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Causes, cures, and compliance : bible believers' causal attributions and preferred treatments for mental disorders

Todd S. Stanfield
University of Tennessee

To the Graduate Council:

I am submitting herewith a dissertation written by Todd S. Stanfield entitled "Causes, cures, and compliance : bible believers' causal attributions and preferred treatments for mental disorders." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Social Work.

Catherine A. Faver, Major Professor

We have read this dissertation and recommend its acceptance:

William R. Nugent, David A. Patternson, Kathleen A Lawler

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(Original signatures are on file with official student records.)

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CAUSES, CURES, AND COMPLIANCE: BIBLE BELIEVERS' CAUSAL ATTRIBUTIONS AND PREFERRED TREATMENTS FOR MENTAL DISORDERS

A Dissertation
Presented for the
Doctor of Philosophy
Degree
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Todd S. Stanfield
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DEDICATION

This dissertation is dedicated to my mother, Brenda Kaye Randol Parker,
whose love, courage, and faith help me each day to develop my own.
I love you Mom.

"Her children arise and call her blessed;
her husband also, and he praises her:
'Many women do noble things,
but you surpass them all.'
Charm is deceptive, and beauty is fleeting;
but a woman who fears the Lord is to be praised.
Give her the reward she has earned,
and let her works bring her praise at the city gate."
Proverbs 31:28-31 (NIV)

- and -

To the family of the late Joey Lee Lansdell
and all those who struggle to keep the Faith in the midst of personal suffering.
Your courage is heroic.

"He causes His sun to rise on the evil and the good,
and sends rain on the righteous and the unrighteous."
Matthew 5:45 (NIV)

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ABSTRACT

The importance of providing culturally-competent treatment is increasingly being emphasized in the mental health literature. However, the effect of religion as a cultural determinant of treatment utilization is largely understudied. Previous studies suggest that religious fundamentalists are more likely to endorse spiritual and demonic explanations for mental illness and are less willing to seek help from secular mental health professionals. However, these studies are based on small, regional, non-probability samples and have failed to adequately control for the effects of other sociodemographic variables such as education. This study utilized data from two nationally representative surveys, the 1996 and 1998 General Social Surveys (GSS), to examine the effect of beliefs about the authorship, inerrancy, and interpretation of the Bible on beliefs about the perceived causes and preferred treatments for mental disorders. Respondents to the 1996 MacArthur Mental Health Module were presented with a vignette that described someone experiencing one of four disorders: schizophrenia, major depression, alcoholism, or drug addiction. Respondents who said that they believed the Bible was "the word of God" and should be "interpreted word for word" (Bible Believers) were more likely than other GSS respondents to say that the vignette subject's condition was caused by "his or her own bad character." However, Bible Believers were just as likely as other respondents to say that the condition was caused by "a chemical imbalance in the brain." Bible Believers were more likely than other respondents to say that the vignette character should "talk to a minister, rabbi, priest, or other religious leader." However,

they were just as likely as other respondents to endorse that the vignette character "go to a psychiatrist," "take prescription medication," and "go see a therapist or counselor, such as a social worker, psychologist, or other mental health professional." Respondents to the Pressing Issues in Health and Medical Care Module of the 1998 GSS were asked questions about their opinion of psychiatric medications. Bible Believers were more likely than other GSS respondents to say that individuals should stop taking psychiatric medications as soon as symptoms subside. This study suggests that social workers should be aware of the potential clinical implications of Bible Believers' views regarding the causes and best treatments for mental disorders. It also suggests that more research is needed to further understand how these views may affect the course and outcome of mental health treatments.

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CHAPTER I: STATEMENT OF THE PROBLEM

Introduction

It is estimated that 44 million adults in the United States currently suffer from a mental illness, but that only a third of those actually receive treatment (Kessler et al., 2001;U. S. Department of Health and Human Services, 1999). Research has repeatedly shown that the majority of people who receive treatment for a mental illness tend to show a decrease in unwanted symptoms and a reported increase in their quality of life as compared to those who do not receive treatment (Pikoff, 1996; US DHHS, 1999). In 1999, the U. S. Surgeon General released a report on the status of mental health in the United States that concluded, "The single, explicit recommendation of the report is to seek help if you have a mental health problem or think you have symptoms of a mental disorder" (p. vii). There are many reasons that people with mental illnesses do not seek treatment, but one of the most prevalent is stigma. The Surgeon General's report calls stigma "the most formidable obstacle to future progress in the arena of mental illness and health" (U. S. Department of Health and Human Services, 1999, p. 3).

Advocates for the medical treatment of mental disorders point to an increasing number of clinical studies that have found biomarkers that are associated with mental disorders and studies that have shown psychopharmacological intervention to be efficacious (NIMH, 1995). The National Alliance for the Mentally Ill (NAMI), the nation's largest mental healthcare consumers advocacy group, challenges the American public through their national anti-stigma campaign to "open your mind" and understand

that "mental illnesses are brain disorders." The inclusion of mental illnesses with other diseases associated with organic pathology has led to the social legitimization of medical treatment approaches as well as the establishment of medically-oriented mental health professions.

Social workers are the largest providers of mental health services among all specialty mental health providers (Frank & McGurie, 2001; West et al., 2001). It is estimated that there are as twice as many clinical social workers providing mental health treatment as there are psychologists providing treatment (Ivey, Scheffler, & Zazzali, 1998). The profession of social work has historically supported the medical approach to mental illnesses (Specht & Courtney, 1994), and some have even advocated that social workers seek psychiatric medication prescription privileges (Dziegielewski, 1997).

The most recent Legislative Agenda of the National Association of Social Workers (NASW) calls for "full parity for mental health and behavioral health care including substance abuse prevention and treatment" (NASW, 2002). "Parity" refers to desired equity in the comprehensiveness of insurance coverage for mental disorders compared to the coverage provided for the somatic illnesses that are treated by the medical profession (Mechanic, 2001). Despite the focus on parity, only 36% of Americans think that insurance companies should be responsible for paying for the costs of mental health care (Pescosolido et al, 2000). It seems that the American public is not accepting of the medical approach to treating mental disorders to the degree that the mental health professions would hope.

While the majority of Americans report that they believe that medical-model mental health care is effective, they themselves would be reluctant to utilize it (Pescosoclido et al., 2000; Croghan, et al., 1999). Psychiatric epidemiologists have estimated the number of individuals in America who have a mental illness, the percentage of those that are receiving medical-model treatment, and the resulting percentage who do not (Kessler et al., 2001). Numerous mental health professionals and mental health promotion groups are troubled by the fact that the majority of Americans who meet diagnostic criteria for a mental disorder do not seek treatment, and they consider it a significant threat to public health (Andrews & Henderson, 2000; US DHHS, 1999).

However, not all scholars of mental health, mental illness, and mental health treatment agree with this summation. The labeling of specific thoughts, emotions, and behaviors as indicative of a "mental illness" is a process that evolves in the context of many diverse social ideologies. An overview of the social definitions of mental illness is needed to better understand the complex social maze in which individuals make decisions about their own mental health.

Mental Illness as a Social Construct

People who identify their own thoughts, emotions, and behaviors as similar to those defined by the mental health professions as indicative of mental illness often struggle to formulate a personally meaningful definition of their experience. They seek ways to integrate this experience into their existing worldview and personal priorities

amidst a diverse fabric of social definitions. Social forces that often have competing and divergent interests continually shape these definitions.

What it means to be "mentally ill" has been broadly and diversely defined. Some view "mental illness" as a metaphorical myth (Szasz, 1974) that has been constructed to control deviant behavior, while others have called it a brain disease (Torrey, 1997) that can be understood through neuroscience research (National Institute of Mental Health, 1995). Still others view it as an "altered state of consciousness" that offers an opportunity for deeper spiritual contemplation and awareness (Cortright, 1997; Nelson, 1994; Scotton, Chinen, & Battista, 1996), and still others often view it as a deserved consequence of immoral behavior (Dain, 1992). These varied social definitions are the underlying reason why people take different actions when they experience "symptoms" of a mental disorder (Pescosolido & Boyer, 1999).

The three most dominant schools of thought that shape the social definition of mental illness are the biological, psychological, and sociological approaches. The biological or medical-model approach asserts that mental disorders are "diseases of the brain" that are best treated with medications that alter brain chemistry (Schwartz, 1999). The psychological approach views mental disorders as illnesses of the mind (cognitive) as opposed to the brain (somatic), and argue that talk therapy is central to their treatment (Peterson, 1999). The two most dominant psychological approaches to mental disorders are the psychoanalytic model and the cognitive-behavioral model. The psychoanalytical model draws from the work of Sigmund Freud and focuses on helping the individual gain insight into how subconscious sexual and aggressive drives stemming from early

childhood experiences may be shaping their current experience. The cognitive-behavioral approach examines the thought and reaction processes of the individual and encourages them to restructure their thought content and to change their behavior to reinforce more adaptive functioning. Sociological approaches view mental illness in terms of the environmental stresses and circumstances that shape the individual's behavior and examine who has the power to label individuals as "mentally ill" and how this labeling affects the individual's social interactions (Thoits, 1999).

The majority of current treatment technologies attempt to incorporate the theories from each of these three approaches. This central eclectic thread that characterizes modern treatment has been called the biopsychosocial approach to mental illness (Engel, 1980). A basic assumption of this study is that utilization of the various forms of biopsychosocial treatment is better than receiving no treatment (Pikoff, 1996; US DHHS, 1999) and that an understanding of the sociodemographic factors that influence treatment utilization is beneficial in crafting services that are designed to meet the specific needs of service recipients (Jorm, Angermeyer, & Katschnig, 2000).

Epidemiological studies have revealed that numerous sociodemographic variables, such as race, gender, age, and education, differentiate users and nonusers of mental health treatment (Pescosolido & Boyer, 1999). Medical sociologists have found that some of these same sociodemographic characteristics are associated with variations in social definitions of mental illness, preferred treatments, and willingness to seek mental health treatment (Pesocsolido et al., 2000). Mental health treatment technologies have placed an increasing importance on providing culturally-competent services that are

tailored to meet the unique needs of a culturally-diverse American public (US DHHS, 2001). Whether or not people seek help for an illness is often determined by cultural influences, and the various forms of religion and spirituality are some of the most prevalent and understudied (Larson, Swyers, & McCullough, 1997; Pargament, 1997).

The treatments developed to address mental illness or emotional problems are usually derived from a particular etiological theory. Most theories include explanations that involve varying degrees of the biological, psychological, sociological, and spiritual realms. The crux of the matter is that the way in which one defines the causes of mental illness leads to the preferred methods of treatment.

The interpretation of mental illness as a disturbance of spirit is one of the most prevalent definitions. One survey of Utah residents found that 35% of the respondents thought that the cause of mental illness could be attributed to "sinful behavior" (Fraser, 1994). This is particularly true in faith communities where mental health and spiritual health are viewed synonymously (Dain, 1992). A 1985 study asked rural Tennesseans to give their perceptions of a vignette describing a man with classic symptoms of paranoid schizophrenia. More than half of the respondents indicated, "this person should be viewed and treated as morally weak" (Neff & Husaini, 1985).

The medical model of treating individuals diagnosed as mentally ill is often devoid of spiritual considerations (Miller, 1999). Faith communities often see this unilateral approach to mental illness as detrimental to the spiritual health of the individual being treated because it does not incorporate the concept of a divine healer (Blazer, 1998). This philosophical tension between faith and science can further complicate

treatment decisions for the individual, their faith community, and the mental health professional.

Although this study examines the nature of many religious-oriented objections to "secular" mental health treatment, it is important to note that many well-informed scholars have questioned the utility of mental health treatment on other than religious grounds. Numerous mental health professionals are advocates of the "antipsychiatry" movement that challenges the dominant definitions of mental illness as a brain disease (Szasz, 1974 & 1997a), argues that psychiatric medicine is both harmful to the body and antithetical to good mental health (Breggin, 1991 & 1999; Glenmullen, 2001), and that mental health treatment tends to be paternalistic and often coercive (Winick, 1997). Others emphasize that the diagnosis and treatment of mental illness is a socially-constructed reality and that the mental health professions have a vested political and economic self-interest in the legitimization of that reality (Brown, 1995).

Labeling theory, also known as societal reaction theory, argues that the effect of being labeled mentally ill by a mental health professional has adverse social consequences for the individual that are often more deleterious than the actual symptoms of the disorder (Link & Phelan, 1999; Scheff, 1966; Scheff, 1999). The most prevalent of these consequences is the social stigma associated with being labeled mentally ill that can lead to increased isolation and decreased social power (Foucault, 1965; Goffman, 1963; Wahl, 1999). Many scholars argue that the labeling of the individual as mentally ill (i.e., deviant) often results in the social control of the individual through coercive mechanisms such as involuntary psychiatric commitment and the use of medications as chemical

restraints (Breggin, 1997; Szasz, 1997b). In light of these criticisms of mental health treatment, this study does not assume that distrust of professional mental health treatment is an exclusively religious, unsophisticated, or unwarranted view. In fact, criticism, both from within the mental health professions and from those external to the profession, often serves to increase personally meaningful treatment options.

In outlining the need for this study, research will be presented that points to the "effectiveness" of mental health treatment and the "underutilization" of such treatment. One of the resulting arguments is that efforts should be taken to increase the utilization of treatment provided by mental health professionals. This study certainly aspires to examine why some people choose to avoid or withdraw from professional treatment, but it also recognizes that professional treatment may not always be what is "best" for each individual. Moreover, one of the goals of this study is to understand what definitions and treatments for mental illness seem "best" to people of faith and how these views can be integrated into more culturally competent treatments. This study is not the first to argue that treatments need to be personally meaningful and congruent with an individual's worldview in order to be truly "effective" (Brace, 1997), nor is it the first to recognize that there is neither a universal definition of "good mental health" nor one universally-desired outcome of mental health treatment (Fancher, 1995).

Purpose of the Study

The purpose of this study is to explore how the religious beliefs and practices of "Bible-believing" Americans shapes their perceptions of mental health, mental illness,

perceived causes, preferred treatments, and willingness to utilize treatment. It is hoped that this study will help to inform a growing theoretical basis for crafting culturally-competent treatments for people of faith. The remainder of this chapter establishes the significance of unmet mental health needs in America and outlines factors associated with underutilization. Chapter 2 is a review of the literature that examines how religious beliefs and practices shape views of mental health and mental health treatment. Limitations of the current knowledge base will be discussed and research questions will be outlined.

This study will specifically focus on how individuals who express the belief that the Bible is "the actual word of God" and is "to be taken literally, word for word" view mental health, mental illness, and mental health treatment. Although many faith communities endorse these views, Christian Fundamentalists are the most prevalent. Although Christian fundamentalists are a diverse group, the central unifying theme is a belief that the Bible is inerrant and is the literal word of God. Sociologist Nancy Ammerman (1987) coined the term "Bible Believers" to reflect the defining characteristic of this group. For the purpose of this study, Bible Believers will include not only Christian Fundamentalists but also anyone who endorsed a belief in Biblical inerrancy and literalism. The defining characteristics of the Bible Believers group examined in this study are more fully described in the methodology chapter of this dissertation. The central question of this study is as follows: "Do Bible Believers view mental health treatment differently than the general population?"

This question will be addressed by the formulation of seven specific hypotheses that will be tested through an analysis of data from the MacArthur Mental Health Module of the 1996 General Social Survey and the Pressing Issues in Health and Medical Care Module of the 1998 General Social Survey (Davis et al., 2001). While the review of the literature will focus on many religious traditions, the secondary analysis of national data will focus specifically on beliefs about the Bible due to the absence of similar religious belief questions in the national data that are specific to other religious traditions.

Prevalence of Mental Illness

The study of the prevalence of mental illness is part of the larger study of the epidemiology of mental illness, which includes answering questions like how many people currently have or have had a mental illness, when did they develop it, where do they live, what is their socioeconomic status, gender, ethnicity, and other sociodemographic characteristics. In short, epidemiology is the study of the patterns of disease in the population (Susser, 1973).

Numerous epidemiologic studies have been conducted to determine the prevalence of mental illness in the American public. Some studies have approximated these rates by studying clinical populations and then inferring the number of people in the general population who are likely suffering from a mental illness. These studies are limited in that they in no way are able to identify people in the community who do not seek treatment. Other epidemiologic studies have attempted to measure the prevalence of mental illness in the general population by administering community surveys designed to

prevalence of mental illness in the population among both those who have sought treatment and those who have not. Advocates for the treatment and research of mental illness have relied on these studies to show the importance of funding for treatment and research endeavors.

The two most well-accepted epidemiological studies of mental illness are the Epidemiologic Catchment Area (ECA) study and the National Comorbidity Survey (NCS; Robins & Reiger, 1991; Kessler et al. 1994). The ECA study was sponsored by the National Institute of Mental Health (NIMH) and involved over 20,000 subjects in five urban areas who were interviewed using the Diagnostic Interview Schedule (DIS; Robins et al. 1981) to determine the prevalence of mental illness in the American population. The DIS was developed from diagnostic criteria outlined in the third edition of the Diagnostic and Statistic Manual of Mental Disorders (DSM-III; American Psychiatric Association, 1980). The ECA researchers theorized that the ECA sample would be representative of the American population, but as Kessler & Zhao (1999) point-out, the researchers did not assess whether the distribution of socioeconomic status and health-insurance coverage was proportional to that of the American population. Another threat to the generalizability of the ECA findings to the American population is the fact that the five communities included in the ECA were all urban areas that contained large university-based hospitals, and therefore segments of the American population who live in rural areas with little access to specialized mental health care were absent from the sample (Kessler & Zhao, 1999).

The other prominent study, the NCS, was also funded by NIMH and consisted of the administration of a modified version of the DIS known as the Composite International Diagnostic Interview (CIDI; Robins et al., 1988). There were over 8,000 respondents from both urban and rural areas. The sample was designed to be specifically representative of the entire United States (Kessler & Zhao, 1999). The CIDI enabled the researchers to identify diagnosable Axis I disorders as identified in the revised third edition of the Diagnostic and Statistic Manual of Mental Disorders (DSM-III-R; American Psychiatric Association, 1987).

Two types of prevalence rates are generally reported in the epidemiological literature. One is lifetime prevalence, which is the percentage of the sample population who has had a mental disorder(s) at anytime in their lifetime. The other is 12-month prevalence, which includes the percentage of the sample population who has had a mental disorder(s) within the last year. Despite some methodological flaws, the ECA and NCS provide a general consensus on the prevalence rates of mental disorders in the American public. The ECA found that approximately 28% of Americans have some type of mental disorder within the year prior to the study and that 32% had experienced at least one disorder in their lifetime (Robins & Regier, 1991). The NCS found that almost half (48%) of all Americans experience at least one mental disorder during their lifetime and that 29% of the sample had a mental or addictive disorder within the last 12 months (Kessler et al. 1994; Kessler & Zhao, 1999).

The Surgeon General's Report on Mental Health (US DHHS, 1999) and the National Institute of Mental Health (NIMH, 2001) prefer reporting the prevalence of

mental disorders in terms of 12-month prevalence. A document entitled *The Numbers Count: Mental Disorders in America* (NIMH publication #01-4584) reports that 22.1% of Americans over the age of 18 "suffer from a diagnosable disorder within a given year" (NIMH, 2001). The 1999 Surgeon General's Report on Mental Health discusses an analysis of the results from both the ECA and the NCS and concludes that the "best estimate" of one-year prevalence of any disorder is 21% (US DHHS, 1999, p. 47). This does not include substance and alcohol-related disorders. The World Health Organization (WHO) reports that 25% of all individuals in both "developed and developing" nations have a lifetime prevalence of mental illness of "more than 25%" (World Health Organization, 2001, p. 23).

The literature that discusses the ongoing analysis of both the ECA and NCS data is at times seemingly contradictory and confusing. A recent article by epidemiologists who worked on both the ECA and NCS acknowledges and attempts to correct these discrepancies (Narrow, Rae, Robins, & Reiger, 2002). The authors make the distinction between respondents to the ECA and NCS that met the criteria for a mental disorder and had symptoms that were "clinically significant" (resulted in marked impairment in functioning) and those who met diagnostic criteria but displayed no clinically significant impairments. The goal of this distinction was to develop a more valid measurement of the prevalence of clinically significant mental disorders in the American population. The DIS used in the ECA and the CIDI used in the NCS contain items that attempt to determine if the respondent's symptoms were clinically significant. Narrow and his colleagues utilized the responses to these items in revising the previously reported

prevalence rates. The revised prevalence estimate, combining both ECA and NCS data, is that 18.5% of all American adults have a clinically significant mental or substance abuse disorder in a given year (p. 119). This means that approximately 37.5 million American adults suffer from a clinically significant disorder (p. 121).

The revised one-year prevalence rates estimate that 10.3 million American adults (5.1% of the population) suffer from any type of mood disorder (Narrow et al., 2002, p. 121). This includes major depressive episodes (4.5% of the population), unipolar major depression (4.0%), dysthymia (1.6), bipolar I disorder (0.5), and bipolar II disorder (0.2%) (p. 121). Approximately 2 million Americans adults (1.0% of the population) suffer from schizophrenia or schizophreniform disorders (p.121). The revised one-year substance use disorder prevalence rates are 5.2% (10.5 million adults) for alcohol abuse disorders and 1.7% (3.4 million adults) for other drug use disorders with a total of 12.1 million American adults (6.0% of the population) suffering from a clinically significant substance use disorder (p. 121).

Societal Burden of Mental Illness

To understand the significance of 37.5 billion American adults suffering from a "clinically significant" mental or substance use disorder, we must analyze the effect this has on the overall functioning of American society. The U. S. Surgeon General's Report on Mental Health (US DHHS, 1999) defines mental disorders as "health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning" (p. 5). This "distress" and

"impaired functioning" are the primary individual burdens that result from mental illness. Mental illnesses involve disturbances in perception, thought, mood, and behavior. These disturbances are emotionally painful and usually effect the individual's ability to successfully perform their activities of daily living. This can lead to the loss of significant relationships, employment, and freedom. These losses can be thought of in terms of both individual burden and societal burden.

Loss of Quality of Life in Years

In 1996, the World Health Organization and the World Bank, in cooperation with Harvard University, released a report that detailed their study of the individual and societal burdens resulting from predominant diseases worldwide. This report, entitled the *Global Burden of Disease*, found that the individual and societal burdens caused by mental illnesses have been grossly unappreciated (Murray & Lopez, 1996). The researchers utilized two units of measurement in reporting the burdens associated with each disease; Years Lived with a Disability (YLDs) and Disability Adjusted Life Years (DALYs). A YLD is simply equivalent to the number of years that an individual lives with a particular disability or disease. DALYs are the number of years a person "loses" to the effects of the disease or disability. This includes both the number of years the person lives with the disability or disease (YLDs) and the number of years lost to premature death due to the disability or disease. The 2001 World Health Report (WHO, 2001) defines a DALY as follows:

> One DALY can be thought of as one lost year of "healthy" life, and the burden of disease as a measurement of the gap between current health status and an ideal situation where everyone lives into old age free of disease and disability (p. 25).

The researchers utilized both the YLDs and DALYs metrics to summarize the burden of mental illnesses.

The report found that five of the top ten diseases the resulted in years lived with a disability worldwide were mental disorder. More YLDs were attributed to unipolar major depression than any other disability or disease. The fourth-leading cause was alcohol use, followed by bipolar disorder as the sixth-leading cause, schizophrenia as the ninth-leading cause, and obsessive-compulsive disorder as the tenth. Mental disorders were also among the leading causes of DALYs in developed countries. Unipolar major depression was second only to ischaemic heart disease in the number of years lost to a disease or disability, followed by alcohol use as the fifth-leading cause, and by "self-inflicted injuries" as the ninth-leading cause. The study also examined the leading causes of DALYs for individuals between the ages of 15 and 44 and found that unipolar major depression was the leading cause, followed by alcohol use as the fourth-leading cause, "self-inflicted injuries" as the fifth-leading cause, bipolar disorder as the sixth-leading cause, and schizophrenia as the ninth-leading cause. As a group, mental illnesses accounted for over 15.4% of total DALYs in developed countries. More DALYs were attributed to mental illness than all forms of cancer (15.0%). Mental illness was second only to cardiovascular conditions (18.6). When alcohol use (4.7) and drug use (1.5) are

considered, the overall percentage of DALYs attributable to either a mental or addictive disorder increases to 21.6% (Murray & Lopez, 1996).

Direct Costs

It is estimated that the total costs attributable to the diagnosis and treatment of mental disorders in America in 1997 was $85.3 billon, with $73.4 billion spent for the treatment of mental illnesses (86% of total), and $11.9 billion for the treatment of substance abuse disorders (14%) (Coffey, et al., 2000, p. ii). The total of $85.3 billion spent in 1997 for mental and substance abuse disorders represents approximately 7.8% of the all expenditures for health care in the United States in 1997 (p. ii). McKusick and his colleagues (1998) report that the growth in the costs of mental health care since 1986 (7.6% annually) is less than the growth in total health care costs (8.3% annually). The most recent study that examined growth in health care spending from 1987 to 1997 found that the direct costs for treating mental and substance abuse disorders rose 3.7% annually, which is a slower rate of growth than the estimated 5.0% annual growth for all national health care spending (Coffey et al., p. ii).

Spending for drugs used in the treatment of mental and substance abuse disorders grew faster than total expenditures for all types of treatment from 1987 to 1997. The cost of these drugs accounted for 12.8% of all the mental health spending in 1997 (Coffey et al., 2000, p.56). The cost of these drugs grew 9.3% while the costs for drugs used in all types of health care grew by 8.3% (Coffey et al., 2000, p. 26). Spending for substance abuse disorders grew at the slow rate of 2.5% annually (p. 44).

Indirect Costs

The disabling nature of many mental illnesses threatens the wage-earning potential of many individuals. The symptoms of some mental illnesses can prevent individuals from functioning at a level required by most jobs. Even if the individual is able to work at a job that he or she can perform despite their symptoms, they may be forgoing a more personally and financially rewarding job because of their symptoms. These losses, which are not directly related to the cost of treating mental illnesses, can be thought of as "indirect" costs. The Surgeon General's Report cites a study by Rice and Miller (1996) that estimates the indirect costs of mental illness to the U.S. economy in 1990 was approximately $79 (USDHHS, 1999, p. 411). These losses are estimated to be due to the lost wages of those with an illness as well as the lost wages of their family and friends who may forgo employment to serve as a caregiver. Respondents to the NCS who met criteria for a mental disorder and were also employed indicated that they frequently missed days from work and experienced a loss in productivity on workdays due to the symptoms of their illness (Kessler & Frank, 1997). Research that has examined the projective cost-benefit balance of reducing indirect costs by increasing direct costs through treating the currently untreated is equivocal (Kessler, 2000)

Efficacy of Treatment & Importance of Social Support

While the diagnosis (Reiger et al., 1998) and treatment (Dawes, 1994) of mental disorders is an inexact science, the overwhelming result of outcome studies regarding the effectiveness of mental health treatment is that treatment is more effective placebo, and

even placebo is more effective than no treatment at all (Pikoff, 1996; USDHHS, 1999). A supportive social network has been shown to serve as a stress-buffering mechanism and is one of the key factors that have been associated with increasing the quality of life and life satisfaction of people living with a mental illness (Brugha, 1995; Caplan, 1974; Caron, Tempier, Mercier, & Leouffre, 1998; Froland, Brodsky, Olson, & Stewart, 2000; Greenblatt, Becerra, & Serafetinides, 1982). Likewise, negative social interactions within the support network have been shown to adversely effect mental health (Lincoln, 2000). It is important therefore to understand not only how people seek help for mental illness but also the nature of the social interactions they encounter during that treatment.

Research on how people enter mental health treatment systems shows that social networks also influence the degree of utilization of mental health treatment (Pescosolido, Gardner, & Lubell, 1998). Most theories of help seeking assume that individuals exercise their autonomy by choosing to enter treatment. More recent models acknowledge the influence of both formal and informal social networks that shape the individual's help-seeking behavior. This proposed study will utilize the Network Episode Model of treatment utilization (Pescosolido & Boyer, 1999), described in more detail later, to outline the importance of both individual and network beliefs in shaping underutilization of treatment.

Unmet Treatment Need

The SGR reports that less than a third of the adults in the U.S. who have a diagnosable disorder actually receive treatment (USDDHS, 1999). More specifically it is

estimated that only 28% of Americans with a mental disorders receive treatment, and that only 14% of Americans with a mental disorder receive treatment from a specialty mental health provider (p. 76). A recent study of the use of mental health services estimates that only one-fourth of American adults who manifest a clinically significant mental or substance abuse disorder within the previous year actually received any treatment for that disorder (Narrow et al., 2002, p. 122). Research has shown that there are numerous social factors related to this underutilization of mental health treatment.

Reasons for Lack of Treatment

We turn now to examining the mechanisms that lead people to seek and utilize mental health treatment and the factors that may result in them not seeking treatment or not fully utilizing the treatment available. The Surgeon General's report (US DHHS, 1999) identifies four reasons for the underutilization of treatment: financial barriers, fragmentation of services, social mistrust of treatment systems, and sociodemographic and cultural factors.

In order for an individual to choose to seek treatment, they must recognize their perceptions, thoughts, emotions, and behaviors are symptoms of mental disorder. Sociologist William Eaton (2001) has outlined the factors related to symptom recognition:

> Symptoms of ill health are recognized in varying degrees, depending on the recognizability of the symptom itself, the pain associated with the symptom, the

degree to which it disrupts the normal activities of the individual, and various characteristics of the individual and the situation (p. 253).

How a person reacts to an illness has been called "illness behavior" (Mechanic, 1983). Numerous studies have examined how and why people either seek treatment or do not seek treatment and how and why they either fully comply with the treatment recommendations of providers or only partially comply with those recommendations. People with a mental illness have almost always been characterized as deviant; a designation that is most often met with paternalistic attempts to limit the individual's autonomy (Veatch, 1997). The societal assumption that people with mental illness may act in ways that are detrimental to self or society places them in a distinctly vulnerable position. The wide range of socially-constructed definitions and the stigma associated with being labeled "mentally ill" create a complex and confusing set of helping-seeking options.

The majority of the literature that examines the help-seeking behavior of individuals with a mental disorder focuses on the use of formal, medical-model treatment. When individuals experience symptoms of mental illness, and they or someone else recognizes them as dysfunctional, they generally formulate preliminary ideas about what is causing the symptoms. Based on these presuppositions, individuals decide whether or not to seek help ("Can I handle this on my own?"), what type of help to seek (formal or informal), and from whom to seek it ("Who is the authority on this subject?") (Cockerham, 2000; Sussman, Robins, & Earls, 1987). They may also try to predict the

way in which their friends, family, and extended support network may respond to their decision to seek help (Faver, Crawford, & Combs-Orme, 1999).

The Network-Episode Model of Treatment Utilization

Medical sociologist Bernice Pescosolido developed the Network-Episode Model (NEM) to better describe the treatment utilization behavior of individuals with a mental disorder (Pescosolido, 1991; 1992; 1996; Pescosolido, Gardner, & Lubell, 1998; Pescosolido & Boyer, 1999). The NEM recognizes that numerous social factors play an influential role in an individual's utilization of mental health treatment. Beliefs about mental health, mental illness, and mental health treatment from the perspective of the individual, their social support network, and the formal treatment system are all included in the model. The NEM basically asserts that the beliefs of all three interact to form a dynamic environment in which the individual either utilizes or does not utilize treatment. Furthermore, the NEM recognizes that not all people who receive treatment do so through rational choice and that many are coerced or "muddle through" treatment (Pescosolido et al., 1998). The NEM specifically examines how the sociodemographic characteristics of the individual, their support network, and the responding treatment system influence the utilization and course of treatment. The operationalized criterion variables examined in this proposed study were created with the NEM as the primary theoretical framework (Pescosolido, 2000).

While numerous studies have used treatment utilization theories as a backdrop for studying how various sociodemographic variables influence beliefs about mental health,

mental illness, and treatment, very few have examined the potential effects of religious beliefs. A brief overview of the influential sociodemographic variables identified in the research will now be presented. This overview will be followed by an outline of the objectives of this study that seek to examine the importance of religion as a sociodemographic and cultural predictor of attitudes regarding mental illness, etiological theories, and preferred treatments.

Sociodemographic Predictors of Utilization

Some research studies have identified social factors that are associated with the underutilization of treatment. Many of the reasons are sociodemographic and cultural factors. These factors include illness severity, gender, socioeconomic status, race/ethnicity, urban vs. rural status, education, and religion. Briefs overviews will now be given on the effect of each of these sociodemographic and cultural factors on the utilization of mental health treatment.

Severity of illness/symptoms has been shown to be the greatest predictor of treatment utilization, in that those with more debilitating symptoms are more likely to seek treatment (Greenley and Mechanic, 1976a; Pescosolido et al., 1998; Veroff et al., 1981). Gender is also a significant predictor. Greenley and Mechanic (1976a & 1976b) found that women tend to utilize mental health services more than men. Other studies report similar findings (Gove, 1984; Horwitz, 1977; Kessler, Brown, & Broman, 1981; Miranda & Green, 1999; Veroff et al., 1981).

Socioeconomic status has been shown to be a predictor of who receives mental health care and who does not. Charles Kadushin's (1969) study of users of mental health care found that people of higher socioeconomic status were more likely to utilize mental health treatment. Greenley and Mechanic (1976a & 1976b) similarly found that people with higher socioeconomic status were more likely to utilize treatment. Veroff and his colleagues (1981) found that the poor were less likely to talk to others about their mental condition and more likely to utilize prayer as a means of coping, and that the affluent were more likely to utilize mental health services. The proposed study will utilize measures of socioeconomic status to assess (and statistically control for) their effects on attitudes regarding mental illness and mental health treatment. Education is another significant predictor, in that people who utilize mental health treatment tend to be more educated than nonusers (Greenley and Mechanic, 1976a; Veroff et al., 1981). Other studies, however, indicate that those with the highest levels of education tend to be skeptical about mental health treatments, and are therefore less likely to utilize treatment than the moderately educated (Croghan et al., 1999). Education will be one of the central sociodemographic variables in this proposed study that will be examined for its effect on religious beliefs and resulting attitudes regarding mental illness and mental health treatment.

Race and ethnicity have also been shown to affect the utilization of mental health treatment. More specifically, racial and ethnic minorities do not utilize treatment as much as whites. Several studies have found that African Americans rates of utilization are low (Cole & Pilisuk, 1976; Hough et al., 1978; Leaf et al., 1985; Padgett et al., 1994;

Sussman et al., 1987; Wells et al., 1988). People living in urban areas are also more likely to utilize mental health treatment compared to those in more rural areas (US DHHS, 1999) and are more likely to have access to mental health treatment providers. Residents from certain areas of the U.S. are less likely to utilize mental health treatment (Schnittker, 2001), and these areas also have fewer mental health providers as compared to the U. S. average (Ivey et al., 1998; West et al., 2001).

Religion as a Forgotten Sociodemographic Factor

Religion has been largely ignored as a factor that influences treatment utilization. Research on the relationship of religion and mental health has been slow to develop. One reason for this is the long-standing tradition of separating the scientific from the sacred in mental health research and practice, along with the view that religion is often deleterious to mental health (Blazer, 1998; Fulford, 1996; Larson & Larson, 1994; Shorto,1999; Wilber, 1998). Psychologist William Miller says the role of spirituality in mental health care is analogous to the "elephant in the living room: Everyone knows it is there, but no one wants to talk about it above an occasional whisper" (Miller, 1999, p. xix). Psychiatrist David Larson, a prominent researcher in the field, warned that a career studying religion and mental health is the "anti-tenure track," (Shorto, 1999, p.85) and labeled faith as the "forgotten factor" in mental health research (Larson & Larson, 1994). Larson and his colleagues (1986) reviewed the articles published in prominent psychiatric journals and found a paucity of empirical research that included religion or spirituality as a variable.

Edward Canda and Leola Furman (1999) noted a similar lack of the scientific study of religious or spiritual variables in social work literature. This lack of knowledge is beginning to be addressed by social work researchers. The Council on Social Work Education has recently published an annotated bibliography on the subject of spiritual and religious diversity (Canda, Nakashima, Burgess, & Russel, 1999). Prior to his death in 2002, David Larson was working with the National Association of Social Workers to develop a training curriculum, similar to ones he developed with psychiatric training programs, that focused on spirituality in social work practice (Larson, 1999). Even with this recent shift, there remains a need for the empirical study of how religion and spirituality effect social work practice.

Objectives

This study will focus on the importance of religious beliefs as a sociodemographic and cultural predictor of attitudes regarding mental illness, etiological theories, and preferred treatments. The goal is to provide social workers with greater insight into how the beliefs of people of faith may shape their utilization of treatment, their interactions with their social-support networks, and their expectations of treatment. This overall goal can be reduced to three main objectives.

Objective 1: Review the research that has examined the effect of religion on beliefs about mental illness and treatment, point to specific limitations in the literature, and formulate a research design that will address an area of need in the knowledge base.

Objective 2: Conduct an analysis of data from a nation-wide survey to assess the association of variations in religious beliefs with variations in definitions of mental health, mental illness, and preferred treatments.

Objective 3: Present the findings of the study and discuss their relevance to social work practice and social work research by illustrating the linkages between attitudes regarding mental health, mental illness, and preferred treatments and the actual utilization and course of treatment.

These three objectives will be advanced by seven hypotheses that are presented at the end of chapter 2.

CHAPTER II: REVIEW OF THE LITERATURE

Historical and Theoretical Framework

During the Stone Age, people who exhibited the symptoms of mental illness were believed to have evil spirits trapped in their skulls and were subjected to trepanning, the cutting of an opening in the skull to allow the spirits to escape (Ellor, Netting, & Thibault, 1999). Etiologies of mental illness in ancient Greece and Rome were primarily based on the theories of Hippocrates and Galen that viewed persons exhibiting mental or behavioral abnormalities as suffering from an imbalance of body fluids (humors) that could benefit from rest, proper nutrition, and purging (Cockerham, 2000). Some treatments also involved seeking healing from the Greek and Roman gods (Kinzie, 2000; Simon, 1992).

The great Hindu physician Caraka, like Hippocrates and Galen, believed that some insanity could be caused by an imbalance in body fluids. He also believed that insanity could be a form of punishment for actions taken in a previous life. Some of his prescribed treatments included verbal encouragement, threatening the patient with defanged snakes, or threats of execution (Kinzie, 2000). Early Buddhist theories held that the mentally ill suffered from possession by evil spirits but that this was not the fault of the individual. Some Buddhists were encouraged to pray to Kuan-yean, a Chinese Buddhist goddess, for healing, while others found refuge in Zen monasteries that served as a restful retreat (Kinzie, 2000).

The conversion of the Roman emperor Constantine to Christianity and the subsequent fall of the Roman Empire led the way for the Roman Catholic Church to

become the "sole patron of knowledge" in the Western World (Tarnas, 1991, p. 160). The authority to define and treat illness and to punish deviant behavior rested with the Church. Medieval etiologies incorporated the ancient belief that mental illness could be caused by an imbalance of the humors, but the predominate view was that mental illness was either punishment from God or possession by a demon (Amundsen, 1986). The prescribed cures were repentance and exorcism respectively (Lipsedge, 1996).

In addition to attributions of mental illness to demon possession, the late Middle Ages and the early Renaissance Period were also characterized by the witch trials conducted by the Roman Catholic Church. In 1486 two Dominican inquisitors wrote a papal bull entitled *Malleus Maleficarum* (The Witches Hammer) that described how to identify and eradicate witches. It is generally accepted that many of the people who were accused of witchcraft, and then tortured and executed, were most likely suffering from a mental illness (Kinzie, 2000; Mora, 1992; Sagan, 1996); as were perhaps the victims of the Salem witch trials in colonial America (Cockerham, 2000; Ellor, Netting, & Thibault, 1999).

At the close of the Middle Ages and the dawn of the Enlightenment, many religious thinkers begin to challenge the possession and witchcraft etiologies. Johann Weyer, a Christian physician, spoke out against the witch hunts during the 1500s. He argued that the accused suffered from an organic disease that warranted humane treatment (Kinzie, 2000). The English clergyman Robert Burton wrote *The Anatomy of Melancholy* in 1621, which further explored the possibility that mental illnesses were in fact medical illnesses (Kurtz, 1999; Thielman, 1998). In the late 1700s, English Quaker

William Tuke and the Quaker organization, the Society of Friends, established the York Retreat, which served as a model for the "moral treatment" of the mentally ill popularized by French psychiatrist Philippe Pinel.

Faith communities in colonial America commonly held the possession, witchcraft, and punishment-for-sin etiologies as well, but there were some religious leaders that articulated alternative views. Cotton Mather, a Puritan minister from Massachusetts in the early 1700s opposed the Salem witch trials (Cockerham, 2000). He argued that "madness" could be caused by sin or occur naturally without spiritual wrongdoing. In his two books Mather stated that "madness" could result from people surrendering to temptations from Satan. Confession and repentance were his prescribed treatments. He also proposed techniques such as drinking the blood of a mule or cutting a live sparrow in half and placing the halves on the head of the patient (Grobb, 1994). American Quakers established the Friends Asylum in Pennsylvania in 1813, which was inspired by the York Retreat in England. The treatment provided at the asylum was primarily based on medical etiologies of mental illness (Grobb, 1994).

Prior to the Enlightenment, religion was the predominant institution that defined deviance and developed social control mechanisms to address it. As more pluralistic societies developed, courts were given this authority. In time, however, institutional differentiation led to the medicalization of deviance (Freund & McGuire, 1991; McGuire, 1997). The medical model of deviance gained credibility through the work of American psychiatrist Benjamin Rush and the psychoanalytic theories of Sigmund Freud. Subsequently psychiatry and related mental health professions, such as psychology,

counseling, and social work, were given the authority to define deviance as mental illness and treat it as disease. Religion was also the historical arbiter of healing practices prior to the Enlightenment, but in the modern era, medicine, due to its scientific and rational approach, has been legitimated in the western world as the primary healing authority (Freund & McGuire, 1991; McGuire, 1997).

Religion continues to function as a source of meaning and belonging for many individuals. Sociologist Meredith McGuire (1997) asserts that medicine has "divorced the function of curing disease from the function of providing meaning and belonging to the sick person" (p. 298). She does recognize, however, that in cases of mental illness, medicine has recognized "problems of meaning," but that "treatment is also segregated in separate institutions with separate specialists" (p. 298). In other words, medicine only treats the patient dichotomously (mind and body) and does not usually concern itself with holistic healing of body, mind, and spirit.

Psychotherapy, however, does in fact attempt to provide both meaning and belonging. Kinsley (1996) has observed that "it is often the principal job of the therapist to instill in the patient a sense of personal worth and hope about the future" (p. 155) and that this is often done through relationship, setting, myth, and ritual. The psychotherapist, much like the religious leader, is viewed as having cryptic knowledge and wisdom that relates meaning and purpose. Psychotherapy has also valued belonging as part of healing in its use of group therapy and endorsement of various self-help groups.

Psychiatry and psychology have given us the socially-constructed concept of "mental health," which is often defined as a clear sense of personal identity and life

purpose. The U. S. Surgeon General's Report on Mental Health defines mental health as "a state of successful performance of mental functions, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity" (U. S. Dept. of Health &Human Services, 1999, Ch. 3, p. 4). Miller and Thoresen (1999) theorize that mental health is not merely the absence of mental disease but rather a "subjective sense of inner peace" and that the mental health professional's task has to do with increasing the client's "quality of life" (p. 5). Religion views a sense of peace, purpose, identity, and belonging as components of "spiritual health" which is achieved and maintained through relating to a deity. This overlap in definitions has caused the concepts of mental and spiritual health to be variably intertwined, and they have been viewed by some faith communities as synonymous, and by others as distinctly different.

The mental health professions often describe religion as exacerbating, if not causing mental illness, and religion frequently charges the mental health professions with trespassing into uniquely spiritual domains. Some mental health theorists have labeled certain religious experiences as psychosis and some religious beliefs as neurosis (Ellis, 1980; Freud, 1927, 1964; Watters, 1994). The delusional and hallucinatory content of many mentally ill individuals does often contain religious themes and symbols, but it is unclear if religion contributes to the development of the illness or if it is simply one of many cultural sources of thought content (Wilson, 1998). Religion frequently views mental illness as resulting from sin, spiritual weakness, or even demon possession (Dain, 1992; Grobb, 1994). In sum, religion and psychiatry both have a vested interest in mental

illness and thus compete for the authority to define and treat it. Unfortunately, as the review of the research will show, both the emotional and spiritual needs of the mentally ill often go unmet.

Research on the Service Utilization Behaviors of Religious Individuals

To understand the experiences of religious or spiritual clients who are seeking for ways to address their illness, several factors must be explored: the client's concept of mental health (vis-à-vis spiritual health); their valuation of mental health professionals; their experiences in treatment; the beliefs of their faith community regarding the concept of mental health and the mental health profession; and the mental health provider's perception of the client's religious beliefs, practices and experiences (Miller & Thoresen, 1999).

Duncan (1981) conducted a study that examined how an individual's level of religious conservatism predicted their willingness to seek psychological help. He mailed out a packet of questionnaires to active members of six different denominations in a community north of Dallas, Texas. He found that people with more conservative religious beliefs were less likely to recognize the need for help for a mental illness when compared to people with more liberal beliefs, and therefore they were also less likely to seek help for a mental illness. He also found that the more conservative respondents were less likely to display interpersonal openness. Duncan compared conservative and liberal groups by deriving three groups of subjects based on their score on the Religious Attitudes Scale of Poppleton & Pilkington (1963). He did this by assigning the highest

scoring quartile and the lowest scoring quartile to the high conservatism and low conservatism groups respectively. The remaining inner two quartiles were labeled the moderate group. The study could have been strengthened by using predetermined cut scores for each group based on previous research, or by using correlations to test for possible relationships instead of using ANOVA and MANOVA procedures to test for the difference between the derived groups.

Eighty-four percent of Duncan's respondents said they had attended college at some level, while 46% said they had done graduate work. He indicates that the community in which the study was conducted contains two universities, and that this might explain the higher levels of education. Duncan also adds that research examining the effect of education on religiosity has shown mixed outcomes. Cecil (1985), however, indicates that more educated individuals may be more liberal in their religious beliefs. Duncan's study could have been strengthened with a discussion of the possible influence of education on willingness to seek help for psychological problems and by controlling for education when examining the effect of religious conservatism on willingness to seek help. He also could have measured other aspects of socioeconomic status to control for its effect on willingness to seek help. Duncan's sample was limited to a metropolitan community and did not explore the attributes of individuals in rural communities.

Duncan also found that the group of moderately conservative subjects had lower scores on the Attitude Toward Seeking Professional Behavioral Help Scale and all four of its subscores when compared to both the high conservatism and low conservatism groups. He theorizes that perhaps the higher conservative group is more willing to seek help than

the moderate group because they seek help from clergy or other religious helpers, whereas the moderate group may be reluctant to seek help from either secular or religious sources. This theory is supported by the findings of an earlier study by Selby, Calhoun, and Parrott (1978). They found that the more religious an individual was, the more likely they were to seek help from a clergyperson. An earlier study conducted by Greenley and Mechanic (1976) found that people with low levels of religiosity were more likely to seek help from mental health professionals, and Kadushin (1969) found that people with higher levels of religiosity more often chose help from religious counselors. It seems therefore, that when the relationship between religion and help seeking is explored, the source of potential help must be clarified.

Research on the Religious and Spiritual Needs of the Mentally Ill

As mentioned earlier, social support is an important component in the treatment of mental illness. The stigma of being labeled mentally ill, in combination with the nature of the person's behavioral manifestations of the illness, can shape the type of social interactions the person experiences. Otto Wahl and his colleagues (Wahl, 1999) conducted a nationwide study of people with a mental illness to explore their experiences with stigma and negative social interactions. The sample consisted of 1,388 people from all areas of the United States. Of the subjects who also agreed to be contacted for an interview, 100 were randomly selected and interviewed. A consistent theme in Wahl's findings was that much of the stigma reported by respondents was related to interactions with their faith communities. Respondents reported being told by their pastors that

mental illness did not exist and that they needed to be stronger. Others reported being ignored and avoided by their faith communities after revealing they were being treated for a mental illness. A pastor with mental illness reported being asked to leave by the elders of the church. Wahl reported that others said they were told that their illness was the work of the Devil, not from God, and therefore they must have done something to bring the illness on themselves. They were told to respond to the illness by having more faith and praying more. The superintendent of a Sunday school reported how the church trustees called his leadership abilities into question after he revealed he was being treated for a mental illness. Wahl does not discuss the nature of each subject's illness, their functional limitations, or the reciprocity of their negative interactions.

A study by Fitchett, Burton, and Sivan (1997) sought to describe the religious needs and resources of psychiatric patients (n = 50) and compare them with those of general medical patients (n = 51) in the same Midwest hospital. They interviewed the groups using a religiosity scale (Idler, 1987) and Ellison's (1983) Spiritual Well-Being scale (SWB) and found that the groups reported similar resources and needs. Eighty percent of the psychiatric patients and 86% of the general medical patients described themselves as spiritual or religious. Eighty percent of the psychiatric patients and 88% of the medical patients said they would like to have someone pray with them during their hospitalization, and 90% of the psychiatric patients and 94% of the medical patients said that they needed the care and support of another religious individual during their hospitalization. These two needs were the two most prevalent in both the psychiatric and general medical patients.

The spiritual well-being (SWB) scale administered by the researchers was designed to measure overall spiritual well-being and was composed of two subscores, religious well-being (RWB) and existential well-being (EWB). RWB was conceptualized as "one's relationship to God," while the EWB was conceptualized as "life purpose and satisfaction." Psychiatric patients had significantly lower scores on total SWB as well as both the RWB and EWB scores when compared to the general medical patients. The researchers note that this replicates similar findings in numerous other studies. They point to these findings as evidence for the need of spiritual care for psychiatric patients. The authors do not discuss the reliability and validity of the scores produced by their administration of the SWB. The SWB and its two subscales have been shown to have high internal consistency and reliability and are correlated with numerous measures of spiritual development (Boivin, Kirby, Underwood, & Silva, 1999). The scale has been used in studying a wide variety of populations, however this reviewer was unable to find normative data derived from mentally ill populations.

One interesting finding in the study was that even though an equal proportion (42%) of both psychiatric and general medical patients said they had a clergyperson, only 24% of the psychiatric patients with a clergyperson had discussed their hospitalization with their clergyperson compared to 81% of the general medical patients. They do not speculate reasons for the discrepancy, but do add that there were no hospital policies that prohibited the psychiatric patients from having contact with their clergyperson. This study could benefit from a follow-up interview with the subjects to explore their perceptions as to why they chose not to contact their clergyperson or why their

clergyperson elected not to contact them. Bentz reported a similar finding in 1968 (cited in Favazza, 1982) in a study that surveyed 100 Protestant ministers. According to Favazza, Bentz found that 70% of the ministers reported "seldom or never" visiting one of their church members in a psychiatric hospital.

Another study that examined the type of support people with mental illnesses receive was conducted by Walsh and Connelly (1996). They instructed 30 clients of community-based mental health centers to track the supportive behaviors of their social network over a four week period. The researchers then analyzed each incident that the clients recorded, yielding a total of 639 supportive incidences. The incidents were then classified as to the type of support received and the source of the support. "Church" was one source that was identified and included "clergy and their families, church members, and church workers" (p. 300). The support received from churches accounted for only 3% of the total incidents reported by clients. The supportive behaviors attributed to church included being prayed for, being hugged, and the provision of clothes and meals.

Lindenthal and colleagues (as cited in Koenig, Larson, and Weaver, 1998; Neelman and Lewis, 1994) found that religious individuals diagnosed with a mental illness often began attending church less but praying more when faced with a life crisis. They note that this is an interesting phenomenon that warrants further study. In suggesting directions for future research, they add, "more studies are needed to examine the impact of religious beliefs and practices on compliance with treatment" and "service utilization" (p. 91-92).

Lindgren and Coursey (1995) studied psychiatric patients that indicated they were interested in a psychoeducational group that would focus on spiritual issues. They randomly assigned the participants into experimental and control groups, and administered a series of assessment instruments before and after the group intervention. They found that participation in the group significantly increased scores on the Spiritual Support Scale. They note that higher scores on this scale have been related to greater coping skills. Lindgren and Coursey also found that 43% of the subjects said they did not currently attend religious services, and 77% of those indicated that they wanted to attend services but did not have the necessary transportation or they were embarrassed of their mental illness. The subjects in the study also expressed a need to discuss spiritual issues in sessions with their therapist, but added they were fearful that their therapist would not understand them or ridicule them for their beliefs.

Neeleman and Lewis (1994) conducted a study to explore possible differences between the religious beliefs of depressed patients (n=26), suicidal patients (n=26), psychotic patients (n=21), and a general population control group (n=26). They found that each of the three groups of psychiatric patients were more religious than the control group. The psychiatric patients also valued their religion more than the control group. They controlled for the influence of ethnicity and age using multiple regression analysis and found that group membership accounted for 9% of the variance in religious belief scores. The group of psychotic patients reported the highest level of religious beliefs among all four groups. Neeleman and Lewis note that religious delusions are often present in psychotic illnesses, but they also add that the psychotic group in this study

espoused beliefs that were more comforting in nature as opposed to those that were more persecutory or grandiose.

The researchers point out that their finding that the depressed group was more religious than the general population group does not necessarily indicate that religious beliefs result in higher rates of depression. An abundance of studies that have established that religious individuals are actually less likely to become depressed than the general population (Larson, Swyers, & McCullough, 1997; Pargament, 1997). Neeleman and Lewis balance this seeming contradiction by noting that it is unclear which comes first, the focus on religious belief or the depression. They also add that the types of beliefs that the patients in the depressed group rated as most important were those that they classified as "comfort beliefs" (i.e., beliefs that serve as coping strategies), and therefore they were more focused on their religion as a means of coping with their current illness.

Sullivan's (1998) qualitative study involved interviews with 46 former psychiatric patients who had not been hospitalized in the last 2 years, were living in a semi-independent setting, and participated in some type of vocational activity. The purpose of the study was to determine what factors had contributed to the subjects' successful "rehabilitation." Forty-three percent of the respondents indicated that religion or spirituality was an important component in their successful recovery. The benefits of religion and spirituality that were cited by subjects included prayer, assistance with sobriety, social support networks, tangible assistance, and the availability of a higher power. This evidence of the supportive nature of religion and spirituality is balanced with Sullivan's report that "many encounter the same stigma and rejection in a religious

organization as they might in any other social institution – and this was noted by some" (p. 29). He also points out that while religion and spirituality can be beneficial, "it is equally clear from these informants that religious preoccupation can be harmful and, at times, lead to delusional thoughts and irrational behavior" (p. 31).

An alternative to seeking help from either a clergyperson or a mental health professional is to seek assistance from both. McMinn and his colleagues (1998) surveyed three groups of subjects to assess their perception of collaborative efforts between clergy and psychologists. The three groups studied were clergy, clinical psychologists, and clinical psychologists with an expressed interest in religious and spiritual issues. Clergy did not perceive collaboration occurring as often as did psychologists. The researchers add that this is because clergy often refer parishioners to mental health professionals for treatment and then cease to play an active role in their treatment, and therefore clergy may be less likely to view this referral as true collaboration (McMinn et al., 1998; and Kloss et al., 1995). The researchers also found that clergy made more referrals to psychologists than vice versa, and that when psychologists make referrals, they are more likely to remain actively involved in collaborative efforts with clergy. All three groups studied identified a general lack of trust as a barrier to collaboration between clergy and psychologists, primarily due to the difference in theoretical backgrounds. Clergy in the study particularly expressed the concern that psychologists lacked appropriate spiritual sensitivity.

Research on Religious Etiologies and Attitudes Regarding Mental Illness

Most of the literature regarding how faith communities respond to mental illness simply speculates how a particular community is likely to respond based on their theological doctrines and informal observations. Some of the literature formulates these theories based on a review of works by religious authors. Few studies have actually conducted empirical research in an attempt to measure these responses. An overview of the empirical research will be presented followed by a proposed typology of the responses presented in the literature.

Empirical Study

Cecil (1985) conducted a study that examined how religious and spiritual beliefs influence etiological interpretations. He mailed surveys to the members of a fundamentalist church (Assembly of God) and a "non-fundamentalist" church (United Church of Christ) in a suburb of San Diego, California to assess whether or not more fundamentalist religious beliefs were related to demonic and spiritual etiologies of mental illness. The survey packet included the Religious Fundamentalism Scale and an Etiology Attitude Assessment scale that consisted of case vignettes with multiple-choice etiological explanations. The choices included a demonic, a spiritual, and three "scientific" (medical-model) explanations. Cecil found that members of the fundamentalist church (n = 57) were more likely to attribute mental illness to demonic or spiritual causes than were members of the non-fundamentalist church (n = 85). He also

found a positive correlation between higher scores on the Fundamentalism scale and the number of spiritual explanations chosen by respondents in the fundamentalist group.

Cecil also discovered that members of the non-fundamentalist church tended to have more formal education than did the members of the fundamentalist church, and that there was an inverse relationship between subjects' level of education and the number of demonic and spiritual explanations they chose. In other words, subjects with more education were less likely to select demonic or spiritual explanations for mental illness. Controlling for the effect of education on etiological beliefs could have strengthened the internal validity of this study.

A larger sample of subjects from more than two denominations would have likely offered a more valid assessment of the beliefs regarding mental illness. Cecil does not explain why he chose the United Church of Christ (UCC) as the "non-fundamentalist" group. Even though the UCC group scored significantly lower on the fundamentalism scale than did the Assembly of God (AG) group, the median score for the UCC group was above the midpoint on the fundamentalism scale. Assuming that the scores on the fundamentalism scale are normally distributed (i.e., the midpoint of the scale is equivalent to the mean score of the general population), both the UCC group and the AG group fall in the upper half of the fundamentalism scale. Perhaps a more liberal church would have provided greater difference in the scores on the etiological scales.

The low response rate of the fundamentalist group (23%), the non-fundamentalist group (33%), and the overall-all response rate (28%), raises the question of nonresponse bias. Perhaps unwillingness to respond to the survey was affected by level of religious

fundamentalism or skepticism regarding research and medical etiologies of mental illness. Religious fundamentalists often distrust secular researchers and will refuse to participate or will give response that are aimed at refuting secular views of fundamentalism (Allport & Ross, 1967; Ammerman, 1987).

Theories in the Literature

The responses of faith communities to mental illness can be characterized by a continuum of responses with religious authority at one end and medical authority at the other (see Figure 1). For categorization purposes, I will present a taxonomy of responses which includes religious-only responses, medical-only responses, and mixed responses. It is important to note that there is great variability within these categories of responses by faith communities. Moreover, given the distinction between institutional religion and individual religion, affiliation with a particular faith community may not necessarily predict an individual's response. Individual religiosity has been shown to be a stronger predictor of behavior than affiliation with a particular religious denomination (Larson, Swyers, & McCullough, 1997).

In analyzing religious responses to mental illness, McGuire's (1997) identification of the key issues of social control is useful. She lists them as (1) defining deviance; (2) determining responsibility; and (3) administering punishment (p. 297). These three areas can be adapted to coincide with the concepts of assessment, etiology, and treatment. Each category of responses will be analyzed using this model.

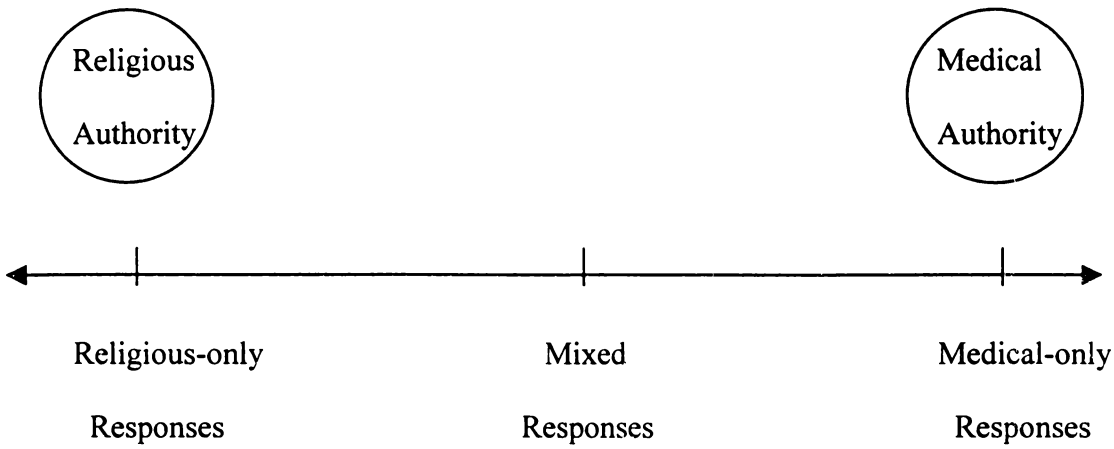

Figure 1: ***Continuum of responses to mental illness by faith communities***

Religious-only responses

In this category of responses, faith communities maintain the authority to define, explain, and address mental illness. Mental illness is most likely to be defined as an absence of spiritual health imputed to the violation of moral norms or the intrusion of evil spirits (Malony, 1998; Kinsley, 1996). Responsibility for the illness is placed directly on the individual or the intruding spirit. Therefore treatment is often comprised of individual responses, such as confession of sin, repentance, and prayer, or community responses such as confrontation, ostracism, or healing rituals (e.g. the laying-on-of-hands, anointing with oil, or exorcism).

While some faith communities also impute physical illness to the individual violation of moral norms or the intrusion of evil spirits, there seems to be more willingness to allow medical professionals to treat the physically ill. In the case of mental illness, however, treatment outside the faith community is discouraged. Ferngren

(1986) echoes this observation in describing the responses of evangelical and fundamentalist Protestants to mental illness:

> While evangelicals and fundamentalists have generally looked with favor on the medical profession and have not insisted on securing medical care from members of their own religious community, treatment of mental and emotional illness has proven to be an exception to this rule. (p. 499)

Individuals are most likely to be discouraged from seeking secular mental health treatment, because it is viewed as a rival institution in defining personal identity, meaning, and purpose. Medical etiologies are discredited by maintaining that sinful behavior or spirit intrusions are antecedents to any alleged biochemical indicators.

These types of responses have been inferred as occurring among Anabaptists (Farber, 1999), Buddhists (Scotton, 1998), Catholic Pentecostals (McGuire, 1982), Christian Scientists (Schoepflin, 1986; Torrey, 1997); Evangelical and Fundamentalist Protestants (Adams, 1970; Dain, 1992; Malony, 1998), Hindus (Juthani, 1998; Kinsley, 1996), Mormons (Barlow & Bergin, 1998), and Orthodox Jews (Zedek, 1998). Some faith communities have specified shrines as centers of healing for the mentally ill, including the Hindu Balagi temple in Northern India and Christian shrine to Dympna, "the patron saint of the mentally ill," in Belgium (Kinsley, 1996, p. 67 & 108).

Mixed responses

Some faith communities acknowledge the authority of psychiatry within the medical model but assert that spiritual interventions must be included. These faith

communities legitimize psychiatry's ability to treat the physical, and to varying degrees the psychological, but retain the authority to address the spiritual aspects of mental illness. Communities in this category, as compared to the religious-only responses, assign less responsibility to the individual's behavior and more to the biochemical factors theorized in the medical model. Some communities utilize spiritual interventions in conjunction with psychiatry because they see it as an exclusive function of religion, and others do so because of psychiatry's reluctance to adopt holistic treatments that include spiritual interventions.

This mixture of treatments often involves an individual utilizing secular mental health services while receiving supplemental or complementary treatments from their faith community. These spiritual interventions can take the form of prayer, confession, and forgiveness for the individual, and the community can respond with certain healing rituals. These types of definitions and responses have been inferred as occurring among Adventists (Numbers & Larson, 1986), Baptists (Weber, 1986), Unitarians (Mosley, 1998), Mormons (Bush, 1986) Muslims (Husain, 1998), and the Order of Saint Luke in the Anglican tradition (Kinsley, 1996).

Some authors writing from a faith perspective have called on faith communities to provide emotional support to people with mental illness and their families, fight societal stigma, educate themselves on the organic etiologies, and accept that mental illness cannot always be "cured" (Carlson, 1994; Govig, 1999; Govig, 1994; Lowrance, 1999; Meier, Minirth, Wichern, & Ratcliff, 1991; Nelson, 1994; Thomas, 1996).

Some Protestant writers propose consideration of demon possession and demonic influence in the definition of mental illness in addition to medical model interventions. Psychologist Rodger Bufford (1988) proposes a typology that distinguishes between "mental disorders", such as schizophrenia, and demon possession. He also asserts that mental illness is not always the direct result of sin, but is indirectly the result of living in a "fallen" world (due to the original sin of Adam). Bufford includes neurobiological explanations in his etiological models and endorses traditional medical interventions for mental illness. Baptist pastor Gayford Lowrence (1999) also differentiates between demon possession and "brain disorders," and challenges his readers to fight stigma and push for parity between insurance coverage for physical illness and mental illness. Both Bufford and Lowrence assert that demon possession is very rare in contemporary society and that people of faith must learn more about the nature of mental illness.

The Catholic Church has also made similar distinctions between mental illness and demon possession. In 1998, the Vatican released an updated version of the Catholic Church's rite of exorcism entitled *Of Exorcisms and Certain Supplications*. The new text, the first update since 1614, warns that Catholic exorcists must not attempt to perform an exorcism on people who are clearly suffering from a mental illness (Allen, 2000). The Church also requires that a medical or psychiatric condition be ruled-out by a physician before an exorcism is considered (Fountain, 2000). Sociologist Michael Cuneo (2001) notes that the practice of exorcisms in both Protestant and Catholic communities has seen resurgence in recent years and there exists a wide variety of rituals and practitioners.

Predominant scientific wisdom debunks possession theories and the practice of exorcism (Sagan, 1996), however some empirical works have proposed typologies that delineate demon possession from mental illness (Goodman, 1988; Wilson, 1998). Some consider those who exhibit symptoms of "demon possession" as actually suffering from a dissociative disorder (Ross, 1995), and others have proposed treatment guidelines to determine when exorcism may be indicated or contraindicated as a component of treatment (Bull, Ellason, & Ross, 1998). These studies may perpetuate religious etiologies that include demon possession theories.

Some mental health professionals label themselves in a way that associates them with particular faith traditions (e.g. Christian psychiatrists, Christian counselors, etc.) The majority of these professionals have been trained to treat individuals with a mental illness using the traditional medical model; however, they add an overarching spiritual context that recognizes the role of the divine in healing and encourages the use of spiritual interventions such as prayer, scripture reading, and participation in faith communities (Blazer, 1998; Gaines, 1998; Meier, Minirth, Wichern, & Ratcliff, 1991; Passantino & Pasantino, 1995; Shorto, 1999). Many faith communities have incorporated twelve-step recovery programs into their ministry offerings, and religious authors have written numerous self-help books that address mental and emotional struggles. Many religious communities have opened psychiatric hospitals and retreats as a method for administering these spiritualized medical interventions (Blazer, 1998; Shorto, 1999).

Psychiatrist Dan Blazer (1998) notes that the Christian psychiatry movement begin in the early 1970s at Duke University and was further strengthened by a program

developed at the University of Georgia in the late 1970s. These two programs have not maintained their designation as "Christian" psychiatric training, but other programs have developed elsewhere. Numerous psychiatrists identify themselves as Christians (Gaines, 1998), but there has been no development of a formal organization of Christian psychiatrists (Blazer, 1998).

Christian counselors have developed a professional organization known as the American Association of Christian Counselors (AACC). Russell Shorto (1999) notes that during the 1990s Christian counseling "went from an obscure practice to an outright industry" (p. 179). Professional members of AACC include psychiatrists, psychologists, counselors, and social workers, but membership is open to religious leaders and lay counselors as well (AACC, 2001b). AACC boasts a membership of over 45 thousand with a reported increase of a thousand members each month (AACC, 2001a). Blazer (1998) has asserted that most Christian counselors have ignored serious mental illness, in part because doing otherwise would limit their popularity in evangelical circles.

Medical-only responses

The final group of responses is characterized by little or no involvement of the faith community in treating the person with mental illness. This third category probably contains the fewest number of faith communities, because the majority of faith communities value spiritual treatments of mental illness to some degree. This category of responses can be subdivided into two groups. The first group of responses includes those faith communities who are concerned with the suffering of a person with a mental illness

but do not maintain that religion has any specific authority to treat mental illness. Responses would primarily take the form of encouragement to seek help from secular mental health professionals much in the same way that medical help for physical illnesses would be encouraged. These types of definitions and responses have been noted as occurring among "Traditionalists Protestants" (Malony, 1998), and Presbyterians (Smylie, 1986).

Other faith communities seemingly have not developed their own conventional definitions of mental health and illness. It could be inferred that some faith communities may not actively encourage secular mental health intervention, and may in fact mistrust it, but have not formulated any specialized response to persons suffering from serious mental illness. Perhaps they may feel competent in addressing common emotional problems but unprepared to address schizophrenia, bipolar disorder, or major clinical depression. Historian Norman Dain (1992) notes that these communities are by default likely to "consign" the mentally ill parishioner to the "secular domain" because they have made "no provision for the disturbed parishioner" (p. 80).

Summary and Gaps in the Current Knowledge Base

Previous research has shown that religion and spirituality are important to a significant number of people who have been diagnosed as mentally ill. The findings indicate that the more religious an individual is, the less likely they are to seek help from traditional mental health providers, and the more likely they are to seek help from religious or spiritual sources. Religious fundamentalists are also more likely to endorse

spiritual rather than medical explanations for mental disorders. The research also indicates that many people with mental illness wish for their own religion and spirituality to be incorporated into their treatment, but that most therapists are reluctant to address religious and spiritual issues in treatment. Likewise, many clergy and members of faith communities seem unsure of how to address the needs of mentally ill parishioners, and psychologists and clergy report that differing theoretical perspectives serve as a barrier to collaboration.

Most of the research reviewed in this paper has been conducted with small samples drawn from regional metropolitan areas. Research that draws samples from more rural areas is needed to examine whether the basic service utilization and social support patterns differ from those in previous studies. People living in rural areas are more likely to turn to faith communities for help instead of social service agencies (Furman & Chandy, 1998). Rural communities often have limited access to the wide range of social services and mental health specialists available in more urban areas, and rural residents tend to place greater stigma on mental illnesses (Badger & Ackerson, 1997). Research utilizing samples drawn from rural communities is needed to further understand how religion affects the utilization of mental health services. With this in mind, the current study will utilize a nationally representative sample, respondents to the 1996 and 1998 General Social Surveys (GSS), to examine Bible Believers' perceptions of the causes and best cures for mental disorders. Whether or not a respondent lives in a rural or urban area will also be included as a variable to control for any confounding influences.

Future designs also need to control for the socioeconomic status and educational level of the subjects. The research reviewed here has shown that there is a positive relationship between an individual's level of education and their willingness to seek help from mental health professionals. Research that seeks to explore the effects of religion and spirituality on help-seeking or etiological beliefs will need to assess and control for the effect of education as a confounding variable. In the current study, education and socioeconomic status will be controlled for statistically to account for any confounding influences.

Previous studies have almost exclusively examined respondents who report being religious or actually belong to a particular faith community. The lack of non-religious comparison respondents is a major limitation of the existing studies. The current study will utilize a national sample that includes both religious and non-religious individuals from various denominational backgrounds. More specifically, people who express a belief in Biblical inerrancy and literalism will be compared to those who do not. A more complete description of the characteristics of Bible Believers is presented in the following chapter.

With the findings of previous studies as a backdrop, seven hypotheses are now presented that will be tested by analyzing data from the 1996 *MacArthur Mental Health Module* and the 1998 *Pressing Issues in Health and Medical Care Module* of the GSS. The inclusion of sociodemographic control variables, previously absent from the studies reviewed here, is described in the following chapter. The primary predictor variable will be endorsement of a belief that the Bible is both inerrant and should be interpreted

literally, word for word. The criterion variables examine respondents' perceived causes and preferred treatments for mental disorders. Diagnosis type, a previously ignored factor, will also be entered as a control variable.

Hypotheses

With these research needs identified, I now present seven hypotheses that will be evaluated by analyzing data produced from the administrations of the 1996 and 1998 General Social Surveys (GSS). The hypotheses will be presented here, and the specific methodologies for addressing each hypothesis will be presented in Chapter 3.

Hypothesis 1: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be more likely to attribute the cause of mental and substance abuse disorders to "bad character" than other GSS respondents.

Hypothesis 2: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to attribute the cause of mental and substance abuse disorders to "chemical imbalance" than other GSS respondents.

Hypothesis 3: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be more likely to say that an individual with a mental or substance abuse disorder should "talk to a minister, priest, rabbi, or other religious leader" than other GSS respondents.

Hypothesis 4: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to say that an individual with a mental or substance abuse disorder should "go to a psychiatrist for help" than other GSS respondents.

Hypothesis 5: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to say that an individual with a mental or substance abuse disorder should "take prescription medication" than other GSS respondents.

Hypothesis 6: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to say that an individual with a mental or substance abuse disorder should "go to a therapist, or counselor, like a psychologist, social worker, or other mental health professional for help" than other GSS respondents.

Hypothesis 7: Respondents to the 1998 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be more likely to endorse stopping the use of medications when symptoms subside than other GSS respondents.

CHAPTER III: METHODOLOGY

Design

This study involves a secondary data analysis of responses to the 1996 & 1998 General Social Surveys. The 1996 Survey asked a portion of respondents to share their beliefs regarding the causes and desired treatments of mental illness. The 1998 Survey asked respondents to share their attitudes toward and willingness to use psychiatric medications. Both surveys asked respondents about their beliefs in the Bible. The current study hypothesizes that the respondents with stronger beliefs in the Bible will be less likely to endorse medical model etiologies and treatments and will display less favorable opinions of psychiatric medication. As previous research has shown that education has a significant impact on view of mental illness, education will be controlled for statistically when examining the effects of religion. In addition, race, gender, age, socioeconomic status, whether or not the individual is from a rural area, and whether or not they know someone who has been treated for a mental illness will also be controlled for statistically. The effect of the type of disorder (depression, schizophrenia, alcohol dependence, drug dependence) on beliefs about likely causes and preferred treatments will also be explored.

Subjects: Respondents to the General Social Surveys of 1996 and 1998

The proposed research will utilize a secondary analysis of data produced by the 1996 and 1998 administration of the General Social Survey (GSS) (National Opinion Research Center, 2000). The GSS is administered to a national sample (Davis, et al., 2001). The two subsamples that will be utilized include the group of subjects who were

administered the *MacArthur Mental Health Module of the 1996 GSS* and the group of subjects who were administered the *Pressing Issues in Health & Medical Care Module of the 1998 GSS.* A dataset was needed that included the variables of interest and was representative of the population of interest. For the purposes of this study, the population of interest was the American public. A sample that included both subjects who were currently being treatment for a mental illness and those who could potentially be treated for a mental illness was needed. A sample that focused solely on those currently receiving mental health treatment could have been biased in that those subjects who held etiological beliefs different from the medical model could have chosen not to seek treatment in a medical model setting. Subjects are selected for the General Social Survey through stratified random sampling. The sampling frames consist of geographic areas that are stratified on race and income. This ensures that diversity in ethnicity and in income is proportionately represented in the final sample.

General Social Survey Sampling Methods

The respondents for both the 1996 and 1998 General Social Surveys were selected through a multistage cluster sampling design that utilized stratification and probability proportional to size procedures (Davis et al., 2001). The desired population consisted of all English-speaking adults (18 and older) in the United States who were not living in an institutionalized setting. The first stage consisted of dividing the United States into 2,489 geographical areas using U. S. Census information to guide the division. Most often these areas consisted of an individual county. The geographic areas were then stratified

by the four U. S. Census regions and whether or not they were considered metropolitan or nonmetropolitan areas.

The nonmetropolitan areas were additionally stratified by state, and within each state they were further stratified by the percentage of the population that consisted of minorities and by the per capita income. Minorities were defined as "everyone but non-Hispanic whites" (Davis et al., 2001, p. 1294). The metropolitan areas were also stratified by minority composition and per capita income. A sample of 100 geographic areas were selected from the initial 2,489 using a probability proportional to size method that adjusted the sampling interval based on the number of estimated households in each geographic area. This methodology allowed for proportionate representation of the diversity of each of the stratification variables (Davis et al., 2001).

The resulting 100 geographic areas were then subdivided into smaller geographic segments that usually consisted of one or more adjacent city blocks (Davis et al., 2001). These segments were then stratified primarily by whether or not they were considered part of the inner city or suburbs, and by the percentage of the original sampling unit population that consisted of minorities. A probability proportionate to size selection method was used to ensure a proportional representation of the stratification variables. From the resulting 384 segments, households were selected by again using a probability proportionate to size selection to ensure that each household had an equal probability of being selected (Rubin & Babbie, 1997; Scheaffer, Mendenhall, & Ott, 1996). The resulting number of households was 4,559 for the 1996 GSS and 4,567 for the 1998 GSS (Davis et al., 2001).

Of the 4,559 households selected in 1996, only 3,814 were valid households, meaning that they were not vacant and contained English-speaking residents. After the 3,814 valid households were identified, 2,904 respondents completed the survey, yielding a 1996 GSS overall response rate of 76.1%. Of the 910 valid households that did not respond in 1996, 757 refused to do so, 60 never had anyone at home during the entire data collection period, and 93 were unable to respond for "other" reasons (Davis et al., 2001, p. 1300). Of the 4,567 households selected in 1998, only 3,745 were valid households. After the 3,745 valid households were identified, 2,832 respondents completed the survey, yielding a 1998 GSS overall response rate of 75.6%. Of the 913 valid households that did not respond in 1998, 755 refused to do so, 66 never had anyone at home during the entire data collection period, and 92 were unable to respond for "other" reasons (Davis et al., 2001, p. 1300).

Beginning in 1994, the GSS sample was divided into two groups. This division allowed for the inclusion of "mini-modules" developed by various researchers to address particular topical areas. Each year's division has resulted in two random sub-samples of approximately 1,500 respondents each (Davis et al., 2001). Approximately half of each of the 1996 and 1998 respondents received questionnaires that contained the dependent variables that will be examined in the proposed research. Of the 2,904 respondents to the entire 1996 GSS, 1,444 (49.7%) responded to questionnaires that included the *MacArthur Mental Health Module* (96 MMHM), and of the 2,832 respondents to the entire 1998 GSS, 1,387 (49.0%) responded to questionnaires that included the *Pressing Issues in Health & Medical Care Module* (98 PIHMCM).

Operational Definitions of Variables

Predictor Variable: Beliefs about the Inerrancy of the Bible

Respondents to both the 1996 and 1998 GSS were asked about their beliefs about the authorship and practical application of the Bible (GSS mnemonic: BIBLE) (Davis et al., 2001, p. 154). The question read, "Which of these statements comes closest to describing your feelings about the Bible?" The multiple-choice alternatives included: (A) "The Bible is the actual word of God and is to be taken literally, word for word"; (B) "The Bible is the inspired word of God but not everything in it should be taken literally, word for word; and (C) "The Bible is an ancient book of fables, legends, history, and moral precepts recorded by men." Respondents were offered only those three choices, but some volunteered "other" responses while others said they "don't know" or did not answer. GSS Subjects who selected response A will be called Bible Believers for the remainder of this study. As discussed earlier, this phrase was coined by Ammerman in 1987 in describing Christian Fundamentalists. However, as subsequent descriptive statistics will show, not all Bible Believers identify themselves as Christian Fundamentalists.

From the time this question was introduced in 1983 through the 2000 GSS, 33% have responded that they believe the Bible is the actual word of God and should be taken literally, 48% believe that is the inspired word of God but should not be taken literally in its entirety, and 15% believe that it is a book of fables, legends, and history that was authored by men. Two percent of the respondents answered with "don't know," and one

percent did not give a response. Another one percent gave a response that was classified as "other."

For the purposes of this study, respondents to this question will be dichotomized into two groups; Bible Believers (those selecting response A) and other GSS respondents (those selecting responses B, C, "other", and giving "no answer"). The Bible Believer variable will be treated as binary because previous research has indicated that there is little distinction between the views of response B subjects and response C subjects on many social issues, and preliminary descriptive statistics indicate a similar pattern for respondents to the criterion variables of interest.

Of the 1,444 respondents to the 1996 *MacArthur Mental Health Module*, approximately two-thirds (n=969) were asked the BIBLE question. On these 969 respondents, 184 received a vignette that described a person who was experiencing normal problems of living and not a diagnosable mental or addictive disorder. To increase the validity of the criterion variables, these respondents were omitted from the analysis, as only responses to "diagnosable" vignettes were desired. This removal resulted in a final total of 785 respondents who were asked both the BIBLE question and the questions in the *MacArthur Mental Health Module*. The were 924 respondents who answered both the 1998 *Pressing Issues in Health and Medical Care Module* of the 1998 GSS. Of the total sample of 1,709 respondents utilized in this study 529 respondents were coded as Bible Believers (31%) and 1180 were coded as "Other GSS Respondents" (69%).

The majority of Bible Believers (94%) identified their religion as being some form of Christianity, with 78% of Bible Believers being Protestants, 14% being Catholics, and 1% indicated only that they were "Christian." Jews, Hindus, and Muslims each represented less than 1% of the Bible Believer group. As mentioned earlier, Ammerman used the term Bible Believers to describe Christian Fundamentalists only, but only 58% of Bible Believing respondents in this study identified themselves as both a member of a Christian religion and as being a "fundamentalist."

Table 1 presents the results of a binary logistic regression model designed to examine if particular sociodemographic characteristics are associated with an increased probability of being in the Bible Believer group. The overall model was significant at the .001 level (Nagelkerke pseudo-R^2 = .146). Having less than a high school education was associated with greater odds of being in the Bible Believing group as compared to high school graduates (Exp (B) = .604, sig. = <.001) and college graduates (Exp (B) = .455, sig. = <.001). Minorities were more likely than whites to identify themselves as Bible Believers (Exp (B) = 2.32, sig. = <.001), as were females (Exp (B) = 1.57, sig. = <.001). Respondents living in rural areas were also more likely to be a Bible Believer (Exp (B) = 1.75, sig. = .002), as were older respondents (Exp (B) = 1.01, sig. = .022). Finally, respondents from higher socioeconomic groups were less likely to be members of the Bible Believers group (Exp (B) = 0.98, sig. = <.001).

Table 1: ***Parameter Estimates for Sociodemographic Characteristics from Binary Logistic Regression Model Predicting Inclusion in the Bible Believing Group.***

Predictor	B	Exp (B)	Wald	2 - tail Sig.
Education				
College Degree	-.787	.455	15.347	.001[a]
High School Degree	-.504	.604	10.579	.001[a]
Race: Minority	.840	2.32	39.893	.001[a]
Gender: Female	.452	1.57	15.688	.001[a]
Live in a Rural Area	.560	1.75	9.979	.002[a]
Age	.008	1.01	5.233	.022[a]
Socioeconomic Index	-.019	0.98	26.588	.001[a]

a. The effect of this sociodemographic variable is significant at the $p < .05$ level.

Criterion Variables: Beliefs about the Causes and Best Cures for Mental Illness

The MacArthur Mental Health Module of the 1996 GSS

Approximately half of the respondents to the 1996 GSS answered questions contained in the MacArthur Mental Health Module (MMHM). This module was developed by sociologist Bernice Pescosolido, Program Director of the Indiana Consortium for Mental Health Services Research, and her colleagues with funding from the MacArthur Foundation, the NIMH, and the National Science Foundation. Respondents to the MMHM were randomly given one of five vignettes, four of which described an individual exhibiting symptomatic criteria for one of four DSM-IV diagnoses. The fifth described an individual with only minor life problems ("troubled

person") that were not considered clinically significant. Respondents who received the fifth vignette will not be included in the study sample to ensure that the subjects are those who responded to only "diagnosable" vignettes. The four DSM-IV disorders described were major depressive disorder, schizophrenia, alcohol dependence, and drug dependence. The MMHM developers explain, "These disorders were chosen on the basis of severity, prevalence, and the potential consequences of misidentification (e.g., failure to receive a readily available and effective treatment)" (Pescosolido et al., 2000, p. 36).

The MMHM utilized a variable vignette technique know as the Rossi Vignette (Rossi & Nock, 1982). The central content of each disorder vignettes stayed the same, but three of the sociodemographic traits of the vignette characters, gender, race/ethnicity, and education, were proportionately altered. This was done to test for the effect of the character's traits on respondents' opinions of the situation presented in the vignette. The examination of the possible effect of these variations on the criterion variables is not part of the research questions of the proposed study. These variations in sociodemographic characteristics will be controlled for statistically in the regression models. The vignettes, complete with alternate traits, are listed in Appendix A.

After reading one of the four vignettes, respondents were asked a series of questions that assessed their perceptions of the seriousness of the vignette situation, likely causes of the situation, and the preferred courses of action in responding to the situation.

Perceived Cause of the Vignette Subject's Condition

The questions that assessed the respondents perceived causes of the condition described in the vignette were word as follows: "In your opinion, how likely is it that [name's] situation might be caused by [cause] – very likely, somewhat likely, not very likely, or not at all likely?" (Davis et al., 2001, p. 649). Respondents who did not provide an answer or responded with "don't know" will be coded as a midpoint group on the ordinal scale. Two of the presented causes that will be utilized in this study are "his/her bad character," and "a chemical imbalance in the brain" (Pescosolido et al., 2000, p. 40).

The proposed study hypothesizes that Bible believers will be more likely than other GSS respondents to support the "bad character" explanation, as it is congruent with the worldview of Bible believers that asserts that people are to be responsible for their behavior and that a sound mind can be ensured through an obedient relationship to God (Ammerman, 1987). The "chemical imbalance" explanation is the dominant medical model etiological theory, which Bible believers may tend to reject. Respondents were also asked whether or not the vignette character's condition could be "God's will," however this response will not be analyzed as many Bible Believers are likely to say that all things that occur are within God's will. They may view a mental disorder as a trial or a test sent by God to produce growth, as a punishment from God, as the natural consequences of sinful behavior, or as a random condition that God "allows" to happen (Ammerman, 1987). For these reasons, this variable is not within the scope of this study and will not be included in the analysis.

Endorsed Treatment Types

In addition to asking what the respondent thought was the cause of the vignette character's condition, the MMHM asked whether or not the vignette subject should take several actions. One such action was "talk to a minister, priest, rabbi or other religious leader" (Pescosolido, et al., 2000, p. 44). The respondents could respond with "yes" or "no" answers, although some were coded as "don't know" and "no answer," which for the purposes of this study will be coded as "no" (i.e., not "yes"). This is because the distinction of interest is between those who indicated "yes" the vignette character should pursue the particular course of action and those who did not indicate "yes." This proposed study hypothesizes that Bible believers will be more likely to endorse the "talk to a minister, priest, rabbi or other religious leader" course of action than other GSS respondents. The respondents were also asked about a number of medical-model treatments. These include: "go to a psychiatrist for help"; "go to a therapist, or counselor, like a psychologist, social worker, or other mental health professional for help"; and "take prescription medication"(p. 44). The current study hypothesizes that Bible Believers will be less likely than other GSS respondents to endorse these courses of action.

The Pressing Issues in Health & Medical Care Module of the 1998 GSS

A second set of respondents will be utilized to answer one of the research questions raised in this study. The question is whether or not Bible believers are more likely than other GSS respondents to endorse the cessation of taking prescribed

psychiatric medications when symptoms have subsided. To this end, I will conduct an analysis of the data produced by one of the items presented in the administration of the Pressing Issues in Health and Medical Care Module (PIHMCM) as part of the 1998 GSS.

Agreement with Stopping Medication Usage When Symptoms Subside

Respondents to the PIHMCM were asked to give their level of agreement with the statement, "If symptoms are no longer present, people should stop taking these medications" (Davis et al., 2001, p. 710). The respondents were then presented with five response options: "strongly agree," "agree," "neither agree or disagree," "disagree," and "strongly disagree" (p. 710). Those respondents that did not give an answer or answered "don't know" will be included in the "neither agree or disagree" group. The presently proposed study hypothesizes that Bible believers, compared to other GSS respondents, will be more likely to express a higher level of agreement to the termination of psychiatric medication regimens when symptoms are no longer present.

Control Variable: Education

Previous research has shown education to be correlated with beliefs about mental health, mental illness, causes, preferred treatments, and willingness to utilize treatment. For this reason, education will be controlled for statistically when examining the association of beliefs about the Bible and attitudes regarding mental health, mental illness, and treatment. The GSS asks respondents to select their level of education from the following choices: "less than high school," "high school," "associate/junior college,"

"bachelor's," degree or "graduate" degree (Davis et al., 2001, p. 18). Research has show that individuals with higher levels of education tend to be more liberal in their religious beliefs and those with less education tend to be more conservative. The three college-level categories were collapsed into one "college degree" category. The one subject with missing data for this value had "11" coded in the education in years category, therefore this subject was recoded from "no answer" to "less than high school." The "less than high school" category will be used as the dummy-coded reference in the regression equations.

Control Variable: Type of Disorder

As mentioned earlier, respondents to the 1996 MMHM were given one of five vignettes that described either one of four DSM-IV disorders or a "no problem" description. It is probable that Bible believers will be more likely to attribute alcohol dependence and drug dependence to bad character than they would depression or schizophrenia. Many Bible believers view alcohol and substance dependence as disorders of behavior, depression as a disorder of thought and mood, and schizophrenia as a disorder of perception and perhaps brain functioning. Bible believers tend to view alcohol use and drug use as resulting from "bad character" and also theorize that depressed individuals would be more "joyful" if they were obedient to God in behavior and if their thoughts reflected deeper "faith" and trust in God.

Even those who are not Bible believers may tend to view alcoholism, drug abuse, and depression as disorders that are manifested from a "weakness of the will."

Schizophrenia, on the other hand, seems to be "uncontrollable" (i.e., the individual cannot "control" his or her symptoms). Of the four vignettes, the character that has symptoms of schizophrenia is displaying the most bizarre behavior. There is no perceived and immediate secondary gain from the symptoms of schizophrenia, whereas the symptoms of substance abuse and depression can be viewed as ways to escape reality and responsibility. David Mechanic outlines this dichotomization of disordered behavior.

> "People readily distinguish between behavior they think is 'bad' and behavior they think of as 'sick.' To the extent that they perceive a self-interested motive in the behavior, they are likely to think of it as bad. Behavior that seems to make no sense, in contrast, is more likely to be characterized as sick" (Mechanic, 1999, p. 13).

No specific hypotheses will be tested that examines the type of diagnosis described in the vignette, but diagnosis type will be controlled for statistically by entering it into the regression equation with Schizophrenia as the dummy-coded reference.

Control Variable: Familiarity with Mental Health Treatment

Respondents to both the 1996 GSS MMHM and the 1998 GSS PIHMCM were asked questions that assessed whether or not they or someone they know had ever utilized mental health care. These questions were different in 1996 and 1998. There were two questions asked in the 1996 MMHM: "Did you ever know anyone who was in a hospital because of a mental illness," and "Have you ever know anyone (other than the person mentioned in the previous question) who was seeing a psychologist, mental health

professional, social worker or other counselor?" (Pescosolido et al., 2000, p. 48). A similar construct was measured by the 1998 PIHMCM, but only one question was used and the wording was different. Respondents were asked, "Have you or has anyone else you know ever seen a psychiatrist, psychologist, or counselor?" (Davis et al., 2001, p. 725). These variables will be controlled for statistically by entering them into the regression model. The "no" responses will be used as the dummy-coded reference category.

Control Variables: Sociodemographic Traits

There are numerous sociodemographic variables that have associated with opinions about mental health, mental illness, and medical-model treatment. Race is one such variable and is measured by the GSS as "white," "black," and "other." Dichotomized race (white/minority) will be included in the statistical models to assess and control for any effects on the proposed associations. The dichotomous gender variable will also be included as will the SEI socioeconomic status index. There are no missing values for gender or race, and the 3.69% of respondents with missing data on the SEI variable have been recoded to the variable mean.

Since some researchers have reported that living in a rural area is associated with less favorable views of professional mental health treatment (Ginsberg, 1998), a dichotomized variable that indicates whether or not a respondent lives in a rural or urban area will be used as a control variable. There are no missing values for this variable, and the urban category will be used as the dummy-coded reference in the regression equation.

Data Analysis

Numerous analyses will be conducted to answer the research questions raised by this proposed study. Descriptive statistics will be utilized to explore the questions posed, and inferential statistics will be used to test the central hypotheses. Before describing the analysis methods that will be used in this study, a discussion of the methodological limitations of previous studies will be presented.

Previous studies published in refereed journals (Schnittker 2000, Schnittker, Freese, & Powell, 2000) and those currently in-review for publication (Schnittker, 2001, Croghan et al., 1999) have utilized ordinary-least square (OLS) regression models to test multivariate effects on the ordinal outcome variables in the 1996 MMHM and the 1998 PIHMCM. It was originally hoped by the module's authors that the causal explanation items in the 1996 MMHM could be combined into scale variables, but factor analysis has revealed that the individual items do not cluster around common constructs (Schnittker, Freese, & Powell, 2000). Similarly, the 1998 PIHMCM question regarding the termination of medication regimens has been shown to be independent of other items on the PIHMCM and has been omitted from analyses that originally aspired to include it as an item in an overall scale (Croghan, et al., 1999).

The studies cited above have followed the common practice of integer scoring to treat the ordinal variables as if they were measured on an interval level and then entering them as the dependent variables in OLS regression models. This is problematic because

equal distancing of the ordinal responses cannot be assumed and it violates a number of the assumptions of OLS regression. One such problem is that the error terms produced by OLS regression of categorical variables are heteroscedastic, which can result in poor estimation of parameters (Liao, 1994). The results of regression equations produced by OLS regression of categorical variables can also lead to nonsensical values for the predicted outcome category (i.e., numbers that are above and below the range of the falsely-imposed integer "scale") (Long, 1997). Researchers have avoided the use of more sophisticated methods, such as ordered logistic and multinomial logistic regression, because familiarity with their interpretation is not as widespread as it is for OLS models (Agresti, 2000). This study will utilized ordered logistic regression (a.k.a.: ordinal logit, cumulative logit, and cumulative probability regression) to analyze the effects of being a Bible Believer on the ordinal dependent variables and binary logistic regression for dichotomous dependent variables. One of the basic assumptions of ordered logistic regression is that the effect of the independent variable is consistent across all levels of the dependent variable. SPSS uses the test of parallel lines to test this assumption. If this assumption is violated, multinomial logistic regression will be used to confirm the results of the ordered logistic models (Long, 1997). Each hypothesis will now be represented with each respective analysis methodology immediately following.

Hypothesis 1: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be more likely to attribute the cause of mental and substance abuse disorders to "bad character" than other GSS respondents.

The percentage of Bible believers and other GSS respondents that selected each of the five response choices to the "bad character" item will be presented along with 95% confidence intervals for the percentage differences. The responses will also be dichotomized into "likely" and "not likely" categories to assist in making the interpretation of the descriptive statistics more practical. The "bad character" variable will be entered into an ordered logistic regression models as the dependent variable with the dichotomous Bible Believer variable as the primary predictor. Multiple respondent sociodemographic traits and the vignette subject's characteristics will be entered as control variables. The hypothesis will be ultimately tested by the direction and significance of the parameter estimate for being a Bible Believer. If the test of the parallel regression assumption reveals a violation, a multinomial logistic model containing the same variables will be analyzed to confirm the results of the ordered logistic model.

Hypothesis 2: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to attribute the cause of mental and substance abuse disorders to "chemical imbalance" than other GSS respondents.

As with hypothesis #1, the percentage of Bible believers and other GSS respondents that selected each of the five response choices to the "chemical imbalance" item will be presented along with 95% confidence intervals for the percentage differences. The responses will also be dichotomized into "likely" and "not likely" categories to assist in making the interpretation of the descriptive statistics more

practical. The "chemical imbalance" variable will be entered into an ordered logistic regression models as the dependent variable with the dichotomous Bible Believer variable as the primary predictor. Multiple respondent sociodemographic traits and the vignette subject's characteristics will be entered as control variables. The hypothesis will be ultimately tested by the direction and significance of the parameter estimate for being a Bible Believer. If the test of the parallel regression assumption reveals a violation, a multinomial logistic model containing the same variables will be analyzed to confirm the results of the ordered logistic model.

Hypothesis 3: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be more likely to say that an individual with a mental or substance abuse disorder should "talk to a minister, priest, rabbi, or other religious leader" than other GSS respondents.

The percentage of Bible believers and other GSS respondents that selected "yes" and "no"/ "don't know"/ and "no answer" choices to the "talk to clergy" item will be presented along with 95% confidence intervals for the percentage differences. The "talk to clergy" variable will be entered into a binary logistic regression models as the dependent variable with the dichotomous Bible Believer variable as the primary predictor. Multiple respondent sociodemographic traits and the vignette subject's characteristics will be entered as control variables. The hypothesis will be ultimately tested by the direction and significance of the parameter estimate for being a Bible Believer.

Hypothesis 4: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to say that an individual with a mental or substance abuse disorder should "go to a psychiatrist for help" than other GSS respondents.

The percentage of Bible believers and other GSS respondents that selected "yes" and "no"/ "don't know"/ and "no answer" choices to the "go to a psychiatrist" item will be presented along with 95% confidence intervals for the percentage differences. The "go to a psychiatrist" variable will be entered into a binary logistic regression models as the dependent variable with the dichotomous Bible Believer variable as the primary predictor. Multiple respondent sociodemographic traits and the vignette subject's characteristics will be entered as control variables. The hypothesis will be ultimately tested by the direction and significance of the parameter estimate for being a Bible Believer.

Hypothesis 5: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to say that an individual with a mental or substance abuse disorder should "take prescription medication" than other GSS respondents.

The percentage of Bible believers and other GSS respondents that selected "yes" and "no"/ "don't know"/ and "no answer" choices to the "take prescription medication" item will be presented along with 95% confidence intervals for the percentage differences. The "prescription medication" variable will be entered into a binary logistic regression models as the dependent variable with the dichotomous Bible Believer

variable as the primary predictor. Multiple respondent sociodemographic traits and the vignette subject's characteristics will be entered as control variables. The hypothesis will be ultimately tested by the direction and significance of the parameter estimate for being a Bible Believer.

Hypothesis 6: Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to say that an individual with a mental or substance abuse disorder should "go to a therapist, or counselor, like a psychologist, social worker, or other mental health professional for help" than other GSS respondents.

The percentage of Bible believers and other GSS respondents that selected "yes" and "no"/ "don't know"/ and "no answer" choices to the "other mental health professional" item will be presented along with 95% confidence intervals for the percentage differences. The "other mental health professional" variable will be entered into a binary logistic regression models as the dependent variable with the dichotomous Bible Believer variable as the primary predictor. Multiple respondent sociodemographic traits and the vignette subject's characteristics will be entered as control variables. The hypothesis will be ultimately tested by the direction and significance of the parameter estimate for being a Bible Believer.

Hypothesis 7: Respondents to the 1998 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be more likely to endorse stopping the use of medications when symptoms subside than other GSS respondents.

The percentage of Bible believers and other GSS respondents that selected each of the five response choices to the "stop taking medication" item will be presented along with 95% confidence intervals for the percentage differences. The responses will also be dichotomized into "agree" and "disagree" categories to assist in making the interpretation of the descriptive statistics more practical. The "stop medication" variable will be entered into an ordered logistic regression models as the dependent variable with the dichotomous Bible Believer variable as the primary predictor. Multiple respondent sociodemographic traits will be entered as control variables. The hypothesis will be ultimately tested by the direction and significance of the parameter estimate for being a Bible Believer. If the test of the parallel regression assumption reveals a violation, a multinomial logistic model containing the same variables will be analyzed to confirm the results of the ordered logistic model.

CHAPTER IV: RESULTS

All analyses presented in this chapter were conducted using the SPSS version 10.0.7 statistical software package. The results from each of the data analysis methods used to evaluate the individual hypotheses are presented after a restatement of the respective hypothesis. A brief discussion of the selection of statistical significance levels is needed before presenting the results.

The Bonferroni correction method (Miller, 1966), also know as the Dunn (1961) procedure, was utilized to ensure that the overall probability of committing a Type I error in the entire study remained below 5%. One comparison test for each of the seven hypotheses was planned; however, three additional comparisons had to be added when the ordered logistic regression model utilized in hypothesis #7 violated the parallel regression assumption which necessitated the testing of a multinomial logistic regression model. Therefore the resulting number of total comparisons equaled 10, which resulted in a Bonferroni-adjusted significance level of $p < .005$. This adjusted level was used when each of the hypotheses was tested. Because all of the hypotheses made predictions about the direction of the effect of being a Bible believer on each of the criterion variables, the significance level produced by one-tailed tests was utilized in making decisions about statistical significance.

Because the Bonferroni adjustment increases the likelihood of committing a Type II error, and thus reduces statistical power, comparisons between Bible believers and other GSS respondents that were statistically significant at the unadjusted $p < .05$ level were flagged in the results tables and noted in the text but were not utilized in making

hypothesis-testing determinations. These notations are provided to offer insight to the reader into the possible significance of the effect of beliefs about the Bible upon these criterion variables in other research frameworks (i.e., those that may formulate fewer multiple hypothesis tests).

One additional level of statistical significance, reserved exclusively for the control variables, was also noted in the results tables. Because no specific plans were made to test the individual effects of any of the control variables, there is no specific discussion of their effects. However, the control variables that displayed a statistically-significant effect on the model at the $p < .05$ level (two-tailed) will be noted in the tables as a service to the reader. This information may provide insight into possible avenues for future research.

Hypothesis 1

Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be more likely to attribute the cause of mental and substance abuse disorders to "bad character" than other GSS respondents.

Table 2 compares the frequencies and percentages of Bible Believers' and other GSS respondents' answers to the question of how likely the vignette subject's condition is caused by his or her "own bad character." A greater percentage of the Bible Believer respondents attributed the cause of the vignette condition to "his or her own bad character" as compared to the other GSS respondents. Over 56% of Bible-believing respondents said that the condition described in the vignette was "somewhat likely" or

Table 2: ***Responses to How Likely the Situation is Caused by the Subject's "Own Bad Character" by Beliefs about the Bible***

Response	Bible Believers		Other Respondents		95% CI of the Percentage Diff. Lower	95% CI of the Percentage Diff. Upper
Very Likely	66	26.94%	82	15.19%	5.29%	18.21%
Somewhat Likely	72	29.39%	137	25.37%	-2.90%	10.94%
Very/Somewhat Likely Combined	138	56.33%	219	40.56%	8.15%	23.39%
Don't Know/ No Answer	16	6.53%	18	3.33%	-.31%	6.71%
Not Very Likely	55	22.45%	184	34.07%	-18.33%	-4.91%
Not At All Likely	36	14.69%	119	22.04%	-13.11%	-1.59%
Not Very/Not At All Likely Combined	91	37.14%	303	56.11%	-26.48%	-11.46%

"very likely" caused by the subject's bad character, compared to 41% of other GSS respondents (95% CI of the difference = 15.77% ±7.62%). These descriptive statistics seem to lend support to Hypothesis #1.

The hypothesis was further tested using an ordered logistic regression model. Respondent characteristics (education, race, gender, age, social class, rural urban status, and knowing someone who has received mental health treatment) and vignette subject characteristics (diagnosis, gender, race, and education) were controlled for statistically by entering them into the model. The overall logistic regression model was statistically significant (Chi-square = 140.575, df = 17, p = <.001, Nagelkerke pseudo R^2 = .173), meaning that the overall model does a better job of predicting responses to the "bad

character" question than does chance alone. Table 3 gives an overview of each of the variables' effect on the model. The effects of being a Bible Believer, while controlling for the other variables, was statistically significant and was also in the predicted direction (Coef. = .395, Exp(B) = 1.48, Wald = 6.79, df = 1, sig. = .0046, one-tailed, calculated pseudo-R^2 change from covariate-only model = .008). The positive coefficient means that being a Bible believer was associated with a greater probability of being in one of the higher categories of agreement with the belief that the vignette character's condition is caused by his or her own bad character. More specifically, the antilog of the coefficient yielded an odds ratio of 1.48, which means that odds of being in one of the higher categories of agreement with the "bad character question" was 48% higher for Bible believers than other GSS respondents. The test of parallel lines did not indicate a violation of the parallel regression assumption (Chi-square = 57.84, df = 51, sig. = .069). The results of the ordered logistic regression model lend support to hypothesis #1.

Hypothesis 2

Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to attribute the cause of mental and substance abuse disorders to "chemical imbalance" than other GSS respondents.

Table 4 compares the frequencies and percentages of Bible Believers' and other GSS respondents' answers to the question of how likely the vignette subject's condition is caused by "a chemical imbalance in the brain." A smaller percentage of the

Table 3: ***Parameter Estimates from Ordered Logistic Regression Model of How Likely the Situation is Caused by the Subject's "Own Bad Character"***

Predictor	B	Exp (B)	Wald	2 - tail Sig.
Model with Bible Believer as Only Predictor				
Bible Believer	.669	1.95	22.962	.001[a]
Model with Control Variables Included				
Bible Believer	.395	1.48	6.793	.009[a]
Vignette Character's Diagnosis				
Alcohol Dependence	-.700	.50	13.605	.001[b]
Depression	-1.104	.33	34.930	.001[b]
Schizophrenia	-1.344	.26	48.690	.001[b]
Education				
College Degree	-.785	.46	10.821	.001[b]
High School Degree	-.209	.81	1.200	.273
Know Someone Treated for Mental Illness	-.082	.92	.354	.552
Race: Minority	.541	1.72	9.884	.002[b]
Gender: Female	-.405	.67	9.357	.002[b]
Live in a Rural Area	-.025	.98	.012	.913
Age	.004	1.00	1.201	.273
Socioeconomic Index	-.007	.99	2.929	.087
Vignette Character's Gender: Female	-.174	.84	1.714	.190
Vignette Character's Education				
College	.234	1.26	2.136	.144
High School	.420	1.52	6.759	.009[b]
Vignette Character's Race				
Hispanic	-.208	.81	1.591	.207
Black	.016	1.02	.010	.919

a. The one-tailed Bible Believer value is significant at Bonferroni-adjusted level of $p < .005$.
b. The effect of this control variable is significant at the $p < .05$ level.

Table 4: ***Responses to How Likely the Situation is Caused by a "Chemical Imbalance in the Brain" by Beliefs about the Bible***

Response	Bible Believers		Other Respondents		95% CI of the Percentage Diff. Lower	95% CI of the Percentage Diff. Upper
Very Likely	57	23.27%	124	22.96%	-6.19%	6.81%
Somewhat Likely	86	35.10%	218	40.37%	-12.69%	2.15%
Very/Somewhat Likely Combined	143	58.37%	342	63.33%	-12.50%	2.58%
Don't Know/ No Answer	15	6.12%	46	8.52%	-6.29%	1.49%
Not Very Likely	55	22.45%	96	17.78%	-1.60%	10.94%
Not At All Likely	32	13.06%	56	10.37%	-2.35%	7.73%
Not Very/Not At All Likely Combined	87	35.51%	152	28.15%	0.12%	14.60%

Bible-believer respondents attributed the cause of the vignette condition to "a chemical imbalance in the brain" as compared to the other GSS respondents. Approximately 58% of Bible-believing respondents said that the condition described in the vignette was "somewhat likely" or "very likely" caused by a chemical imbalance, compared to 63% of other GSS respondents (95% CI of the difference = 4.96% ±7.54%).

The hypothesis was tested using an ordered logistic regression model. Respondent characteristics (education, race, gender, age, social class, rural urban status, and knowing someone who has received mental health treatment) and vignette subject characteristics (diagnosis, gender, race, and education) were controlled for statistically by entering them into the model. This ordered logistic regression model was statistically

significant (Chi-square = 92.89, df = 17, p = .001, Nagelkerke pseudo R^2 = .12), meaning that the overall model did a better job of predicting responses to the "chemical imbalance" question than does chance alone.

Table 5 gives an overview of each of the variables' effect on the model. Contrary to hypothesis, the effect of being a Bible believer was not statistically significant (B = -.156, Exp (B) = .86, Wald = 1.06, df = 1, sig. = .151, one-tailed), which means that Bible believers were no less likely to endorse chemical imbalance as a cause of the vignette condition than were other GSS respondents. The parallel regression assumption was tested using the test of parallel lines, and the results (Chi-square = 116.417, df = 51, sig. = <.001) revealed a violation of the assumption. Long (1997) has recommended the use of multinomial logistic regression modeling when the parallel regression assumption is violated, therefore a multinomial logistic regression model was constructed to confirm the results of the ordered logistic regression analysis. The overall multinomial model was statistically significant (Chi-Square = 174.400, df = 68, p = .001, Nagelkerke's pseudo R^2 = .21), however the overall effect of the Bible belief variable was not statistically significant (Chi- square = 7.697, df = 4, sig. = .103).

Hypothesis 3

Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be more likely to say that an individual with a mental or substance abuse disorder should "talk to a minister, priest, rabbi, or other religious leader" than other GSS respondents.

Table 5: ***Parameter Estimates from Ordered Logistic Regression Model of How Likely the Situation is Caused by a "Chemical Imbalance in the Brain"***

Predictor	B	Exp (B)	Wald	2 - tail Sig.
Model with Bible Believer as Only Predictor				
Bible Believer	-.164	.85	1.386	.239
Model with Control Variables Included				
Bible Believer	-.156	.86	1.063	.303
Vignette Character's Diagnosis				
Alcohol Dependence	.170	1.19	.826	.364
Depression	.582	1.79	10.039	.002[a]
Schizophrenia	1.497	4.47	58.660	.001[a]
Education				
College Degree	.390	1.48	2.686	.101
High School Degree	.150	1.16	.615	.433
Know Someone Treated for Mental Illness	-.095	.91	.471	.492
Race: Minority	.250	1.28	2.109	.146
Gender: Female	.418	1.52	9.901	.002[a]
Live in a Rural Area	-.308	.74	1.796	.180
Age	.002	1.00	.325	.569
Socioeconomic Index	-.003	1.00	.367	.545
Vignette Character's Gender: Female	-.036	.96	.074	.786
Vignette Character's Education				
College	-.098	.91	.369	.543
High School	.007	1.01	.002	.964
Vignette Character's Race				
Hispanic	-.320	.73	3.711	.054
Black	-.338	.71	4.760	.029[a]

a. The effect of this control variable is significant at the $p < .05$ level.

Table 6 compares the frequencies and percentages of Bible Believer's and other GSS respondents' answers to the question of whether the vignette subject should "talk to a minister, priest, rabbi or other religious leader." A larger percentage of the Bible Believer respondents (90.20%) said "yes" as compared to the other GSS respondents (78.52%) (95% CI of the difference = 11.68% ±5.19%). These descriptive statistics seem to lend support to Hypothesis #3.

The hypothesis was further tested using binary logistic regression. Respondent characteristics (education, race, gender, age, social class, rural urban status, and knowing someone who has received mental health treatment) and vignette subject characteristics (diagnosis, gender, race, and education) were controlled for statistically by entering them into the model. The overall binary logistic regression model was statistically significant (Chi-square = 41.28, df = 17, p = .001, Nagelkerke pseudo R^2 = .08), meaning that the overall model did a better job of predicting which respondents will indicate that the vignette character should "talk to a minister, priest, rabbi or other religious leader" than

Table 6: ***Responses to How Likely the Vignette Character Should "Talk to a Minister, Priest, Rabbi, or Other Religious Leader" by Beliefs about the Bible***

Response	Bible Believers		Other Respondents		95% CI of the Percentage Diff. Lower	95% CI of the Percentage Diff. Upper
Yes	221	90.20%	424	78.52%	6.49%	16.87%
No/Don't Know/No Answer	24	9.80%	116	21.48%	-16.87%	-6.49%

would chance alone. Table 7 gives an overview of each of the variables' effect on the model.

The effect of being a Bible believer was statistically significant and was also in the predicted direction (B = .969, Wald = 14.28, sig. = .001, calculated R^2 change from covariate-only model = .032). The positive coefficient means that being a Bible believer was associated with a greater probability of saying yes to whether the vignette character should "talk to a minister, priest, rabbi or other religious leader." Therefore the results of the binary logistic regression model lend support to Hypothesis #3. More specifically the antilog of the coefficient yielded an odds ratio of 2.63, which means that odds of saying that the vignette character should "talk to a minister, priest, rabbi or other religious leader" was 163% higher for Bible believers than other GSS respondents.

Hypothesis 4

Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to say that an individual with a mental or substance abuse disorder should "go to a psychiatrist for help" than other GSS respondents.

Table 8 compares the frequencies and percentages of Bible Believer's and other GSS respondents' answers to the question of whether the vignette subject should "go to a psychiatrist for help." A smaller percentage of the Bible Believer respondents (64.49%) said "yes" as compared to the other GSS respondents (73.33%) (95% CI of the difference = 8.84% ±7.20%). These descriptive statistics lend support to Hypothesis #4.

Table 7: *Parameter Estimates from Binary Logistic Regression Model - Should the Vignette Character "Talk to a Minister, Priest, Rabbi, or Other Religious Leader"*

Predictor	B	Exp (B)	Wald	2 - tail Sig.
Model with Bible Believer as Only Predictor				
Bible Believer	.924	2.52	14.932	.001[a]
Model with Control Variables Included				
Bible Believer	.969	2.63	14.276	.001[a]
Vignette Character's Diagnosis				
Alcohol Dependence	-.002	1.00	.001	.995
Depression	-.056	.95	.038	.845
Schizophrenia	-.683	.51	6.348	.012[b]
Education				
College Degree	.215	1.24	.354	.552
High School Degree	-.006	.99	.001	.985
Know Someone Treated for Mental Illness	.359	1.43	2.827	.093
Race: Minority	.142	1.15	.288	.592
Gender: Female	-.178	.84	.843	.359
Live in a Rural Area	.098	1.10	.075	.785
Age	.012	1.01	4.057	.044[b]
Socioeconomic Index	.007	1.01	1.180	.277
Vignette Character's Gender: Female	-.079	.92	.161	.688
Vignette Character's Education				
College	-.052	.95	.050	.822
High School	.129	1.14	.286	.593
Vignette Character's Race				
Hispanic	.044	1.05	.032	.859
Black	.056	1.06	.061	.805

a. The one-tailed Bible Believer value is significant at Bonferroni-adjusted level of $p < .005$.
b. The effect of this control variable is significant at the $p < .05$ level.

Table 8: ***Responses to Should the Vignette Character "Go to a Psychiatrist for Help" by Beliefs about the Bible***

Response	Bible Believers		Other Respondents		95% CI of the Percentage Diff. Lower	Upper
Yes	158	64.49%	396	73.33%	-16.04%	-1.64%
No/Don't Know/No Answer	87	35.51%	144	26.67%	1.64%	16.04%

The hypothesis was tested using a binary logistic regression model. Respondent characteristics (education, race, gender, age, social class, rural urban status, and knowing someone who has received mental health treatment) and vignette subject characteristics (diagnosis, gender, race, and education) were controlled for statistically by entering them into the model. The overall binary logistic regression model was statistically significant (Chi-square = 48.66, df = 17, p = .001, Nagelkerke pseudo R^2 = .086), meaning that the overall model did a better job of predicting which respondents indicated that the vignette character should "go to a psychiatrist for help" than did chance alone.

Table 9 gives an overview of each of the variables' effect on the model. Contrary to the hypothesis, the effect of being a Bible believer was not statistically significant (B = -.323, Wald = 3.09, sig. = .039, one-tailed) at the Bonferroni-adjusted level of $p < .005$. This infers that being a Bible believer was not statistically-significantly associated with a smaller probability of saying yes to whether the vignette character should "go to a psychiatrist for help" as compared to other GSS respondents. Therefore the results of the binary logistic regression model do not support Hypothesis #4. It should be noted

Table 9: ***Parameter Estimates from Binary Logistic Regression Model of Whether Vignette Character Should "Go to a Psychiatrist for Help"***

Predictor	B	Exp (B)	Wald	2 - tail Sig.
Model with Bible Believer as Only Predictor				
Bible Believer	-.415	.66	6.308	.012[a]
Model with Control Variables Included				
Bible Believer	-.323	.72	3.092	.079[a]
Vignette Character's Diagnosis				
Alcohol Dependence	-.069	.93	.104	.747
Depression	.425	1.53	3.816	.051
Schizophrenia	1.324	3.76	26.095	.001[b]
Education				
College Degree	-.134	.87	.206	.650
High School Degree	-.205	.81	.756	.385
Know Someone Treated for Mental Illness	.171	1.19	.964	.326
Race: Minority	-.154	.86	.563	.453
Gender: Female	-.077	.93	.221	.638
Live in a Rural Area	-.083	.92	.087	.768
Age	-.001	1.00	.023	.878
Socioeconomic Index	.001	1.00	.021	.886
Vignette Character's Gender: Female	.027	1.03	.027	.870
Vignette Character's Education				
College	.089	1.09	.197	.657
High School	.045	1.05	.051	.822
Vignette Character's Race				
Hispanic	-.120	.89	.346	.557
Black	-.015	.99	.006	.938

a. The one-tailed Bible Believer value is significant at the $p < .05$ level without Bonferroni adjustment.
b. The effect of this control variable is significant at the $p < .05$ level.

however that the obtained significance level of .039 would be regarded as significant if it were the only comparison being conducted in this or another study.

Hypothesis 5

Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to say that an individual with a mental or substance abuse disorder should "take prescription medication" than other GSS respondents.

Table 10 compares the frequencies and percentages of Bible Believer's and other GSS respondents' answers to the question of whether the vignette subject should "take prescription medication." A smaller percentage of the Bible Believer respondents (52.24%) said "yes" as compared to the other GSS respondents (57.41%) (95% CI of the difference = 5.17% ±7.67%).

The hypothesis was tested using binary logistic regression. Respondent characteristics (education, race, gender, age, social class, rural urban status, and knowing

Table 10: ***Responses to Should the Vignette Character "Take Prescription Medication" by Beliefs about the Bible***

Response	Bible Believers		Other Respondents		95% CI of the Percentage Diff. Lower	Upper
Yes	128	52.24%	310	57.41%	-12.84%	2.50%
No/Don't Know/No Answer	117	47.76%	230	42.59%	-2.50%	12.84%

someone who has received mental health treatment) and vignette subject characteristics (diagnosis, gender, race, and education) were controlled for statistically by entering them into the model. The overall binary logistic regression model was statistically significant (Chi-square = 112.38, df = 17, p = .001, Nagelkerke pseudo R^2 = .18), meaning that the overall model did a better job of predicting which respondents indicated that the vignette character should "take prescription medications" than could chance alone.

Table 11 gives an overview of each of the variables' effect on the model. Contrary to prediction, the effect of being a Bible believer was not statistically significant (B = -.129, Wald = .514, sig. = .237, one-tailed). This infers that being a Bible believer was not associated with a smaller probability of saying yes to whether the vignette character should "take prescription medication" as compared to other GSS respondents. Therefore the results of the binary logistic regression model do not support Hypothesis #5.

Hypothesis 6

Respondents to the 1996 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be less likely to say that an individual with a mental or substance abuse disorder should "go to a therapist, or counselor, like a psychologist, social worker, or other mental health professional for help" than other GSS respondents.

Table 12 compares the frequencies and percentages of Bible Believers' and other GSS respondents' answers to the question of whether the vignette subject should "go to a

Table 11: ***Parameter Estimates from Binary Logistic Regression Model of Whether Vignette Character Should "Take Prescription Medication"***

Predictor	B	Exp (B)	Wald	2 - tail Sig.
Model with Bible Believer as Only Predictor				
Bible Believer	-.209	.81	1.819	.177
Model with Control Variables Included				
Bible Believer	-.129	.88	.514	.473
Vignette Character's Diagnosis				
Alcohol Dependence	-.231	.79	1.127	.288
Depression	1.080	2.95	25.145	.001[a]
Schizophrenia	1.393	4.03	37.270	.001[a]
Education				
College Degree	.082	1.09	.084	.772
High School Degree	-.299	.74	1.690	.194
Know Someone Treated for Mental Illness	.486	1.63	8.475	.004[a]
Race: Minority	.028	1.03	.019	.891
Gender: Female	-.256	.77	2.646	.104
Live in a Rural Area	-.177	.84	.412	.521
Age	.017	1.02	12.610	.001[a]
Socioeconomic Index	-.003	1.00	.308	.579
Vignette Character's Gender: Female	.080	1.08	.255	.614
Vignette Character's Education				
College	.231	1.26	1.461	.227
High School	.155	1.17	.653	.419
Vignette Character's Race				
Hispanic	.085	1.09	.189	.664
Black	.252	1.29	1.865	.172

a. The effect of this control variable is significant at the $p < .05$ level.

Table 12: ***Responses to Should the Vignette Character "Go to a Therapist, or Counselor, like a Psychologist, Social Worker, or Other Mental Health Professional"***

Response	Bible Believers		Other Respondents		95% CI of the Percentage Diff. Lower	95% CI of the Percentage Diff. Upper
Yes	209	85.31%	463	85.74%	-5.86%	5.00%
No/Don't Know/No Answer	36	14.69%	77	14.26%	-5.00%	5.86%

therapist, or counselor, like a psychologist, social worker, or other mental health professional for help." There was almost no difference between the percentage of Bible Believer respondents (85.31%) and other GSS respondents (85.74%) that endorsed this course of action (95% CI of the difference = 0.43% ±5.43%).

The hypothesis was further tested using binary logistic regression. Respondent characteristics (education, race, gender, age, social class, rural urban status, and knowing someone who has received mental health treatment) and vignette subject characteristics (diagnosis, gender, race, and education) were controlled for statistically by entering them into the model. The overall binary logistic regression model was not statistically significant (Chi-square = 16.79, df = 17, p = .469), meaning that the overall model did not provide any additional information that could be used to predict which respondents indicated that the vignette character should "go to a therapist, or counselor, like a psychologist, social worker, or other mental health professional for help" than could have chance alone.

Table 13 gives an overview of the contribution of each of the variables to the overall model. The effect of being a Bible believer was also not statistically significant (B = -.006, Wald = .001, sig. = .490, one-tailed). This infers that being a Bible believer was not associated with a smaller probability of saying yes to whether the vignette character should "take prescription medication" as compared to other GSS respondents. Therefore the results of the binary logistic regression model do not support Hypothesis #6.

Hypothesis 7

Respondents to the 1998 GSS who indicated that they believe the Bible is the actual word of God and should be interpreted literally will be more likely to endorse stopping the use of medications when symptoms subside than other GSS respondents.

Table 14 compares the frequencies and percentages of Bible Believer's and other GSS respondents' level of agreement with the statement, "If symptoms are no longer present, people should stop taking psychiatric medication." A greater percentage of the Bible Believer respondents endorsed the termination of medication regimens when symptoms are no longer present as compared to the other GSS respondents. Almost 61% of Bible-believing respondents said that they "strongly agreed" or "agreed" that people should stop taking psychiatric medication when symptoms are no longer present, compared to only 43% of other GSS respondents (95% CI of the difference = 17.64% ±6.99%). These descriptive statistics seem to lend support to hypothesis #7.

Table 13: ***Parameter Estimates from Binary Logistic Regression Model of Whether Vignette Character Should "Go to a Therapist, or Counselor, like a Psychologist, Social Worker, or Other Mental Health Professional"***

Predictor	B	Exp (B)	Wald	2 - tail Sig.
Model with Bible Believer as Only Predictor				
Bible Believer	-.035	.97	.026	.872
Model with Control Variables Included				
Bible Believer	.006	1.01	.001	.980
Vignette Character's Diagnosis				
Alcohol Dependence	.369	1.45	1.410	.235
Depression	.088	1.09	.097	.756
Schizophrenia	-.049	.95	.030	.862
Education				
College Degree	.520	1.68	1.841	.175
High School Degree	.007	1.01	.001	.980
Know Someone Treated for Mental Illness	.473	1.61	4.069	.044[a]
Race: Minority	.017	1.02	.004	.952
Gender: Female	.198	1.22	.908	.341
Live in a Rural Area	.100	1.11	.074	.785
Age	-.005	1.00	.593	.441
Socioeconomic Index	-.003	1.00	.182	.670
Vignette Character's Gender: Female	-.102	.90	.231	.631
Vignette Character's Education				
College	-.155	.86	.352	.553
High School	-.322	.72	1.559	.212
Vignette Character's Race				
Hispanic	.267	1.31	.940	.332
Black	-.108	.90	.207	.649

a. The effect of this control variable is significant at the $p < .05$ level.

Table 14: ***Responses to "If Symptoms are No Longer Present, People Should Stop Taking Psychiatric Medications"***

Response	Bible Believers		Other Respondents		95% CI of the Percentage Diff. Lower	Upper
Very Likely	57	20.07%	88	13.75%	0.84%	11.80%
Somewhat Likely	116	40.85%	189	29.53%	4.46%	18.18%
Very/Somewhat Likely Combined	173	60.92%	277	43.28%	10.65%	24.63%
Don't Know/ No Answer	47	16.55%	118	18.44%	-7.26%	3.48%
Not Very Likely	52	18.31%	195	30.47 %	-18.02%	-6.30%
Not At All Likely	12	4.23%	50	7.81%	-6.77%	-0.39%
Not Very/Not At All Likely Combined	64	22.54%	245	38.28%	-22.01%	-9.47%

An ordered logistic regression model was utilized to test hypothesis #7. Control variables (respondent's education, race, gender, age, socioeconomic status, rural/urban status, and whether or not they or someone they know has been treated by a mental health professional) were controlled for statistically by entering them into the model along with the Bible belief variable. The overall model was statistically significant (Chi-square = 2692.07, df = 9, sig = .001, Nagelkerke's pseudo-R^2 = .07), which means that the model did a better job of predicting level of agreement with the cessation of medication regimens than chance could have alone.

Table 15 summarizes the contribution of each of the variables to the overall model. Being a Bible believer was statistically-significantly associated with a higher

Table 15: ***Parameter Estimates from Ordered Logistic Regression Model of Responses to "If Symptoms are No Longer Present, People Should Stop Taking Psychiatric Medications"***

Predictor	B	Exp (B)	Wald	2 - tail Sig.
Model with Bible Believer as Only Predictor				
Bible Believer	.653	1.92	25.364	.001[a]
Model with Control Variables Included				
Bible Believer	.442	1.56	10.630	.001[a]
Education				
College Degree	-.412	.66	3.231	.072
High School Degree	-.023	.98	.015	.902
Know Someone Treated for Mental Illness	-.220	.80	2.971	.085
Race: Minority	.536	1.71	11.793	.001[b]
Gender: Female	-.204	.82	2.727	.099
Live in a Rural Area	.078	1.08	.149	.699
Age	.001	1.00	.003	.959
Socioeconomic Index	-.004	.99	1.337	.248

a. The one-tailed Bible Believer value is significant at Bonferroni-adjusted level of $p < .005$.
b. The effect of this control variable is significant at the $p < .05$ level.

probability of endorsing the cessation of medication after symptoms are no longer present (B = .442, Wald = 10.63, sig. = .001, one-tailed, change in Nagelkerke's pseudo-R^2 = .01). More specifically, the resulting odds-ratio of 1.56 means that being a Bible believer was associated with a 56% increase in the odds of endorsing the cessation of medication regimens when symptoms are no longer present.

A test of the parallel regression assumption revealed a violation (Chi-square = 43.535, df = 27, sig. = .023). As indicated in the results for hypothesis #2, Long (1997) has suggested the use of multinomial logistic regression models when the data used in ordered logistic regression model violation the parallel regression assumption. Therefore a multinomial logistic regression model was constructed to test hypothesis #7.

Table 16 displays the parameter estimates for the effects of being a Bible believer on each level of the medication cessation variable compared to the "disagree" category. The "disagree" category was chosen as the reference category as it contained the largest number of respondents from the other GSS respondents group. Being a Bible believer was associated with a statistically-significant increase in the probability of selecting "strongly agree" vs. "disagree" (B = .721, Wald = 8.83, sig = .001, one-tailed) and of selecting "agree" vs. "disagree" (B = .621, Wald = 9.11, sig = .001, one-tailed). More specifically the resulting odds ratios of 2.06 and 1.86 means that being a Bible believer was associated with a 106% increase in the odds of selecting "strongly agree" over "disagree" and a 86% increase in selecting "agree" over "disagree" as compared to other GSS respondents.

Table 16: *Parameter Estimates for Bible Believers from Multinomial Logistic Regression Model of Responses to "If Symptoms are No Longer Present, People Should Stop Taking Psychiatric Medications"*

Predictor	B	Exp (B)	Wald	1 - tail Sig.
Strongly Disagree vs. Disagree	.102	1.11	.075	.392
Neither Agree nor Disagree vs. Disagree	.334	1.40	1.878	.086
Agree vs. Disagree	.621	1.86	9.114	.001[a]
Strongly Agree vs. Disagree	.721	2.06	8.826	.001[a]

a. The one-tailed Bible Believer value is significant at Bonferroni-adjusted level of $p < .005$.

CHAPTER V: CONCLUSIONS & DISCUSSION

The final chapter of this dissertation will summarize the major findings of this study, place it within the context of previous research, discuss its theoretical and methodological limitations, and outline the implications for social work research and practice.

Summary of Findings

The main strength of this study was the opportunity to examine the association of religious beliefs with attitudes regarding mental health, mental illness, and mental health treatment in a nationally representative sample. Another strength was the ability to statistically control for numerous, possibly confounding, sociodemographic variables. The study specifically examined how beliefs about the authorship, accuracy, and interpretation of the Bible shape causal attributions and preferred treatments for mental illness. The GSS afforded the ability to control for the effects of the respondent's characteristics (education, gender, race, socioeconomic status, age, urban/rural status, and whether or not they knew someone who had been treated for a mental illness) and the vignette subject's characteristics (diagnosis, gender, race, and education).

The study found that Bible Believers, as predicted, were more likely than the general population to attribute the cause of mental illness to the individual's "bad character." However, contrary to prediction, it was found that Bible Believers were no

less likely than the general population to endorse "a chemical imbalance in the brain" as a possible cause.

The study also found that, as predicted, Bible Believers were more likely than the general population to endorse "talking to a minister, priest, rabbi, or other religious leader" as a needed course of action for those with a mental illness. Contrary to prediction, Bible Believers were no less likely than the general population to endorse going to a psychiatrist, taking prescription medication, or seeing a therapist or counselor (such as a social worker, psychologist, etc.).

In light of the equal levels of endorsement of psychiatric medications reported in the 1996 GSS from Bible Believers and the general population, it is interesting that the 1998 data revealed that, as predicted, Bible Believers would be more likely to endorse the termination of a medication regimen when "symptoms are no longer present." This implies that even though Bible Believers recognize the need for psychiatric medications, they are perhaps uncomfortable with their use as a maintenance therapy.

Comparison to the Existing Body of Research

Another strength of this study was the thorough review of the existing research, which served as a basis for the current research design and as a backdrop for the interpretation of study outcomes. Unfortunately, there are relatively few published research studies in the areas of religion and spirituality in the professions of social work (Canda & Furman, 1999), psychology (Miller, 1999), and psychiatry (Larson et al., 1986). Like this study, previous research has shown that religious beliefs often shape

attitudes regarding mental health, mental illness, and mental health treatment. The majority of articles and books on the subject are primarily based on theory and informal observation. Only a minority of the published works actually involves the reporting of results from empirical research, and none of them utilized nationally representative samples.

Previous research has linked religious conservatism with an endorsement of moral and demonic causal attributions. The finding in this study that American Bible Believers are more likely to attribute the cause of mental illness to "bad character" is consistent with other regional studies that have identified "sinful behavior" (Fraser, 1994), "moral weakness" (Neff & Husaini, 1985), "willfully doing something against God's will," "ignoring God's direction in life," and "the presence or influence of the Devil" as endorsed explanations for mental illness (Cecil, 1985).

In light of the previous research, it was surprising to find equal support for chemical imbalance explanations among Bible Believers and the general population. Interestingly the "bad character" and "chemical imbalance" explanations seem to be viewed by most Bible Believers as coexisting. In other words, they think that it is possible for mental disorders to be caused by a mixture of both "sinful" behavior and a disturbance in brain chemistry. This is a very different finding than the ones suggested in earlier studies.

One plausible explanation for this finding is that since the time that the two main empirical studies reviewed in this dissertation were conducted (Duncan, 1981; Cecil, 1985), American Bible Believers have become more eclectic in their view of mental

illness. Faith communities have become more accepting of psychological and medical explanations of illness since that time, and the mental health profession has increasingly recognized the value of spirituality in the holistic treatment of the individual (Shorto, 1999; Blazer; 1998). Another possible explanation for the divergence with previous findings is that this study controlled for possible confounding variables in a way that no other study has done before. Most specifically, other studies have recognized that education is a predictor of views regarding mental health but have failed to control for its influence in their research designs and data analyses.

The equal endorsement of professional mental health treatment among Bible Believers and the general population is also somewhat divergent from earlier studies. Previous studies have found that religiously conservative individuals are less likely to seek help for a mental illness (Duncan, 1981; Greenley & Mechanic, 1976; Kadushin, 1969). Once again, perhaps the move of Bible Believers toward more inclusive worldviews could be a factor in this change. It is possible, however, that Bible Believers endorse a different course of action for others than they would for themselves. Nevertheless, it seems that some Bible Believers have found a way for a literal interpretation of the Bible and a medical-model of mental illness to coexist in their worldview (Shorto, 1999; Blazer; 1998; Carlson, 1994). However, the disproportionate endorsement of immediate cessation of medication regimens documented in this study seems to hint at an overall level of unease with reliance on psychiatric medications.

Furthermore, the endorsement of talking with clergy, while not surprising, is certainly interesting in that it is suggested along with the medical-model interventions.

The finding that Bible Believers are more likely to endorse talking to a "minister, priest, rabbi, or other religious leader" is consistent with previous studies that found that religious individuals preferred to receive "treatment" from religious, rather than secular, counselors (Selby, Calhoun, & Parrott, 1978; Kadushin, 1969). Once again the endorsement of this course of action, in conjunction with medical-model approaches, hints that Bible Believers may be developing increasingly eclectic views of mental disorders and their treatments. It seems that Bible Believers may prefer multiple modalities of treatment as opposed to exclusive approaches.

Limitations

The primary limitation of this study is that it relied on preexisting data. More specifically, it utilized a limited operational definition of religious conservatism. The BIBLE variable was very limited in its scope and function compared to other existing measures of religious beliefs (Fetzer Institute, 1999; Hill & Hood, 1999). However, the availability of this item on a nationally-representative survey outweighed concerns of measurement limitation.

Another limitation of this study is that it relied on individual items to assess the mental health constructs of interest. Well-established scales with more robust psychometric properties would have allowed for more specificity in measurement and hypothesis construction. Some of the items also lacked clarity in their wording and were perhaps a threat to measurement validity. For example, the item that asked if the respondent thought the vignette character in the 1996 MMHM should "go to a therapist,

or counselor, like a psychologist, social worker, or other mental health professional for help" seems to be open to numerous interpretations in that it list four types of prospective treatment providers. Perhaps a separate question for each treatment provider, that also described specifically what type of service would be provided, would have offered a more specific measure of preferred treatments. It is possible that some Bible Believers thought that "counselors" included religious-oriented helpers, whether specifically trained in a mental health profession or not. Likewise, the wording of the clergy variable ("talk to a minister, priest, rabbi, or other religious leader") contained three religion-specific titles: Protestant, Catholic, and Jewish, respectively. Some Bible Believers may agree with a particular helper mentioned, but may rate the overall item low due to opinions about alternate denominations/religions.

Another limitation of this study is that it asked respondents about how hypothetical vignette characters should respond to an illness. It does not examine how they themselves would respond to a similar illness or to what they would attribute the cause of such an illness in their own lives. Measurement of these attitudes may not be a good predictor of how the individual might respond to their own illness or even the illness of someone in their social network. In other words, these items were very generic and lacked sufficient contextual parameters.

This study also failed to fully examine the effects of diagnosis type on beliefs about mental illness. The vignette character's diagnosis type was controlled for statistically, but its specific effects were not fully explored. A previous study has shown that responses to the 1996 MMHM questions varied significantly by diagnosis type

(Pescosolido et al., 2000). This study could have been strengthened by a more specific examination of how being a Bible Believer might interact with diagnosis type to influence attitudes about the causes and preferred treatments of mental illness. More specifically, two of the vignettes described "mental" disorders (depression & schizophrenia), while the other two described "addictive" disorders (alcohol & drug abuse). Americans have been shown to be more likely to attribute "bad character" causes to the substance-related disorders (Pescosolido, 2000), but it would be interesting to examine whether this effect is stronger among Bible Believers.

This study also failed to examine how endorsed causal attributions shape the endorsement of various treatment options. For example, there were no hypotheses tested that proposed a link between the endorsement of the "bad character" cause and the endorsement of the "minister, priest, or rabbi" course of action. Likewise, there was no test of the likely link between endorsement of the "chemical imbalance" cause and the endorsement of the "take prescription medication" course of action. Relationships between causal attributions and preferred treatments have been found in the general population (Pescosolido, et al., 2000), but the current study did not examine if those effects differed for Bible Believers.

The logistic regression models constructed in this study explained very little of the overall variance in the criterion variables. This suggests that there may be problems with model misspecification. Perhaps there are other variables that were not entered into the models that could possibly increase the ability to explain the variance in the criterion variables. Likewise, there may be untested interaction effects among the variables in the

model that could explain additional variance. These and other limitations can be addressed in future studies.

Implications for Social Work Research

The results of this study could serve as the basis for numerous avenues for future research. The most interesting prospect is research that would examine why Bible Believers seem to endorse the use of psychiatric medication, but yet are more likely than the general population to endorse the cessation of their use upon symptom abatement. For example, research could examine whether Bible Believers may be more likely to terminate the use of psychiatric medications before they are advised to do so by their doctor. Certainly the perceived eradication of symptoms could be due to the ongoing effect of the medications, and continued use might be in the individual's best interest. Alternatively, research could examine if the use of medications as a temporary stopgap that allows Bible Believers time to strengthen faith-related supports results in outcomes where typical maintenance psychopharmacological treatment is contraindicated. Research could explore what specific concerns Bible Believers have about psychiatric medication and how those concerns may shape the prospective course of treatment.

Future research could also serve to further delineate how the coexistence of both biomedical and moral explanations of mental disorders within Bible Believers' worldviews could manifest itself in a social work intervention setting. For example, research could examine if Bible Believers tend to be ambiguous about treatment and therefore feel torn by alternate treatment options. Future studies could also explore what

aspects of traditional mental health treatment Bible Believers mistrust and how these issues might be addressed through alternative treatments or increased collaboration with faith communities and their leaders. Similar studies could examine the effects of etiological and preferred treatment beliefs on the course and outcome of treatment.

Future studies could be strengthened by the inclusion of more sophisticated measures of religious beliefs that assess multiple domains and have well-established psychometric properties (Fetzer Institute, 1999; Hill & Hood, 1999). Future research could also include items that more specifically delineated what "bad character" and "chemical imbalance" means to respondents. For example, "bad character" could possibly be interpreted as the violation of ethical and moral codes or as a general "weakness of character."

Research questions that examined the relationship among Bible Believers between diagnosis type and endorsed causes/preferred treatments could be explored. The examination of links between endorsed causes and preferred treatments is also needed. Answers to these questions could provide better prediction of how Bible Believers and their social networks are likely to respond to suggested courses of treatment based on their views of what causes particular disorders.

Future studies also need to examine how Bible Believers would respond to their own potential mental illnesses or the mental illness of someone in their immediate social network. Research that examined this question could help determine if Bible Believers respond differently to the illnesses of hypothetical others as opposed to those with whom they have an intimate relationship.

Implications for Social Work Practice

The findings of this study that Bible Believers are more likely than the general population to attribute the cause of mental illness to "bad character" and more likely to endorse "talking to a minister, priest, or rabbi" have numerous implications for social work practice. First, social workers need to be mindful that Bible Believers who seek help for symptoms of mental illness may be more likely to feel a sense of guilt and shame that their "sinful" behavior has caused their illness. They may also feel that any response to the illness needs to incorporate some type of reconciliation to God. For these reasons, Bible Believers may wish for their social worker to have a similar perspective.

Psychologist H. Newton Malony (1998) describes how the wishes of two groups of Bible Believers, Christian Fundamentalists and Christian Evangelicals, might be manifested in the initial stages of treatment:

> Fundamentalists might be suspicious of any counsel given; feel guilty about being there; and only trust the advice given by a Christian Counselor at their churches who would encourage them to examine their faithfulness to biblical standards. Evangelicals might be accepting of the counsel they receive but would want to check out the credentials of the counselors in terms of whether they were themselves born again. Furthermore, they might expect the counseling to begin with prayer and that scriptural and religious resources be recommended in the treatment (p. 207).

Malony adds that Fundamentalists are likely to believe that "change can come only from understanding and obeying the laws of life as contained in the Bible" (p. 207).

Psychologist and Pentecostal pastor Richard Dobbins (2000) notes some of the questions that may be present in the mind of the Bible Believer when accessing professional mental health services:

> ...even the act of sitting in the office of a mental health professional generates guilt-provoking questions: Why haven't I been able to trust God for this problem or condition? Why don't I have the faith to rise above this? As a Spirit-baptized Christian, what kind of a testimony am I to this therapist, when I can't manage my own life? What will this therapist think of my faith? Will my faith be respected or come under attack" (p. 168).

Dobbins adds that they are also likely to believe that if they were "living for God" then all would be right because "bad things are happening to them because they are somehow displeasing God" (p. 138). He also asserts that they believe "if they could just get back into a right relationship with God, all of their problems would vanish" (p. 168).

Psychologist Nancy Thurston (2000) warns that Bible Believers may fear "that therapy will erode one's core beliefs (such as the authority of the Bible)" and "that entering therapy will make them 'look bad,' thus embarrassing one's self, family, and church" (p.137). Thurston adds that this embarrassment is related to not being able to address their illness within the resources of their family or church. Thurston adds:

> Given these fears and concerns that Fundamentalist (and some Evangelical) persons may have about seeking psychotherapy, it is helpful for therapists to know how to build up trust and credibility with them, particularly in the initial phase of treatment. One suggestion for doing so is to work within the client's

> idioms. The objective here is to enter the client's world and meta-communicate that you are connected to their frame of reference (p. 138).

Thurston suggests that the best response to the client's sense of guilt over their "sin" being the cause of their illness is to avoid "minimizing or rationalizing this fear to the patient, but instead to validate their affect, especially in the initial stage of therapy" (p. 138).

Social work scholars often argue that social workers should strive to not allow their own value judgments to be imposed upon the client's definition of the problem. Despite this basic guideline for practice, the inclusion of "bad character" in the treatment of client problems is not foreign to social work theory or the theories of other mental health professions. For example, the 12-step tradition of Alcoholics Anonymous encourages individuals to make a "searching and fearless moral inventory," to admit "to God, to ourselves, and to another human being the exact nature of our wrongs," to be ready "to have God remove all these defects of character," and to "make amends" to those we have harmed or offended (AA World Services, 1981).

Social worker Alan Keith-Lucas (1985) discussed three reasons why modern social work has removed itself from the concept of "sin." First, the concept of "sin" has often been used to justify the existence of poverty. Many early efforts at "social work" were based on the ideas that it was the job of the moral helper to enlighten the immoral "client." In other words, it was believed that if individuals were living in accord with God's law, then they would not be in poverty. Secondly, social workers are concerned that too much concentration has been placed on individual behavior and too little focus

on the moral and ethical violations of unjust social structures. The third and final reason is explained by Keith-Lucas as follows:

> Restricting the notion of sin to deliberate acts of disobedience to God's will, or from a secular point of view, to the mores of a society, leads to a third reason why social workers have objected to the idea of sin. For far too many Christians, convinced that they know what is a sin and what is not, either from a reading of the Bible or from the teaching of their church, and believing that all it takes not to commit such acts is an act of will on the part of the sinner, take it upon themselves to reprove, blame, refuse to tolerate, punish or in some cases enlighten, the sinner. And about this two things might be said. It is bad social work and is questionable Christianity (p. 21).

Keith-Lucas argues that it is bad social work because "reproof, blaming and punishing" are neither effective nor acceptable ways to help people grow and change (p. 21).

A fourth possible reason, overlooked by Keith-Lucas, is the focus on cultural sensitivity. Since Judeo-Christian perspectives on human behavior have been dominant in American society, social workers have been concerned that individuals from other faith traditions, or those not affiliated with a particular tradition, have been pressured into assimilating to the Judeo-Christian worldview. Social workers, especially those employed by government agencies, have been fearful of violating the Constitutional principle of the "separation of church and state." In seeking to protect individuals from situations in which religion can be harmful, social workers may have gradually overlooked the need to protect the client's religious and spiritual autonomy.

Canda and Furman (1999) have outlined a series of ethical guidelines to be used in determining whether or not social workers should address these issues themselves with a particular client or refer the client to their faith community for that purpose. Regardless of which action is most appropriate, social workers need to be familiar with the "bad character" worldview of Bible Believers and be prepared to incorporate that view into their treatment. Likewise, social workers should be alert for situations when collaboration with the client's faith community might be contraindicated. The client's interaction with his or her faith community might be exacerbating the illness. In these situations, social workers can assist the client in assessing the consequences of continued interactions with that community and empower them to consider other groups that share their faith while being supportive of their recovery.

The NASW Code of Ethics (1999) addresses the social worker's obligation to recognize "the strengths that exist in all cultures" and to "demonstrate competence in the provision of services that are sensitive to client's cultures" (1.05 - a & b, p. 9). The Code further states that social workers should "obtain education about and seek to understand the nature of social diversity and oppression with respect to ...religion" (1.05 - c, p.9). In light of these obligations, it is clear that the social worker must respect the client's choice of spirituality and seek to provide services that accentuate the strengths of his or her religious culture.

Canda and Furman (1999) give a more detailed description of their interpretation of the "spiritually sensitive" social workers obligations as it relates to NASW Code: "When clients identify religious or nonreligious forms of spiritual support, including

religious communities or spiritual support groups and transcendent or sacred beings, these beliefs and related practices are respected by the worker and included in the approach to helping as relevant to clients' own preferences" (p.30). They also recognize the dilemma of the social worker who perceives that the individual is being harmed by the beliefs of their spiritual community: "When religious and nonreligious spiritual systems and institutions are identified by clients as contributing to their personal or social problems, clients are assisted to challenge them or to change their relationships with them in a respectful manner (p. 31).

Social workers can empower the client to examine their own character-development needs within the context of the client's existing worldview while also helping the client examine how other people and social forces may be contributing to the existing problem.

In addition to understanding how the "bad character" causal attribution may manifest itself in direct social work interventions with the client, it is also necessary to understand how this view may shape the client's interactions with their faith community. The "bad character" view may explain why religious individuals with a mental illness often report a decrease in church attendance due to embarrassment about their illness (Lindgren & Coursey, 1995). Other studies have documented that individuals with a mental illness report a deficit of desired supportive contacts with their faith community (Fitchett, Burton, & Sivan, 1997; Favazza, 1982). Wahl's (1999) study revealed that much of the stigma encountered by members of faith communities was related to these "bad character" attributions.

Social workers should work to increase the number of supportive interactions the client has with their faith community. This could happen through collaboration with clergy, lay religious leaders, or Bible-believing family members. By understanding the concerns of the client's support network, social workers can craft services that will address these concerns and allow the client's significant others to play an active role in the individual's recovery that will endure after the termination of formal treatment. This could happen through community education, family therapy, or routine contacts with clergy.

The finding that Bible Believers, although supportive of medication regimens, are more likely to endorse that people should stop taking medications when symptoms subside also has implications for social work practice. Social workers should be aware that Bible Believers might be concerned about the prolonged use of psychiatric medications. Social workers should discuss with clients the possible consequences of stopping medication as soon as symptoms subside. Information could be provided on possible alternatives or on the stepping-down of dosage when indicated. These approaches would assist the client in making a more informed choice about the cessation of their medication regimens.

A holistic approach to healing is needed in treating religious individuals with a mental illness. Psychiatrist John Nelson (1994) has called for the integration of spirituality into the treatment of the mentally ill. "Because (the mentally ill) are drawn to religious symbols in the hope of finding meaning..." says Nelson, "organized religion is in a unique position to assist this forlorn segment of humanity" (p. 362). He also calls on

secular mental health professions to recognize the value of an individual's religious resources. Psychiatrist Dwight Carlson (1994) echoes these assertions:

> "It is crucial that we work together to use all our resources - as pastors, church leaders, support groups and professional counselors - to assist emotionally hurting people. If professionals and church leaders can see each other's valuable role, we will make progress in helping the wounded. If we take potshots at each other, the wounded will be injured in the crossfire. We must work together" (p. 128).

Social workers are uniquely trained to view client problems psychosocially and to incorporate both personal and social interventions for the client. Social work assessment must include an evaluation of the individual's spiritual and religious needs, and social work treatment planning must utilize the individual's spirituality and the resources of their faith community as strengths to empower them in meeting their treatment goals. Assessment should also include consideration of the potential deleterious effects of the individual's faith community, and treatment planning should involve strategies to minimize or eliminate those effects through collaboration with clergy and facilitation of an informed support network. Social workers also need to explore efforts to collaborate with faith communities in treating clients and in developing cooperative education efforts.

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APPENDIX

APPENDIX A

VIGNETTE WORDING

Alcohol dependence

[John/Juan/Mary/Maria] is a [white/African American/Hispanic] [man/woman] with an [eighth grade/high school/college] education. During the last month [John/Juan/Mary/Maria] has started to drink more than his/her usual amount of alcohol. In fact, he/she has noticed that he/she needs to drink twice as much as he/she used to get the same effect. Several times, he/ she has tried to cut down, or stop drinking, but he/she can't. E ach time he /she has tried to cut down, he/she became very agitated, sweaty and he/she couldn't' sleep, so he/she took another drink. His/Her family has complained that he/she is often hungover, and has become unreliable -- making plans one day, and canceling them the next.

Major depression

[John/Juan/Mary/Maria] is a [white/African American/Hispanic] [man/woman] with an [eighth grade/high school/college] education. For the past two weeks [John/Juan/Mary/M aria] has been feeling really down. He/She wakes up in the morning with a flat heavy feeling that sticks with him/her all day long. He/ She isn't enjoying things the way he/ she norm ally would. In fact nothing gives him/her pleasure. Even when good things happen, they don' t seem to make [John/Juan/Mary/Maria] happy. He/She pushes on through his/her days, but it is really hard. The smallest tasks are difficult to accomplish. He/She finds it hard to concentrate on anything. He/She feels out

of energy and out of steam. And even though [John/Juan/Mary/Maria] feels tired, when night comes he/she can' t go to sleep. [John/Juan/Mary/Maria] feels pretty worthless, and very discouraged. [John's/ Juan's/ Mary's/Maria's] family has noticed that he/she hasn't been himself/herself for about the last month and that he/she has pulled away from them. [John/Juan/Mary/M aria] just doesn't feel like talking.

Schizophrenia

[John/Juan/Mary/Maria] is a [white/African American/Hispanic] [man/woman] with an [eighth grade/high school/college] education. Up until a year ago, life was pretty okay for [John/Juan/ Mary/ Maria]. But then, things started to change. He/ She thought that people around him/her were making disapproving comments, and talking behind his/her back. [John/Juan/Mary/ Maria] was convinced that people were spying on him /her and that they could hear what he/she was thinking. [John/Juan/ Mary/ Maria] lost his/her drive to participate in his/her usual work and family activities and retreated to his/her home, eventually spending most of his/her day in his/her room. [John/Juan/Mary/Maria] was hearing voices even though no one else was around. These voices told him/her what do and what to think. He/She has been living this way for six months.

Drug problem

[John/Juan/Mary/Maria] is a [white/African American/Hispanic] [man/woman] with an [eighth grade/high school/ college] education. A year ago [John/ Juan/Mary/

Maria] sniffed cocaine for the first time with friends at a party. During the last few months he/she has been snorting it in binges that last sever al days at a time. He/She has lost weight and often experiences chills when binging. [John/Juan/Mary/ Maria] has spent his/her savings to buy cocaine. When [John's/Juan's/Mary's/Maria's] friends try to talk about the changes they see, he/she becomes angry and storms out. Friends and family have also noticed missing possessions and suspect [John/Juan/Mary/Maria] has stolen them. He/She has tried to stop snorting cocaine, but can't. Each time he/she tries to stop he/she feels very tired, depressed and unable to sleep. He/She lost his/her job a month ago, after not showing up for work.

VITA

Todd S. Stanfield, a native of the Shoals area of north Alabama, graduated from Bradshaw High School in 1989 and received the Hugh W. Sparrow Scholarship in journalism. He received a Bachelor of Social Work (BSW) degree in 1993 and a Masters of Social Work (MSW) degree in 1994 from the University of Alabama. He received the Outstanding MSW Student Award, was named a Masters Scholar, served as the student representative to the MSW curriculum committee, and was the recipient of a child welfare traineeship. During his studies at the University of Alabama, he worked as a computer lab assistant in the School of Social Work and as a summer day camp counselor at the YMCA of the Shoals. He completed field placements at an alternative school in the Tuscaloosa City School System and at the Tuscaloosa County Department of Human Resources. After receiving his MSW, he worked as a child welfare worker with the Lauderdale County Department of Human Resources until 1996. He subsequently worked for the Mental Health Center of North Central Alabama as a child and adult psychotherapist in clinical and school settings, and became the director of the Moulton-Lawrence Counseling Center where he managed the center's staff, budget, and group home. He also served as the county's evaluator for psychiatric inpatient commitment petitions.

He began his doctoral studies at the University of Tennessee in 1998, served as a research and teaching assistant, and successfully defended this dissertation on August 7, 2002. He is currently employed as the Coordinator of Analytical Services and as an

adjunct faculty member at the University of North Alabama. He plans to continue his career as a social work researcher, instructor, and direct practitioner.