey questions, I was aware of the possibility that a social desirability bias may motivate participants to appear as though they are giving the "correct" answer. Due to the role of the medical model and the increasing prevalence of brain research, individual's may feel pulled to answers that accord with scientific knowledge are "right" or more desirable. On the other hand, participants who are highly religious may feel pulled to answer questions in a way that might conform to the teaching of their church. In attempt to minimize the impact of these potential biases, the informed consent sheet states that, "None of the questions have a correct or incorrect response. Each question asks for your own beliefs and opinions." Additionally, the informed consent sheet emphasizes anonymity and explains that consent forms will not be traced back to individual participants. Finally, respondents are asked to interpret the vignette prior to the questions about their religious beliefs and beliefs about mental illness. While it is possible that social desirability may play a role for many participants, the strategies outlined above attempt to minimize these effects.

Data Analysis

My mixed methods study required analysis of both qualitative and quantitative data. For the qualitative portion (one open-ended question), the question asked participants to identify particular parts of the vignette that informed their answers to the first two questions. Although the data was obtained through the use of an open-ended question, the data was converted to quantitative measures through the use of content analysis (Engel & Schutt, 2013). Responses to this question were coded and categories were developed for overlapping themes that emerged

(Engel & Schutt, 2013). Since this question asked respondents to draw from material included in the vignette, categories were made that encompassed various aspects of the character's experience that appeared in participant responses (e.g., changes in mood, social response, auditory hallucinations/voice hearing, etc.). The frequencies of each response were reported (Engel & Schutt, 2013). Responses were considered within the context of the individuals' responses to the preceding questions before they were coded and categorized (Engel & Schutt, 2013).

Quantitative analysis included several steps. The data was first cleaned (e.g., creating variable names, value labels, recoding missing, etc.), and then I assessed the extent of missingness on each of the 35 items and patterns of missingness across respondents. Data were analyzed descriptively to describe my sample. This includes reporting descriptive statistics such as the mean and standard deviation (for Likert-style response options) and proportions (for categorical response options).

Next, I intended to convert the responses of the items in Part 2 of the survey into a single measure that captured participants' perceived closeness to spiritual/prophetic experiences. However, due to the large percentage of missing data for many of these measures, only the data for two of these measures were combined (i.e., belief in divine communication with figures in the Bible and belief in divine communication with people living today). The internal reliability of these items were assessed using Cronbach's alpha. I also conducted an exploratory factor analysis (EFA) to (a) assess whether questions load on a single factor, and (b) identify if any items that need to be dropped because they do not fit with the other items. The factor yielded a continuous measure of beliefs about religious prophecy. Questions related to participants'

reliance on God and participation in religious activities were also condensed using the same procedure outlined above.

I then conducted bivariate analyses between my main outcomes of interest (questions in Part 1) and my measure of beliefs about religious prophecy. Three new variables for beliefs about religious prophecy were created: a three-category variable (cut point at 33rd, and 66th percentile of the continuous measure). Participants' t-test were used to assess the mean differences in the vignette attributions (items 1 and 2 in Part 1) when the three-category variable of beliefs about prophecy was used. Analysis of Variance (ANOVA) was used to assess mean differences when the three-category variable for beliefs about prophecy was used. The statistical significance of the associations were tested at 95% confidence level. In addition to these analyses, which address the main research question, I also examined several bivariate relationships between vignette interpretation and characteristics of respondents (e.g., gender, age, race, denomination, religious participation). T-tests and ANOVA were used for these analyses. This same procedure was also used to assess the relationship between other measures of religiosity (i.e., reliance on God and participation in religious activities) and the main outcome variables.

Finally, I used ordinary least squares (OLS) regression to assess the relationship between vignette interpretations and beliefs about prophecy after controlling for selected covariates (Allison, 1999). These covariates included factors that could reasonably be associated with both vignette interpretations and beliefs about prophecy, including gender, race, education, denomination, age, marital status, employment status, level of education, income, amount of time participants have identified as Christian, and whether or not participants have worked as a mental health professional. Statistically controlling for these factors enabled me to assess the

relationship between religious beliefs and vignette interpretations after ruling out the influence of potential confounders.

Discussion

As discussed previously, the main aims of the present study are to (a) explore variation in Christians' own religious/spiritual beliefs and beliefs about mental illness and (b) assess the relationship between participants' own religious/spiritual beliefs and the interpretation they make about psychotic-like spiritual experiences. Secondary research questions also examined the way that reliance on God and participation in religious activities are associated with attributions about these ambiguous experiences as being religious/spiritual in nature or rooted in psychopathology. Single measures were created to represent participants' belief in divine communication, reliance on God, and participation in religious activities by combining responses to related measures that had high internal consistency and hung together well conceptually. The "high prophetic belief group" is composed of participants whose coded responses are in the top third of scores on the belief in divine communication scale. The "middle prophetic belief group" is composed of participants whose coded responses are in the middle third of scores, and the "low prophetic belief group" will be composed of participants whose coded responses are in the bottom third of scores on the belief in divine communication scale.

There are three main hypotheses about the findings that were tested:

H1: Participants in the high prophetic belief group will be significantly more likely to endorse religious attributions in their interpretation of the vignette than those in the low prophetic belief group.

H2: Participants in the high prophetic belief group will be significantly less likely to endorse medical/physiological attributions in their interpretation of the vignette than those in the low prophetic belief group.

H3: After controlling for gender, race, education, denomination, age, marital status, employment status, level of education, income, amount of time participants have identified as Christian, and whether or not participants have worked as a mental health professional, H1 and H2 above will still hold.

It was expected that participants with stronger belief in modern prophecy would be more likely than those without these beliefs to interpret the ambiguous vignette as being rooted in religious/spiritual truth, rather than psychopathology. These results are expected despite the presence of external factors, such as education level, involvement in one's religious community, denominational affiliation, age, and gender.

CHAPTER IV

Findings

In this chapter, results of my analyses are presented. First, I will review the demographic characteristics of the sample. Then, data for participants' reported reliance on God, participation in religious activities, and religious beliefs will be presented, which will serve as the three main predictor variables. I will then present an analysis of variance to examine the relationship between these three predictor variables (reliance, participation, and beliefs) and other related outcomes (participants' beliefs in psychosis as a form of spirit possession, punishment from God, and belief in religious healing as a treatment option). Next, the two main outcome variables of (interpretation of the vignette as a religious experience and interpretation of the vignette as mental illness) will be presented, as well the six main regression analyses conducted for this study.

Table 1. Demographic Characteristics (N=177)

Variable Name	N	%	% Missing
Gender			6.2
Female	125	75.3	
Male	40	24.1	
Transgender	1	0.6	
Age			6.2
18-20/21-30	61	36.7	
31-40	19	11.4	
41-50	19	11.4	
51-60	48	28.9	
61 or older	19	11.4	
Non-Hispanic White	156	95.1	7.3
Marital Status			6.8
Married	84	50.9	
Engaged/Dating	21	12.7	

Divorced/ Widowed/ Separated	16	9.7	
Single	4	26.7	
Education			6.2
High school degree/ Some College	37	22.3	
Associate degree	13	7.8	
Bachelor degree	64	38.6	
Graduate degree or professional degree	52	31.3	
Employment			6.8
Full-time	93	56.4	
Part-time	20	12.1	
Not employed/ Disabled	13	7.9	
Retired	19	11.5	
Student	20	12.1	
Annual Household Income			13.0
Less than 20,000	8	5.2	
20,000 to 34,999	13	8.4	
35,000 to 49,999	15	9.7	
50,000 to 74,999	29	18.8	
75,000 to 99,999	25	16.2	
100,000 to 149,999	31	20.1	
150,000 or more	33	21.4	
Mental Health Professionals	26	15.8	6.8
Participants with friend/ family member with psychotic episode	53	42.4	29.4 (total) 23.2 (DK)

There were 340 individuals who clicked on the survey link. Forty-one of these individuals did not meet the eligibility criteria. Among those who were eligible, 120 dropped out after the consent and never began the survey. The sample for the present study consists of 177 participants, though 165 of these participants completed the survey in its entirety. The remaining participants dropped off at different points over the course of taking the survey. Table 1 above reports the number of participants who answered with each given response (n), the percentage of the sample that this represents (%), and the percentage of missing responses for each variable (%

missing). As seen above, the sample was largely composed of non-Hispanic whites (95.1%), and respondents were primarily female (75.3%). Participants represented a range of ages, though most of the sample consisted of 18 to 30 year olds (36.7%) and 51 to 60 year olds (28.9%). As a whole, the sample was highly educated (31.3% of respondents have a graduate or professional degree), employed either full or part-time (56.4% and 12.1%, respectively), and had a high annual household income (41.5% of respondents report an annual income of $100,000 or more). Several participants have worked as a mental health professional at some point in their life (15.8%). Additionally, many reported having a friend or family member who have experienced a psychotic episode (42.4%), although more than a quarter of respondents did not answer this question, with most participants responding "Don't know" to this question (23.2%).

Table 2. General Religious Demographics (N=177)

Variable Name	N	%	% Missing
Denomination			6.8
Catholic	100	60.6	
Protestant	38	23.0	
Other	8	4.8	
Non-denominational	19	11.5	
Length of time identifying as Christian			6.8
My whole life	130	78.8	
Most of my life	29	17.6	
Some of my life/Just recently	6	3.6	
Length of time belonging to a church/house of worship			6.8
My whole life	111	67.3	
Most of my life	24	14.5	
Some of my life/Just recently	26	15.8	
Never	4	2.4	

Looking particularly at general religious demographics in Table 2, the sample was composed primarily of people who identify as Catholic (60.6%) and Protestant (23.0%), and who

have identified as being Christian and belonged to a church or house of worship for their entire life (78.8% and 67.3%, respectively).

Table 3. Religious beliefs (N=177)

Variable Name	N	%	% Missing
Belief in divine communication with figures in the Bible			8.5
Strongly agree/Agree	134	82.7	
Slightly agree	18	11.1	
Slightly disagree	2	1.2	
Strongly disagree/Disagree	8	4.9	
Belief in divine communication with people living today			7.9
Strongly agree/Agree	117	71.8	
Slightly agree	29	17.8	
Slightly disagree	4	2.5	
Strongly disagree/Disagree	13	8.0	
Interpretation/Belief in Bible			10.2
Actual word of God	16	10.1	
Inspired word of God	121	76.1	
Ancient book of fables	22	13.8	

Table 3 above reports information on participants' beliefs in divine communication. Overall, it seems as though a vast majority of participants endorse believing that God communicated with figures in the Bible (82.7%) and that God continues to communicate with people living today (71.8%). Participants' interpretation/belief in the Bible will not be included in the following analysis, though most respondents reported believing that the Bible is the inspired word of God.

Table 4. Reliance on God (N=177)

Variable Name	N	%	% Missing
Close relationship with God			5.6
Strongly agree/Agree	109	65.3	
Slightly agree	30	18.0	
Slightly disagree	16	9.6	
Strongly disagree/Disagree	12	7.2	

Regular communication with God			5.1
Strongly agree/Agree	103	58.2	
Slightly agree	34	19.2	
Slightly disagree	11	6.2	
Strongly disagree/Disagree	20	11.3	
Turning to God for direction and help			5.1
Strongly agree/Agree	89	50.3	
Slightly agree	57	32.2	
Slightly disagree	14	7.9	
Strongly disagree/Disagree	8	4.5	
Aware of God attending in times of need			5.6
Strongly agree/Agree	109	65.3	
Slightly agree	30	18.0	
Slightly disagree	16	9.6	
Strongly disagree/Disagree	12	7.2	

As presented in Table 4, the sample seems to represent participants who are highly reliant on God. Most respondents reported that they have a close relationship with God (65.3%), communicate with God on a regular basis (58.2%), turn to God for direction and help (50.3%) and are aware of God attending to them in times of need (65.3%).

Table 5. Participation in Religious Activities (N=177)

Variable Name	N	%	% Missing
Last time attended a religious service			5.6
In the past week	82	49.1	
In the past month	33	19.8	
In the last few months	23	13.8	
In the last year	14	8.4	
More than a year ago	15	9.0	
Last time participated in religious event/activity			7.3
In the past week	36	22.0	
In the past month	18	11.0	
In the last few months	17	10.4	
In the last year	29	17.7	
More than a year ago	55	33.5	

Never	9	5.5	
How often participants read Bible			5.6
Daily/Few times per week	29	17.4	
Once per week	17	10.2	
Once per month	11	6.6	
A few times per year	34	20.4	
Less than once per year	30	18.0	
Never	46	27.5	

With regard to participation in religious activities (Table 5), the sample seems to be generally active in their religious communities. Most participants have attended a religious service recently. Participants seem to be less engaged with religious events and activities; however, about a third of participants reported having done so in the past month. Similarly, about a third of participants report having read the Bible in the past month as well.

Table 6. Composite Predictor Variables (N=177)

Variable Name	Cronbach's Alpha	Eigenvalue for Factor 1	Factor Mean	Factor Range	% Missing
Belief in Divine Communication	.84	1.736	0	-.79850 to 3.66771	10.7
Reliance on God	.92	3.245	0	-1.15919 to 2.42587	5.6
Participation in religious activities	.76	2.069	0	-1.69285 to 1.93736	8.5

One of the goals of the analysis was to consolidate information from multiple items into single measures. Specifically, a composite measure was created for three aspects of religiosity: beliefs about divine communication (Beliefs), reliance on God (Reliance), and participation in religious activities (Participation). The items used to create a measure for Beliefs represents two

of the questions reported in Table 3 (belief in divine communication with figures in the Bible/people living today), which both address belief in prophetic type experiences.[4] The Reliance measure include the four items listed in Table 4, which all tap into participants' perceived closeness/degree of support from God. Lastly, the Participation measure includes the three items in Table 5, which all address frequency of attendance/participation in religious activities, services, and events.

Two statistical tools were used to assess if and how well the prospective items hung together as a single measure of the three aspects of religiosity. First, Cronbach's alpha was calculated for each of the three aspects. Cronbach's alpha is a measure of the internal reliability that can range from 0 to 1.0. Scores between 0.70-0.79 are considered to have fair internal reliability, scores between 0.80-0.89 have good internal reliability, and scores of 0.90 and above have excellent internal reliability. Table 6 above presents the Cronbach's alpha for each of the three composite measures. The Beliefs measure has good internal reliability ($\alpha = .84$), Reliance subscale has excellent internal reliability ($\alpha = .92$), and Participation has fair internal reliability ($\alpha = .76$).

Exploratory factor analysis (EFA) was the second statistical method used to assess the three religiosity measures, and it served two purposes.[5] The first purpose was to assess dimensionality, that is, whether the prospective items for each measure hung together as a single factor or more than one factor. The Kaiser criterion is a commonly used benchmark to assess dimensionality (Fabrigar, Wegener, MacCallum, & Strahan, 1999). EFA results present multiple

[4] The measure Interpretation/Belief in the Bible from Table 3 was not included in the composite Beliefs measure because it did not hang together conceptually as the other two variables measuring beliefs in divine communication.

[5] Principal components was set as the extraction method, and an oblique factor rotation was used to permit correlation between the factors.

factor solutions, and the Kaiser criterion suggests that only factors with an eigenvalue greater or equal to 1.0 should be retained. The eigenvalue for Beliefs was 1.736; the eigenvalue for Reliance was 3.245, and the eigenvalue for Participation was 2.069. Therefore, EFA results for each of the three religiosity measures reported in Table 6 supported a single factor solution. The second purpose of EFA was to generate the actual factor scores that will later be used in the regression analyses. The mean and factor ranges for each of the three composite measures are presented in the table above. A higher score represents less of the religiosity measure (i.e., weaker beliefs, lower reliance, and less frequent participation) and a higher score represents more of the religiosity measure (i.e., stronger beliefs, greater reliance, and more frequent participation). For example, those reporting the greatest reliance on God had a factor score of -1.16 and those with the least reliance on God had a factor score of 2.43.

To translate factor scores for each of the religiosity aspects into a more meaningful measure, participants were grouped into tertiles. Three-category variables were created for each of the main predictor variables, such that the bottom tertile represents those whose responses fell within the lowest third (cut point roughly 33rd percentile), the middle third represents those whose responses fell in the middle third (cut point roughly 66th percentile), and the top tertile includes those whose scores fell in the top third of responses.[6] The top tertile can be understood as those who have the strongest belief in divine communication, are most reliant on God, and participate the most in religious activities, respectively. The middle tertiles for each aspect of

[6] For the reliance factor, the bottom, middle, and top groups were not separated into exact tertiles because 43.7 percent of respondents scored in the highest value for reliance on God. Therefore, the cutoff points for this variable are at 43.7 percent, 72.8 percent, and 100 percent, though they will be referred to as tertiles.

religiosity represent respondents who fall in the middle third of each aspect, and the bottom tertiles represent respondents in the bottom third.

Table7 – ANOVA Results: Relationship between Predictor Variables and Possession, Punishment, and Religious Healing

Variable Name	Belief in Psychosis as Possession by evil spirits			Belief in Psychosis as Punishment from God			Belief in Religious Healing as Treatment Option		
	Mean	**F**	**P**	**Mean**	**F**	**P**	**Mean**	**F**	**P**
Belief in Divine Communication		3.649	.028		4.066	.019		4.563	.012
Bottom tertile	2.21			1.64			2.37		
Middle tertile	2.49			1.38			2.70		
Top tertile	3.00			1.26			3.22		
Reliance on God		5.157	.007		5.074	.007		11.207	<.001
Bottom tertile	2.00			1.60			2.00		
Middle tertile	2.58			1.57			2.80		
Top tertile	2.98			1.22			3.31		
Participation in Religious Activities		2.822	.063		7.449	.001		5.723	.004
Bottom tertile	2.21			1.71			2.28		
Middle tertile	2.52			1.34			2.71		
Top tertile	2.90			1.23			2.73		

Before turning to the two main outcomes of this analysis, I first analyzed whether the three groups for each religiosity aspect different in terms of their beliefs about possession, divine punishment, and healing. Table 7 presents the results of nine one-way analyses of variance (ANOVA). F-tests were conducted to assess overall group differences. Three one-way ANOVAs examined whether there were significant differences in beliefs about psychosis as being rooted in possession by evil spirits between the three tertiles for each religiosity measure. These results indicated that participants who differed in terms of their beliefs in divine communication significantly differed in their beliefs that psychosis can be due to spirit possession, [$F(2, 149)=3.649$, $p=.028$]. Participants who differed in terms of their reliance on

God also significantly differed in their beliefs that psychosis can be due to spirit possession, [F(2, 141)=5.157, p=.007]. Those who differed in terms of their level of participation in religious activities did not significantly differ in their beliefs about psychosis being rooted in spirit possession, [F(2, 154)=2.822, p=.063].

Three one-way ANOVAs were conducted on participants' belief in psychosis being due to punishment from God, which all yielded significant results. Participants who differed in the strength of their beliefs about divine communication significantly differed in their belief in psychosis as being a form of punishment by God, [F(2, 155)=4.066, p=.019]. Participants who differed in terms of their reliance on God significantly differed in their belief in psychosis as a form of divine punishment, [F(2, 145)=5.074, p=.007]. Additionally, those who differed in their degree of participation in religious activities also significantly differed in their belief in psychosis as being rooted in punishment by God [F(2, 160)=7.449, p=.001].

Lastly, three ANOVAs were conducted on participants' belief in religious healing as a treatment option, which all yielded significant results. Those who differed in the strength of their belief in divine communication significantly differed in their belief in religious healing as a treatment option [F(2, 246)=4.563, p=.012]. Those who differed in their reliance on God significantly differed in their belief in religious healing as a treatment option for psychosis, [F(2, 138)=11.207, p<.001]. Those who differed in level of participation in religious activities also significantly differed in their beliefs in religious healing, [F(2, 151)=5.723, p=.004].

Overall, differences in beliefs in divine communication, reliance on God, and participation in religious activities all seemed to be associated with significant differences in beliefs about psychosis as a form of divine punishment and belief in religious healing as a treatment option. Differences in belief in divine communication and reliance on God were also

associated with differences in belief in psychosis as possession by evil spirits, though significant differences were not found for those who differed in their level of participation in religious activities.

Table 8. Descriptive Statistics for Regression Outcome Variables (N=177)

Variable Name	N	%	% Missing
Interpret vignette as religious experience			4.5%
Clearly something other than a religious Experience	19	11.2	
Most likely something other than a religious experience	39	23.1	
Somewhat likely to be the presence of something other than a religious experience	34	20.1	
Somewhat likely to a religious experience	43	25.4	
Most likely a religious experience	22	13.0	
Clearly a religious experience	12	7.1	
Interpret vignette as mental illness			1.7%
Clearly anchored in reality, not at all pathological	12	6.9	
Most likely anchored in reality, mostly not pathological	23	13.2	
Somewhat likely to be anchored in reality, probably not pathological	34	19.5	
Somewhat unlikely to be anchored in reality, probably pathological	43	24.7	
Most likely not anchored in reality, probably pathological	48	27.6	
Clearly not anchored in reality, definitely pathological	14	8.0	
Factors impacting answers above (can include more than one)			1.1
Religious beliefs	69	37.9	
Spiritual beliefs	86	48.0	
Knowledge about mental illness	110	61.0	
Experience knowing someone with mental illness	42	23.7	
I'm not sure	15	8.5	
Something else	3	5.6	
Don't know	2	1.1	
Refused	0	0	

Table 8 above describes the main outcome variables in the regression analyses below, which focus on participations' interpretation of the vignette as being a religious experience and interpretation of the vignette as being indicative of mental illness or psychopathology. Both of these variables are fairly normally distributed, with larger percentages of respondents endorsing more moderate response options and fewer respondents endorsing those at either extreme. The correlation between these two variables is -.743 ($p<.001$), which indicates that those who interpreted the vignette as a mental health phenomenon tended not to see the vignette as a religious phenomenon, and vice versa. In addition to the two main outcomes in the regression analysis, Table 8 also presents responses to a third question about factors that impacted participants' attributions of the vignette as being either a religious experience or psychopathology. As can be seen in the table, most participants endorsed referencing their knowledge about mental illness (61%) and spiritual beliefs (48%) or religious beliefs (37.9%) when making their attribution.

Table 9. ANOVA - Outcome Variables by Reliance, Participation, and Belief (N=177)

Variable Name	Interpret Vignette as Religious Experience			Interpret Vignette as Mental Illness		
	Mean	**F**	**p**	**Mean**	**F**	**p**
Belief in Divine Communication		4.797	.010		3.589	.030
Bottom tertile	2.79			4.19		
Middle tertile	3.58			3.62		
Top tertile	3.46			3.55		
Reliance on God		6.682	.002		6.401	.002
Bottom tertile	2.78			4.30		
Middle tertile	3.21			3.60		
Top tertile	3.78			3.37		
Participation in Religious Activities		5.214	.006		6.005	.003
Bottom tertile	2.81			4.18		
Middle tertile	3.23			3.91		
Top tertile	3.70			3.31		

Before running the regression analyses, six one-way ANOVAs were run in order to examine the relationship between the three main predictor variables (Beliefs, Reliance, and Participation) and each of the two outcome variables (interpretation of the vignette as a religious experience and interpretation of the vignette as indicative of mental illness). Similar to the analyses reported in Table 7, the ANOVA results in Table 9 indicate whether significant differences exist between the tertiles overall (i.e., not comparing specific groups). All of these analyses produced statistically significant results. For the first outcome— interpretation of the vignette as being a religious experience—there were significant differences between tertiles for beliefs in divine communication [$F(2, 152)=4.797$, $p=.010$], reliance on God [$F(2, 148)=6.682$, $p=.002$], and participation in religious activities [$F(2, 157)=5.214$, $p=.006$]. For the second outcome—interpretation of the vignette as being indicative of mental illness—there were significant differences between tertiles for beliefs [$F(2, 156)=3.589$, $p=.030$], reliance [$F(2, 152)=6.401$, $p=.002$], and participation [$F(2, 161)=6.005$, $p=.003$].

Tables 10 and 11 display Ordinary Least Square (OLS) regression results. OLS regression analysis is used to understand how the independent variable predicts the dependent variable, while controlling for other variables that could confound the relationship between the independent and dependent variables. When model assumptions are met, OLS regression produces the best, linear, unbiased estimates of the effects of the independent variables on the outcome variables (Allison, 1999). The main predictors in the model are beliefs in divine communication, reliance on God, and participation in religious activities, while the rest of the variables are covariates used as statistical controls. The results of three regression analyses examining the relationship between each of the three predictor variables and interpretation of the vignette as a religious experience are presented in Table 10, and the results of three regression

analyses examining the relationship between each of the three predictors and interpretation of the vignette as mental illness are presented in Table 11. The results for the OLS regression on beliefs in divine communication are indicated under Model 1, the results for the analysis on reliance on God are presented under Model 2, and results on participation in religious activities are listed under Model 3. In each of the regression models, several covariates were controlled for, including gender, race, age, marital status, level of education, denomination, employment status, income, length of time participants' have identified as Christian, and whether or not participants have worked as a mental health professional. The results of the relationship between each of these covariates and the outcomes are also presented in Tables 10 and 11. For all regression analyses, the bottom tertile serves as the reference group for each of the religiosity predictors. Thus, the beta coefficient for the middle tertile represents the expected difference in religious interpretation scores between the middle tertile and the bottom tertile, controlling for the other covariates in the model. The beta coefficient for the top tertile represent the difference in religious interpretation scores between the top and bottom tertiles, net of the covarites.

Table 10. OLS Regression: Predictors of religious experience interpretation of the vignette.

Variable Name	Model 1 (n=131)		Model 2 (n=142)		Model 3 (n=137)	
	Beta	**(s.e.)**	**Beta**	**(s.e.)**	**Beta**	**(s.e.)**
Beliefs						
Middle tertile	1.011***	(.305)				
Bottom tertile	1.153***	(.310)				
Reliance						
Middle tertile			.178	(.347)		
Top tertile			1.212***	(.308)		
Participation						
Middle tertile					.698*	(.309)
Top tertile					1.365***	(.315)
Female	.490	(.298)	.315	(.305)	.205	(.295)
White	-.437	(.663)	.025	(.612)	-.439	(.621)
Education						
Associate/Bachelor degree	.173	(.323)	-.070	(.349)	.183	(.318)
Graduate/professional degree	-.588	(.366)	-.674	(.395)	-.502	(.357)
Religion						
Protestant	-.527	(.333)	-.435	(.331)	-.461	(.317)
Other	.340	(.357)	-.018	(.355)	.206	(.347)
Christian for entire life	.351	(.325)	.107	(.335)	.226	(.330)
Mental Health Worker	-.846*	(.344)	-.922*	(.356)	-.822*	(.346)
Age						
31 to 50	.141	(.410)	.358	(.418)	.132	(.401)
51 and older	-.003	(.418)	-.115	(.402)	-.182	(.402)
Marital Status						
Married	-.079	(.384)	-.184	(.397)	-.244	(.380)
Dating/Engaged	.462	(.436)	.372	(.457)	.491	(.438)
Divorced/Separated/ Widowed	-.093	(.548)	.143	(.546)	-.150	(.535)
Employed	.090	(.283)	.135	(.285)	.278	(.278)
Income						
$50,000 to $99,999	.221	(.344)	.026	(.349)	.338	(.338)
$100,000 and above	.308	(.371)	.013	(.377)	.014	(.364)
Intercept	2.310***	(.855)	2.762***	(.840)	3.000***	(.805)
R-Square	.257		.281		.251	

*p≤.05 **p≤.01 ***p≤.001

Table 10 presents results for the first outcome, interpretation of the vignette as a religious experience. For Beliefs, there is a significant difference between the middle tertile and the

bottom tertile (Beta=1.011, p=.001) and between the top tertile and the bottom tertile (Beta=1.153, p<.001). However, there is no significant difference between the top and middle tertiles (Beta=.141, p=.647). With regard to Reliance, there is a significant difference between the top tertile and the bottom tertile (Beta=1.212, p<.001), but not between the middle tertile and the bottom tertile (Beta=.178, p=.608). Although not shown here, the top tertile also significantly differed from the middle tertile (Beta=1.033, p=.002). Lastly, when looking at Participation, the middle tertile differs significantly from the bottom tertile (Beta=.698, p=.025), and the top tertile differs from the bottom tertile (Beta=1.365, p<.001). Though not shown here, the top tertile also significantly differed from the middle tertile (Beta=.667, p=.026). In summary, for both participation in religious activities and belief in divine communication, there was an increase in the interpretation of the vignette as representing a religious experience with each step up in religiosity. That is, the middle group was more likely than the bottom group to see the vignette as a religious phenomenon, and the high group was more likely than the middle group to make a religious attribution. Those who are highly reliant on God differ from the other two groups in their interpretation of the vignette as being a religious experience

No differences were found on the basis of gender, race, education, religious denomination, amount of time identifying as Christian, age, marital status, employment status, or income. However, in all three models those who have worked as mental health professionals were less likely to interpret the vignette as a religious experience (Beta≈.9, p<.05). This difference does not seem to be due to differences in belief, reliance, or participation of mental health professionals, as chi-square tests for these variables were not statistically significant. The R-square value represents the coefficient of determination, which depicts the percentage of the variation in the dependent variable that can be predicted by the independent variables in the

model (Allison, 1999). The R-Square values are .281 for reliance on God, .251 for participation in religious activities, and .257 for beliefs in divine communication, indicating that between 25% and 28% of the variation among respondents in their interpretation of the vignette as a religious experience can be explained by the independent variables.

Table 11. OLS Regression: Predictors of mental health interpretation of the vignette.

Variable Name	**Model 1 (n=135)**		**Model 2 (n=147)**		**Model 3 (n=142)**	
	Beta	**(s.e.)**	**Beta**	**(s.e.)**	**Beta**	**(s.e.)**
Beliefs						
Middle tertile	-.628*	(.287)				
Top tertile	-.944***	(.290)				
Reliance						
Middle tertile			-.533	(.326)		
Top tertile			-1.147***	(.285)		
Participation						
Middle tertile					-.442	(.291)
Top tertile					-1.181***	(.296)
Female	-.235	(.279)	-.074	(.280)	-.018	(.273)
White	.092	(.718)	.206	(.637)	.542	(.646)
Education						
Associate/Bachelor degree	.016	(.299)	.069	(.312)	-.034	(.290)
Graduate/professional Degree	.387	(.336)	.292	(.352)	.278	(.325)
Religion						
Protestant	.245	(.313)	.197	(.310)	.160	(.296)
Other	-.145	(.336)	.007	(.328)	-.187	(.323)
Christian for entire life	-.226	(.310)	.091	(.310)	-.146	(.309)
Mental Health Worker	.965**	(.325)	1.102***	(.329)	.886**	(.321)
Age						
31 to 50	-.487	(.396)	-.586	(.395)	-.478	(.381)
51 and older	.060	(.399)	.179	(.376)	.160	(.379)
Marital Status						
Married	.165	(.370)	.130	(.372)	.304	(.359)
Dating/Engaged	-.145	(.416)	.026	(.312)	-.196	(.411)
Divorced/Separated/ Widowed	.033	(.528)	-.152	(.514)	.090	(.507)
Employed	-.129	(.265)	-.086	(.259)	-.008	(.257)
Income						
$50,000 to $99,999	-.441	(.329)	-.240	(.325)	-.240	(.319)
$100,000 and above	-.419	(.355)	-.113	(.352)	-.156	(.343)

Intercept	4.720***	(.882)	4.051***	(.822)	3.815***	(.798)
R-Square	.195		.253		.214	

*p≤.05 **p≤.01 ***p≤.001

Table 11 examines which factors predict respondents' interpretation of the ambiguous vignette as being rooted in mental illness. Similar to Table 10, Model 1 presents information on Beliefs, Model 2 indicates findings on Reliance, and Model 3 shows the results on Participation. For Beliefs, significant differences were found between the top tertile and the bottom tertile (Beta=-.944, p=.001) and between the middle tertile and the bottom tertile (Beta=-.628, p=.031). No difference was found between the top and middle tertiles (Beta=-.316, p=.28). For Reliance, Table 11 shows that there is a significant difference between the top tertile and the bottom tertile (Beta=-1.147, p<.001) in their interpretation of the vignette as mental illness, but there is no significant difference between the middle tertile and the bottom tertile (Beta=-.533, p=.105). Although not shown here, there is also a significant difference between the top tertile and the middle tertile (Beta=-.614, p=.041). In looking at Participation, there is a significant difference between the top tertile and the bottom tertile (Beta=-.1.181, p<.001), however, there is no difference between the middle tertile and the bottom tertile (Beta=-.442, p=.131). Though not shown here, there is also a significant difference between the top tertile and the middle tertile (Beta=-.739, p=.008). In summary, those who have the strongest beliefs in divine communication were least likely to make a mental illness attribution, and as belief in divine communication decreases individuals are more likely to interpret the vignette as being indicative of mental illness. Participants who are highly reliant on God differ from everyone else and are less likely to interpret the vignette as being psychopathological. The same applies to participation in religious activity; those who are highly involved differ from the other two groups in that they are less likely to interpret the vignette as being psychopathological.

Similar to the previous analyses, no differences were found on the basis of gender, race, education, religious denomination, amount of time identifying as Christian, age, marital status, employment status, or income. In all three models, those who have worked as mental health professionals were more likely to interpret the vignette as being indicative of mental illness (Beta≈1, $p<.01$). This difference does not seem to be due to differences between in beliefs, reliance, or participation of mental health professionals, as chi-square tests for these variables were not statistically significant. The R-Square values are .253 for reliance on God, .214 for participation in religious activities, and .195 for beliefs in divine communication. Thus, about 20-25% of the variation in mental illness attribution is explained by the covariates in the models.

Additional analyses were also run which included whether or not participants have a family or friend with psychosis as a covariate in each of the models presented in Tables 10 and 11. This was not a significant predictor for either of the outcome variables in any of the models. This variable was excluded from the initial analyses because there was a substantial amount of missing data. It is possible that a relationship exists between having a family member or friend who has experienced a psychotic episode that was not picked up in this analysis due to the missing data. Almost 30 percent of responses were missing to this question, though 23.4% of these included participants who selected the response option "Don't know." This question was likely either a sensitive topic, was difficult for them to answer, or may have been confusing.

Table 12: Qualitative Responses (n=175).

Themes from Qualitative Responses (responses can include more than theme presented below)	**n**
Respondents explicitly referencing their own beliefs or experiences with divine communication/hearing voices	53
Hearing a voice	46
Social Response (e.g., social withdrawal, not including friends in decision, disapproval/concern of friends)	41

Changes in mood	37
Rashness/impulsivity (e.g., making decisions too quickly, lack of discerning, abrupt changes.)	21
Nature of Sam's mission or calling from God	20
Consistency of messages	20
Improvement in circumstances	19
Lack of responsibility (e.g., not showing up for work, not talking to his boss)	12
Giving away possessions	8
Sam "knowing" it was God/Not questioning experience	7
Not enough information	6
Other (included bizarreness, not polarized, source, intro)	4
Referencing Sam's experience within the context of his own belief system and experiences	3
Restate their attribution but don't elaborate on what went in to their decision	3

Qualitative analyses were conducted on the one open-ended response included in the survey, which asked participants to describe which specific part of the vignette impacted their understanding of the presentation as either being a religious experience or being indicative of mental illness. These responses were coded into themes using thematic analysis, and the frequency of each response is presented in Table 12 above.

Although this question asked participants to specifically refer to parts of the vignette that impacted attributions, the most common response involved participants specifically referencing their own beliefs about how God communicates or their previous experiences either receiving messages from God or working with psychosis in a professional capacity (n=53). For example, some of these responses included "my belief is that God does speak to us, but in our hearts," "I have had various spiritual experiences, mainly during dreams, that cause me to give Sam the benefit of the doubt when it comes to some non-worldly force prying its way into his consciousness," "my own belief is that God never ever would impact our lives in a negative

manner. He requires nothing from us. He doesn't tell us how to live or what to do" and "Although I do strongly believe that God guides you towards a certain path, I only believe that He guides. He doesn't exist as a voice inside your head completely pushing you to change your life…" In coding these responses, it seems that there is certainly variation in personal religious belief that guides individual attributions about these ambiguous presentations, as suggested by Dehoff (2014) and Eeles and colleagues (2003). Further, although there were some questions with fixed response options which sought to specifically target variation in belief, a more thorough examination of variation in belief may be indicated, which targets some of the nuance behind variations in belief.

In addition to personal experiences described above, participants most commonly cited the fact that the character reported hearing voices (n=46), the social response of the character and his friends (n=41), and changes in mood (n=37) as influencing their interpretation of the vignette. When participants referenced the character's experience of hearing voices and experiencing changes in mood, most responses seemed to be directly tied to participants' understanding of these characteristics as being symptoms of mental illness. However, while some participants who commented that the social response of the character and his friends seemed to point toward social withdrawal as a symptom of mental illness, others seemed to be using this as a way of assessing the character's social context from the perspective of understanding the discernment that went into (or did not go into) making a decision to move and follow a new path. Ultimately, "hearing voices," "depressed," and "isolated" seemed to be buzzwords that indicated to participants that the character was experiencing something in line with mental illness. Other common responses discussed the consistency of the messages received by the character in the vignette (n=20), the nature of his calling/mission to help others

(n=20), and the fact that the character seemed to experience an improvement in his life circumstances in reaction to the experience (n=19). These responses appeared to be associated with more of a religious interpretation of the vignette, and many of these responses seemed to draw on morally-based ideas about following the "right" path or being open to the spirit entering his life. Four participants provided responses that could not be categorized into the themes outlined above. These responses included specific reference to the source of the messages (i.e., biblical messages, messages on billboards) and the bizarreness of the messages. Additionally, one respondent commented that "I don't think this is an either or scenario. I think god is present to people no matter their mental health status," though most participants seemed to interpret these potential frameworks as being mutually exclusive.

These qualitative findings help to contextualize the attributions by gathering more information about what specifically went into participants' interpretation of the vignette. Ultimately, it seems that participants are most likely to draw on their own beliefs and experiences when making attributions of psychotic-like spiritual experiences, whether they are drawing from their beliefs/experiences with divine communication or professional/educational experiences related to mental health. Beyond this, there were certain characteristics of the presentation in the vignette that participants interpreted as clear indicators of mental illness. For many participants this included hearing voices, social withdrawal/isolation, and low mood. Additionally, many looked toward the outcome of the experience and the moralistic value of the decisions that the character made and the path that he chose to follow.

CHAPTER V

Discussion

The present study sought to explore the way variations in Christians' religious beliefs predict their interpretations of an ambiguous psychotic/spiritual presentation. The primary research question addresses whether those who have greater belief in prophetic experience or divine communication were more likely to interpret an ambiguous psychotic-like spiritual experience as being rooted in religious or psychopathological causes. Secondary research questions examined the way that variations in Christians' reliance on God and degree of participation in religious activities predicted their interpretations of the same ambiguous presentation.

The key findings of the present study confirmed the main hypotheses, indicating that Christians' religious beliefs influence how they view individuals who could be presenting with an experience that is religious/spiritual or psychopathological in nature. Christians' who have stronger beliefs in divine communication are more likely to attribute ambiguous presentations as being religiously/spiritually based and less likely to attribute these presentations as being due to mental illness. These differences held even after controlling for a number of factors such as demographic characteristics, religious denomination, and employment. The secondary analyses revealed similar findings, such that Christians' reliance on God and degree of participation in religious activities predict how they will interpret the vignette. Those who are more reliant on God and involved in religious activities are more likely to interpret the vignette as being a religious experience and less likely to interpret it as being due to mental illness. Lastly, another interesting finding is that the attributions made by Christian participants who have worked as

mental health professionals differed from lay Christians' attributions, even after controlling for reliance on God, participation in religious activities, and belief in divine communication. Those who have worked as mental health professionals were less likely to understand ambiguous psychotic/spiritual type experiences as being religious in nature and more likely understand them as being indicative of mental illness than lay Christians in the sample.

The present study was built on the application of attribution theory outlined by Spilka and colleagues (1985), which suggests that religious and non-religious explanations are two of the dominant frameworks that inform individual attributions. Although the present study did not explicitly test their claim about which explanations predominate, it examined which factors were associated with participants' endorsing religiously-based explanations and medically-based explanations. In the present study participants tended to hold polarized attributions about the vignette.[7] For the most part, Christians who understood the vignette to be based in religious truth tended to think the vignette was not rooted in mental illness, and those who understood the vignette as being indicative of mental illness tended not to consider this a religious experience. Therefore, participants seemed to use these two explanations as distinct and largely incompatible frameworks when formulating their attributions about the vignette. Spilka and colleagues (1985) argue that characteristics of the individual impact attributions; however, this only seemed to be true in considering whether or not individuals had experience working as a mental health professional. Otherwise, accessibility/strength of religious belief in divine communication seemed to predict how participants interpreted the vignette, while other individual characteristics

[7] Recall that the correlation between interpreting the vignette as a mental health phenomenon and interpreting the vignette as a spiritual phenomenon was -.743 ($p<.001$). This is a strong and negative correlation between the two attributions.

included in the study (i.e., gender, race, level of education, denominational affiliation, length of time identifying as Christian, age, marital status, employment status, and income) did not.

The findings indicate that mental health professionals who participated in the present study are more likely to interpret the vignette as a mental health issue compared to other participants who have not worked in the field. These findings are robust even after controlling for variations in belief in divine communication, reliance on God, participation in religious activities, and other demographic characteristics that were collected in the present study. It is possible that these differences may stem from either the education that mental health professionals receive before entering the field or the exposure to the mental health system/working with people with mental illnesses. Although the mental health professionals represented in the present study explicitly identify as Christian and have likely been exposed to religiously-based worldviews, they have also been indoctrinated with the medically-based conceptualization of mental health through their education, training, and professional experience. They have been trained to conceptualize certain presentations as symptoms of psychosis and to address these symptoms using psychotherapeutic tools, which translates to the way they interpret ambiguous psychotic-like spiritual presentations. Previous studies have drawn attention to the religiosity gap between mental health professionals and they lay public. Since my study exclusively sampled Christians, these results cannot speak to the religiosity gap that exists more generally between mental health professionals and the lay public. However, even among Christians, there is still a difference in the way mental health workers interpret ambiguous vignette compared to non-mental health workers, which may have implications for clinicians working with religious clients in the context of a psychotic-like spiritual experience.

The results of the present study are also consistent with the findings of Eeles and colleagues (2003) and Dehoff (2014), which suggest that individuals refer to the their own belief systems when making assessments about whether or not an experience is religious or psychopathological in nature. Dehoff (2014) found that this may be especially true for people with strong religious convictions, which was supported in the findings of the present study, as the general trend indicated that individuals with stronger beliefs in divine communication, higher reliance on God, and more frequent participation in religious activities are more likely to make a religious attribution.

In terms of specific religious/spiritual beliefs, the findings of the present study are mixed in how they line up with the previous literature. Compton and colleagues (2008) found that 28 percent of participants in their study reported believing that schizophrenia could be caused by possession by evil spirits. In the present study, 27.8 percent of participants agreed that psychosis could be due to possession by evil spirits in some capacity (15.8% responded strongly agree/agree, 12% slightly agree). Compton and colleagues (2008) also found that 20 percent of participants believed that schizophrenia could serve as a punishment from God (Compton et al., 2008). However, fewer participants reported that they believe psychosis could be a punishment from God in the present study (0.6% responded agree, 1.8% slightly agree). It is an interesting finding that a nearly identical percentage of people in the two studies believe that psychotic disorders can be manifestations of a possession by an evil spirit, but that the groups held vastly different opinions about whether psychotic disorders are delivered as punishments from God. The available data is limited and possible explanations can only be tentative and speculative, but these differences may reflect regional, denominational, and/or sociocultural differences in normative beliefs between participants in the two studies.

Strengths of the Present Study

The present study has several methodological strengths that build upon the previous research on this topic. One strength is that it more thoroughly assesses different facets of religiosity and religious beliefs by considering the content of their beliefs, reliance on God, and participation in religious activities. Previous studies were more limited in their exploration (Sanderson et al., 1999; O'Connor & Vandenberg, 2005). Although Eeles and colleagues (2003) asked participants about their religious/spiritual beliefs, their data collection was not thorough and responses to open-ended semi-structured interview questions were not included in the analysis. Additionally, in Dehoff's (2014) interviews with pastors and pastoral counselors she reported that they often referred to their individual religious beliefs when interpreting ambiguous experiences, though participants were not specifically or systematically asked about their individual religious beliefs. In the present study, questions were developed to intentionally capture differences in beliefs among Christians, specifically as they related to divine communication, belief in the Bible, belief about the cause of schizophrenia being rooted in possession by evil spirits or divine punishment, and the belief in religious healing as a treatment option for psychosis. This information was collected systematically through the use of standard questions and response options. Collecting the same information from each participant on these different dimensions of religious belief allowed me to create summaries of their beliefs and to assess the relationships between beliefs and other phenomena.

A second strength of the study is the vignette, which sought to integrate the strengths of the vignettes used in previous studies while overcoming some of their limitations. A primary objective was to create a truly ambiguous vignette, which could reasonably be interpreted as either being a religious/spiritual experience or mental illness. As discussed previously, the

vignettes used by O'Connor and Vandenberg's (2005) depict individuals where a threat to harm is present, which does not seem to be ambiguous. A vignette was created for the present study, which attempted to present a case that included both mental health signals (e.g., changes in mood, social withdrawal, command auditory hallucinations, etc.) and religious signals (e.g., hearing the voice of God, finding signs as he went about his daily routine, being called to heal others like Jesus did, etc.) in order to provide reasonable evidence for both religiously-based and medically-based explanations. Pilot tests were conducted to assess the extent to which the vignette presented a clear and balanced representation of someone who could have been presenting with a religious experience or psychotic symptomatology. Some modifications were made in response to feedback that some of the behaviors leaned more toward a psychotic presentation, in order to produce a more believable and truly ambiguous vignette.

A third strength of the present study is that it assessed the attributions made by lay Christians as well as a small group of mental health professionals. Most of the previous literature on this topic only examined the attributions made by a sample of mental health professionals and very few have addressed beliefs or understandings of ambiguous presentations among lay Christian adults in the US. However, because the sample of the present study included a small group of mental health professionals who did not differ from other participants in terms of their religiosity (i.e., reliance, participation, beliefs), it was possible to assess whether Christian mental health workers differed in how they made sense of the vignettes compared to Christians without mental health training and experience.

Limitations of the Present Study

There are several limitations of the present study that will be outlined below. First, the use of convenience sampling accrued a sample that is not representative of the larger population of Christians and is therefore not generalizable. By recruiting participants from my social network, the sample likely drew responses from those who are from similar backgrounds and have similar socio-cultural identities. Specifically, the sample in the present study was limited primarily in terms of race, gender, and socioeconomic status, as it over-represented non-Hispanic whites, females, and those from socio-economically privileged backgrounds (i.e., highly educated, employed, with disproportionately high income). Additionally, the sample was mainly composed of individuals who identify as Catholics, are highly reliant on God, and have attended a religious house of worship/identified as Christian for their entire lives. Because of this, the findings for this sample are not intended to be generalizable to the larger population.

A second limitation of the present study is that it is not possible to assign participants to different levels of religiosity (e.g., beliefs, reliance, and participation), so the results can only interpreted as associative and not causative. Although OLS regression was used to control for certain demographic characteristics, it is possible that there are other unmeasured covariates that are correlated with both religiosity and vignette interpretations. Failing to include these confounders could mean that the findings reported here are biased.

Additional limitations of the present study include the amount of missing data on some important measures that assessed belief in divine communication and whether or not participants have family members or friends who have experienced a psychotic episode. The composite measure for beliefs in divine communication included information from two questions outlined in the previous chapter, which assessed the extent to which participants believe in divine

communication with figures in the Bible and with people living today. Other measures that were not included in the final analysis assessed whether participants have ever had an experience in which God or another religious being has tried to communicate with them in the past, whether they believe they will experience this in the future, and whether they believe God or another religious being has tried to communicate with or send a message to someone they know personally/someone in their Church community. These variables were initially intended to be included in the factor analysis for the Beliefs measure; however, each of these questions were missing a large percentage of responses and would have detracted from the findings. Future research is needed that further explores variation in religious belief and overcomes some of these limitations.

Lastly, the present study was also limited in terms of its scope, as it only addressed variations in beliefs among Christians. As discussed in previous chapters, this is problematic since it privileges the voices and interpretations of an already privileged religious group. Further research is needed that examines variations in beliefs among other religious groups.

Implications for Practice/Policy

The present study has several key implications for social work practice. First, the findings support a Biopsychosocial-spiritual model of care. The needs of many clients and their families may not be met in the current system, due to the way that spirituality has been underemphasized in a largely medically oriented mental health system. The present study suggests that highly religious or spiritual clients and families are more likely to interpret psychotic-like spiritual experiences as being rooted in a religious experience, rather than mental illness. However, mental health professionals (even those who do not differ in terms of

religiosity) are more likely to understand these experiences as being psychopathological. Because of the power dynamics at play between mental health professionals and clients (especially as it relates to questioning one's perception of reality), it is possible that these religiously-based interpretations may become silenced in the current system, due to the overemphasis of medically-based explanations endorsed by mental health professionals. However, by integrating a Biopsychosocial-spiritual model, this would attempt to create a greater emphasis on the overlap between religiosity/spirituality and mental health. This would also create a place for spirituality within the system, which would likely promote greater religious sensitivity as well as expanding the focus of spirituality in initial assessment, diagnosis, and treatment.

It is also important to consider the ways that the current system may lack sensitivity to those whose experiences that fall outside of what is considered normative spiritual experience. The previous literature suggests that religious beliefs that are less conventional are more likely to be pathologized by mental health professionals (Sanderson et al., 1999). Additionally, when certain religious/spiritual beliefs are removed from the context of their religious tradition and interpreted in light of the current medical framework, they can easily be pathologized and labeled as psychotic (Murray et al., 2012). Although the previous literature demonstrates the ways that mental health professionals may pathologize religious experience when taking it out of the religious context, the present study suggests that there may be the potential for this to occur even when the professional and client are similar in their religious affiliation.

The findings presented above have important implications for both diagnosis and treatment of those with psychotic-like spiritual presentations. In terms of diagnosis, it is crucial that clinicians consider the potential for invalidation and harm that can arise in diagnosing clients

who have a much different understanding of the root of their experience, as well as the stigma accompanying psychotic-spectrum diagnoses. Ultimately, it seems that it is important for mental health professionals to work with clients in order to explore the significance of their experience and the relevance of the content of their experiences (e.g., messages, voices, visions), as this is often helpful for those experiencing psychotic symptoms as well as those who present with some sort of religious/spiritual concern. Some practical ways of doing this include conducting more thorough assessments of clients' religious and spiritual history, attempting to understand the significance certain religious and spiritual experiences/beliefs may hold to clients and their families both personally and culturally, and integrating this information into treatment planning. Additionally, it is also imperative that clinicians engage in self-reflection to maintain awareness of their own biases/assumptions, as well as the ways differing religious/spiritual identities and beliefs may intersect with those of their clients. When clinicians share a certain sociocultural identity with their client, there is often a natural tendency to assume some level of tacit understanding of the shared experience or identity. However, the findings of the present study suggest that Christian mental health professionals differ from lay Christians in their interpretation of ambiguous presentations. Therefore, although mental health professionals who identify as Christian may be inclined to assume a certain level of similarity when working with Christian clients who have similar religious beliefs and practices, it is important that these clinicians work to create an atmosphere where ambiguity and uncertainty can be safely held in order to provide space for clients' interpretations that may differ from their own.

Following this last point about assessment and diagnosis, it is also important for clinicians to gain an understanding of clients' religious beliefs and practices as they approach treatment, in order to appropriately and sensitively address treatment with clients and their

families who may endorse religious/spiritual explanations for a psychotic-like spiritual experience. The present study shows that many Christians endorse religiously-based explanations for ambiguous psychotic-like spiritual presentations, which suggests that these experiences may fit into the context of certain individual belief-systems. Therefore, it seems important that mental health professionals approach treatment with care and anticipation of these beliefs, in order to avoid some of the negative effects of turning to antipsychotic medication too quickly, which is often used as a first resort for clients presenting with psychotic-like symptoms (Torn, 2011). It can be argued that psychotic processes and spiritual experiences are not mutually exclusive, and spiritual support should be available to anyone who reports having spiritual concerns related to their mental health within the mental healthcare system.

One suggestion for approaching treatment that may be useful for clients presenting with ambiguous psychotic/spiritual experiences and high levels of religiosity is the Open Dialogue approach, which is an effective intervention that draws on techniques from a variety of approaches from family systems theory and dialogism (Seikkula & Olson, 2003). This approach emphasizes the idea that reality itself is socially constructed and the primary objective of the model is to promote open communication between the important members within a clients' social network (Seikkula, 2006), while tolerating and integrating differing perspectives about the root of the experience and legitimizing multiple ways of knowing (Seikkula & Olson, 2003). Because there is no predetermined structure for the treatment meetings, discussions about religion and spirituality can easily be incorporated into the dialogue, without privileging any one interpretation over another. This type of open communication would foster an environment in which clients' religious beliefs and interpretations of their experiences could be respected, validated, and more fully incorporated into treatment. Further, this model provides room for

collaboration between mental health professionals and members of the clergy/other religious professionals in determining the context and root of these types of presentations. Having a well-rounded team assessing and helping to determine appropriate treatment options serves as one potential way to better support clients and their families who are distressed or unsure about their experience. Despite extensive evidence supporting the success and cost-effectiveness of this model in other countries (e.g., Finland, UK, Canada, etc.) the managed care system in the United States prohibits utilization of this approach due to the lack of funding for non-pharmacological treatment options (Seikkula & Olson, 2003).

The present study also has some important implications for future research. First, since the present study was exploratory in nature, follow-up studies are needed that further explore the way these types of attributions are made and the processes behind them. The present study specifically addressed two available social frameworks for interpreting ambiguous psychotic-like spiritual experiences (i.e., religiously-based and medically-based interpretations); however, there may be other explanatory frameworks used to interpret these experiences. Further research may be done that seeks to address this topic more broadly. Second, the present study examined variations in beliefs in divine communication by examining participants' answers to two fixed-response questions. However, as was seen in many of the qualitative responses, there is much more complexity and there are nuanced differences in religious beliefs that seem to play a role in individual attributions. Additional research that addresses these complexities and further explores the relationship between belief in divine communication, personal spiritual experiences, and interpretation of ambiguous presentations will shed more light on this nuance. Third, many other religious traditions hold beliefs about divine communication that overlap with the medical conceptualization of psychosis. Therefore, it seems necessary that future research address this

topic as it relates to other religious traditions, including research that compares differences across religious traditions. Lastly, since the present study detected differences in the interpretations made by Christians who have worked as mental health professionals and Christians who have not worked in the field, it would also be interesting to explore how non-religious and/or non-Christian mental health professionals interpreted ambiguous psychotic-like spiritual presentations, when compared with Christian mental health professionals.

Ultimately, the present study has several implications for social work practice. It supports the integration of a Biopsychosocial-spiritual model of care that can be used to inform mental health professionals' approaches to working with clients with psychotic-like spiritual experiences. There is a need for greater sensitivity to individual religious beliefs within the current system and the way that these overlap with issues related to mental health. Further, utilizing a more comprehensive, multi-dimensional model of care will help clinicians incorporate spiritual well-being into the assessment, diagnosis, and treatment of clients. While this holds potential benefits for all of the clients we work with, this holds particular salience for those who present with psychotic-like spiritual experiences. Additionally, integrating non-traditional treatment options, such as the Open Dialogue approach, that offers support for clients and families who may endorse religious or spiritual explanations for these experiences would help to better support families and revolutionize the field. Lastly, due to the exploratory nature of the present study, these findings open doors to several follow up studies that are indicated to better understand how individuals (both mental health professionals and lay people) diagnose and interpret ambiguous psychotic/spiritual presentations.

In sum, the main aim of the present study was to examine whether variation in religious belief predicts the attributions made by lay Christians about ambiguous psychotic/spiritual

experiences. The primary findings of the analysis supported the main hypotheses, suggesting that those who differ in terms of their beliefs in divine communication also differ in the attributions made about ambiguous psychotic/spiritual presentations. In addition, participants who differed in terms of their reliance on God, participation in religious activities, and history working as a mental health professional also differed in their understandings of these ambiguous experiences. Very few studies have been conducted that examine how these attributions are made by mental health/religious professionals and even less research has been done considering how these attributions are made among laypeople. The present study sought to fill this gap by specifically exploring variation in belief among lay Christians, and developing a method that sought to build upon the strengths of those used in previous studies, while also overcoming some of the limitations to the studies that have been done. Ultimately, these findings suggest that mental health professionals need to carefully consider clients' religious belief systems and the context of their experiences when approaching diagnosis and treatment with clients who present with ambiguous psychotic-like spiritual experiences.

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Appendix A

Consent Form

Consent to Participate in a Research Study

Smith College School for Social Work ● Northampton, MA

……

Title of Study: Beliefs about mental health and religion

Investigator: Jennifer Callaghan, MSW Candidate,

……

Introduction

You are being asked to participate in a research study that explores people's beliefs about mental health and their own religious beliefs. You were selected as a possible participant because you identified that you are over the age of 18, can read and write in English, currently live in the United States, and identify as Christian. We ask that you read this form and ask any questions that you may have before agreeing to be in the study.

Purpose of Study

The purpose of the study is explore the relationship between beliefs about mental health and religious beliefs. This study is being conducted as a research requirement for my Master's degree in social work. Ultimately, this research may be published or presented at professional conferences.

Description of the Study Procedures

If you agree to be in this study, you will be asked to do the following things: read a short vignette and answer a series of questions about your personal beliefs. There are a total of 36 questions: one open-ended question and 35 multiple choice questions. The survey is expected to take approximately 15 to 20 minutes to complete.

Risks/Discomforts of Being in this Study

There are no expected risks of participation in this study. It is possible that you may feel discomfort when answering some of the questions in the survey, so a toll-free counseling number will be provided should the need arise.

Benefits of Being in the Study

There are no expected benefits of participation. The potential benefits to social work/society are that this study may contribute to the further development of an area of research that is of potential importance, but that has not been studied in depth.

Confidentiality

This study is anonymous. We will not be collecting or retaining any information about your identity

Payments/gift

You will not receive any financial payment for your participation.

Right to Refuse or Withdraw

The decision to participate in this study is entirely up to you. You may refuse to take part in the study *at any time* during the duration of the survey without affecting your relationship with the researchers of this study or Smith College. Your decision to refuse will not result in any loss of benefits (including access to services) to which you are otherwise entitled. You have the right not to answer any single question, as well as to withdraw completely by not submitting your responses. If you choose to withdraw, I will not use any of your information collected for this study. However, once responses are submitted, you will be unable to withdraw since survey materials will not be linked to any identifying code or information

Right to Ask Questions and Report Concerns

You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Jen Callaghan at jcallaghan@smith.edu or by telephone at 516-359-2806. If you would like a summary of the study results, one will be sent to you once the study is completed. If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

Consent

By selecting “I agree” below you are indicating that you have decided to volunteer as a research participant for this study, and that you have read and understood the information provided above. You will be given a signed and dated copy of this form to keep. You will also be given a list of referrals and access information if you experience emotional issues related to your participation in this study.

- I agree
- I do not agree

>>

Appendix B

Smith College Human Subject's Committee Approval Letter

School for Social Work
Smith College
Northampton, Massachusetts 01063
T (413) 585-7950 F (413) 585-7994

February 24, 2015

Jennifer Callaghan

Dear Jennifer,

You did a very nice job on your revisions. Your project is now approved by the Human Subjects Review Committee.

Please note the following requirements:

Consent Forms: All subjects should be given a copy of the consent form.

Maintaining Data: You must retain all data and other documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Congratulations and our best wishes on your interesting study.

Sincerely,

Elaine Kersten, Ed.D.
Co-Chair, Human Subjects Review Committee

CC: Nathanael Okpych, Research Advisor

Appendix C

Survey Instrument

Thank you for taking the time to complete the survey. It should take about 15-20 minutes to complete. Please read the following description of a person and answer the questions that follow.

Over the past several months, Sam has started to notice some changes in himself. He started a new job where he feels unfulfilled and isolated in the work environment. At first, Sam was able to manage his unhappiness. However, over time he noticed that he was constantly feeling down and started to experience this in all areas of his life. He was having trouble getting out of bed in the morning, stopped socializing with his friends, and felt hopeless about his future. One night, Sam was lying in bed unable to fall asleep when he heard a voice. The voice told him that it was time for him to change paths and follow where the voice guided him. Sam felt a deep sense of wonder as he heard this voice and knew instantly that this was the voice of God. Sam realized that God was sending him an important message and he was selected to fulfill an important mission. Sam started to feel more renewed and had more energy than he had ever felt before. He wasn't sure where he was being led, but was intent on figuring it out. A few days later, Sam heard the voice again as he was reading an ad in the newspaper about a massage therapy program, and the voice told him that this is what he was being called to do. Sam continued to become more engrossed with his new life purpose. His boss started to complain because he missed work, and his friends were worried that he was not acting like his old self. They noticed that he started to give away many of his possessions. Sam continued to hear the same voice sporadically over the next several weeks and began noticing signs around him through messages he read in the Bible, saw on billboards, and other signs he noticed as he went about his day. God told Sam that he was being called to move from the east coast to Dallas, and that he was selected by God to do hands on healing through his massage therapy practice, just like Jesus and other prophets did in the Bible. God was entrusting him with powers that would heal people that ordinary medicine could not. When he explained this calling to his friends, most did not understand and thought that something was off. God’s voice told him that this was just because his friends didn’t believe the same things he did and didn’t understand the urgency of his mission. One day some of his concerned friends came to his apartment to find that it was cleared out and he already moved to Dallas.

Part 1

Read each question carefully and select just ONE answer. Choose the answer that best reflects your opinions or beliefs.

To what extent do you believe that the person in the vignette above experienced a religious experience?

○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
Clearly a religious experience	Most likely a religious experience	Somewhat likely to be a religious experience	Somewhat likely the presence of something other than a religious experience	Most likely something other than a religious experience	Clearly something other than a religious experience

○ Don't know
○ Refused

To what extent do you believe that the person in the vignette displayed pathological symptoms of mental illness, such as not being able to differentiate between what is real and what is not real?

○ 1	○ 2	○ 3	○ 4	○ 5	○ 6
Clearly anchored in reality, not at all pathological	Most likely anchored in reality, mostly not pathological	Somewhat likely to be anchored in reality, probably not pathological	Somewhat unlikely to be anchored in reality, probably pathological	Most likely not anchored in reality, mostly pathological	Clearly not anchored in reality, definitely pathological

○ Don't know
○ Refused

You were just asked two questions asking you to interpret whether or not the person in the case above was having a religious experience and whether or not they were experiencing mental illness, specifically a psychotic episode. Indicate which of the following impacted your answer to this question. Check all that apply

□ My religious beliefs impacted my answer to this question
□ My spiritual beliefs impacted my answer to this question
□ My knowledge of mental illness and psychosis impacted my answer to this question
□ My experience of knowing someone with mental illness impacted by answer to this question

□ I'm not sure which processes impacted my answer.
□ Something other than those listed above impacted my answer to the previous questions (If so please indicate other factors):

○ Don't know
○ Refused

Which particular parts of the vignette informed your answers to questions 1 and 2 above? Please explain:

_____
_____
_____
_____

Part 2
Indicate the extent to which you agree or disagree with the following statements.

God or another religious beings (e.g., angels, spirits, etc.) communicated with or send messages to certain figures in the Bible (e.g., Abraham, Moses, Mary, Joseph, etc.).

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know
○ Refused

God or another religious being (e.g., angels, spirits, etc.) communicates with or has sent a message to people living today.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know
○ Refused

God or another religious being (e.g., angels, spirits, etc.) communicates with or has sent a message to someone in my Church.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know
○ Refused

God or another religious being (e.g., angels, spirits, etc.) communicates with or has sent a message to someone I know personally?

○ Yes
○ No

○ Don't know
○ Refused

Have you ever had an experience where you believe God or another religious being (e.g., angels, spirits, etc.) was trying to communicate with you or send you a message?

○ Yes
○ No

○ Don't know
○ Refused

God or another religious being (e.g., angels, spirits, etc.) may try to communicate with me or send me a message at some point in the future.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know
○ Refused

Part 3
Please rate the extent to which you agree or disagree with the following statements.

I have a close personal relationship with God.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know
○ Refused

I communicate with God on a regular basis.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know
○ Refused

When faced with a question, I turn to God for direction and help.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know
○ Refused

I am aware of God attending to me in times of need.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know
○ Refused

When I have a personal problem or need, people in my church or faith are some of the people I turn to.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don’t know
○ Refused

The next few questions ask about how often you participate in religious activities.

When was the last time you attended a religious service (e.g., Mass or Sunday service, prayer meeting)?

○	○	○	○	○	○
1	2	3	4	5	6
In the past week	In the past month	In the last few months	In the last year	More than a year ago	Never

○ Don’t know
○ Refused

When was the last time you participated in a religious event or activity (e.g., a men’s/women’s/teen ministry, Bible fellowship, religious conference, religious charity event, greeter or choir member at your church, etc.)?

○	○	○	○	○	○
1	2	3	4	5	6
In the past week	In the past month	In the last few months	In the last year	More than a year ago	Never

○ Don’t know
○ Refused

About how often do you read the Bible?

○	○	○	○	○	○	○
1	2	3	4	5	6	7
Every day	A few times per week	Once per week	Once per month	Every few months	Less than once per year	Never

○ Don’t know
○ Refused

Which of these statements comes closest to describing your beliefs toward the Bible? The Bible is…

○ The actual word of God and is to be taken literally, word for word.
○ The inspired word of God but not everything in it should be taken literally, word for word.

- ○ An ancient book of fables, legends, history, and moral precepts recorded by men.
- ○ Don't know
- ○ Refused

Which denomination, if any, do you belong to?

- ○ Catholic
- ○ Protestant (e.g., Baptist, Presbyterian, Lutheran, etc.)
- ○ I am Christian but I'm affiliated with a denomination that is not listed.
- ○ I am Christian but I'm not affiliated with any denomination

- ○ Don't know
- ○ Refused

How long have you identified as being Christian?

○	○	○	○
1 My whole life	2 Most of my life	3 Some of my life	4 Just recently

- ○ Don't know
- ○ Refused

How long have you belonged to a Christian church or house of worship, if at all?

○	○	○	○	○
1 My whole life	2 Most of my life	3 Some of my life	4 Just recently	5 I have never belonged to a church or house of worship

- ○ Don't know
- ○ Refused

Part 4

Indicate the extent to which you agree or disagree with the following statements about mental illness.

Mental illness that causes people to hear and see things that aren't real can be due to possession by evil spirits.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know

○ Refused

Mental illness that causes people to hear and see things that aren't real can be a punishment from God.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know

○ Refused

Mental illness that causes people to hear and see things that aren't real can be cured by religious means, such as prayer, laying on of hands, or other types of faith healing.

○	○	○	○	○	○
1	2	3	4	5	6
Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree

○ Don't know

○ Refused

Do you think mental illness that causes people to see and hear things that aren't there, believe things that aren't real, and so on have biological causes (e.g. brain chemistry), come from life experiences, or both?

○	○	○	○	○
1	2	3	4	5
Entirely biological	Mostly biological but some life experiences	Some biological and some life experiences	Mostly life experiences but some biological	Entirely life experiences

○ Don't know

○ Refused

Has anyone in your family or any close friends experienced a psychotic episode (e.g., hearing or seeing things that aren't there, believing things that aren't real, etc.)?

○ Yes
○ No

○ Don't know
○ Refused

At any point in your life have you worked as a mental health professional?

○ Yes
○ No

○ Don't know
○ Refused

Indicate the response that best matches your beliefs about the relationship between religious and psychotic experiences (hearing and seeing things that are not based in reality).

People who have a mental health condition causing them to see and hear things that are not real:

○ Are more likely receive religious messages from God
○ Are just as likely to receive religious messages from God
○ Are less likely to receive religious messages from God
○ I don't believe anyone can receive religious messages from God

○ Don't know
○ Refused

Part 5
Fill in the following demographic information. All of the information provided will remain confidential.

Which category below includes your age?

- ○ 18 -20
- ○ 21 – 30
- ○ 31 – 40
- ○ 41 – 50
- ○ 51 – 60
- ○ 61 or older

- ○ Refused

What is your gender?

- ○ Female
- ○ Male
- ○ Transgender
- ○ Prefer not to answer
- ○ Something other than those listed above. Please specify:

- ○ Refused

Which of the following best describes your race/ethnicity? Check all that apply.

- ○ American Indian or Alaska Native
- ○ Hawaiian or Other Pacific Islander
- ○ Asian or Asian American
- ○ Black or African American
- ○ Hispanic or Latino
- ○ Non-Hispanic White
- ○ Something other than those listed above. Please specify:

- ○ Refused

Please indicate your marital status.

- ○ Married
- ○ Member of an unmarried couple
- ○ Divorced
- ○ Widowed
- ○ Separated
- ○ Single

- ○ Refused

What is the highest level of school you have completed or the highest degree you have received?

- ○ Less than high school degree
- ○ High school degree or equivalent (e.g., GED)
- ○ Some college, but no degree
- ○ Associate degree
- ○ Bachelor degree
- ○ Graduate degree or professional degree

- ○ Refused

Which of the following categories best describes your employment status?

- ○ Employed full-time, (working 35 hours or more per week)
- ○ Employed part time (working less than 35 hours per week)
- ○ Not employed, looking for work
- ○ Not employed, not looking for work
- ○ Retired
- ○ Disabled, not able to work
- ○ Student

- ○ Refused

What is your annual household income?

- ○ Less than $20,000
- ○ $20,000 to $34,999
- ○ $35,000 to $49,999
- ○ $50,000 to $74,999
- ○ $75,000 to $99,999
- ○ $100,000 to $149,999
- ○ $150,000 or More

- ○ Refused