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Increasing Clergy's Knowledge of Mental Illness, Confidence, and Willingness to Refer

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Walden University
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Abstract

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MA, Walden University, 2014

BS, High Point University, 1996

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Over 43 million Americans suffer from mental illness annually with 40% seeking support from clergy (Polson & Rogers, 2007) who claim to be ineffectively prepared (Farrell & Goebert, 2008). This study investigated if mental health training administered to clergy would increase their knowledge of various mental disorders, alter their opinion regarding helpful resources, grow their self-confidence to help individuals experiencing mental health issues, and increase clergy's willingness to refer out. The theoretical basis for this research was attribution theory that attempts to explain social perceptions (Mannarini & Boffo, 2013) and the struggle individuals (i.e. clergy) have regarding the causation of mental health concerns (Locke & Pennington, 1982) and identification of mental illness symptoms (Miller, Smith & Uleman, 1981). In the within-group study, clergy completed the Mental Health Effectiveness Questionnaire pre and post training to answer the following questions: Does participation in a training workshop affect clergy's knowledge of mental disorders, opinion regarding helpful resources, self-confidence to assist an individual with mental health issues, and willingness to refer to a helpful resource? Results showed mental health training positively influenced opinions regarding helpful resources, confidence to assist, and refer someone with mental illness, the results of this research may influence positive social change by showing that mental health training may do more than increase confidence to assist and refer someone experiencing mental health issues. It may also be a means of social support to family members already possessing knowledge of mental illness.

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Chapter 1: Introduction to the Study

Introduction

Each year almost 43 million Americans experience mental illness (NIMH, 2015), with approximately 22.3 % of adults and 8% of adolescents in the United States experiencing serious mental issues that greatly affect activities in their lives (Bagalman & Napili, 2015). These percentages have remained relatively stable from 2010 to 2014 per the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014). Although known treatments exist for individuals experiencing mental health problems, about 57% of adults in the United States with mental illness receive no treatment (MHA, 2016). It is estimated that only 11 - 62% of individuals receive needed treatment annually (Wang et al., 2003), 64% of youth with depression do not receive any treatment, 63% of those with severe depression do not receive any outpatient services (MHA, 2016), and some people experiencing mental illness may not be aware that there is treatment available (World Health Organization (WHO), 2017). The most common mental issues are depression, anxiety, and substance abuse with suicide being one of the greatest global public health difficulties (Whiteford et al., 2013). Mental health improvements will occur with earlier detection, referrals to professionals (WHO, 2017), and psychoeducation offered to the public to improve the quality of social support (Dumesnil & Verger, 2009). Many Americans seek assistance from clergy during health crises (Oppenheimer, Flannelly, & Weaver, 2004) placing clergy in a front-line mental health role (VanderWaall, Hernadez & Sandman 2012).

This first chapter will provide background into this research, the problem statement, purpose of the study, research questions and hypothesis, conceptual framework, nature of the study, assumptions, scope, limitations, and significance of this study.

Background

Clergy appear to have differing beliefs about the underlying causes of mental illness that may significantly affect their attitudes, referral practices and coordination with mental health professionals (Bledsoe, Setterlund, Adams, Fok-Trela & Connolly, 2013). Some church leaders believe that mental disorders originate from biological and genetic factors, where other leaders perceive mental illnesses such as depression, anxiety, and schizophrenia originate from psychosocial or spiritual matters (Payne, 2009). Mental disorders of these natures are often complex and may require coordination with trained professionals (Bledsoe et al., 2013). Hall and Gjesfield (2013) recognized the need for religion and spirituality in mental health services and suggest that clergy be considered a partner in mental health service delivery. Assessing clergy needs and providing recommendations regarding education and training to clergy in many of the psychological disorders may be helpful in determining the best plan of care for congregants in need (Bledsoe et al., 2013).

Clergy are called upon to recognize serious mental health issues, intervene in crises, and provide referrals and ongoing support (Ross & Stanford, 2014). However, many clergy do not feel equipped to assist church members who are afflicted with mental illness or make referral recommendations to mental health professionals (Farrell &

Goebert, 2008). Many clergy have obtained their education of mental health through self-study and research, while some have acquired knowledge through personal experiences. Without proper training to identify mental disorders and treatment options, many clergy feel they are not satisfactorily prepared to help those in need (Bledsoe et al., 2013).

Congregants may benefit from collaboration with mental health professionals that can provide support to the church member after clergy referral (Bledsoe et al., 2013). However, history shows that religious leaders have viewed counselor's secular psychotherapeutic approaches as being in opposition to Christian values. Clergy acknowledge that situations that involve suicide, crisis intervention, homeless assistance, and abuse caused them the most personal stress with many needs remaining unmet at their churches.

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psychotherapeutic approaches as being in opposition to Christian values. Clergy acknowledge that situations that involve suicide, crisis intervention, homeless assistance, and substance abuse caused them the most personal stress with many needs remaining unmet at their churches.

Problem Statement

Almost 43 million Americans experience mental illness each year (NAMI, 2016), with approximately 57% of adults receiving no treatment. However, 40% of Americans do however seek support from clergy prior to other helping professionals because of the high regard held for clergy (Polson & Rogers, 2007), Farrell and Goebert (2008) indicated that 71% of clergy felt ineffectively prepared to recognize mental illness and were reported to refer to mental health professionals only approximately 10% of their church members presenting with problems (Stanford & Philpott, 2011). Clergy have admitted to not having the competency or self-confidence to recognize mental health problems (Wang et al., 2004; McMinn, Ruiz, Marx, Wright & Gilbert, 2006; Bledsoe et al., 2013; Stanford & Philpott, 2011; Ross & Stanford, 2014) or knowledge of referral services available (Wang et al., 2003).

Purpose of the Study

The purpose of this study was to determine if mental health training administered to clergy would increase their knowledge of various mental disorders, alter their opinion regarding helpful resources, grow their self-confidence to help individuals experiencing mental health issues, and increase clergy's willingness to refer out.

To measure the effect of the training on clergy, I administered a pretest before the training and posttest after the training to participants and then compared scores regarding knowledge of mental disorders, opinions regarding helpful resources, self-confidence in assisting individuals with mental illness symptoms, and willingness to refer to a helpful resource.

Research Questions and Hypotheses

In the within-group study, a pretest was administered prior to the training intervention, and a posttest administered after the training. The results of the pretest and posttest were compared to answer the following research questions.

Research Question 1

Does participation in a training workshop affect clergy's knowledge of mental disorders as evidenced by comparing pretest and posttest scores from the single within-study-group receiving the intervention?

$H_0$1: There will not be a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's knowledge of mental disorders.

*Ha*1: There will be a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's knowledge of mental disorders.

Research Question 2

Does participation in a training workshop affect clergy's opinion regarding helpful resources for mental health issues as evidenced by comparing pretest and posttest results from the single within-study-group?

$H_0$2: There will not be a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's knowledge of helpful resources.

*Ha*2: There will be a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's knowledge of helpful resources.

Research Question 3

Does participation in a training workshop affect clergy's self-confidence to assist an individual with a mental health issues as evidenced by comparing pretest and posttest results of the single within-study-group?

$H_0$3: There will not be a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's self-confidence to assist an individual with a mental health issue.

*Ha*3: There will be a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's self-confidence to assist an individual with a mental health issue.

Research Question 4

Does participation in a training workshop affect clergy's willingness to refer to a helpful resource as evidenced by comparing pretest and posttest results of the single within subjects group receiving the training intervention?

$H_0$4: There will not be a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's willingness to refer to a helpful resource.

*Ha*4: There will be a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's willingness to refer to a helpful resource.

The preceding questions are operationalized in chapter three on and the hypotheses and statistical procedures are expounded on.

Conceptual Framework

The theoretical basis for this study is attribution theory developed by Fritz Heider in the early 20th century (Mannarini & Boffo, 2013). Attribution theory is a part of a more complex Heiderian theory of social perception that describes how people explain behavior (Crandall,Silvia, N'Gbala, Tsang & Dawson, 2007). The theory purposes that behavior can be attributed to either disposition or situation. A disposition consists of personality traits, motives, or attitudes. A situation includes social norms, stressors, trauma, and acts of God (Weiner, 2008). Situational attribution theory is also called external attribution and can be understood as an event or a behavior that is being caused by the situation an individual is in (Lincoln, Mehl, Exner, Lindenmeyer & Riet, 2010).

As an example, someone may believe that people can choose to not be depressed. The individual may not understand possible biological attributions or environmental events influencing depression.

Nature of the Study

The nature of this study was a quasi-experimental repeated-measures design. To investigate the hypotheses, the Mental Health Effectiveness Questionnaire inventoried the participant's knowledge of mental disorders for major depression and psychosis, opinion regarding helpful resources, self-confidence to assist an individual with mental illness, and willingness to refer to a helpful resource.

The goals of this project were to discover if training provided to clergy affected their knowledge of mental disorders, opinion regarding helpful resources, self-confidence to help individuals experiencing a possible mental health crisis, and their willingness to refer out to supportive resources in the care of congregants.

The independent variable was the time raw data was collected (Pretest and posttest). Questionnaires captured dependent variable data such as clergy's knowledge of mental disorders, opinion regarding helpful resources, self-confidence to aid someone experiencing mental illness symptoms, and willingness to refer to a helpful resource.

Definition of Terms

Baptists emphasis is on the message of salvation brought to sinners by Jesus Christ. There is no centralized governance therefore an extensive range of beliefs can be found between Baptist churches. Baptists generally have the belief that the Bible is the final authority and can be used for teaching and faith practice (Draper, 2000).

Christians are people who believe in Jesus Christ and his instructions in the bible that include faith in the trinity (Father, Son, and Holy Spirit), the embodiment of Jesus Christ, and eternal life. (Jenkins, 2014). Examples of Christian denominations used in this study are Baptists, Methodists, Non-denominations, Presbyterians, Anglican, Evangelical, Lutheran, Episcopalian, and Catholics.

Church is an institutional structure of a network of religious bodies (Pratt, 2016).

Clergy represents a group of ordained individuals that accomplish pastoral or religious functions in a Christian church. Their education differs by religious institution within the denomination. Clergy tend to share a common emphasis, including study of revered texts, doctrine, history, worship, and the skills required to function successfully as a religious leader (Aleshire, 2010).

Depressive Disorder symptoms can range from mild to severe including depressed mood (feelings of sadness, hopelessness), reduced interest or desire in activities, weight loss when not dieting, fatigue, insomnia, reduced ability to think, and suicidal thoughts (American Psychiatric Association, *DSM-5*, Depressive Disorders, 2013, p. 160-161).

Feeding and Eating Disorders can be described as frequent eating of nonnutritive or nonfood substances or eating disturbances. Possible related eating disorders are anorexia nervosa and bulimia nervosa which includes food restriction, binge eating, or regurgitation of food (American Psychiatric Association, *DSM-5*, Feeding and Eating Disorders, 2013, p. 338-344).

Mental Health can be described as an individual's wellbeing in which they realize

their own potential, ability to handle normal tensions of life, can work effectively and successfully, and can contribute to the community (WHO, 2017).

Mental health literacy is characterized as having awareness of mental illness that enables them to support mental health management or deterrence (Jorm et al., 1997).

Mental Illness is a disorder which causes changes in a person's behavior or thinking (MHA, 2016).

Pastoral care endeavors to help support suffering individuals with the problems and distresses within a theological or religious framework (Lartey, 2003).

Post-Traumatic Stress Disorder (PTSD) can affect persons who have experienced serious injury, sexual violence, or other perceived harm to themselves or others food (American Psychiatric Association, *DSM-5,* Trauma- and Stressor – Related Disorders, 2013, p. 271-272).

Psychosis is the presence of a delusion, hallucination, confused speech, or catatonic behavior. Psychosis has a varied symptom profile and can be temporary or prolonged. An assessment should be made to determine the origin of the symptom such as a stressful resent event, postpartum onset, depression, bi-polar, schizophrenia, etc. (Parker, 2014).

Protestants advanced as an objection against what was thought as unbiblical instruction and traditions in the Roman Catholic Church of the Protestant Reformation begun by Martin Luther in 1517. Europeans united with this protest created churches outside of the Catholic Church's governance such as the Southern Baptist Convention,

Assemblies of God, United Methodist Church, and Presbyterian Churches (Bishop, 2014).

Non-Denominational churches are organizations that are not a part of a larger denomination that exercises authority over them (Berglund, 2013).

Schizophrenia can be described by delusions, hallucinations, disorganized speech, disorganized or catatonic behavior, diminished emotional expression, or a changed level in functioning in interpersonal relationships or self-care (American Psychiatric Association, *DSM-5,* Schizophrenia Spectrum, 2013, p. 99-100).

Stigma is when someone is stereotyped or labeled by being different or by an illness (NAMI, 2016b).

Training is the organized procedure by which people learn information and gain skills for a specific purpose (Kumar, 2013).

Assumptions

First, it was assumed that the Mental Health Effectiveness Questionnaire utilized in the research was completed candidly by participants and therefore effectively captured meaningful data representative of clergy in the Central Texas surrounding area. To encourage candid responses, informed consent was explained with emphasis on confidentiality of responses and data collection, voluntary participation, and the opportunity to learn about the results. The second assumption was that this project may support further research by building on previous studies aimed at providing psychoeducational awareness, increase helping behavior, and ultimately contribute to scientific knowledge that benefits society.

Scope

Christian clergy can have varied religious beliefs and experiences (Vespie, 2007). The participants for this study were solicited by Mental Health Grace Alliance (MHGA) and came from various Christian denominations such as Baptist, Methodist, Catholic, non-denominational, Presbyterian, Anglican, Evangelical, Lutheran, Mennonite Brethren, and Episcopalian in the Central Texas rural vicinities.

Limitations

There are two limitations to note. The first limitation was the use of a vignette-based questionnaire to evaluate hypothetical behavior rather than observed behavior. Use of fabricated scenarios are known as analogue research (Cook & Rumrill, 2005), and use of constructed vignettes can increase confidence regarding internal validity due to controlling the behavior depicted in the scenario but can also be a threat to external validity when casual relationships between scenario and variables are ambiguous. Administering more realistic situations in scenarios can increase validity (Aguinis & Bradley, 2014). The second limitation is that individuals who chose to participate in the mental health training workshop may have already been motivated and receptive to psychoeducational training. There has been a long-time controversy among Christians regarding secular psychology and how it may be contrary to Christian values (Nye, Savage & Watts, 2003). Therefore, some Christians who chose not to participate in the workshop may have been suspicious of secular psychological treatments.

Significance

In 2015, The National Institute of Mental Health (NIMH) estimated that approximately 43.4 million or 17.9% of United States adults over the age of 18 are diagnosed with a serious mental illness within a calendar year and received mental health services. Anxiety disorders were experienced by 18.1% receiving services, major depressive episode 6.9 % personality disorders 9.1%, panic disorders 2.7%, and major depressive episode 6.9%. Cohen and Reporting (2015) estimates that 20.7 million or 40.7% Americans over 18 years of age who experience substance use disorder had a co-occurring mental illness. It was reported by Cohen and Reporting (2015) that only 41% of adults in the United States with a mental illness and an estimated 62.9% with serious mental illness received mental health services in 2014. The World Health Organization (WHO, 2015) reported that approximately 25% of American adults have a mental illness and almost 50% of American adults will develop a mental illness sometime during their life. Christians requiring mental health counseling often go to their pastors for help (VanderWaal et al., 2012), however, Bledsoe et al., (2013) pointed out that education and training varies regarding pastoral care, counseling, and collaborative relationships with mental health professionals. Pastors and counselors share mutual dedication to serve those in need and both would benefit from collaboration (Bledsoe et al., 2013), however current literature has identified existing gaps in clergy's ability to recognize symptoms of mental illness (Stanford & Philpott, 2011) along with treatment resources. Previous research by Vespie (2010) indicate that a pastor's mental health education and beliefs influence their helping behavior. For instance, some pastors believe depression stems

from personality defects, biological factors, lack of faith, or possible demonic activity (Payne, 2009). Multiple studies have assessed pastoral needs, and recommend clergy receive more psychosocial education to increase their ability to recognize mental illness symptoms within their congregations and influence potential mental health referrals (Bledsoe et al., 2013). For congregants to receive appropriate help, it is vital that clergy recognize how to identify possible mental disorders along with referral options for professional help (Bledsoe et al., 2013). The outcomes of this research can influence social change by providing valuable insight into how mental health training may increase awareness of mental health issues and treatment options to provide support to clergy and their congregations.

Summary

In this chapter I described that mental illness effects over 43 million Americans annually and many of these have not received treatment due to knowledge deficiency of mental illness symptoms and available mental health resources. Numerous researchers have advocated for earlier detection of mental issues by improving the quality of social support (Bledsoe et al., 2013; Lafuze, Perkins, & Avirappattu, 2014; Payne, 2009; Stanford & Philpott, 2011). Many Americans seek assistance from clergy during health crises (Oppenheimer, Flannelly, & Weaver, 2004) to provide support and referrals (Ross & Stanford, 2014) but do not feel equipped to aid church members experiencing mental issues (Farrell & Goebert, 2008).

Education, training, and counseling varies among clergy and church leaders as does their collaborative relationships with mental health professionals (Bledsoe et al.,

2013). Current literature has identified existing gaps in clergy's ability to recognize symptoms of mental illness (Stanford & Philpott, 2011) along with treatment resources.

Previous research by Vespie (2010) indicates that a pastor's mental health education and beliefs influence their helping behavior, therefore the purpose of this study was to determine if mental health training administered to clergy would increase their knowledge of various mental disorders, alter their opinion regarding helpful resources, grow their self-confidence to help individuals experiencing mental health issues, and increase clergy's willingness to refer out.

Data was collected before and after a Mental Health 101 training workshop conducted by Mental Health Grace Alliance that targeted Christian clergy and lay leaders. The data was then analyzed to answer the research questions to determine impact on the participant's knowledge of mental disorders, opinions regarding helpful resources, self-confidence, and willingness to refer out.

Chapter 2 consists of a discussion of relevant literature on mental illness training for clergy. In Chapter 3, I describe the study's methods including statistical procedures that were used in the study. Chapter 4 will examine the data and interpretations of findings. Chapter 5 concludes with a summary of the findings, limitations of the study, implications for social change, recommendations for future study, and personal reflections.

Chapter 2: Literature Review

Introduction

Mental health is not only about living without a mental illness; it is a mixture of social, mental, and genetic elements that contribute towards an individual's mental health status. Suicide takes the lives of over 800 000 people each year and is the second leading cause of death in individuals ages 15-29 (WHO, 2019). It is estimated that half of all major mental disorders originate by 14 years of age, with 75% visible by the mid-twenties, with similar disorder symptoms reported across cultures (WHO, 2014). Approximately 46.6 million (18.9%) of adults living in the United States were diagnosed with a mental illness in 2017. It was also estimated that 11.2 million (4.5%) of these adults were diagnosed with a serious mental disorder (NIMH, 2017) that greatly affected life's activities (Bagalman & Napili, 2013). Children with mental disorders are stigmatized and isolated which can greatly impact their growth, educational accomplishments, and the ability to live satisfying and fruitful lives if not treated (NIMH, 2015). About 60% of adults and almost fifty% of young people ages 8 to 15 years old with a mental illness did not receive mental health services in the preceding year (NIMH, 2015) with approximately 38% of people with a serious mental disorder receiving adequate treatment in a given 12-month period (WHO, 2019). As an example, less than 10% of people with depression receive an acceptable level of evidence-based therapy. When prescribed antidepressants, approximately 5-10% never fill the first prescription, and 35% of those who do begin antidepressant treatment discontinue use before the second refill leaving less than 50% of these people still taking the prescribed medication

6 months later (Katon & Unützer, 2013). Mental health issues commonly seen throughout the United States population have also been seen in the church and multiple studies suggest that people often seek the counsel of clergy when they experience personal issues. Church leaders however, have admitted to not having the self-confidence to identify and provide referrals for mental illnesses (Wang, Berglund & Kessler, 2003; Ross & Stanford, 2014) and welcome training (Bledsoe et al., Setterlund, Adams, Fok-Trela & Connolly, 2013).

Current literature has identified existing gaps in clergy's ability to recognize the symptoms of mental illness (Stanford & Philpott, 2011) as some clergy may believe mental illness stems from personality defects, biological factors, absence of faith, or possible demonic activity (Payne, 2009). The purpose of this quantitative study was to determine the impact mental health education had on church leader's ability to identify mental illness symptoms and increase their confidence to engage in helping behavior. This chapter begins with discussion of the intervening role of clergy, stressors placed on clergy, educational opportunities, and discussion of the theory of fundamental attribution error. The chapter concludes with a high-level description of the proposed faith-based mental health education workshop.

Literature Search Strategy

An examination of relevant literature was achieved by searching various databases with the goal of locating previous research associated with the prevalence of mental illness within the Christian church and training received by clergy to help them identify mental illness symptoms in their congregations. Attempts were made to limit

research to a 7-year period ranging from 2010 through 2017. However, due to the limited literature within the subject, the search date filter was expanded to include a broader date range.

Databases accessed were Google Scholar, The Thoreau Multi-Database, ProQuest Central, Science Direct, PsycARTICLES, PsycBOOKS, PsycINFO, Psychiatry Online, Sage Journals, SocIndex, Mental Measurements Yearbook, and Dissertations.

Key terms searched included situational attribution and mental illness or sin, attribution, external attribution, attribution or causal or causation, attribution and blame, and mental, attribution and mental and religion, attribution or belief and religion and mental, etiology or belief of mental illness, attitudes, opinions, religious stigma, perception, causation theory and mental illness, sin and mental illness, priest or pastor or clergy training, mental illness in the church, identifying or assessing and mental illness or referral, pastor or clergy or church mental health collaboration or psychologists or therapy or intervention or counseling or pastoral counseling, training or workshops and mental health education, church, church staff, congregation, Baptist, Southern Baptist, clergy, pastors, priest, minister, reverend, elder, mental illness and assessment or questionnaire. Many of these key terms were combined or reduced to increase search quality. In addition, resources located were then scanned for additional references and investigated.

Review of Research Literature

There are approximately 469,000 clergy in the United States (Occupational Employment Statistics, 2014). Seventy-eight percent of the US population claims Christianity as their religious affiliation, of which 51% are Protestants, 26% Evangelical churches, 18% mainstream churches, and 7% traditionally black churches (Miller, 2008). Clergy participate in baby dedications, consult on faith concerns (Young, Griffith & Williams, 2003; Mattis et al. 2007), pregnancies, abortion, reproductive issues (Vespie, 2010), relationship issues (Moran et al., 2005), premarital counseling, couples counseling, and weddings (Payne, 2009). They are known to come in contact with individuals suffering from a variety of emotional and mental stresses while performing daily pastoral activities (Wasman, Corradi & Clemens, 1979) such as matters related to death, dying, and funerals since they are knowledgeable when it comes to bereavement and faith (Young et al., 2003; Payne, 2009).

It is not surprising that the most common mental health issues seen throughout the United States population would also be visible in Christian churches (Rogers, Stanford & Garland, 2012) as worshippers are not immune from suffering from mental disorders and clergy have been sought at the same frequency as mental health professionals for disorders of depression (Young et al., 2003; Farrell & Goebert, 2008), bipolar disorder, schizophrenia, sexual addictions (Manning & Watson, 2007), drug and alcohol misuse (United States Department of Health and Human Services, n.d.), and anxiety (Young et al, 2003).

Clergy appear to share similar experiences with mental illness among congregants worldwide because of their intervening role (Weaver, Flannelly K., Flannelly L., Oppenheimer, 2003; Farrell & Goebert, 2008; VanderWaal et al., 2012) and reputation in society as being trustworthy (Openshaw & Harr, 2009). The religious guidance offered by clergy is sometimes preferred over mental health care professionals. Secular mental health care practitioners have been trusted for their professional standards and confidentiality but have been at times considered impersonal and theoretical offering superficial short-term help (Milstein, Manierre, Susman & Bruce, 2008). Even in the United Kingdom where there is a socialized health care system, a substantial percentage of the population visit clergy instead of or along with mental health services (Mitchell & Baker, 2000). Clergy are perceived by some as more approachable compared to more formal mental health services possibly because congregants are more familiar with their church leaders and consider the religious community a place of security and healing (Wang, Berglund, & Kessler, 2003; Weaver et al., 2003). In addition, there are usually no costs and fewer stigmas associated with confiding with clergy (Weaver et al., 2003).

Clergy are important in a congregant's recovery process. Over 30 years ago, Virkler (1979) noted pastors were spending more time counseling congregants. More recently, Wang et al., (2003) reported that clergy and health care providers conferred with individuals ideating suicide at approximately the same rate. Black clergy from a metropolitan area in central Connecticut described having persons suffering from severe mental illness in their churches, and over half of those church leaders said that they counseled those abusing substances, persons who were suicidal, and individuals they

considered dangerous (Young et al. 2003). Inquiries by Young et al. (2003) showed clergy worked an average of 5-8 hours per week in pastoral counseling. In 2013, published a study that sampled 367 clergy in Minnesota and found that 77% of clergy provided counseling to church members a little over 10 hours per month on average. The burdens placed on clergy often exceed the resources available and spiritual leaders often struggle to balance the competing roles assigned to them (Hedman, 2014).

Clergy Educational Gaps

Clergy are aware that congregants often look to them to provide guidance (Bledsoe et al., 2013) and are mindful of their own limitations and inability to discern between various mental disorders (Openshaw & Harr, 2009; Leavey, Dura-Vila & King, 2012). Clergy counsel individuals on relationship challenges and spiritual problems (Giblin & Barz, 1993), but reported feeling ill-equipped to counsel individuals displaying signs of mental illness (Oppenheimer et al., 2004). Although they lack confidence to identify problematic psychological issues experienced by parishioners (Bledsoe at al., 2013), they did so anyways instead of referring them to mental health practitioners (Farrell & Goebert, 2008). Bentz (1967) surveyed clergy from 61 U. S. cities to assess how they would handle a depressed individual and found clergy with less education were more eager to provide counseling on a greater range of serious mental health problems compared to clergy who had achieved a higher educational level. Conclusions were that clergy with higher educational attainment probably had more knowledge regarding the existence of mental health treatments performed by professional resources and therefore were more inclined to refer someone exhibiting serious mental illness to an outside

community health organization. A more recent study by Payne (2014) explored how theological and secular education levels affected clergy's interpretations and intervention with depressed persons. Results were not significant to conclude any differences in referral recommendations based on educational level, but instead data pointed to secular mental health education influencing how they handled treatment and referrals for depression.

Some clergy have increased their knowledge of mental illness to enable the identification of issues (Lafuze, Perkins, & Avirappattu, 2014; Stanford & Philpott, 2011) by seeking out professional education on mental health through investigation and self-learning while others have developed knowledge through individual experiences (Bledsoe et al., 2013). A New York City study by Moran et al., (2005) found that half of the clergy that took one or more clinical pastoral education (CPE) courses in theological college believed they were more capable in dealing with a variation of mental illnesses compared to pastors with zero CPE units. Ross and Stanford (2014) reported that about 66% of the Mainline Protestant denominations are currently exposed to at least one CPE during seminary training, and that education appears to influence stress levels experienced by church leaders, as clergy with the highest levels of schooling showed the lowest stress levels when providing grief and counseling. Those results may point to the importance of higher education and for theological institutions to consider providing on going education to clergy as well for increasing abilities of dealing with the on-the-job demands of the ministry (Bledsoe et al., 2013).

Studies across all major religious groups in the United States revealed that approximately 50 - 80% of clergy believed their theological education preparation in pastoral counseling to be lacking and felt ineffectively equipped to handle more complicated mental health issues (Weaver, 1993; Jones, 2002). In the 1980s, Linebaugh and Devino (1981) contacted 76 Protestant seminaries and found their focus on counseling was growing in importance with approximately 60% of respondents favoring additional mental health training and plans to offer additional courses and experiences for students. In the 1990's, Weaver (1995) pointed out the lack of educational improvements since the Linebaugh and Devivo (1981) study with approximately 47% of seminaries still offering little to prepare students to counsel in church leadership roles. This gap may have continued due to the lack of clergy consensus to place mental health training at a higher priority. By 2008, Farrell and Goebert reported that 95% of clergy believed counseling their flock was essential; however only 25% of clergy surveyed felt seminary training sufficiently equipped them to deliver such services. Similarly, participants in the Weaver (1995) and Farrell and Goebert (2008) study did not believe their seminary education provided satisfactory training on mental health or the referral process as 45% of respondents reported to have not received training on the referral process to mental health professionals. Ross (2013) conducted a yearlong study with Master of Divinity (MDiv) programs in the United States and Canada that were accredited by the Association of Theological Schools. Results showed the majority of accredited MDiv programs did require at least one class in pastoral care; however, the curriculum did not afford prospective clergy with adequate education to successfully identify and intervene

with those afflicted with serious mental disorders. Educational gaps remain because it does not appear that most churches have a unified theological stance on mental illness. Although research has encouraged seminaries develop a unified position statement on mental illness, Ross and Stanford (2014) describe those institutions lacking an official position as deliberate to avoid denominational conflicts over official position statements, therefore providing opportunity for students to express their individual beliefs on mental illness. Because of the lack of agreement, Ross and Stanford (2014) point out the absence of a consistent level of care offered by clergy throughout the United States, with better-off congregations more likely to have systematized health ministries compared with smaller churches with scarcer resources (Ross & Stanford, 2014).

Clergy Welcome Training

Clergy admit their familiarity and competency dealing with mental health issues are limited. They acknowledge lack of self-confidence to identify mental illness symptoms and knowledge of referral services available (Wang et al., 2003), welcoming outside intervention (Openshaw & Harr, 2009) that can treat dysfunctions which hinder individuals from obtaining their maximum level of functioning (Milstein et al., 2008). African American pastors have conveyed openness for additional mental health education to manage issues they frequently encounter when assisting lower SES areas (Conley & Wolfe, 2011; Rowland & Isaac-Savage, 2013).

Clergy claim training deficits are often because of overly busy schedules that do not allow time to focus on mental health education (Hedman, 2014) resulting in unpreparedness to identify possible issues such as addiction, family violence, psychotic

syndromes (Moran et al., 2005; Hankerson, Watson, Lukachko, Fullilove & Weissman, 2013), and suicidal ideation (Leavey, Rondon & McBride, 2011). Fifty-five percent of Protestant clergy in Hawaii indicated seminary training was not sufficient in equipping them to identify warning signs of mental disorders and has contributed to the tendency to infer signs such as psychosis as spiritual difficulties (Farrell & Goebert, 2008).

Clergy and other faith leaders have significant roles in the prevention and treatment of psychological distress along with mental health professionals (Weaver et al., 2003). Although cooperation amongst secular mental health professionals and clergy can be complex due to the different beliefs to mental health problems and the multiple faiths within Christian denominations (Leavey, Loewenthal & King, 2008), clergy are well positioned to come in contact with individuals experiencing mild to severe mentally illness but often lack the time or money to attend training or may not be comfortable in intervening (Moran et al., 2005).

Cooperation Between the Church and Mental Health Practitioners

Both clergy and mental health practitioners have identified the need for more collaboration. Neither referrals nor cooperation between church leaders and mental health practitioners occurs at a consistent pace despite the increased utilization of clergy as front-line mental health workers (Hall & Gjesfield, 2013). Likewise, faith leaders in the church who turn their head or condemn the biomedical model for mental health solutions may delay or obstruct individuals from obtaining assistance for mental illnesses (Neighbors, Musick & Williams, 1998). Thus, awareness and resolve of the differences are vital for effective collaboration to occur (Sullivan et al., 2014).

Through the years, researchers have advocated that the church and mental health practitioners learn more about each other (Weaver et al., 1995; Cinnirella & Loewenthal, 1999; Chadda et al., 2001; Oppenheimer et al., 2004; Leavey et al., 2008), however, Wood, Watson & Hayter, 2011) claims there has not been noteworthy advancements in this area. Oppenheimer et al., (2004) attributed deficiency of knowledge, instruction, and dissimilar values held by the church and mental health practitioners to slow progress. Increasing an alliance between clergy and mental health practitioners may enhance care of the congregation (Bledsoe et al., 2013) and improve treatment compliance for individuals who are accessing religious and mental health support (Bonner et al., 2013).

More Cooperation Needed Between Clergy and Mental Health Practitioners

Church leaders are held in high regard in the community (Weaver et al., 2003) often encountering individuals afflicted with emotional and mental issues. They are in a good position to notice a decline in functioning (Larson, Milano, Weaver & McCullough, 2000) such as slight depression that can be aided effectively in a clergy setting (Neighbors et al., 1998). Bereavement for instance, can sometimes lead to major depression, and a professional mental health practitioner should intervene to initiate a professional assessment (Cambridge, Singh & Johnson, 2012).

Even though multiple church leaders have admitted to not having the competency or self-confidence to counsel certain mental health issues, historically they have had a low rate of referral to mental health professionals (Wang et al., 2003; McMinn et al., 2005; Bledsoe et al., 2011; Stanford & Philpott, 2011; Ross & Stanford, 2014).

Ross and Stanford (2014) stressed that clergy have a responsibility in their gatekeeper roles to work within their areas of competence and make referrals to outside professionals for appropriate interventions. Yamada, Lee & Kim (2012) found that church leaders who provided individual counseling themselves were more inclined to refer individuals to counseling centers.

There is a need for cleric counseling in communities (Rogers & Stanford, 2012) where mental health services are not easily accessible (Hendryx, 2008; Thomas, 2012). Openshaw and Harr (2009) found that clergy were open to partnering with mental health professionals who shared their same faith, and that they desired to know more about the mental health professionals, so their recommendations could be founded on familiarity about the practitioner and the services offered. Clergy thought that a professional relationship between them and mental health professionals would enable a mutual support system for individuals within a similar faith group. Clergy also shared their desire for mental health professionals to make referrals to them during seasons of bereavement, loss, or when individuals need of spiritual guidance (Openshaw & Harr, 2009). To expedite the best possible care for their congregations, clergy should be able to identify mental stressors to facilitate referral to mental health practitioners (Bledsoe et al., 2013). Both clergy and mental health care workers can better assist those who come to them for help by recognizing that both professions are unique but complement each other (Oppenheimer et al., 2004; Boehnlein, 2006).

Long history of distrust

Even with the shared goals of the church and the mental healthcare community, the history between religion and mental health includes conflict, distrust, and opposition (Meissner, 2009). Some clergy hold the belief that people may not require mental health care but instead require more religious instruction to help with their problems. Some religious leaders view secular psychotherapy as amoral because of the neutral stance on what Christian clergy consider sinful thoughts and behaviors (Leavey, 2012). They suggest clients would be better off if mental health professionals would explore issues of guilt and morality with them but do not because they are unknowledgeable in acts of sin and atonement (Bar-Ilan & Hoffman, 2003; Leavey et al., 2008). In addition, some clergy believe mental health providers may encourage people to distance themselves from God and the church. Some clergy view health practitioners as being sent from God, but do not always believe the same about mental health providers. For this reason, many clergy choose not to refer but instead provide counseling themselves (Sulivan,et al., 2014). When clergy do refer congregants, VanderWaal et al. (2012) found they are inclined to recommend faith-based mental health counselors.

There were 24 clergy from the Dallas/Fort Worth, Texas area that Openshaw and Harr (2009) surveyed regarding their referral preferences. The majority of clergy preferred to refer individuals to skilled counselors and those having spiritual sensitivity. In another survey in Kent County, Michigan, 179 Christian clergy preferred referring individuals to professional counselors with a combination of experience with mental health or substance abuse disorders and who were also Christians (VanderWaal et al., 2012).

While faith institutions and psychotherapy use different terminologies and practices to comprehend human experiences, their goals overlap and are often compatible. Both religion and mental health services endeavor to provide mental wellness and underscore the significance of inter personal relationships (Levin & Chatters, 1998). The level of collaboration has been weak across all religious denominations. However, some collaboration could make great strides towards building the capability inside the church to care for those suffering with mental illness (Peterson, Lund & Stein, 2011).

Increasing partnership between church leaders and the mental health profession can be a successful means to encourage the mental health of congregants (Moran et al., 2005).

Conceptual Model

Fundamental Attribution Error

People often wonder why other people conduct themselves like they do. A person's thoughts, motives, beliefs, and aspirations are hidden within the human body only to be seen by others except through observed behaviors and language. Fritz Heider (1958) believed that people understand their environment and others by first observing, then determining if what they observed was intentional, and finally attributing outcome to either internal or external causes (Gilbert & Malone, 1995). When an attempt is made to explain the reasons for someone else's behavior, a fundamental attribution error can occur by overstressing their disposition and personality characteristics above the situation (Moran, Jolly & Mitchell, 2014). The attribution process occurs almost automatic and effortlessly as most people require very little cognitive resources to draw attributional

conclusions (D'Agostino & Fincher-Kiefer, 1992). During the attribution process, observers first attempt to associate the person's conduct with their expectations for the behavior which results in unwarranted dispositional reference (Gilbert & Malone, 1995). It seems like error or bias would be eliminated when observers become aware of an actor's situation, however bias may increase. Even when observers learn of new situational information about an actor, they often fail to correct improper inferences due to minimal effort extended (Osborne & Gilber, 1992).

Attribution Error Applied to This Study

If observers do not understand an actor's behavior, they will have less chance of making accurate attributions by either undervaluing or over emphasizing the power of situational forces or attributing to internal character qualities. To circumvent attribution error, an observer must be aware that external situations could possibly contribute to the behavior (Lepper, Greene & Nisbett, 1973).

Weiner (1995) supposed that people attempt to resolve who is responsible when confronted with an individual suffering from mental illness. They try to deduce the cause and determine if the mental illness was controllable, so they can assign responsibility of the mental illness. Weiner believed that these actions influence helping behaviors. He once stated that "thoughts progress from causal attribution to an inference about the person (Weiner, 1995, p.5)". Situational constraints may be clearly visible in the episode, but still escape notice since social behavioral cues are often subtle and frequently limiting, powerful, and hidden to the observer regarding their self (Gilbert & Malone, 1995). For example, observers who are informed of an actor's circumstances may still

have impractical expectations about how the circumstance should affect the actor's behavior (Lepper, Greene & Nisbett, 1973). The fundamental attribution error model is applied to this research because clergy may assign personality trait causation to mental disorders even when another circumstance would explain the behavior.

Attribution Varies Among Clergy

Clergy opinions regarding the causation of mental illness influence their helping behaviors (Bledsoe et al., 2013). These beliefs are influenced by cultural experiences, education, theology, and acceptance of the biological medical model (Leavey et al., 2008). Clergy have described a counselee's state as emotionally troubled, of unstable mind, having a biological imbalance, not in their right mind, or having a mental breakdown. Leavey et al. (2011) proposed these terms suggest how clergy struggle for meaning.

Not all clergy believe mental disorders originate or are connected to medical causes but are more in favor of spiritual explanations. Some clergy do not agree with the medical model of mental illness and can be skeptical when it comes to the treatment of depression and anxiety (Payne, 2009) with wide-ranging interpretations still attributing mental illness to departure from God and demonic control among lay Christians. Clergy beliefs regarding the cause of mental disorders fall into a range of attributions. Some believe depression, anxiety, and schizophrenia stem from genetic influences, personality traits, lack of faith, demonic activity (Vespie, 2010), lack of spiritual maturity, lack of fellowship with God (Young et al., 2003), mind and body imbalance, spiritual possession or deficiency of spiritual disciplines (Nguyen, Yamada & Dinh, 2012).

Dissimilarities also exist between the various forms of Christianity in how they handle mental health services. Mainline Protestants have embraced the medical model but have also found pastoral counseling important. They have integrated faith, prayer, and scripture reading as tools to provide direction with the purpose of leading to enhanced psychological and physical health to counselees (Leavey et al., 2008). Baptist clergy rated genetics, psychosocial, and spiritual influences as potential causes or attributions of mental disorders. Psychosocial and spiritual elements were believed to positively influence depressive disorders and anxiety disorders with some clergy negatively attributing biological bases for schizophrenia and bipolar disorders. Those beliefs most likely resulted because depression and anxiety have less severe appearances compared to schizophrenia and bipolar disorder (Stanford & Philpott, 2011). Pentecostal clergy tend to believe mental illness has both natural and supernatural causes and that clergy should work with mental health professionals since non-Christians are not capable of identifying demonic presences. When Pentecostal clergy believe demonic possession or oppression to be the problem, exorcism and deliverance ritual interventions are often facilitated (Leavey, 2008; (Leavey, Dura-Vila & King, 2012).

Cultural Attributions of Mental Illness

Cultural studies have examined the beliefs that minority clergy have attributed to the causes of mental illness (Young et al., 2003; Payne, 2008). For instance, Payne (2009) studied Protestant pastors' opinions regarding the cause of depression, and found depression was perceived differently based on race. White clergy more often regarded depression as a genetic mood disorder, and Many African American clergy believed that

an absence of faith in God often led to feelings of hopelessness ascribing depression or unhappiness to a lack of trust in God, the inability to regulate themselves, anxieties in daily living, and unhealthy domestic relationships contributing to widespread troublesome societal bases of mental illness (Young et al., 2003).

Training Shown to Influence Causal Attribution

De Kwaadstenient, Kim and Yopchick (2013) investigated how psychologists and college undergraduates were trained to use diagnostic reasoning for psychiatric disorders in appraising clients. Results for both clinicians and undergrads showed a strong inclination to utilize a wide range of evidence to assist with case conceptualization and assign diagnostic judgments. As a control, the participants were asked to provide their personal opinions prior to learning the actual diagnostic model. After comparing the results from the training, results indicated that proficient clinical psychologists and undergrads were more inclined to utilize recently learned contributory knowledge to assist with diagnostic reasoning. These findings show support for educational training provided to front line mental health partners such as clergy because professionals can change their opinion of treatments after learning newer strategies (de Kwaadstenient et al., 2013).

The Application of Attribution Theory to this Research

Attribution theory attempts to explain why people behave as they do (Weiner, 1974) and is applicable to the current study because of the struggle that clergy have assessing the causation and identification of mental illness symptoms (Miller, Smith & Uleman, 1981; Locke & Pennington, 1982). Perceptions guide the observer's behaviors

(Heider, 1958) and how a congregant's situation is construed by clergy will affect the outcome of the helping relationship (Fiske & Taylor, 1991). For instance, clergy that attribute a congregants' mental illness symptoms to spiritual causes may recommend spiritual interventions (Young, Griffith, & Williams, 2003), and clergy who attribute congregant's mental health issues to mental disturbances may refer congregants to mental health services (Kim-Goh, 1993). Attribution theory can be applied to this research to determine if nonclinical mental health education influences clergy's perceptions and knowledge of mental illness causation and influences helping behavior.

Research Recommends Clergy Training

Even if clergy do acknowledge different views of etiology, many clergy lack the ability to recognize signs of mental illness (Farrell & Goebert, 2008), and numerous studies have acknowledged the need of clergy to receive training to recognize mental disorders. Oppenheimer et al. (2004) undertook a literature review for the years ranging from 1970 to 1999 probing how clergy collaborated with mental health professionals. Two thirds of secular journals revealed clergy required more awareness of mental health issues (Oppenheimer et al, 2004) and instruction on social problems contributing to mental health problems (Openshaw & Harr, 2009). Clergy should be provided education on the values of professional counseling and how interventions could improve the mental health of their congregations (Vespie, 2010; Leavey, Lowenthal & King, 2008) and increase confidence to enable then to intervene in the lives of individuals and families and influence referral behaviors (Taylor, Ellison, Chatters, Levin & Lincoln, 2000; Farrell & Goebert, 2008; Yamada, Lee & Kim, 2012).

Clergy care is distinctive (Cole, 2010). McMinn et al. (2006) suggested additional communication between church leaders and psychologists take place as well as investigation into the types of concerns addressed by clergy along with referral methods to discover their willingness, or lack thereof, to make referrals for professional counseling (Stanford & Philpott, 2011). Hedman (2014) advocated curriculum be developed specifically for the church leader's role to connect actual problems in varying populations a church leader would experience. The training program should also provide an understanding of the value and benefits of professional counseling and awareness of mental health services available in the community (Stanford & Philpott, 2011).

Faith-based Mental Health Education

It is clear an opportunity exists for increased mental health education and intervention training for clergy (Bledsoe et al., 2011). It appears that many churches do not have the resources for staff to learn about mental health issues (Weaver, 1995; Leavey et al., 2008). This study collected pre and post survey data at a training class delivered by the nonprofit Mental Health Grace Alliance organization founded in 2011 by psychologist Matthew Stanford, and an ordained minister, Joe Padilla. Grace Alliance provides mental health 101 training to individuals, families, and laity by educating them to recognize mental health distress and disorder symptoms such as depression, anxiety, mania, and psychosis along with referral resource options.

There are no published outcome studies for the Mental Health 101 training conducted by Grace Alliance. Therefore, there are no effect sizes, reliability, or validity data relevant to this particular use and study. However there have been similar

educational outreach programs such as Mental Health First Aid (MHFA) programs created to educate the public on how to care for individuals with mental illness or someone undergoing a mental health crisis. Individuals who received mental health training were more likely to recognize and assist people with depression and schizophrenia symptoms from case descriptions. In addition, attitudes regarding treatment were brought more in line with mental health professionals (Morawska, 2013).

The MHFA program can be easily tailored to educate specific audiences such as police, non-mental health providers, teachers, and various other social groups on how to identify and provide support to individuals with mental illness or someone experiencing a mental health crisis that has shown effectiveness. The MHFA program includes education on common disorders such as depression, anxiety, psychosis, and substance abuse disorders to reduce stigma surrounding mental disorders that may have negative impact on supportive behaviors (Jorm, Kitchener, O'Kearney & Dear, 2004). The training also instructs participants to use action plans to assist someone facing mental health crises (Hadlaczky, Hokby, Mkrtchian, Carli & Wasserman, 2014).

Research results on MHFA training leads to reductions in social distancing, stigmatizing attitudes, and increased self-confidence and knowledge of mental illness. This is significant because trainees with changes in knowledge and attitude may become more active and can provide support to individuals experiencing mental health problems and suicidality (Kitchener & Jorm, 2002). Previous MHFA research projects have varied in size of sample populations. The majority of MHFA training administered pre and post questionnaires along with additional observations 6-months later to a subsample of the

participants. A review of MHFA studies was performed by Kitchener and Jorm (2004). They investigated a research project conducted by the Australian government where 301 participants were assigned to one of two groups to either participate in the MHFA during work hours or placed on a waiting list control group. Outcomes showed that the group who received the training has better chance of guiding people to seek professional help, enhanced collaboration with health care professions concerning treatments, reduced stigmatizing beliefs by reducing social distance, and increased self-assurance in helping. An unexpected outcome was the improved mental health benefits of participants since the course did not offer treatment and made no promises of special benefits. Kitchener and Jorm (2004) also reviewed a public randomized controlled trial conducted in South Wales. There was a total of 753 participants of which 416 were randomly assigned to receive the training and 337 were placed in a controlled waiting list. Posttest results showed individuals who participated in the training when compared to the control group were able to better recognize mental illnesses from vignettes of a person with either depression or schizophrenia, their social distance towards people with mental illnesses was decreased and was more aligned with health professionals in beliefs about treatment.

Meta-analysis on 15 mental health educational programs in Australia was performed by Hadlaczky et al. (2014) focusing on effectiveness and public awareness. Examples of training programs evaluated were Mental Health First Aid: An International Programme for Early Intervention (Kitchener & Jorm (2006) and Evaluation of the Bringing Them Home and Indigenous Mental Health Programs (Wilczynski, 2007). More than 590 papers and 15 articles were analyzed with MHFA at the top of the list as having

the strongest evidence in terms of scientific rigor including randomized trials, qualitative data, and anecdotal evidence. Researchers found that changes were maintained over a six-month follow-up. The MHFA programs showed improvements in self-recognition, increased insight into one 's own as well as others' emotional well-being and reducing mental illness social stigma which leads to increased coping skills and improved self-confidence to provide support to someone with a mental health need. When participants were questioned, 78% had administered some kind of mental health first aid and spoke positively on how they handled the situation (Day & Francisco, 2013). Outcomes were favorable with mean effect sizes of 0.56 for change in knowledge, 0.28 for change in attitudes, and 0.25 for change in behaviors. The MHFA training programs had a medium effect on changing knowledge and small effects on influencing attitudes and behaviors. Results of the MHFA program showed the strongest evidence for internal validity. In addition, they found that the changes were maintained after a six-month follow-up and it did not appear participants had exceeded their ability or training (Day & Francisco, 2013).

Mental Health Grace Alliance offered a similar but unique curriculum that includes definitions of serious mental disorders and clinical implications along with explanations on how mental illness can impact an individual's faith journey and how to minister to individuals in distress. Participants were educated on signs and patterns of various health disorders and emotional problems in children and adults including mood, anxiety, and neurological disorders. Recommendations of fostering a professional and community support network were reinforced with explanation of professional roles such

as psychiatrist, psychotherapist, crisis intervention team, etc. The recovery and referral process were expounded upon to provide suggestions on how to build their own toolbox with professional resources (Mental Health Grace Alliance, n.d.).

Summary

This chapter began with a discussion of the intervening role of clergy in the lives of congregants. Worshippers are not immune from mental disorders and clergy are often contacted for support. Although clergy provide guidance on relationship and spiritual problems, they acknowledge training on mental illness to be deficient. The theory of the fundamental attribution error with application to this study was discussed.

Lastly, mental health educational outreach programs were discussed and how they can educate the public to care for individuals with mental illness. The effectiveness of the Mental Health Grace Alliance 'Mental Health 101' training on clergy has not been evaluated. However, a similar MHFA educational program has been developed to teach the public and stimulate helping behaviors. Studies on mental health awareness programs have shown positive results by increasing mental health awareness leading to reduced social distancing, stigmatization, and increases in helping behaviors (, 2013). The MHFA program was used as a comparison because the curriculum is similar to the Mental Health Grace Alliance program that instructs course participants on how to identify mental health issues, how to communicate and provide assistance to a person experiencing a mental health problem. A more detailed discussion of the study's design, instrumentation, data collection and analysis, and the ethical protection of participants will be provided in Chapter 3.

Chapter 3: Methodology

Introduction

This chapter discusses the methodology used in this study that examined the effects of mental health education on clergy. The chapter will include an overview of the research design and rationale, study participants, sampling method and instrumentation, data collection, analysis, and ethical considerations taken in the design.

Research Design and Rationale

This study utilized a quasi-experimental design that included a pretest and posttest for the same study group to explore if training provided to clergy increased their ability to identify mental disorders, influence their opinion regarding helpful resources, developed their self-confidence to provide help to individuals experiencing a possible mental crisis, and increase their willingness to refer to helpful resources. Campbell and Stanley (2015) noted that pretest/posttest designs are common but require extra effort in administration. They also stated that although pretest/posttests may not be worth the trouble providing little gain compared to post design only researchers are often more comfortable with pretest/posttest designs as they provide the researcher with more assurance (Campbell & Stanley, 2015).

A benefit of the quantitative approach used in this research project was that it allowed the investigation of theories and attitudes of a given population by studying a smaller data subset of the population (Punch, 2013). It allowed the researcher a procedural framework to relate variables and measure information numerically and assist in answering the hypothesis and speculating reasons for trends (Creswell, 2013). A

quantitative study design was best suited for this research as it enabled an investigation of the causal relationships between clergy's attributions of mental illness symptoms pre and post training.

Independent Variables

There were several independent variables used to measure the influence mental health education had on the research questions pertaining to:

Knowledge (KNOWLEDGE) – The participant's knowledge of the mental disorder was assessed by asking the participant to read the vignette (Jorm, Kitchener, Fischer, & Cvetkovski, 2010) and select one or more disorders the individual may be suffering from based on the behavior: Depression, Mania, Attention Deficit Hyperactivity, Psychosis, Major Depression, Eating Disorder, Post Traumatic Stress. Symptoms and possible diagnosis were derived from the "DSM-5."

Helpful resource (HELPFUL_RESOURCE) – These are assessed opinions regarding helpful resources. Participants were asked to rate the following treatments after reading the case vignette: (vitamins and minerals, St. John's Wort, antidepressants, sleeping pills, anti-psychotics, becoming more physically active, reading about people with similar problems, counseling, an occasional alcoholic drink, avoiding certain foods, etc.). Participants were also asked who would be best to help the individual described in the case vignette: General Practitioner or family doctor, clergy, counselor, social worker, clinical psychologist, herbalist, close friend, dealing with the problem on their own (Jorm, Kitchener, Fischer, & Cvetkovski, 2010). A five-point Likert scale was used with scores ranging from 1 (strongly agree) to 5 (strongly disagree).

Self-confidence (SELF_CONF) – Assessed participant's self-confidence in providing help to someone with a mental disorder as described in the vignette. They were asked "I would feel confident helping this person (Jorm, Kitchener, Fischer, & Cvetkovski, 2010). A five-point Likert scale was used with scores ranging from 1 (strongly agree) to 5 (strongly disagree).

Referral (REFER) – Assessed the participant's willingness to refer to a helpful resource. They were asked "I would refer this individual to a helpful resource". (Jorm, Kitchener, Fischer, & Cvetkovski, 2010). A five-point Likert scale was used with scores ranging from 1 (strongly agree) to 5 (strongly disagree).

Dependent Variables

The dependent variable was the demographic variable age. It was measured using the posttest Mental Health Effectiveness questionnaire.

Demographic Variables

The following demographic variables acted as control variables:

Age (AGE) - Age of respondent

Gender (SEX) - Biological sex of the participant

Race (RACE) - Ethnic group (African American, Asian American, American Indian, European American, Hispanic, Other- please specify)

Formal education (EDUC) – Education attained (High school diploma, undergraduate degree, graduate degree, doctorate, and certification. Select all that apply, Other – please specify)

Religious denomination (RELIG) - Actual denomination of their own (Baptist, Methodist, Catholic, Non-denominational, Other- please specify)

Urban (URBAN) - Location of the church (urban, suburban, rural)

Clergy role (ROLE) – Current service role such as pastor, missionary, youth pastor, children's worker, other – please specify)

Years practicing in clergy roles (*YRS_PRACT*) – (0-2, 3-6, 7-10, 11-15, 16-25, >26)

Work week (WORK_WK) – (Full time, part time) service

Method

Population

The population for this study consisted mostly of church volunteers holding various roles in the church and church leaders located in north Texas. Various Christian denominations included Baptist, Non–Denominational, Methodist, Pentecostal, and Catholic Christian denominations.

Sample Size

A priori power analysis was calculated using the G Power (version 3.1.9.2) application (Faul, Erdfelder, Lang & Buhner, 2007). To determine acceptable statistical significance and sample size, a power of .80 was used to calculate the probability of rejecting the null hypothesis when it is indeed false (Cohen, 1992). A medium effect size of .25 and error probability of .05 was selected to detect the strength of the changes

between the two groups in the sample population. The F test family was selected along with Statistical test MANOVA: Repeated Measures within factors since the study was a pre/posttest design (Dattalo, 2008). Number of groups was equal to 1, number of measurements was equal to 4, and correlation among repeated measures was equal to 0. G*Power recommended a total sample size of 48.

Sampling Procedures

The sample population was provided by Mental Health Grace Alliance (MHGA) located in Waco, Texas. MHGA maintains an email distribution list consisting of individuals in various roles such as missionaries, pastors, worship leaders, children's ministry worker, lay church members, or others interested in receiving communication from them regarding mental health training opportunities.

Data Collection

Mental Health 101 training workshop for church and community leaders was delivered by Mental Health Grace Alliance located in San Antonio, TX. Grace Alliance is a nonprofit organization that provides mental health education, support, and recovery programs to individuals and families affected by mental illness in the community. This unique curriculum was developed by a partnership between an ordained minister and a psychologist who united together to design mental health training that educates laity and the public on mental health disorders, tools to identify mental health distress, and referral options to individuals in need of Mental Health support (Grace Alliance, n.d.).

The data was collected before and after the training. Upon arrival to the training workshop, the participants were asked if they would like to participate in the research

project and received an implied informed consent form with the explanation that their acceptance was voluntary, and they could change their mind at any time and still participate in the training. They completed the pretest prior to the training session conducted by Mental health Grace Alliance. After the training, the participants were asked if they would like to complete the posttest, and then handed a posttest upon acceptance. No additional follow-up with participants was planned.

Non-response errors may occur when surveys are requested, and data is not received, or survey questions are not answered (Fricker, 2008). Nonresponse errors were expected to be minimal since both the pretests and posttests were distributed before and after the 3-hour training workshop and then immediately collected.

Instrumentation and Operationalization of Constructs

This study's findings were based on data obtained from the Mental Health Effectiveness Questionnaire that this project utilized to measure mental disorder knowledge, opinion regarding helpful resources, confidence to provide assistance, and willingness to refer to a helpful resource. The questionnaire was developed by Jorm, Kitchener, Fischer, and Cvetkovski (2010) and titled the Mental Health First Aide (MHFA) instrument. The authors Jorm, Kitchener, Fischer, and Cvetkovski (2010) provided permission to reproduce the questionnaire for non-commercial research and scholastic purposes without obtaining written permission. To avoid confusion to the Mental Health 101 participants, the MHFA instrument was renamed to the Mental Health Effectiveness Questionnaire for this project's data collection.

The Mental Health Effectiveness Questionnaire inventoried the participant's knowledge of mental disorders for depression and psychosis by introducing vignettes and then providing Likert scale questions. Participants were asked to read two vignettes and answer questions. The first vignette described an adult named Mary with depression symptoms, and the second vignette described a teenage boy named John suffering with signs of psychosis. To assess the participants knowledge of mental disorders, they were asked for their opinion on what is possibly wrong with the individual described in the scenarios. They were also asked to provide their opinion regarding helpful resources, rate their self-confidence to provide help, and their willingness to refer the individual to a helpful resource. A five-point Likert scale was used with scores ranging from 1 (strongly agree) to 5 (strongly disagree). As an example, Participants read the vignette and then were presented questions on how to best help the person in the vignette with a sequence of questions about the probable helpfulness of an extensive array of interventions such as seeking help from a General Practitioner or family doctor, a pharmacist, a counselor, a social worker, a telephone counseling service, a psychiatrist, a psychologist, help from close family, help from close friends, a naturopath or herbalist, the clergy, a minister or priest, dealing with the problem on their own, vitamins and minerals, tonics or herbal medicines, pain relievers, antidepressants, sleeping pills, antipsychotics, tranquillizers, becoming more physically active, reading about people with similar problems and how they have dealt with them, getting out more and being more social, attending courses on relaxation, stress management, meditation or yoga, cutting out alcohol, psychotherapy, cognitive behavioral therapy, hypnosis, being admitted to the psychiatric ward of a

hospital, undergoing electroconvulsive therapy, going on a special diet, consulting literature that provides information about the issue, and obtaining information from a health educator. The same scaled questions were used for both vignettes in the Mental Health Effectiveness Questionnaire to gather participant opinions on the scenarios as well as assess their knowledge on other mental health problems.

Example Vignettes

The following vignette represents an individual with a major depressive disorder: Mary is 30 years old. She has been feeling unusually sad and miserable for the last few weeks. Even though she is tired all the time, she has trouble sleeping nearly every night. Mary doesn't feel like eating and has lost weight. She can't keep her mind on her work and puts off making decisions. Even day-to-day tasks seem too much for her. This has come to the attention of her boss, who is concerned about Mary's lowered productivity.

The following vignette represents an individual with a psychosis disorder: John is an 18-year-old who lives at home with his parents. He has been attending school irregularly over the past year and has recently stopped attending altogether. Over the last six months he has stopped seeing his friends and has begun locking himself in his bedroom and refusing to eat with the family or to have a bath. His parents also hear him walking about his bedroom at night while they are in bed. Even though they know he is alone, they have heard him shouting and arguing as if someone else is there. When they try to encourage him to do more things, he whispers that he won't leave home because he is being spied upon by the neighbor. They realize he is not taking drugs because he never sees anyone or goes anywhere.

The MHFA instrument and permission to reproduce the questionnaire provided by the authors Jorm, Kitchener, Fischer, and Cvetkovski (2010) is located in Appendix A. The vignettes used in the pretest and posttest were written to coincide with DSM IV diagnostic criteria at a nominal level, and for measuring the public's reaction at a point where intervention would be needed (Jorm et al., 2005). The vignettes also meet the criteria specified in the *DSM-5* for Major Depressive Disorder and signs of psychosis (American Psychiatric Association, *DSM-5*, Depressive Disorders, 2013, p. 160-161).

Reliability of Instrument

Inter-rater assessment of the MHFA instrument was assessed by an independent rater who selected 100 random surveys and assessed the content using kappa values to measure the difference between responses. Altman (1991) was used to code and interpret the difference in the responses (Jorm et al., 2005). Scores should lie between -1 to 1 scale with 1 representing perfect agreement, 0 represents chance, and negative values represent possible disagreement between the observed data. Criteria can be interpreted: 0.8–1.0 very good; 0.6–0.8 good; 0.4–0.6 moderate; 0.2–0.4 fair; and <0.2 poor (Jorm et al., 2005). Kappa value outcomes for the inter-rater assessment were .89 for good to very-good for encouragement of professional help-seeking, .70 for listening/talk/support person, 1.00 for talk/support family, .98 for encourage seeing doctor, .93 for encourage seeing counsellor, .94 for encourage seeing psychiatrist, .88 for encourage seeing psychologist (0.88), and .95 for accompanying the person to a professional, .48 for giving or seeking information, .56 for encouragement to see unspecified and other professionals,

.56 for contact professional on their behalf, .34 for encourage self-help, and .15 for assess problem/risk of harm (Jorm et al., 2005).

Analysis included the identification of the vignette used by the participant, and if the respondents identified the problem portrayed in either of the major depression or schizophrenia vignettes.

The authors examined the association between participants responses regarding treatment options with socio-demographic and mental health experience attributes. Standard errors of these percentages were estimated using the complex samples procedure in SPSS version 25. Standard errors were found to be reliable at <2% with a statistically significant $P < 0.05$ level difference of 4% between vignettes (Jorm et al., 2005).

Another verification of the MHFA scales was undertaken by Reavley, Morgan & Jorm (2013). Individuals who had previous exposure to mental disorders with family, friends, or work experience were found to have higher scaled scores. Analyses of the links between scale scores, socio demographic variables such as age, gender, and education level were comparable to results found in other studies providing additional support for the validity of the questionnaire (Reavley, Morgan & Jorm, 2014).

Content Validity

A test has content validity built into it by the vigilant selection of items to include that measure the constructs (Anastasi & Urbina, 1997). In a learning environment, a measurement tool should test the content taught (Martella, Nelson & Marchand-Martella, 1999) as content validity is increased when assessments require students to be able to use

as much of their classroom learning as possible. The content validity of the training workshop and survey instrument agreed because participants were educated on symptoms of mental illnesses that were aligned with choices included in MHFA Effectiveness questionnaire to answer the research questions.

Construct Validity

Construct validity refers to the extent to which an assessment accurately measures the content. The research questions and testing instrument items were mapped to measure the dependent variables to answer the research questions. As an example, the posttest questionnaire assessed participant's knowledge of mental disorders (KNOWLEDGE) which is one of the variables being measured. This was accomplished by the participants reading two vignettes and selecting from choices that describe what might be wrong with the individual in the vignettes such as major depression, depression, mania, attention deficit hyperactivity, psychosis, etc. To assess their opinion (OPINION) regarding helpful resources, participants were asked to rate the following treatments after reading the vignettes. Selection choices are vitamins, antidepressants, sleeping pills, psychologists, physician, pastor, etc. Each option presented the reader with 5-Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). The forth dependent variable will measure clergy's willingness to refer (REFER) to a helpful resource. They were asked "I would be willing to refer Mary to a helpful resource" with response options from a five-point Likert scale of scores ranging from 1 (strongly agree) to 5 (strongly disagree). Please see Appendix B for survey instrument. The authors Jorm, Kitchener,

Fischer, and Cvetkovski (2010) provided permission to reproduce the questionnaire for non-commercial research and scholastic purposes without obtaining written permission.

Data Processing and Analysis

Raw interval data was derived from a pretest/posttest paper and pencil version of the Mental Health Effectiveness Questionnaire (see Appendix A) administered before and after the training administered by Mental Health Grace Alliance. All questionnaires were manually keyed into an MS Excel spreadsheet and reviewed for accuracy.

Quantitative data was originally planned to be investigated using multivariate analysis of variance two-way (MANOVA) repeated-measures design. Prior to running the MANOVA procedure on the data it was critical to insure the raw data meets seven MANOVA parametric test assumptions because normal data is an underlying assumption in parametric testing as violations of these assumptions may change conclusions of the research and interpretation of the results. The MANOVA test would have been advantageous in this research project because it can assess multiple response variables simultaneously providing the chance to discover possible correlations and significance between pretest and posttest data. MANOVAs can also increase power since it can detect small differences between multiple variables compared to individual ANOVAs (French, Macedo, Poulsen, Watersoin & Yu, 2008). The MANOVA procedure was going to compare the independent variable time (Pretest, Posttest) to the dependent variables' knowledge of mental disorders, opinion regarding helpful resources, self- confidence to provide help, and willingness to refer to a helpful resource. Demographic variables (age, gender, race, education, religious affiliation, etc.) were also planned for comparison to

discover further connections. Although MANOVA can detect that correlations exist, a disadvantage is that it cannot determine which variables have the correlation, so the ANOVA test was planned on being used during post data follow-up since it can analyze one response variable at a time providing insight into the exact variable correlations.

Data Assumptions

MANOVA procedure. The two-way MANOVA procedure requires 10 assumptions be met. The first three assumptions are related to the design requiring two or more continuous dependent variables, the second assumption is that there should be one independent variable comprising two or more categories and independent groups, and the third assumption is that observations should be independent (Stevens, 2012). The raw data was derived from 5- Likert-type categorical scales and converted from ordinal data into numerical counterparts to meet the first assumption requiring continuous dependent variables. It is acceptable to use Likert type scales for parametric procedures (Perla, 2007). Lubke, Gitta, and Muthen (2004) advocates that true parameter outcomes such as F tests in ANOVA, Pearson correlation, multiple regression, etc. provide accurate p-values on Likert items when assumptions met.

There are seven additional assumptions that pertain to how the data fits the MANOVA model and are tested after data is collected and procedures are run in SPSS. These assumptions of normality of data were tested using descriptive statistics with an assumed confidence level of .05 (Stevens, 2012). Basic frequency distributions and associated measures of dispersion (means, medians, modes, standard deviations, and

variances) were assessed numerically for skewness and kurtosis to observe the central tendency and variability of the data and insure assumptions were not violated.

The forth assumption states there should be a linear relationship between each pair of dependent variables for each group of independent variables. The linear relationship would have been tested by inspecting a scatterplot matrix for every combination of independent variables to verify a straight-line linear relationship exists. The fifth assumption is that there should not be multicollinearity. A Pearson correlation coefficient will be run to determine dependent variable combinations greater than 0.9 which is too strong of a correlation and would therefore represent statistically redundant combinations. Assumption six is that that should be no univariate or multivariate outliers for any group combinations of independent or dependent variables as these can contribute to inaccurate results. These would have been observed by calculating the Mahalanobis distance in SPSS but was not run due to assumption failure. Assumption seven is the need for multivariate normality which was explored using the most commonly used Shapiro-Wilk test for normality. Assumption eight is that sample size should be adequate. It would be difficult to include the entire population (Gogtay, 2010) of clergy in Dallas Fort Worth rural areas, so a sample size was calculated based on size of population, margin of error, and confidence level. The Sampling Procedures section provides details on sample size. Assumption nine requires there be homogeneity of variance-covariance matrices. This would have been tested using BOX's M test of equality of covariance to observe variances and co-variances were similar. Assumption ten is the requirement that there be homogeneity of variances because the two-way MANOVA procedure assumes there are

equal variances. The Levene's test of equality of variances was planned on being used to test for equal variances for each dependent variable, however due to assumption failure, this was not needed. Please see chapter 4 on documented assumption failures.

For the researcher to have confidence that they are not making any type I errors which is incorrectly rejecting the null hypothesis, Stevens (2012) stresses the importance of not violating the MANOVA predefined assumptions. Although it is not uncommon for data collected to violate some of these assumptions, it is possible to correct data so that these violations are corrected. I ensured data violations were corrected, used alternative statistical tests, and proceeded with analysis. All mentioned data assumption violations were documented and reported in the results section.

Data outliers can skew data, so observed outliers were removed before performing the statistical procedures. SPSS calculations are highly sensitive to outliers, so it was important to investigate these outliers. Any incorrect data found would have been corrected, however there was no inaccurate data discovered. Any data outliers and how they were handled are documented and reported in Chapter 4 of the results section.

The MANOVA model was going to analyze independent variable *time* to the dependent variables' *knowledge* of mental disorders, *opinion* regarding helpful resources, *self-confidence* to provide help, and willingness to *refer* to a helpful resource. The F-test would have been used to test if two population variances are equal. It would have compared the ratio of two variances and returning a p value which was compared to alpha level with significance $p < .05$. Each F value showing significance from the Pilas Trace outcome will be verified by using post hoc tests because the MANOVA can only tell if

there is a difference between the pretest and posttest variables but cannot determine which specific variables were significantly different from each other (Stevens, 2012). Observations would have been investigated with dependent outcome variables that show significance to be followed up with TUKEY priori analysis to assist in identifying groups in the sample that differ by comparing every mean with every other mean. The TUREY procedure may help provide better insight regarding the variables with the greatest amount of change and minimize the possibility of misclassifying cases into respective groups (Keselman et al., 1998).

McNemar Test assumptions. There must be at least one nominal variable with two categories such as Strong Agree, Neither Agree or Disagree, and Strongly Disagree, and one independent variable with two connected groups that are mutually exclusive.

After the data was collected, it was determined that the data was not distributed normally and MANOVA procedure could not be used. Instead the non-parametric McNemar Change Test for repeated measures and the McNemar-Bowker Change test that allows the comparison of categorical repeated measures was utilized (Siegel & Castellan, 1988.) Please see chapter 4 results on assumption failures and procedures utilized to address research questions.

Research Questions and Hypotheses

The literature review along with my current interests led me to develop four questions designed to ascertain how clergy perceive the mental health needs of those they come in contact. This project investigated clergy's ability to identify mental disorders, opinions of helpful resources, level of self-confidence in interacting and providing help to

individuals with potential mental illness, and willingness to refer an individual out to another resource where they can obtain help.

Research Question 1. Did participation in a training workshop affect clergy's knowledge of mental disorders as evidenced by comparing pretest and posttest answers to items 11 and 17 of the Mental Health Effectiveness Questionnaire for the single within study receiving the intervention?

$H_0$1: There was not a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding knowledge of mental disorders.

*Ha*1: There was a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding knowledge of mental disorders.

Research Question 2. Did participation in a training workshop affect clergy's opinion regarding helpful resources for mental health issues as evidenced by comparing pretest and posttest results from the single within-study-group?

$H_0$2: There was not a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's knowledge of helpful resources.

*Ha*2: There was a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's knowledge of helpful resources.

Research Question 3. Did participation in a training workshop affect clergy's self-confidence to assist an individual with a mental health issues as evidenced by comparing pretest and posttest results of the single within-study-group?

$H_0$3: There was not a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's self-confidence to assist an individual with a mental health issue.

*Ha*3: There was a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's self-confidence to assist an individual with a mental health issue.

Research Question 4. Did participation in a training workshop affect clergy's willingness to refer to a helpful resource as evidenced by comparing pretest and posttest results of the single within subjects group receiving the training intervention?

$H_0$4: There was not a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's willingness to refer to a helpful resource.

*Ha*4: There was a difference between the Mental Health Effectiveness Questionnaire pretest and posttest scores regarding clergy's willingness to refer to a helpful resource.

The preceding questions were operationalized in chapter three expounding on the hypotheses and statistical procedures. The hypotheses were created for the purpose of answering the research questions supported by the literature, training workshop, and survey instrument. Each hypothesis was written with the supposition that Clergy and

Christian leaders are not an identical group, so it was important to also investigate the within group differences that influence the outcomes.

Threats to Validity

There are numerous threats to pretest and posttest designs that can weaken causal interpretation such as coexistent influences, test effects, and regression (Torgenson, 2008). Therefore, a researcher must consider how they will control for validity and reliability threats (Field, 2013). Stevens (2012) contends that interactions occur within a cooperative learning environment that can influence each other such as disruptions or open discussion where insights may provide learning. There were no behavioral disruptions that occurred while participants were taking the pre/post questionnaires.

Internal Validity

Internal validity is the extent to which the relationship between a dependent variable and an independent variable can be established. Threats to internal validity can be anything that reduces the independent variable from affecting the dependent variable such as selection bias, confounding extraneous items, instrumentation, and attrition (Field, 2013). I did not solicit participants but instead deferred to Mental Health Grace Alliance to advertise the training workshop on their website and sign up attendees to the training.

An extraneous threat to a study's internal validity can be something contributing to testing affect differences other than the mental health training intervention (Salazar, Crosby & DiClemente, 2015). Since the pretest was conducted prior to the training and the posttest administered after the training, there was less chance the participants would

be influenced by external mental health knowledge during the same time therefore controlling for extraneous items. To reduce threats from testing, the same vignettes were used for the pre and post-tests with a slight change of name, age, and sex of the person in the vignettes. Instrumentation was not an issue since it did not change. Although analogue research frequently uses vignettes, the simulated nature of vignette usage in research presents dangers to external validity by threatening the generalizability of analogue research to real-life settings and difficult situations (Cook & Rumrill, 2005). The flip side is that the depiction of reality allows investigators tight control over the administration of the dependent variables by isolating the effects of training on outcome measures. It is also plausible that testing practice may contribute to increased awareness from the pre and post-tests because of the repetition of similar vignettes (Field, 2013) and preselected multiple-choice answers for participants to choose from. On the other hand, inter-rated reliability is enhanced when research participants are presented wisely assembled and representative scenarios and realistic scaled responses to assess dependent variables (Aguinis & Bradley, 2014).

Attrition is when participants drop out during a study and was not a problem due to the pretest and posttest being administered directly before and after the 3-hour duration of the workshop conducted by Mental Health Grace Alliance.

External Validity

External validity is the generalizability of the findings to the greater population. As mentioned in the Literature Review section, mental health issues commonly seen throughout the United States population have also been seen in the church (Wang,

Berglund & Kessler, 2003; Ross & Stanford, 2014), and clergy appear to share similar experiences with mental illness among congregants worldwide because of their intervening role (VanderWaal et al., 2012). Study participants consisted of active volunteers in the church and clergy from several Christian denominations in the State of Texas therefore results may be generalized to the larger Texas Clergy population.

Ethical Procedures

To comply with privacy and confidentially standards of the American Psychological Associations (APA, 2012, 4.01 Maintaining Confidentiality) precautions will be taken to protect the identity of research participants. The Institutional Review Board (IRB) provided approval to collect data July 9, 2018 (Approval number 07-09-18-0355466)

Data Protection

Survey data was keyed into a password protected MS Excel worksheet, and manipulated using SPSS, version25 computer software released 2017 by IBM Corporation. Both the box of questionnaires and any data has been stored on an external hard drive and placed in a locked filing cabinet that is located in researcher's office which is also secured with a lock. The archived project analysis will be in safekeeping for 7 years after the completion and publication of this research prior to deletion. If the data is requested to support further research, only the geographical data and other demographical information will be provided. Any information identifying the participants will not be shared.

Conflict of interest

Conflict of interest can cause harm to study participants or a complete research project eroding confidence in the results (Aleman-Meza & colleagues, 2006). Conflict of interest was managed by anticipating situations during data collection and analysis where data integrity could have been compromised.

Summary

The research design and methodology were described in this chapter. The quantitative study was a quasi-experimental design to examine the effects mental health education had on clergy and church volunteer opinions. There were four research questions considered:

1. Did training administered to clergy increase their knowledge of various mental disorders.
2. Did training alter their opinion regarding helpful resources.
3. Did training increase their self-confidence to help individuals experiencing mental health issues.
4. Did training increase clergy's willingness to refer out.

The data was originally planned to be analyzed and measured using descriptive statistics and the MANOVA procedure, however because of substantial non conformality of data, the McNemar Test, McNemar-Bowker Change Test, and ANOVA procedures were used to investigate outcomes. The subsequent chapter 4 provides the results of analysis.

Chapter 4: Results

Introduction

A pretest/posttest research design was employed to evaluate the effects of Mental Health training administered to clergy and church volunteers. The goal was to assess if it would increase their knowledge of various mental disorders, alter their opinion regarding helpful resources, develop their self-confidence to help individuals experiencing mental health issues, and increase clergy's willingness to refer out.

Participants were given two different hypothetical vignettes of mental illness (Mary and John). They were asked to answer 45 survey questions each about the two different vignettes to indicate how they would handle the individual and/or mental health problem before training (pretest). They then took the training. After training, they were asked to answer the same 45 questions about the two different vignettes (posttest). The results of analysis in this chapter are organized so that each research question addresses Mary's vignette first and John's vignette second.

This chapter is organized into eight sections. The first section lists the research questions. The second section presents the demographics. The third section describes pre-analysis data screening and provides brief explanations of statistical tests used to answer the research questions. The fourth to seventh sections list results for RQ 1- through RQ 4. The eighth and final section is a summary.

Research Questions

Research Question 1 (RQ 1)

RQ 1: Did participation in a training workshop affect clergy's knowledge of mental disorders as evidenced by comparing pretest and posttest scores from the single within subjects group receiving the intervention?

Research Question 2 (RQ 2)

RQ 2: Did participation in a training workshop affect clergy's opinion regarding helpful resources for mental health issues as evidenced by comparing pretest and posttest results from the single within subjects group receiving the intervention?

Research Question 3 (RQ 3)

RQ 3: Did participation in a training workshop affect clergy's self-confidence to assist an individual with mental health issues as evidenced by comparing pretest and posttest results of the single within subjects group receiving the intervention?

Research Question 4 (RQ 4)

RQ 4: Did participation in a training workshop affect clergy's willingness to refer to a helpful resource as evidenced by comparing pretest and posttest results of the single within subjects group receiving the training intervention?

Demographics

A total of 46 participants completed the pretest survey, the training, and the posttest survey. The demographics in this section show that the modal participant was a European American woman in her early 50s who held an undergraduate degree. She volunteered 10-19 hours a week at an urban Baptist church where she was a member. She

was equally likely to have 1-5 years or 11+ years of experience working with individuals with mental health problems.

Among the participants, there was a 2-to-1 ratio of women to men, $n = 32$ women, 70%; $n = 14$ men, 30%. Participants were in their early 50s on average, $M = 53.98$ years old, $SD = 13.42$, $min = 23$ years old, $max = 80$ years old. The participants were members of three ethnic groups; the majority were European American, 86%, $n = 39$ participants. Four participants were African American, 8%; two participants were Hispanic, 4%; and one participant did not provide race data, 2%. Table 1 shows that approximately comparable numbers held associate degrees or undergraduate degrees. Five or fewer participants held high school diplomas, master's degrees, doctorates, or certifications.

Table 1

Number of Participants by Education Demographics, N = 46 participants

Education	Numbers of Participants	Percent
High School Diploma	5	11
Associate degree	16	35
Undergraduate Degree	17	37
Master's Degree	3	7
Doctorate	4	9
Certifications	1	2

The majority of participants were affiliated with an urban church within the city limits, 87%, $n = 40$ participants; only six participants were affiliated with a church outside the city limits, 13%. Table 2 shows the numbers of participants by clergy roles, religious denomination, and hours worked per week. For clergy roles, half of the participants were church volunteers and another one out of every five participants was a member of the clergy; the other 14 participants were affiliated with their church in a

variety of capacities. For religious denomination, just under half were Baptists whereas another one out of every three participants were non-denominational. For hours worked per week, participants tended to be evenly distributed across the various categories. However, the largest number of participants worked 10-19 hours a week.

Table 2

Numbers of Participants by Church-related Demographics, N = 46 participants

Clergy Role	Number of Participants	Percent
Church Volunteer	23	50
Clergy	9	20
Church Member	6	13
Missionary	3	7
Church Staff Member	3	7
Children's Ministry	2	4
Religious Denomination		
Baptist	21	46
Non-denominational	16	35
Catholic	3	7
Presbyterian	3	6
Methodist	1	2
Anglican	1	2
Evangelical	1	2
Hours Worked/Week		
40+ Hours	7	16
20-39 Hours	7	16
10-19 Hours	8	18
5-9 Hours	6	13
< 5 Hours	7	16
< 5 Hours/Month	5	11
None	5	11

Note. Clergy = Pastor, Minister, Elder, Reverend). Children's ministry = Youth Pastor, Children's Director. Hours Worked/Week data *n* = 45 participants.

About a quarter of the participants lacked experience, 23%. A third each had 1-5 years and 11+ years of experience, respectively, 32%. Six participants had 6-10 years of experience, 14%.

Experience with Mental Health Problems

Table 3 shows three dimensions of participants' exposure to mental health problems. Participants were approximately evenly divided in participation in mental health training, though slightly more did not have training than had training (also see Table 4). The majority of participants had friends or family members with mental health problems (see Table 5). Participants were also approximately evenly divided in their interest in participating in an emotional support group (see Table 6).

Table 3

Numbers of Participants by Exposure to Mental Health Problems

Participated in Mental Health Training	Numbers of Participants	Percent
Yes	21	46
No	25	54
Friends or Family with Mental Health Problems		
Yes	40	87
No	6	13
Interested in Emotional Support Groups		
Yes	22	49
No	23	51

Note. $N = 45$ participants for interest in emotional support groups.

Sixteen participants provided open-ended comments on training, listed on Table 4. Four participants had training in Mental Health First Aid, three participants had National Alliance on Mental Illness (NAMI) training, and two had Mental Health training

in Nursing courses. Case 43 was in graduate school and case 46 had 3000 hours of supervised work in therapy.

Table 4

Types of Mental Health Training

Case	Type of Mental Health Training
7	NAMI Family to Family, Mental Health Grace Alliance
12	Mental Health First Aid
14	Nursing School & Continuing Education
18	Thrive
21	Mental Health First Aid class
24	Seminars/Classes
26	I am an OT
27	Nursing Seminar on Mental Health
33	Online Seminars through Grace Alliance
35	Grace Group leader video training
38	Took 6 Biblical Counselling Courses at M.A. level
39	Exchanged Life Lay Counselor Training
40	Facilitator Training for Fresh Hope for Mental Health
43	In graduate school
45	NAMI, MHA, Mental Health First Aid
46	Mental Health First Aid; NAMI; MA Marital/Family Therapy; 3000 hrs of therapy

Table 5 lists the comments from the 27 participants who provided open-ended comments about the mental health problems among their family and friends. Case 21 did not provide an answer but instead asked rhetorically, “Who doesn’t?” The comments fell into three categories: types of family members (11 comments), types of mental health problems (8 comments), and comments that combined both types of family members and their mental health problems (8 comments). Five of the participants included themselves. Bipolar disorder and depression were the mental health problems mentioned most frequently.

Table 5

Types of Mental Health Problems among Participants, Family, and Friends

Case	Types of Family Members
1	2 sons
4	Myself and family members.
8	Self
12	Mother and Father
14	Sister-in-law has a MI
15	Self, son and daughter
37	I have both family members and friends affected by mental illness.
39	Family, friends and self
41	Two nephews and one niece
45	Myself and daughter
46	Children and extended family members
Case	**Types of Mental Health Problems**
2	Bipolar, Anxiety and Depression
5	Depression, Addictions
19	Anxiety, Bi-polar disorder
24	Grief
26	Bipolar, depression
27	PTSD and Bi-Polar
38	Depression-anxiety, OCD
43	Depression
Case	**Types of Family Members and their Mental Health Problems**
18	2 sons w/bipolar & OCD, 1 committed suicide. Our other 3 children have depression, anxiety, & OCD
20	Daughter-in-law diagnosed with bipolar depression
22	Mother with bipolar, best friend with chronic depression
33	Child with depression
35	Sister-in-law committed suicide, brother with long-term addiction, several friends
40	Bipolar son and ex-wife
42	I have dealt with depression personally and my daughters have as well

Table 6 lists participant comments on the types of emotional support groups that were of greatest interest. Comments included references to types of support (e.g., support from peers); individuals who could enroll (e.g., family members); and types of mental health issues (e.g., bipolar disorder or sex addictions).

Table 6

Types of Emotional Support Groups of Interest

Case	Types of Emotional Support Groups of Interest
4	Peer Support
6	Autism
9	Family & Living Grace Groups
12	One closer to my home
14	Unsure
15	Parents and self
16	Bipolar
18	Maybe
21	All
26	Sex addiction issues for wives of sex addicts
34	Maybe
35	Support for those suffering mental illness, currently co-facilitating Family Grace group
37	I am not sure.
38	Depression-anxiety
39	Depression/anxiety
40	Fresh Hope
45	Family support
46	I'm more interested in support groups for families or friends of people with mental health

Normality and Assumptions Screening

The data were collected with hard copy surveys. They were carefully transferred to an excel sheet manually; close attention was paid to minimize entry errors. The data were therefore first screened by reviewing descriptive statistics and visually inspecting frequency distributions to identify entry errors. There were no entry errors detected.

All data were then screened for missing data points. There were dispersed missing data points, however no systematic pattern. Final numbers of participants (*n*'s) varied a little across individual statistical procedures because some participants did not answer some questions.

It was originally anticipated that the research questions would be addressed with MANOVA tests because every survey item had been measured as a pretest-posttest pair. The anticipated analytical design was to employ time as the independent variable and evaluate the effectiveness of training by comparing pretest responses to posttest responses for signs of improved knowledge and understanding of mental health problems. There were 180 survey items that used a five-point Likert scale with scores ranging from 1 (strongly agree) to 5 (strongly disagree). There were 45 items each for Mary's pretest, for Mary's posttest, for John's pretest, and for John's posttest. Likert data must meet a number of assumptions to see if they can be used as continuous data and examined with parametric inferential statistical tests (Hair, Black, Babin, Anderson & Tatham, 2010; Tabachnick & Fidell, 2013), as originally anticipated in this study. Therefore, each of the 180 Likert-scaled survey items was individually screened for univariate normality by inspecting descriptive statistics (means, standard deviations, skew, kurtosis, boxplots) and Shapiro Wilks (SW) tests, which test the assumption that the data are normally distributed. The results of normality testing revealed that all the variables showed substantial departures from statistical normality. Descriptive statistics and SW test results are shown on Table 7 for Mary and on Table 8 for John. Because of substantial non-normality, Likert-scaled data were treated in their original form as ordinal data and examined with nonparametric statistical tests. Participant opinions captured in scaled survey questions were changed to independent variables and participant demographics changed to the dependent variables. Also because of substantial non-normality, assumptions for multivariate tests, such as Mahalanobis distances (which identify

multivariate outliers) and Box's *M* tests of equality (which establish the hetero- or homogeneity of variance-covariance matrices) were not run.

Table 7

Descriptive Statistics (Mean (Standard Deviation) and Shapiro-Wilks (SW) Normality Tests of Pretest and Posttest Therapeutic Responses to Mary's Vignette

	Mary Pretest		Mary Posttest	
Variables (Mary Vignette)	M(SD)	SW	M(SD)	SW
Needs Professional Help	4.33 (0.63)	.76, p<.01	4.44 (0.55)	.71, p<.01
Would Refer	4.48 (0.75)	.64, p<.01	4.64 (0.48)	.61, p<.01
Best Resource				
General Practitioner	3.28 (1.11)	.84, p<.01	4.03 (0.81)	.76, p<.01
Pharmacist	2.26 (0.91)	.87, p<.01	2.44 (0.93)	.88, p<.01
Counselor	4.15 (0.70)	.75, p<.01	4.19 (0.74)	.80, p<.01
Social Workers	3.24 (1.02)	.86, p<.01	3.14 (0.90)	.90, p<.01
Telecounseling	2.98 (0.98)	.90, p<.01	3.03 (1.03)	.89, p<.01
Psychiatrist	4.07 (0.90)	.83, p<.01	4.31 (0.66)	.73, p<.01
Clinical Psychologist	3.93 (0.87)	.84, p<.01	4.19 (0.75)	.80, p<.01
Family	3.98 (0.77)	.81, p<.01	3.94 (0.98)	.84, p<.01
Friends	3.96 (0.89)	.82, p<.01	3.97 (1.00)	.83, p<.01
Naturopath	2.61 (0.88)	.83, p<.01	2.58 (0.77)	.80, p<.01
Clergy	3.98 (0.61)	.75, p<.01	3.78 (0.79)	.82, p<.01
Self Solves It	1.57 (0.88)	.64, p<.01	1.19 (0.46)	.47, p<.01
Would Help				
Vitamins	2.86 (0.92)	.83, p<.01	2.97 (0.84)	.82, p<.01
St John's Wort	2.74 (0.87)	.82, p<.01	2.58 (0.87)	.81, p<.01
Pain Relievers	2.00 (0.72)	.81, p<.01	2.06 (0.79)	.81, p<.01
Anti-depressants	3.72 (0.98)	.79, p<.01	3.94 (0.71)	.81, p<.01
Antibiotics	2.00 (0.82)	.80, p<.01	2.08 (0.84)	.78, p<.01
Sleeping Pills	2.58 (0.85)	.87, p<.01	2.75 (0.73)	.82, p<.01
Antipsychotic Meds	2.30 (0.91)	.86, p<.01	2.47 (0.91)	.88, p<.01
Tranquilizers	2.02 (0.74)	.83, p<.01	2.53 (0.74)	.83, p<.01
More Exercise	4.14 (0.83)	.78, p<.01	4.00 (0.76)	.84, p<.01
Studying Depression	4.16 (0.65)	.78, p<.01	4.28 (0.61)	.76, p<.01
Getting Out & About More	3.93 (0.80)	.85, p<.01	3.89 (0.74)	.84, p<.01
Courses on Stress Mgmt	3.86 (0.86)	.83, p<.01	3.89 (0.71)	.82, p<.01
Cut Out Alcohol	3.84 (0.72)	.81, p<.01	3.97 (0.69)	.81, p<.01
Counseling	4.35 (0.61)	.75, p<.01	4.47 (0.56)	.71, p<.01
Cognitive Behavioral Tx	3.81 (0.91)	.85, p<.01	4.14 (0.76)	.80, p<.01
Hypnosis	2.42 (0.70)	.81, p<.01	2.44 (0.73)	.71, p<.01
Psychiatric Ward	2.23 (0.75)	.84, p<.01	2.36 (0.90)	.86, p<.01

Electroconvulsive Therapy	2.14 (0.86)	.86, p<.01	2.17 (0.88)	.83, p<.01
Occasional Drink	2.16 (0.78)	.78, p<.01	2.00 (0.71)	.81, p<.01
Special Diet	3.19 (0.74)	.83, p<.01	3.08 (0.84)	.85, p<.01
Person Could Snap Out of It	1.63 (0.82)	.75, p<.01	1.31 (0.47)	.58, p<.01
Problem is Personal Weakness	1.49 (0.83)	.62, p<.01	1.17 (0.37)	.45, p<.01
Problem is Not Medical	1.67 (0.92)	.73, p<.01	1.36 (0.68)	.58, p<.01
Problem Makes Person Dangerous	1.65 (0.78)	.77, p<.01	1.67 (0.72)	.77, p<.01
Person Should Be Avoided	1.19 (0.45)	.46, p<.01	1.22 (0.42)	.51, p<.01
Makes Person Unpredictable	2.42 (1.03)	.90, p<.01	2.11 (0.92)	.85, p<.01
Problem Should Not be Discussed	1.88 (0.91)	.81, p<.01	1.67 (0.76)	.76, p<.01
Hire Person Despite Problem	3.47 (0.77)	.84, p<.01	3.58 (0.73)	.84, p<.01
Problem Due to Imbalance	4.09 (0.78)	.76, p<.01	4.11 (0.78)	.72, p<.01
Problem from Religious Failure	1.79 (0.96)	.78, p<.01	1.33 (0.58)	.61, p<.01

Note. SW = Shapiro-Wilks test of normality and p value.

Table 8

Descriptive Statistics (Mean (Standard Deviation) and Shapiro-Wilks (SW) Tests of Pretest and Posttest Therapeutic Responses to John's Vignette

	John Pretest		John Posttest	
Variables (John Vignette)	M(SD)	SW	M(SD)	SW
Needs Professional Help	4.78 (0.47)	.52, p<.01	4.80 (0.69)	.34, p<.01
Would Refer	4.63 (0.53)	.67, p<.01	4.65 (0.75)	.54, p<.01
Best Resource				
General Practitioner	2.78 (1.22)	.84, p<.01	3.80 (1.15)	.86, p<.01
Pharmacist	2.16 (1.02)	.86, p<.01	2.51 (1.12)	.88, p<.01
Counselor	3.69 (1.06)	.86, p<.01	3.82 (1.26)	.84, p<.01
Social Workers	3.04 (1.09)	.88, p<.01	3.16 (1.18)	.90, p<.01
Telecounseling	2.48 (1.05)	.88, p<.01	2.56 (1.12)	.89, p<.01
Psychiatrist	4.61 (0.65)	.64, p<.01	4.69 (0.51)	.57, p<.01
Clinical Psychologist	4.22 (0.99)	.75, p<.01	4.38 (1.03)	.69, p<.01
Family	3.87 (1.07)	.85, p<.01	3.95 (1.01)	.82, p<.01
Friends	3.76 (1.08)	.88, p<.01	3.93 (1.05)	.82, p<.01
Naturopath	2.41 (0.88)	.88, p<.01	2.69 (1.06)	.87, p<.01
Clergy	3.57 (0.81)	.78, p<.01	3.84 (0.93)	.86, p<.01
Self Solves It	1.30 (0.59)	.57, p<.01	1.23 (0.61)	.34, p<.01
Would Be Helpful				
Vitamins	2.70 (0.96)	.88, p<.01	2.89 (1.03)	.85, p<.01
St John's Wort	2.31 (0.85)	.83, p<.01	2.39 (0.88)	.82, p<.01
Pain Relievers	1.87 (0.65)	.79, p<.01	2.02 (0.84)	.78, p<.01

Anti-depressants	3.13 (0.93)	.86, p<.01	3.00 (1.01)	.88, p<.01
Antibiotics	1.91 (0.76)	.81, p<.01	1.72 (0.72)	.78, p<.01
Sleeping Pills	2.29 (0.82)	.86, p<.01	2.24 (0.92)	.86, p<.01
Antipsychotic Meds	4.15 (0.89)	.84, p<.01	3.93 (1.18)	.82, p<.01
Tranquilizers	2.48 (0.96)	.85, p<.01	2.67 (0.85)	.85, p<.01
More Exercise	3.61 (1.00)	.88, p<.01	3.60 (0.98)	.89, p<.01
Studying Psychosis	3.98 (0.87)	.84, p<.01	4.09 (0.98)	.77, p<.01
Getting Out & About	3.54 (0.86)	.87, p<.01	3.58 (0.97)	.90, p<.01
Courses on Stress Mgmt	3.63 (0.93)	.87, p<.01	3.69 (0.97)	.89, p<.01
Cut Out Alcohol	3.91 (1.50)	.83, p<.01	3.87 (1.17)	.80, p<.01
Counseling	4.22 (0.70)	.78, p<.01	4.27 (0.95)	.77, p<.01
Cognitive Behavioral Tx	3.89 (0.87)	.81, p<.01	4.28 (0.86)	.78, p<.01
Hypnosis	2.59 (0.77)	.77, p<.01	2.36 (0.80)	.82, p<.01
Psychiatric Ward	3.65 (0.82)	.86, p<.01	3.56 (0.89)	.85, p<.01
Electroconvulsive Therapy	2.52 (0.78)	.78, p<.01	2.46 (0.94)	.80, p<.01
Occasional Drink	1.83 (0.97)	.75, p<.01	1.96 (0.92)	.80, p<.01
Special Diet	3.13 (0.93)	.91, p<.01	2.91 (1.02)	.88, p<.01
Person Could Snap Out of It	1.39 (0.74)	.61, p<.01	1.20 (0.51)	.42, p<.01
Problem is Personal Weakness	1.35 (0.60)	.63, p<.01	1.22 (0.47)	.51, p<.01
Problem is Not Medical	1.37 (0.80)	.54, p<.01	1.36 (0.89)	.46, p<.01
Makes Person Dangerous	2.80 (0.93)	.84, p<.01	2.65 (1.04)	.83, p<.01
Person Should Be Avoided	1.33 (0.56)	.62, p<.01	1.23 (0.42)	.51, p<.01
Makes Person Unpredictable	3.39 (0.95)	.89, p<.01	3.33 (1.03)	.90, p<.01
Problem Should Not be Discussed	2.11 (1.04)	.87, p<.01	1.96 (0.99)	.84, p<.01
Hire Person Despite Problem	2.89 (1.04)	.91, p<.01	3.15 (0.89)	.86, p<.01
Problem Due to Imbalance	4.17 (0.82)	.79, p<.01	4.20 (0.85)	.74, p<.01
Problem from Religious Failure	1.48 (0.75)	.68, p<.01	1.27 (0.54)	.51, p<.01

Note. SW = Shapiro-Wilks test of normality and p value.

Significance was set to an exploratory *alpha* $\leq$ .050. Percentages were rounded off to whole numbers and may not add up to precisely 100%. Data were analyzed with SPSS v 25, which is dedicated statistical software.

McNemar Change Test

RQ 1 was tested with the McNemar Change Test Siegel & Castellan, 1988). This is a "repeated measures" type of chi-square test used to examine categorical (nominal or

ordinal) data when the analytical goal is to measure the "before" to "after" change for statistical significance. Each participant serves as their own control. A 2 x 2 table is set up to examine two of the four cells in the contingency table; in the current study, there were two cells that reflected the number of participants who changed after mental health training. One group was comprised of subjects who increased knowledge from training (i.e., beliefs about effective treatments changed to agree with health professionals regarding helpful treatments (Cell A). The other group was comprised of participants who lost knowledge (i.e., changing from agreement with health professionals regarding helpful treatments to less agreement, Cell D).

McNemar-Bowker Change Test

RQ 2, RQ 3, and RQ 4 were addressed with McNemar-Bowker tests. This is a version of the McNemar test that compares two sets of categorical repeated measures with more than two levels per variable. This applied to the current analysis because the data were collapsed into three levels (*disagree* = strongly disagree + disagree; *neutral* = neither agree nor disagree; *agree* = agree + strongly agree) from the original 5-pt Likert scale to ensure that there were sufficient numbers of data points for analysis while simultaneously clarifying the impact of training. These collapsed versions of the original variables are notated by the term "Categories" in the variable label, along with references to the pretest or the posttest, and to Mary or to John, for ready identification. For example, the variable labeled "Electroconvulsive Tx Categories (John Pre)" referred to participants' pretest opinions that electroconvulsive therapy would help John (disagree,

neutral, agree). These "Categories" variables were cross-tabulated to create 3 x 3 tables and examined with McNemar-Bowker tests.

Chi-squares

Chi-square tests of independence were used to test the second portion of RQ 2, which tested relationships between participants' opinions and demographic characteristics that were categorical variables but not repeated measures. Chi-square tests set up categorical data in cross-tabulated tables and analyze them by comparing observed count to expected counts (Siegel & Castellan, 1988). *Observed counts* or *frequencies* are the actual number of participants that fall into a specific category. *Expected counts* or *frequencies* are the number of participants that would be expected to fall into a specific category if there was no relationship between the variables being examined (i.e., counts expected by chance). The Yates continuity correction is applied to 2 x 2 analyses (i.e., when both variables have only two levels or are dichotomous); the Yates correction reduces the observed-expected difference to provide a more accurate fit with chi-square distributions. An overall chi-square statistic indicates whether the observed distribution differs from the expected distribution. There cannot be more than 20% of the cells with expected frequencies of 5 or less; one solution is to collapse categories in theoretically or intuitively reasonable ways to increase the frequencies (Siegel & Castellan, 1988).

ANOVA

Two one-way ANOVA tests were run to test the second portion of RQ 2, which tested relationships between participants' opinions and the continuous demographic variable age. ANOVA or "analysis of variance" tests are a large family of tests that

compare means across different groups to determine if the groups were most likely drawn from the same population (i.e., were non-significantly different) or from different populations (i.e., were significantly different; Weaver & Goldberg, 2011). The ANOVA *F* statistic is a ratio of the variance between the groups divided by the variance within the groups and is always positive in value. If there is roughly comparable variance between and within the groups, the *F* is close to the value of 1 and the groups are assumed to have been drawn from the same population. Such groups are non-significantly different. Higher values of *F* statistics are associated with greater differences between the groups.

Screening showed that age was normally distributed. For this portion of RQ 2, age was the dependent variable (DV). Participant opinions about a significant resource was the independent variable (IV). The ANOVA determined whether age varied across disagree, neutral, and agree opinions.

Results for RQ1

RQ 1 was, does participation in a training workshop affect clergy's knowledge of mental disorders as evidenced by comparing pretest and posttest scores from the single within subjects group receiving the intervention?

For this question, participants' pretest and posttest knowledge of mental disorders was measured categorically. Specifically, on the survey, participants were given two hypothetical vignettes about different mental health problems, one for "Mary" and one for "John." Participants were then asked, "What is wrong with Mary?" and requested to select an answer from a list of 8 choices: depression; mania; attention deficit; psychosis;

major depression; eating disorder; post-traumatic stress; and other. Results from Mary's vignette are presented first, followed by results from John's vignette.

RQ 1 Results for Mary's Vignette

The best answer for Mary's symptoms was major depression. Table 9 shows that participants only choose two of the 8 proffered diagnoses, depression or major depression.

Table 9
Cross-tabulation of Pretest and Posttest Diagnostic Choices for Mary's Hypothetical Vignette

		Mary's Diagnosis (Pre)		
Mary's Diagnosis (Post)		Depression	Major Depression	Total
Depression	Count	22	5	27
Major Depression	Count	10	8	**18**
Total	Count	32	**13**	45

There were 22 participants that selected depression in the pretest and posttest, and 8 participants selected major depression in the pretest and posttest. In contrast, 5 participants lost knowledge, switching from the more accurate answer of major depression in the pretest to a more general answer of depression in the posttest. The final 10 participants gained knowledge, switching from depression in the pretest to major depression in the posttest.

The pretest-posttest change in answers was tested with the McNemar test. The hypotheses were:

H_0: The number of participants who gained knowledge did not differ from the number of participants who lost knowledge.

H_1: The number of participants who gained knowledge differed significantly from the number of participants who lost knowledge.

McNemar's test results indicated no significance as the number of participants who gained knowledge about major depression from the training did not differ from the number of participants who lost knowledge, $X^2(1, 45) = 1.07$, $p = .302$. The null hypothesis was retained.

RQ 1 Results for John's Vignette

The best answer for John's symptoms was psychosis. Table 10 shows that participants chose more broadly among the proffered answers for John's vignette than they did for Mary's vignette (see Table 9). Their choices included depression, mania, major depression, and others. The numbers of participant who chose mania in the pretest and posttest did not change. Fewer participants chose depression in the posttest. However, in the both the pretest and the posttest, the majority of the participants chose psychosis.

Table 10
Numbers of Participants by Diagnostic Choice in the Pretest and Posttest for John's Vignette

	John's Diagnosis (Pre)		John's Diagnosis (Post)	
	Frequency	Percent	Frequency	Percent
Depression	2	4%	1	2%
Mania	5	11%	5	11%
Attention Deficit	-	-	-	-
Psychosis	34	74%	37	80%
Major Depression	-	-	1	2%
Eating Disorder	-	-	2	4%

Post-Traumatic Stress	-	-	-	-
Other	5	11%	-	-

To test changes in knowledge as a result of training, the diagnostic data were re-coded into other choice and psychosis and tested with a McNemar's test.

Table 11

Crosstabulation of Pretest and Posttest Diagnoses for John's Vignette

John Psychosis / Other Choice (Post)		John Psychosis / Other Answer (Pre)		
		Other Choice	Psychosis	Total
Other Choice	Count	6	2	8
Psychosis	Count	5	32	**37**
Total	Count	11	**34**	45

Table 11 shows that 32 participants chose the best answer 'psychosis' to describe the symptoms in both the pretest and posttest, and 6 participants did not select psychosis in either the pretest or posttest. In contrast, 5 participants gained knowledge, switching to psychosis on the posttest. Two participants lost knowledge, switching from psychosis on the pretest to another answer in the posttest.

The pretest-posttest change in answers for John's vignette was tested with the McNemar test. The hypotheses were:

H_0: The number of participants who gained knowledge did not differ from the number of participants who lost knowledge.

H_1: The number of participants who gained knowledge differed significantly from the number of participants who lost knowledge.

McNemar's test results indicated no significance as the number of participants who gained knowledge about psychosis from the training did not differ from the number

of participants who lost knowledge, $X^2(1, 45) = 0.57$, $p = .453$. The null hypothesis was retained.

Answer to RQ 1

The answer to RQ 1 (Does participation in a training workshop affect clergy's knowledge of mental disorders as evidenced by comparing pretest and posttest vignette answers from the single within subjects' group?) was no for this sample of participants. For both Mary's depression vignette and John's psychosis vignette, the number of participants who switched to a more fitting answer from pretest to posttest did not differ statistically. Moreover, the majority of participants in both the pretest and posttest agreed that Mary and John need professional help.

Results for RQ 2

RQ 2 was, does participation in a training workshop affect clergy's opinion regarding helpful resources for mental health issues as evidenced by comparing pretest and posttest results from the single within subjects group receiving the intervention? The intent of this question was to compare pretest to posttest perspectives on helpful resources. A secondary intent was to identify relationship between helpful resources and demographic characteristics.

Participants provided opinions on 43 resources, one set for Mary and a second set for John. This lengthy section is separated into three sections. The first section presents participants' pretest-posttest opinions about helpful resources for Mary's depression. The second part presents participants' pretest-posttest opinions about helpful resources for

John's psychosis. The third part presents tests for relationships between significant resources and demographic characteristics.

Participants' opinions of helpful resources were collapsed from five levels to three levels (*disagree* = strongly disagree + disagree; *neutral* = neither agree nor disagree; and *agree* = agree + strongly agree). Pretest responses were cross-tabulated with posttest responses about the helpfulness of each of 43 resources and tested for statistical significance with the McNemar-Bowker test. The McNemar-Bowker hypotheses, which were not repeated in each of the following sections of results for 42 resources to minimize text, were:

H_0: The distribution of opinion in the pretest does not differ from the distribution of opinion in the posttest.

H_1: The distribution of opinion in the pretest differs significantly from the distribution of opinion in the posttest.

Results for Mary's depression are presented first. Results for John's psychosis are presented second.

RQ 2 Summary of Resources for Mary's Depression

To summarize the following statistical results for 43 resources for Mary's depression, participant opinions about four resources changed significantly across training. More participants changed their responses from disagree or neutral to agree that general practitioners, psychiatrists, and cognitive behavioral therapy would be helpful. More participants were neutral about the helpfulness of tranquilizers for Mary's depression.

Best Resource: General Practitioner (Mary)

Results on Table 12 showed that the distribution of opinion in the pretest differed significantly from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 17.62$, $p = .001$. The General Practitioner (GP) null hypothesis was rejected.

Table 12

GP Categories (Mary Post) x GP Categories (Mary Pre) Crosstabulation

		GP Categories (Mary Pre)			Total
		Disagree	Neutral	Agree	Post
GP Categories	Disagree	1	1	1	3
(Mary Post)	Neutral	2	0	0	2
	Agree	13	7	20	**40**
Total Pre		16	8	**21**	45

Best Resource: Psychiatrist (Mary)

Results on Table 13 showed that the distribution of opinion in the pretest differed significantly from the distribution of opinion in the posttest, McNemar-Bowker X^2 (3, 46) = 10.00, $p = .019$. The psychiatrist null hypothesis was rejected. More participants changed answers from disagree and neutral regarding a Psychiatrist being helpful for Mary to agree after training.

Table 13

Psychiatrist Categories (Mary Post) x Psychiatrist Categories (Mary Pre) Crosstabulation

		Psychiatrist Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Psychiatrist Categories	Disagree	0	1	0	1
(Mary Post)	Neutral	0	1	0	1
	Agree	3	6	35	**44**
Total Pre		3	8	**35**	46

Tranquilizers Help (Mary)

Results on Table 14 showed that the distribution of opinion in the pretest differed significantly from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 6.25$, p = .012. The tranquilizers null hypothesis was rejected. More participants changed from disagree to being more neutral that tranquilizers would be helpful for Mary's depression after training.

Table 14

Tranquilizers Categories (Mary Post) x Tranquilizers Categories (Mary Pre) Crosstabulation

		Tranquilizers Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Tranquilizers Categories (Mary Post)	Disagree	20	3	0	23
	Neutral	13	7	0	**20**
	Agree	0	0	1	1
Total Pre		33	**10**	1	44

Mary's Problem is Not a Medical Condition (Mary)

Results on Table 15 showed that the distribution of opinion in the pretest differed significantly from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 8.00$, $p = .046$. The null hypothesis was rejected. Most disagreed with the statement that Mary's depression was not a *bona fide* medical illness and participants who were initially neutral changed to disagreement with the statement "Mary's problem is not a real medical illness."

Table 15

Not Real Medical Illness Categories (Mary Post) x No Medical Condition Categories (Mary Pre) Crosstabulation

		Not Real Medical Illness Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Not Medical Illness Categories (Mary Post)	Disagree	37	6	0	**43**
	Neutral	0	1	1	2
	Agree	1	0	0	1
Total Pre		**38**	**7**	1	46

RQ 2 Summary of Resources for John's Psychosis

To summarize the following statistical results for John, participant opinions about two resources changed significantly across training. More participants agreed after training that general practitioners and cognitive behavioral therapy would be helpful for John's psychosis than before training.

Best Resource: General Practitioner (John)

Results on Table 16 showed that the distribution of opinion in the pretest differed significantly from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 43) = 17.92$, $p<.05$. The null hypothesis was rejected. Significantly more participants agreed in the posttest than in the pretest that general practitioners would be helpful to John's psychosis.

Table 16

GP Categories (John Post) x GP Categories (John Pre) Crosstabulation

		GP Categories (John Pre)			
		Disagree	Neutral	Agree	Total
GP Categories (John Post)	Disagree	5	1	1	7
	Neutral	5	2	0	7
	Agree	15	3	11	**29**
Total Pre		25	6	**12**	43

Percentages of Helpful Resources

This section shows the likelihoods or percentages of pretest-posttest change for each resource for general comparison across resources. Percentages were generated by tallying numbers of participants in each pretest and posttest agreement category (shown on Tables 12-21) and divided by the total number of participants who provided a response. Percentages are listed on Table 17 for Mary and on Table 18 for John in descending order of percentages of agreeing with the resource after training.

Helpful Resources for Mary's Depression

Changes in opinion from the pretest to the posttest about the helpfulness of various resources for Mary's depression are listed Table 17 as percentages that illustrate the likelihood of agreement, neutrality, or disagreement. A comparison of the percentages of agreeing (shown in the last column on the right on Table 17) revealed that, after training, the top three helpful resources participants selected for Mary's depression were psychiatrists, general practitioners, and family. There was substantial shift towards agreement with health experts about which treatments would be helpful for issues depicted in a vignette (Jorm & Reavley, 2013) such as general practitioners and psychiatrists. Health Professionals selected clinical psychologists as being a helpful resource, however, there was not a significant change at posttest.

The next highest percentages were for family members (shown in the last column on the right on Table 17). The percentages for the remaining resources were less than .50 (shown in the last column on the right on Table 17). Participants agreed that the least helpful resource was for Mary to solve her depression herself without professional help.

Table 17

Pretest-Posttest Change in Clergy's Opinions of Helpful Resources for Mary's Depression, percent value, (n)

	Pretest						Posttest					
Best Resource	Disagree		Neutral		Agree		Disagree		Neutral		Agree	
	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*
Psychiatrist	.06	3	.17	8	.76	35	.02	1	.02	1	**.96**	44
Gen Practitioner	.35	16	.18	8	.47	21	.07	3	.04	2	**.89**	40
Counselor	.02	1	.11	5	.86	38	.02	1	.09	4	.87	39
Clinical Psych	.06	3	.17	8	.76	35	.02	1	.13	6	**.85**	39
Family	.04	2	.17	8	.53	24	.08	4	.15	7	**.76**	35
Friends	.06	3	.15	7	.78	36	.08	4	.15	7	.76	35
Clergy	.02	1	.14	6	.84	36	.07	3	.18	8	.53	32
Social Workers	.27	12	.38	17	.35	16	.17	8	.40	18	.42	19
TeleCounseling	.30	13	.42	18	.28	12	.39	17	.30	13	.30	13
Naturopath	.39	18	.54	25	.06	3	.35	16	.52	24	.13	6
Pharmacist	.16	27	.28	12	.09	4	.49	21	.39	17	.12	5
SolveBySelf	.59	27	.34	16	.06	3	**.78**	36	.17	8	.04	2

Helpful Resources for John's Psychosis

Changes in opinion from the pretest to the posttest about the helpfulness of various resources for John's psychosis are listed Table 18 as percentages that illustrate the likelihood of agreement, neutrality, or disagreement. A comparison of the percentages of agreeing (shown in the last column on the right on Table 18) revealed that, after training, the top four helpful resources for John's psychosis (Opinions about effective treatments) to which study subjects answered questions similarly to health professionals regarding which treatments would be useful for issues described in a vignette were: psychiatrists, clinical psychologists, and friends. There was basic agreement of opinion across the pretest and posttest for these three resources, insofar as the percentages were about the same before and after training. This was true for clergy as resources for John's psychosis too.

The next set of percentages of agreeing (.69, .67, and .65; shown in the last column on the right on Table 18) showed that two out of three participants agreed that clergy, general practitioners, and counselors were helpful resources for John's psychosis. However, the most substantial shift in opinions about helpful resources for John's psychosis was about general practitioners (GP on Table 18). In the pretest, chances were only one in four participants agreed that general practitioners were helpful in the case of psychosis. In the posttest, however, opinions shifted, and the chances increased to two out of three participants who agreed that general practitioners were helpful in the case of psychosis.

The percentages for the remaining resources were less than .50 (shown in the last column on the right on Table 18). Participants agreed that the least helpful resource was for John to solve his psychosis himself without professional help.

Table 18

Pretest-Posttest Change in Clergy's Opinions of Helpful Resources for John's Psychosis, Percentage, (n)

	Pretest						Posttest					
Best Resource	Disagree		Neutral		Agree		Disagree		Neutral		Agree	
	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*
Psychiatrist	.02	1	.02	1	.96	43	.00	0	.02	1	.98	44
Chiropractor	.18	8	.00	0	.82	37	.04	2	.11	5	.84	38
Friends	.15	7	.20	9	.64	29	.11	5	.11	5	.78	35
Family	.11	5	.16	7	.73	32	.14	6	.11	5	.75	33
Clergy	.11	5	.24	11	.64	29	.06	3	.24	11	.69	31
Gen Practitioner	.58	25	.14	6	.28	12	.16	7	.16	7	**.67**	29
Counselor	.18	8	.16	7	.65	28	.21	9	.14	6	.65	28
Social Workers	.38	17	.29	13	.32	14	.32	14	.36	16	.32	14
Naturopath	.53	24	.40	18	.06	3	.38	17	.47	21	.16	7
TeleCounseling	.51	22	.26	11	.23	10	.49	21	.35	15	.16	7
Pharmacist	.71	29	.22	9	.07	3	.51	21	.34	14	.14	6
SolveBySelf	.93	41	.07	3	.00	0	.96	42	.02	1	.02	1

RQ 2 Significant Changes by Demographic Characteristics

The secondary intent of RQ 2 was to identify whether any demographic characteristics were shown to be statistically impacted by the training and helpful. This section shows results for exploring those relationships. The five demographic characteristics were the continuous variable age and the four categorical variables of gender, education, clergy role, and religious denomination. Gender had only male and female as options in the survey, and therefore was already a dichotomous variable. In order to have a sufficient number of data points in cross-tabulated cells, dichotomous variables were created for education, clergy role, and religious denomination. Education was collapsed into two levels: less than a 4-yr college degree and a 4-yr college degree or higher. Clergy role was collapsed into two levels: church volunteer and church affiliate (which included clergy, church staff members, missionaries, and church members). Religious denomination was collapsed into two levels: Baptist and non-Baptists. Two demographic characteristics, race and church location, were excluded because they were too imbalanced for meaningful comparison. For race, recall that there were 39 European Americans to seven ethnic minorities. For church location, recall that 40 participants were associated with churches located in urban areas.

Survey items examined for statistically significant change by demographics were whether general practitioners, psychiatrists, tranquilizers, and cognitive behavioral therapy were helpful, as well as the idea that depression and psychosis were not medical conditions.

The association between the demographic variable age and posttest opinions was investigated with one-way ANOVA tests. Age was the dependent variable. The agreement categories (Agree, Strongly Agree) were the independent variables. The generic hypotheses were:

H_0: Differences in age across agreement categories were not significant.

H_1: Differences in age across agreement categories were statistically significant.

The associations between categorical demographic variables and posttest opinions were examined for significance by cross-tabulating and running chi-square tests of independence (McNemar tests were not used because neither variable involved repeated measures because only posttest data were tested). The general chi-square hypotheses were:

H_0: The association between the demographic variable and posttest opinions was not statistically significant.

H_1: The association between the demographic variable and posttest opinions was statistically significant.

The five demographic variables and the five significant resources yielded 50 analyses, the results of which are summarized on Table B1 in the appendix. Thirty analyses could not be run because the data did not meet one or more assumptions of the test. Eighteen analyses revealed non-significant associations. Two analyses revealed significant relationships.

Table B1 located in the appendix shows there was a significant gender difference in participant opinions about the helpfulness of cognitive behavioral therapy (CBT) for

Mary's depression (F, p,). More women than men agreed that CBT was a helpful resource for Mary's depression than men (F, p), however more men than women thought it was a neutral resource (F, p.).

Table B1 also showed that there was a significant gender difference in participant opinions about the helpfulness of CBT for John's psychosis. More women agreed that CBT was a helpful resource for John's psychosis than did men, but more men than women thought it was a neutral resource.

Results for RQ 3

RQ 3 was, does participation in a training workshop affect clergy's self-confidence to assist an individual with mental health issues as evidenced by comparing pretest and posttest results of the single within subjects group receiving the intervention? The original 5-pt Likert scales of agreement responses were re-coded to increase the number of participants per cell and clarify the impact of training (*disagree* = strongly disagree + disagree categories; *neutral* = neither agree nor disagree; *agree* = agree + strongly agree). The McNemar-Bowker test, which compares pretest to posttest data for tables larger than 2 x 2 (i.e., k x k tables) was used to test the hypothesis that the distribution of participants was comparable in the pretest and posttest, that is, training did not have an effect on self-confidence. The McNemar-Bowker hypotheses were:

H_0: The distribution of opinions about self-confidence in the pretest does not differ from the distribution of opinions in the posttest.

H_1: The distribution of opinions about self-confidence in the pretest differs significantly from the distribution of opinions in the posttest.

Results for Mary's depression are presented first. Results for John's psychosis are presented second.

Self-confidence to Assist with Mary's Depression

Results on Table 19 showed that the distribution of opinion in the pretest differed significantly from the distribution of opinion in the posttest regarding self-confidence to assist Mary with her depression, McNemar-Bowker $X^2(3, 45) = 19.50$, $p<.05$. The null hypothesis was rejected. Significantly more participants which was about half were more self-confident about assisting with Mary's depression after the training.

Table 19

Confidence Categories (Mary Post) x Confidence Categories (Mary Pre) Crosstabulation

		Confidence Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Confidence Categories (Mary Post)	Disagree	0	0	1	1
	Neutral	1	0	0	1
	Agree	7	14	22	**43**
Total		8	14	**23**	45

Self-confidence to Assist with John's Psychosis

Results in Table 20 showed that the distribution of opinion in the pretest differed significantly from the distribution of opinion in the posttest to assist John with his psychosis, McNemar-Bowker $X^2(3, 46) = 20.17$, $p<.05$. The null hypothesis was rejected. Significantly more participants were self-confident about helping John's psychosis after the training.

Table 20
Confidence Categories (John Post) x Confidence Categories (John Pre) Crosstabulation

		Confidence Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Confidence (John Post)	Disagree	10	1	0	11
	Neutral	5	1	1	7
	Agree	13	7	8	**28**
Total		28	9	**9**	46

Answer to RQ 3

The answer to RQ 3 was yes: Does participation in a training workshop affect clergy's self-confidence to assist an individual with mental health issues as evidenced by comparing pretest and posttest results of the single within subjects group receiving the intervention? Significantly more participants were self-confident about assisting with Mary's depression and about assisting with John's psychosis after the training.

Results for RQ 4

RQ 4 was as follows: Does participation in a training workshop affect clergy's willingness to refer to a helpful resource as evidenced by comparing pretest and posttest results of the single within subjects group receiving the training intervention? The McNemar-Bowker hypotheses were:

H_0: The distribution of opinions about referring out in the pretest does not differ from the distribution of opinions about referring out in the posttest.

H_1: The distribution of opinions about referring out in the pretest differs significantly from the distribution of opinions about referring out in the posttest.

Results for Mary's depression are presented in the Appendix Table 22. Results for John's psychosis are presented in the Appendix Table 46. Participants agreed pre and post training that they were willing to refer Mary and John.

Answer to RQ 4

The answer to RQ 4 was no: Does participation in a training workshop affect clergy's willingness to refer to a helpful resource as evidenced by comparing pretest and posttest results of the single within subjects group receiving the training intervention? The consensus was clear that participants were willing to refer Mary and to refer John in both the pretest and posttest.

Summary

The purpose of this research was to evaluate if Mental Health training administered to clergy would increase their knowledge of various mental disorders, alter their opinion regarding helpful resources, grow their self-confidence to help individuals experiencing mental health issues, and increase clergy's willingness to refer to appropriate mental health professionals.

The answer to RQ 1 was no: Does participation in a training workshop affect clergy's knowledge of mental disorders as evidenced by comparing pretest and posttest scores from the single within subjects group receiving the intervention? For both Mary's depression vignette and John's psychosis vignette, the number of participants who switched from a less accurate to more fitting diagnosis from pretest to posttest did not differ statistically significantly. Moreover, the majority of participants in both the pretest and posttest agreed that Mary and John need professional help.

The answer to RQ 2 was in three parts: (a) From analysis of 42 resources for Mary's depression, participant opinions about four resources changed significantly across training: More participants agreed after training that general practitioners, psychiatrists, and cognitive behavioral therapy would be helpful whereas more participants were neutral about the helpfulness of tranquilizers. This means that beliefs about effective treatments were in more agreement after the training with health professional opinions regarding helpful treatments (Morgan, Jorm & Reavley, 2013), (b) From analysis of 42 resources from John's psychosis, participant opinions about two resources changed significantly across training: More participants agreed after training that general practitioners and cognitive behavioral therapy would be helpful for John's psychosis, (c) Only one demographic characteristic, gender, emerged with a significant relationship with opinions about recourses. More women than men thought CBT was helpful for Mary's depression and for John's psychosis.

The answer to RQ 3 was yes: Does participation in a training workshop affect clergy's self-confidence to assist an individual with mental health issues as evidenced by comparing pretest and posttest results of the single within subjects group receiving the intervention? Significantly more participants were self-confident about assisting with Mary's depression and about assisting with John's psychosis after the training.

The answer to RQ 4 (Does participation in a training workshop affect clergy's willingness to refer to a helpful resource as evidenced by comparing pretest and posttest results of the single within subjects group receiving the training intervention?) was no.

The consensus was clear that participants were willing to refer both Mary and John in the pretest and posttest.

In Chapter 5: I will conclude with research findings, implications for social change, recommendations, and conclusions.

Chapter 5: Conclusion and Discussion

Introduction

Each year almost 43 million Americans experience mental illness (NIMH, 2015) with approximately 40% seeking support from clergy prior to other helping professionals (Polson & Rogers, 2007). Research shows that church leaders have admitted to feeling insufficiently prepared to recognize signs of possible mental illness (Farrell & Goebert, 2008).

The purpose of this study was to investigate if mental health training administered to clergy and church lay leaders would increase their knowledge of mental health issues, opinions regarding helpful resources, self-confidence in assisting individuals with mental illness symptoms, and willingness to refer to a helpful resource. Scores on the Mental Health Effectiveness questionnaire were compared before and after Mental Health 101 training using the McNemar Change Test, McNemar-Bowker Change Test, chi-squares, and ANOVA versus the originally planned MANOVA that could not be used because the non-normal skewed data not pass the required assumptions.

In this chapter, the interpretation and results are discussed. Also discussed are implications for social change and recommendations for further study and action.

Interpretation of Findings

The interpretations of these finding are supported by the literature presented in Chapter 2, but more importantly they may provide insight into the needs for additional knowledge in mental health training and support for clergy and church leaders experiencing mental health issues within their families and congregations.

Knowledge of Mental Disorders

Most people are not educated to identify signs of mental health issues in other people (Reavley & Jorm, 2011). However, the majority of participants in this study were able to correctly identify Mary as experiencing depression symptoms and John experiencing psychosis symptoms during the pre-test. This was most likely due to the previous experience this participant population had with mental health issues. Most of the participants who attended the training workshop and participated in this research project (taking the pre and post survey) had been exposed to mental health training in the past and/or had a family that was diagnosed with a mental disorder.

Although this training did not improve the ability of these participants to identify mental health symptoms, some participants did obtain a deeper understanding of some mental illness symptoms as indicated by some changing their answers from a more general answer of depression on Mary's vignette to the more accurate selection of major depression. The literature review section in Chapter 2 noted several similar studies that administered MHFA, which is a similar program to the Mental Health 101 training intervention utilized in this study. Comparable studies found that MHFA training improved knowledge (Morgan, Ross, & Reavley, 2018). Hadlaczky et al. (2014) performed a meta-analysis of 15 MHFA studies and found improvements in knowledge to identify mental illness symptoms post training. In another systematic review of similar Mental Health First Aide training, Morgan, Ross, and Reavley (2018) compared 18 MHFA trials consisting of approximately 5900 participants and found small to medium improvements post-training in recognizing mental health problems (knowledge of mental

disorders) after reading the vignette. According to Morgan, Ross, and Reavley (2018), some studies reported to re-assess at a 6-month follow-up and found knowledge of mental disorders to have increased to a moderate level but were unclear as to the reason. Participants in the MHFA studies mentioned had little mental health experience. Knowledge may have increased in this study as well if individuals with previous mental health experience and training had been excluded.

Opinions of Helpful Resources

Participation in the training workshop influenced opinions regarding some resources church leaders considered helpful. Participants agreed more after the training with how health professionals answered the questions relating to the helpfulness of general practitioners, psychiatrists, and cognitive behavioral therapy (CBT).

The training provided explanation as to how general practitioners can assist in identifying Mental Illness and referrals to more specialized mental health professionals such as Psychiatrists, and Psychologists as well as the benefits of medication and counseling. It was interesting that CBT was found to be more helpful by participants after the training since specific psychotherapy methods were not discussed in detail. The training presented more generally that psychotherapy or mental health counseling may be helpful to someone experiencing issues. Since a broad range of CBT treatments are used in the treatment of psychiatric disorders, and there is no overall agreement or clear definition as to what counts as CBT (Bohman, Santi & Andersson, 2017), it is not clear how participants perceived the definition of CBT in the pre/post surveys due to the variations of usage, however it does appear they associated a positive outcome with CBT.

More participants changed from agreeing that tranquilizers would be helpful prior to the training to more neutral about the helpfulness of tranquilizers after the training. The reason for this change is not known, however the trainer communicated results of meta-analysis from randomized trials showing that pharmacotherapy and psychotherapy are effective separate from each-other with considerable evidence pointing to superior outcomes for treatment of major depression, panic disorder, and obsessive-compulsive disorder (OCD) when pharmacotherapy and psychotherapy are combined (Cuijpers et al., 2014). The Morgan, Ross and Reavley (2018) meta-analysis also showed health professionals additionally endorsed clinical psychologists, antidepressants, and counseling as being helpful, however there was no change in participant opinion post survey for this study.

Self Confidence

Significantly more participants increased self-confidence to assist someone with mental health issues after the training even though the majority had previous experience and/or training. Similar remarkable improvements have been found in several randomized controlled trials where participants did not have previous experience with mental illness. For instance, in Sweden approximately 199 public sector employees showed increased knowledge as well as confidence to help someone after MHFA training and at a 2-year follow-up with 155 participants remaining (Svensson & Hansson, 2014). A randomized MHFA study of 176 fire service line managers in the United Kingdom showed statically significant results with participants reported to have increased self-efficacy and more favorable attitudes towards mental health resources post training

(Moffitt, Bostock & Cave, 2014). In another randomized trial, MHFA was administered to military and veterans whom tend to lack knowledge of mental health and hold negative opinions towards mental health treatment. Data was collected immediately after training, 4 months and again 8 months post-training. Results showed increased knowledge of mental health, improvements in confidence, and attitudes towards help seeking (Mohatt, Boeckmann, Winkel, Mohatt D & Shore (2017). As mentioned earlier, just under half of participants in this research already had elementary to advanced education on mental health issues and almost ninety percent reported mental health issues within their families. The participants in this project demonstrated their familiarity with mental illness during the pretest by the majority correctly labeling depression and psychosis symptoms in the survey vignettes. So, why did confidence to help increase for this study if participants had personal experience or training with mental illness? A possible explanation may be that they were lacking support and the additional MH101 training session may have provided social support as sympathetic settings are effective for providing individuals with a forum to share stressful issues and receive care from others who have experienced similar problems (Kim, Sherman & Taylor, 2008).

Some may have attended in search of additional advanced training on mental illness. Others may have attended because the MH101 training differs from the MHFA training in that the goal of the MH101 training is to provide Christian-based mental health training and resources to families who experience mental health challenges. Participants may have attended the training because of the struggle that many Christians go through wondering if mental illness is a punishment from God or part of God's overall

plan for their life (Borras et al., 2008). It is difficult to determine the reason they attended the training since the survey did not ask. Previous research has found that establishing relationships and social support has been tied to greater coping abilities in the faith community (Bjorck & Kim, 2009). So even though the reason these participants signed up for the training is not known, the data shows their confidence to help someone with mental health issues increased significantly.

Willingness to Refer

There was no change from pretest to posttest. Consensus was clear that participant's willingness to refer to a helpful resource was high pre and post training. Similar MHFA training found personal attitudes towards stigmatized individuals changed post training along with the participant's willingness to refer individuals with mental health issues for help (Hossain, Gorman & Eley, 2009). The meta-analysis performed by Hadlaczky, Hokby, Mkrtchian, Carli and Wasserman (2014) also showed that mental health training increased supportive behaviors such as earlier detection of individuals with mental health problems as well as referrals that lead to increased odds of reduced individual suffering (Kessler , 2004; Wang et al., 2005). All participants except for two individuals endorsed their willingness to refer on the pretest and similarly on the posttest.

Limitations of the Study

A limitation of the study was the length of the mental health effectiveness questionnaire utilized in this research. The questionnaire had many questions taking participants approximately 25 minutes to complete, which may have led to test fatigue. Paper-and-pencil situational judgment tests (SJTs) that require a lot of reading may

increase cognitive demands on test takers (Marentette, Meyers, Hurtz & Kuang, 2012) and possibly influence test results.

The second limitation was that the majority of participants had previous mental health training and/or experience with mental illness within the family. However, the inclusion of these participants did provide unexpected results for future research as to why individuals with mental health training would participate in a faith-based basic mental health training course.

The third limitation was that the research pool was based on a convenience sample from Mental Health Grace Alliance. Just over 85% of the participants in this research study were affiliated with an urban church within the city limits; therefore, generalizing these findings to rural populations is not recommended.

Implications

This project may support further research by building on previous studies aimed at providing psychoeducational awareness, increase helping behavior, and ultimately contributing to scientific knowledge that benefits society. Participants in the mental health training session completed the pre and post questionnaires for this research project. Compared to similar studies mentioned in the chapter 2 literature, an unexpected find in this research was that eighty-seven percent of participants had an immediate family diagnosed with mental illness and just under half had previously participated in various basic mental health training but were still motivated to attend a faith-based mental health training session. Results of this research may indicate family and friends who support someone with mental health issues within the church are searching for continued faith-

based mental health knowledge and support. Dixon et al. (2001) estimates that only 10% of families receive any psychoeducation about the mental illness of a family member and it is family and friends who frequently provide support including medication management, housing, issues, and emotional support (Sin et al., 2017). Basic mental health training may not be enough for more complex mental illness conditions within the faith community. The implication for social change may be the need for reoccurring empirical faith-based mental health education and support groups.

Thirty-four percent of the participants in this study were clergy, missionaries, or staff members, however, 50% were church volunteers. The second implication for social change may be to expand mental health training to the church congregation and not assume that only church leaders and clergy need training. Gamm, Stone, and Pittman (2010) found informal caregivers such as family, friends, and everyday helpers may be significant aids in rural communities, being called upon in time of need. Continued mental health education may increase confidence to help others because it provides support to the caregivers who have the burden and stress to provide care for family or friend's mental health issues (Saunders, 2003; Heller, Roccoforte, Hsieh, Cook & Pickett, 1997).

Recommendations

Additional studies are recommended to control for individuals with previous training and/or experience and those without. A surprising outcome of the data revealed that most participants had previous exposure to mental illness and almost half had previously participated in mental health training prior to the MH101 training session that

this research data was collected. Patino and Ferreira (2018) defines exclusion criteria as features participant's present with additional characteristics that could interfere with the success of the study or increase their risk for an unfavorable outcome or bias the results of the research. Inclusion or exclusion for controlled groups may improve outcome interpretation and support for Christian leaders and congregations searching for continued faith-based mental health knowledge and support.

There have been at least five randomized trials of the 8-week and 12-week National Association of Mental Illness (NAMI) Family-to-Family Education Programs that has helped well over 125,000 families (Dixon et al., 2004). To date, there doesn't appear to be any empirical studies focusing on faith-based mental health training. Another recommendation is for continued empirical research into faith-based mental health training and support groups for individuals and families affected by mental illness.

As mentioned in the implication section, the questionnaire was lengthy. It is recommended that future researchers and test developers think through lengthy surveys that require extensive reading and may contribute to test fatigue so not to impact test score validity (Marentette, Meyers, Hurtz & Kuang, 2012).

Conclusion

This research study examined the impact of training on mental health knowledge, opinions regarding helpful resources, confidence to assist someone experiencing mental health issues, and willingness to refer to a helpful resource.

Most individuals that participated in the training and this research project were unexpectedly experienced with mental health issues. Knowledge of mental health issues

did not change significantly from pre-to-post survey most likely because participants already had basic knowledge. Willingness to refer to a helpful resource was already high at pretest and remained high at posttest most likely indicating these participants had positive experiences with mental health professionals.

Results demonstrated that participant opinions about general practitioners, psychiatrists, and CBT changed to align more with mental health professionals after the training. Confidence to assist someone experiencing mental health issues increased after the training.

Providing adequate mental health care for individuals appears challenging with the complexity of issues families face. The church can assist congregations by advocating continual mental health care education and sponsoring support groups that lead to improvement in wellbeing to church leaders, individuals, and families affected by mental illness. There have been several studies over the years describing the problems families affected by mental illness face such as stigma, lack of resources, information, and support. I agree with Jameson, and Blank (2007) who noted all the research has been an important endeavor to identify the problems to enable possible solutions, however, they advocate it is now time to focus on funding and distributing needed interventions.

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Appendix A: Mental Health Effectiveness Questionnaire (Pretest)

The authors Jorm, Kitchener, Fischer, and Cvetkovski (2010) provided permission to reproduce the questionnaire for non-commercial research and scholastic purposes without obtaining written permission. To avoid confusion to the Mental Health 101 participants used in this study, the Mental Health First Aid (MHFA) instrument was renamed to the Mental Health Effectiveness Questionnaire for this project's data collection.

Mental Health Effectiveness Questionnaire (Before Classroom Training)

Thank you for taking the time to complete this survey. It should take approximately 15 minutes to complete.

Please review the Informed Consent form handed out with this survey prior to choosing to answer questions.

* 1. Email Address

* 2. AGE

3. Sex

- Male
- Female

4. Race

- African American
- Asian American
- American Indian
- Other (please specify)
- Caucasian
- Hispanic

5. Formal Education

- High School diploma/GED
- Undergraduate degree
- Graduate degree
- Other (please specify)
- Doctorate degree
- Certifications

6. Religious denomination

- ◯ Baptist
- ◯ Methodist
- ◯ Catholic
- ◯ Non-Denominational
- ◯ Other (please specify)

7. Church location

- ◯ City limits (Urban)
- ◯ Outside City limits (Rural)

8. Role

- ◯ Clergy (Pastor, Minister, Elder, Reverend, Youth Pastor)
- ◯ Church Director
- ◯ Deacon
- ◯ Missionary
- ◯ Other (please specify)
- ◯ Worship Leader
- ◯ Volunteer at church (Worship, Sunday school, Special functions)
- ◯ Church Staff member

9. How many hours per week do you work or volunteer in ministry?

- ◯ Full time (At least 40 hours per week)
- ◯ Part time (Between 20-39 hours per week)
- ◯ Part time (Between 10-19 hours per week)
- ◯ Part time (Between 5-9 hours per week)
- ◯ Part time (Less than 5 hours per week)
- ◯ Part time (Less than 5 hours per MONTH)
- ◯ None

10. How much experience do you have working with individuals with Mental Health problems? (Choose one)

- ◯ None
- ◯ 1-5 times in the past year
- ◯ 6-10 times in the past year
- ◯ Greater than 11 times in the past year

11. Have you participated in Mental Health Training before?

- ◯ Yes
- ◯ No

Please explain:

12. Do you have family or friends affected by mental illness?

- ◯ Yes
- ◯ No

Please explain:

13. Would you be interested in participating in Emotional support groups?

- ◯ Yes
- ◯ No

* 14. **Mary is 30 years old. She has been feeling unusually sad and miserable for the last few weeks. Even though she is tired all the time, she has trouble sleeping nearly every night. Mary doesn't feel like eating and has lost weight. She can't keep her mind on her work and puts off making decisions. Even day-to-day tasks seem too much for her. This has come to the attention of her boss, who is concerned about Mary's lowered productivity.**

Given your current knowledge and information given, what if anything is wrong with Mary? (Select one)

- [ ] Depression
- [ ] Mania
- [ ] Attention Deficit Hyperactivity
- [ ] Psychosis
- [ ] Major Depression
- [ ] Eating Disorder
- [ ] Post-Traumatic Stress
- [ ] Other (please specify)

15. Would you feel confident to help Mary?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

16. Do you think Mary needs professional help?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

17. Would you be willing to refer Mary to a helpful resource?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

18. **What is your opinion on resources best to help Mary?**

A typical General Practitioner or family doctor?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

19. A pharmacist?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

20. A counselor?

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neither Agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

21. A Social worker?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

22. Telephone or internet counselling service?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

23. A psychiatrist?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

24. A Clinical Psychologist?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

25. Help from family?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

26. Help from friends?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

27. A naturopath or herbalist?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

28. The Clergy (Minister, Pastor, Reverend, Elder, or Priest)?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

29. Mary should try to deal with her problems on her own.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

30. **Do you think it would help Mary's condition if she took one of the following medications?**

Vitamins and Minerals?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

31. St. Johns' Wort?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

32. Pain relievers such as Aspirin, Codeine, or Panadol?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

33. Antidepressants?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

34. Antibiotics?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

35. Sleeping pills?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

36. Anti-psychotics?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

37. A tranquilizer such as Valium?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

38. **Would the following be helpful to Mary?**

Become more physically active such as playing more sports or doing a lot more walking or gardening?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

39. Learn about people with similar problems and how they have dealt with them.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

40. Getting out and about more.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

41. Instruction on relaxation, stress management, meditation, or yoga?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

42. Cutting out alcohol altogether?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

43. Counseling?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

44. Cognitive behavioral therapy?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

45. Hypnosis?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

46. Admission to a psychiatric ward of a hospital?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

47. Electroconvulsive therapy (ECT)?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

48. Having an occasional alcoholic drink to relax?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

49. A special diet or avoiding certain foods?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

50. **Please indicate your opinion about Mary's problem:**

People with problems like Mary could snap out of it if they wanted.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

51. A problem like Mary's is a sign of personal weakness.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

52. Mary's problem is not a real medical illness.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

53. People with a problem like Mary's are dangerous.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

54. It is best to avoid people with a problem like Mary's so that you don't develop this problem.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

55. People with a problem like Mary's are unpredictable.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

56. If I had a problem like Marys I would not tell anyone.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

57. I would employ someone if I knew they had a problem like Mary's.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

58. A problem like Mary's could be due to an imbalance in the body or brain.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

59. A problem like Mary's is a failure to adhere to tenants of GOD revealed in the bible.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 60. **John is a 18 year old who lives at home with his parents. He has had a few temporary jobs since finishing school but is now unemployed. Over the last six months he has stopped seeing his friends and has begun locking himself in his bedroom and refusing to eat with the family or to have a bath. His parents also hear him walking about his bedroom at night while they are in bed. Even though they know he is alone, they have heard him shouting and arguing as if someone else is there. When they try to encourage him to do more things, he whispers that he won't leave home because he is being spied upon by the neighbor. They realize he is not taking drugs because he never sees anyone or goes anywhere.**

Given your current knowledge and information given, what if anything is wrong with John? (Select one)

- ☐ Depression
- ☐ Mania
- ☐ Attention Deficit Hyperactivity
- ☐ Other (please specify)
- ☐ Psychosis
- ☐ Major depression
- ☐ Eating disorder

61. Would you feel confident to help John?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

---

62. Do you think John needs professional help?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

63. Would you be willing to refer John to a helpful resource?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

64. **What is your opinion on resources best to help John?**

A typical General practitioner or family doctor?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

65. A pharmacist?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

66. A counsellor?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

67. A social worker?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

68. Telephone or internet counselling service?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

69. A Psychiatrist?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

70. A Clinical Psychologist?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

71. Help from family?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

72. Help from friends?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

73. A naturopath or herbalist?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

74. The Clergy (Minister, Pastor, Reverend, Elder, or Priest)?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

75. John should try to deal with his problems on his own.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

76. **Do you think it would help John's condition if he took one of the following medications?**

Vitamins and minerals?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

77. St. Johns's Wort?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

78. Pain relievers such as Aspirin, Codeine, or Panadol?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

79. Antidepressants?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

80. Antibiotics?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

81. Sleeping pills?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

82. Anti-psychotics?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

83. A tranquilizer such as Valium?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

84. **Would the following be helpful to John?**

Become more physically active such as playing more sports or doing a lot more walking or gardening?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

85. Learn about people with similar problems and how they have dealt with them?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

86. Getting out and about more?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

87. Learn about relaxation, stress management, meditation, or Yoga?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

88. Cutting out alcohol altogether?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

89. Counseling?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

90. Cognitive behavioral therapy?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

91. Hypnosis?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

92. Admission to a psychiatric ward of a hospital?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

93. Electroconvulsive therapy (ECT)?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

94. Having an occasional alcoholic drink to relax?

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

95. A special diet or avoiding certain foods?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

96. **Please indicate your opinion about John's problem:**

People with problems like John could snap out of it if they wanted.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

97. A problem like John's is a sign of personal weakness.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

98. John's problem is not a real medical illness.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

99. People with a problem like John's are dangerous

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

100. It is best to avoid people with a problem like John's so that you don't develop this problem.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

101. People with a problem like John's are unpredictable.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

102. If I had a problem like John's I would not tell anyone.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

103. I would employ someone if I knew they had a problem like John's.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

104. A problem like John's could be due to an imbalance in the body or brain.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

105. A problem like John's is a failure to adhere to tenants of GOD revealed in the bible.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

Appendix B: Supporting Tables

Table B1

Relationships between Demographic Characteristics and Participant Opinions About Significantly Impacted by Training

	Mary				
Resource	Age	Gender	Education	Role	Denomination
GP	$F(2,42)=0.46$ $p=.638$	§	§	§	§
Psychiatrist	*	§	§	§	§
Tranquil	$F(2,42)=0.57$ $p=.569$	$X^2(2,45)=3.70$ $p=.158$	$X^2(2,45)=3.16$ $p=.205$	$X^2(2,45)=0.02$ $p=.989$	$X^2(2,45)=3.01$ $p=.223$
CBT	$F(1,44)=1.00$ $p=.324$	$X^2(1,46)=5.61$ $p=.018$	$X^2(1,46)=0.11$ $p=.740$	$X^2(1,46)=1.91$ $p=.167$	$X^2(1,46)=1.05$ $p=.305$
No Med	$F(2,43)=2.05$ $p=.142$	§	§	§	§

	John				
Resource	Age	Gender	Education	Role	Denomination
GP	$F(2,41)=2.02$ $p=.145$	§	§	§	§
Psychiatrist	*	§	§	§	§
Tranq	$F(2,41)=0.31$ $p=.738$	§	$X^2(2,45)=3.89$ $p=.143$	$X^2(2,45)=2.26$ $p=.323$	$X^2(1,45)=4.72$ $p=.095$
CBT	$F(2,43)=1.68$ $p=.198$	$X^2(2,46)=6.94$ $p=.031$	§	§	§
No Med	$F(2,41)=1.34$ $p=.272$	§	§	§	§

Note. GP = General Practitioners. Tranquil = tranquilizers. No Med = no medical condition. CBT = cognitive behavioral therapy. Role = clergy role. Denomination = religious denomination. *The posttest disagree and/or neutral responses each had only 1 participant so ANOVA results could not be generated. §More than 20% of the cells had expected frequencies less than 5 so chi-square tests could not be generated.

Appendix C: McNemar-Bowker X^2 Could not be Calculated

Pain Relievers Help (Mary)

Results on Table C1 showed that the distribution of opinion in the pretest and posttest only included two of the three levels of agreement, which meant the data were not in the 3 x 3 table format. A McNemar-Bowker X^2 statistic could not be calculated.

Studying Depression Help (Mary)

Results on Table C1 showed that the distribution of opinion in the pretest and posttest only included two of the three levels of agreement. A McNemar-Bowker X^{21} statistic could not be calculated. The majority of participants agreed, in both the pretest and the posttest, that it would help Mary is she learned more about people with conditions similar to hers.

Table C1

Study Depression Categories (Mary Post) x Study Depression Categories (Mary Pre) Crosstabulation

		Study Depression Categories (Mary Pre)		
		Neutral	Agree	Total
Study Depression Categories (Mary Post)	Neutral	3	1	4
	Agree	3	38	41
Total		6	39	45

Counseling Would Help (Mary)

Results on Table C2 showed that the distribution of opinion in the pretest and posttest only included two of the three levels of agreement. A McNemar-Bowker X^{21} statistic could not be calculated. The majority of participants agreed in both the pretest and posttest that seeing a counselor would help Mary's depression.

Table C2

Counseling Categories (Mary Post) x Counseling Categories (Mary Pre) Crosstabulation

		Counseling Categories (Mary Pre)		
		Neutral	Agree	Total
Counseling Categories (Mary Post)	Neutral	1	0	1
	Agree	2	41	43
Total		3	41	44

Cognitive Behavioral Tx Help (Mary)

Results on Table C3 showed that the distribution of opinion in the pretest and posttest only constituted a 2 x 3 table instead of a 3 x 3 table. A McNemar-Bowker X^2 statistic could not be calculated.

Table C3

Cognitive Behavior Tx Categories (Mary Post) x Cognitive Behavior Tx Categories (Mary Pre) Crosstabulation

		Cognitive Behavior Tx Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Cognitive Behavior Tx Categories (Mary Post)	Neutral	1	8	2	11
	Agree	1	8	26	35
Total		2	16	28	46

Hypnosis Help (Mary)

Results on Table C4 showed that the distribution of opinion in the pretest and posttest only constituted a 2 x 3 table instead of a 3 x 3 table, because the one person who agreed in the pretest that hypnosis changed their opinion to neutral. A McNemar-Bowker X^2 statistic could not be calculated.

Table C4

Hypnosis Categories (Mary Post) x Hypnosis Categories (Mary Pre) Crosstabulation

		Hypnosis Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Hypnosis Categories (Mary Post)	Disagree	15	5	0	20
	Neutral	6	17	1	24
Total		21	22	1	44

Mary Could Snap Out of It (Mary)

Results on Table C5 showed that the distribution of opinion in the pretest and posttest only included two of the three levels of agreement on the posttest. A McNemar-Bowker X^2 statistic could not be calculated.

Table C5

Snap Out of It Categories (Mary Post) x Snap Out of It Categories (Mary Pre) Crosstabulation

		Snap Out of It Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Snap Out of It Categories (Mary Post)	Disagree	39	5	1	45
	Neutral	0	1	0	1
Total		39	6	1	46

Mary's Problem is Personal Weakness (Mary)

Results on Table C6 showed that the distribution of opinion in the pretest and posttest only included two of the three levels of agreement on the posttest. A McNemar-Bowker X^2 statistic could not be calculated. In both the pretest and posttest, the majority of participants disagreed that Mary's depression stemmed from personal weakness.

Table C6

Personal Weakness Categories (Mary Post) x Personal Weakness Categories (Mary Pre) Crosstabulation

		Personal Weakness Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Personal Weakness Categories (Mary Post)	Disagree	42	2	1	45
	Neutral	0	1	0	1
Total		42	3	1	46

Table C7

Pain Relievers Categories (Mary Post) x Pain Relievers Categories (Mary Pre) Crosstabulation

		Pain Relievers Categories (Mary Pre)		
		Disagree	Neutral	Total
Pain Relievers Categories (Mary Post)	Disagree	30	3	33
	Neutral	5	8	13
Total		35	11	46

Mary's Problem Makes her Dangerous (Mary)

Results on Table C8 showed that the distribution of opinion in the pretest and posttest only included two of the three levels of agreement on the posttest. A McNemar-Bowker X^2 statistic could not be calculated.

Table C8

Dangerous Categories (Mary Post) x Dangerous Categories (Mary Pre) Crosstabulation

		Dangerous Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Dangerous Categories (Mary Post)	Disagree	34	3	1	38
	Neutral	5	2	0	7
Total		39	5	1	45

Mary Should Be Avoided (Mary)

Results on Table C9 showed that the distribution of opinion in the pretest and posttest did not form a 3 x 3 table, and a McNemar-Bowker X^2 statistic could not be calculated. The majority of participants disagreed that Mary should be avoided.

Table C9

Avoid Categories (Mary Post) x Avoid Categories (Mary Pre) Crosstabulation

		Avoid Categories (Mary Pre)		
		Disagree	Neutral	Total
Avoid Categories (Mary Post)	Disagree	42	1	43
Total		42	1	43

Best Resource: Psychiatrist (John)

Results on Table C10 showed that the distribution of opinion in the pretest-posttest cross-tabulation was a 2x3 table. A McNemar-Bowker X^2 statistic could not be calculated. Consensus was that a psychiatrist would be a helpful resource for John's psychosis.

Table C10

Psychiatrist Categories (John Post) x Psychiatrist Categories (John Pre) Crosstabulation

		Psychiatrist Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Psychiatrist Categories (John Post)	Neutral	0	0	1	1
	Agree	1	1	42	44
Total		1	1	43	45

Best Resource: Mary Solves It Herself (John)

Results on Table C11 showed that the distribution of opinion in the pretest and posttest only constituted a 2 x 3 table instead of a 3 x 3 table. A McNemar-Bowker X^2 statistic could not be calculated. However, consensus was that John could not solve his psychosis alone.

Table C11

Self Solves It Categories (John Post) x Self Solves It Categories (John Pre) Crosstabulation

		Self Solves It Categories (John Pre)		
		Disagree	Neutral	Total
Self Solves It Categories (John Post)	Disagree	39	3	42
	Neutral	1	0	1
	Agree	1	0	1
Total		41	3	44

Pain Relievers Help (John)

Results on Table C12 showed that the distribution of opinion in the pretest and posttest only constituted a 2 x 2 table instead of a 3 x 3 table. A McNemar-Bowker X^2 statistic could not be calculated.

Table C12

Pain Relievers Categories (John Post) x Pain Relievers Categories (John Pre) Crosstabulation

		Pain Relievers Categories (John Pre)		
		Disagree	Neutral	Total
Pain Relievers Categories (John Post)	Disagree	25	4	29
	Neutral	13	3	16
Total		38	7	45

Antibiotics Help (John)

Results on Table C13 showed that the distribution of opinion in the pretest and posttest only constituted a 2 x 2 table instead of a 3 x 3 table. A McNemar-Bowker X^2 statistic could not be calculated. However, consensus was disagreement.

Table C13

Antibiotics Categories (John Post) x Antibiotics Categories (John Pre) Crosstabulation

		Antibiotics Categories (John Pre)		
		Disagree	Neutral	Total
Antibiotics Categories (John Post)	Disagree	32	7	39
	Neutral	3	4	7
Total		35	11	46

Counseling Help (John)

Results on Table C14 showed that the distribution of opinion in the pretest and posttest only included two of the three levels of agreement on the pretest. A McNemar-Bowker X^2 statistic could not be calculated. However, the majority of participants in the pretest and the posttest agreed that counseling would help John's psychosis.

John Could Snap Out of It (John)

Results on Table C14 showed that the distribution of opinion in the pretest and posttest only constituted a 2 x 3 table instead of a 3 x 3 table. A McNemar-Bowker X^2 statistic could not be calculated. However, the participants disagreed that John could just snap out of his psychosis if he so chose.

Table C14

Snap Out of It Categories (John Post) x Snap Out of It Categories (John Pre) Crosstabulation

		Snap Out of It Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Snap Out of It Categories (John Post)	Disagree	39	3	1	43
	Neutral	1	1	0	2
Total		40	4	1	45

John's Problem is Personal Weakness (John)

Results on Table C15 showed that the distribution of opinion in the pretest and posttest only constituted a 2 x 2 table instead of a 3 x 3 table. A McNemar-Bowker X^2 statistic could not be calculated. However, the participants disagreed that John's psychosis were due to a personal weakness.

Table C15
Personal Weakness Categories (John Post) x Personal Weakness Categories (John Pre) Crosstabulation

		Personal Weakness Categories (John Pre)		
		Disagree	Neutral	Total
Personal Weakness Categories (John Post)	Disagree	41	3	44
	Neutral	1	0	1
Total		42	3	45

John Should Be Avoided (John)

Results on Table C16 showed that the distribution of opinion in the pretest and posttest did not constitute the 3 x 3 table, and a McNemar-Bowker X^2 statistic could not be calculated. Consensus was that John should not be avoided.

Table C16

Avoid Categories (John Post) x Avoid Categories (John Pre) Crosstabulation

		Avoid Categories (John Pre)		
		Disagree	Neutral	Total
Avoid Categories (John Post)	Disagree	42	2	44
Total		42	2	44

Table C17

Chemical Imbalance Categories (John Post) x Chemical Imbalance Categories (John Pre) Crosstabulation

		Chemical Imbalance Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Chemical Imbalance Categories (John Post)	Disagree	0	2	0	2
	Neutral	1	1	2	4
	Agree	0	3	37	40
Total		1	6	39	46

John's Problem from Religious Failure (John)

Results on Table C18 that the distribution of opinion in the pretest and posttest only constituted a 2 x 3 table instead of a 3 x 3 table. A McNemar-Bowker X^2 statistic could not be calculated. Consensus was disagreement that John's psychosis was due to a religious failure on John's part.

Table C18

Religious Failure Categories (John Post) x Religious Failure Categories (John Pre) Crosstabulation

		Religious Failure Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Religious Failure Categories (John Post)	Disagree	40	3	0	43
	Neutral	0	1	1	2
Total		40	4	1	45

Willingness to Refer John to a Helpful Resource

Results on Table C19 showed that the distribution of opinion in the pretest and posttest only constituted a 2 x 3 table instead of a 3 x 3 table. A McNemar-Bowker X^2 statistic could not be calculated. Consensus was agreement with a willingness to refer John to a helpful resource.

Table C19

Would Refer Categories (John Post) x Would Refer Categories (John Pre) Crosstabulation

		Would Refer Categories (John Pre)		
		Neutral	Agree	Total
Would Refer Categories (John Post)	Disagree	0	1	1
	Neutral	0	1	1
	Agree	1	40	41
Total		1	42	43

Table C20

Would Refer Categories (Mary Post) x Would Refer Categories (Mary Pre) Crosstabulation

		Would Refer Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Would Refer Categories (Mary Post)	Agree	1	1	44	46
Total		1	1	44	46

Appendix D: McNemar-Bowker Test Could Not Be Run

Best Resource: Mary Solves It Herself (Mary)

Results on Table D1 were unequivocally comparable in the pretest and posttest: Participants disagreed that Mary ought to solve her depression herself. Because the expected 3 x 3 table of data did not emerge for these variables, the McNemar-Bowker could not be run.

Table D1

Self Solves It (Mary Post) x Self Solves It Categories (Mary Pre) Crosstabulation

		Self Solves It Categories (Mary Pre)		
		Disagree	Agree	Total
Self Solves It (Mary Post)	Disagree	43	1	44
	Neutral	0	2	2
Total		43	3	46

Willingness to Refer Mary to a Helpful Resource

Table D2 shows that all but two participants were willing to refer Mary to a helpful resource in the pretest. By the posttest, this remained the case. The McNemar-Bowker test could not be run because the data did not form a 3 x 3 table. However, the consensus was clear.

Table D2

Would Refer Categories (Mary Post) x Would Refer Categories (Mary Pre) Crosstabulation

		Would Refer Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Would Refer Categories (Mary Post)	Agree	1	1	44	46
Total		1	1	44	46

Appendix E: Statistical Results that Did Not Differ

Best Resource: Pharmacist (Mary)

Results on Table E1 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 43) = 2.61$, $p = .456$. The pharmacist null hypothesis was retained.

Table E1

Pharm Categories (Mary Post) x Pharm Categories (Mary Pre) Crosstabulation

		Pharm Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Pharm Categories (Mary Post)	Disagree	17	3	1	21
	Neutral	8	6	3	17
	Agree	2	3	0	5
Total		27	12	4	43

Best Resource: Counselor (Mary)

Results on Table E2howed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 0.33$, $p = .846$. The counselor null hypothesis was retained. The majority of participants in both the pretest and the posttest thought a counselor was a helpful resource for Mary's depression.

Table E2

Counselor Categories (Mary Post) x Counselor Categories (Mary Pre) Crosstabulation

		Counselor Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Counselor Categories (Mary Post)	Disagree	0	0	1	1
	Neutral	0	3	1	4
	Agree	1	2	36	39

Total	1	5	38	44

Best Resource: Social Workers (Mary)

Results on Table E3 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 4.09$, $p = .252$. The social worker null hypothesis was retained. In both the pretest and posttest, the participants were divided on the helpfulness of social workers for Mary's depression.

Table E3

Social Worker Categories (Mary Post) x Social Work Categories (Mary Pre) Crosstabulation

		Social Work Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Social Worker Categories (Mary Post)	Disagree	4	4	0	8
	Neutral	4	8	6	18
	Agree	4	5	10	19
Total		12	17	16	45

Best Resource: Telecounseling (Mary)

Results on Table E4 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 43) = 2.11$, $p = .550$. The teleconferencing null hypothesis was retained. In both the pretest and posttest, the participants were divided on the helpfulness of telephone- or online-counseling for Mary's depression.

Table E4

Telecounseling Categories (Mary Post) x Telecounseling Categories (Mary Pre) Crosstabulation

		Telecounseling Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Telecounseling Categories (Mary Post)	Disagree	8	6	3	17
	Neutral	2	7	4	13
	Agree	3	5	5	13
Total		13	18	12	43

Best Resource: Clinical Psychologist (Mary)

Results on Table E5 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 43) = 2.00$, $p = .368$. The clinical psychologist null hypothesis was retained. The majority of participants agreed that a visit with clinical psychologists would help Mary's depression.

Table E5

Clinical Psychologist Categories (Mary Post) x Clinical Psych Categories (Mary Pre) Crosstabulation

		Clinical Psych Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Clinical Psychologist Categories (Mary Post)	Disagree	0	0	1	1
	Neutral	0	5	1	6
	Agree	3	3	33	39
Total		3	8	35	46

Best Resource: Family (Mary)

Results on Table E6 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 2.50$, $p = .475$. The family null hypothesis was retained. The majority of participants agreed in both the pretest and posttest that support from family members would help Mary's depression.

Table E6

Family Categories (Mary Post) x Family Categories (Mary Pre) Crosstabulation

		Family Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Family Categories (Mary Post)	Disagree	1	1	2	4
	Neutral	1	2	3	6
	Agree	0	5	30	35
Total		2	8	35	45

Best Resource: Friends (Mary)

Results on Table E7 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 3.20$, $p = .362$. The friend's null hypothesis was retained.

Table E7

Friends Categories (Mary Post) x Friends Categories (Mary Pre) Crosstabulation

		Friends Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Friends Categories (Mary Post)	Disagree	2	0	2	4
	Neutral	1	4	2	7
	Agree	0	3	32	35
Total		3	7	36	46

Best Resource: Naturopath (Mary)

Results on Table E8 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 2.20$, $p = .532$. The naturopath null hypothesis was retained. Participants in both the pretest and posttest tended to be divided on disagreement or neutrality that naturopaths were a helpful resource to Mary's depression.

Table E8

Naturopath Categories (Mary Post) x Naturopath Categories (Mary Pre) Crosstabulation

		Naturopath Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Naturopath Categories (Mary Post)	Disagree	11	4	1	16
	Neutral	6	17	1	24
	Agree	1	4	1	6
Total		18	25	3	46

Best Resource: Clergy (Mary)

Results on Table E9 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 43) = 3.13$, $p = .372$. The clergy null hypothesis was retained. The majority of participants agreed in both the pretest and posttest that visits with clergy would help Mary's depression.

Table E9

Clergy Categories (Mary Post) x Clergy Categories (Mary Pre) Crosstabulation

		Clergy Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Clergy Categories (Mary Post)	Disagree	0	1	2	3
	Neutral	0	4	4	8
	Agree	1	1	30	32
Total		1	6	36	43

Vitamins Help (Mary)

Results on Table E10 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 0.98$, $p = .807$. The vitamin null hypothesis was retained. More participants were neutral about the helpfulness of vitamins on Mary's depression.

Table E10

Vitamins Categories (Mary Post) x Vitamins Categories (Mary Pre) Crosstabulation

		Vitamins Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Vitamins Categories (Mary Post)	Disagree	3	3	1	7
	Neutral	5	19	4	28
	Agree	2	3	5	10
Total		10	25	10	45

St John's Wort Help (Mary)

Results on Table E11 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 43) = 0.33$, $p = .954$. The St. John's wort null hypothesis was retained.

Table E11

St. John's Wort Categories (Mary Post) x St John Wort Categories (Mary Pre) Crosstabulation

		St. John Wort Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
St. John's Wort Categories (Mary Post)	Disagree	8	2	2	12
	Neutral	2	23	2	27
	Agree	1	2	1	4
Total		11	27	5	43

Anti-depressants (Mary)

Results on Table E12 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 1.89$, $p = .389$. The anti-depressants null hypothesis was retained. Participants in both the pretest and posttest tended to agree that anti-depressants were a helpful resource for Mary's depression, followed by some neutrality about their helpfulness.

Table E12

Anti-depressants Categories (Mary Post) x Anti-depressants Categories (Mary Pre) Crosstabulation

		Anti-depressants Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Anti-depressants Categories (Mary Post)	Disagree	0	1	0	1
	Neutral	4	3	5	12
	Agree	0	6	27	33
Total		4	10	32	46

Antibiotics Help (Mary)

Results on Table E13 showed that the distribution of opinion in the pretest and posttest only included two of the three levels of agreement. A McNemar-Bowker X^2 statistic could not be calculated.

Table E13

Antibiotics Categories (Mary Post) x Antibiotics Categories (Mary Pre) Crosstabulation

		Antibiotics Categories (Mary Pre)		
		Disagree	Neutral	Total
Antibiotics Categories (Mary Post)	Disagree	25	5	30
	Neutral	7	9	16
Total		32	14	46

Sleeping Pills Help (Mary)

Results on Table E14 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 3.93$, $p = .269$. The sleeping pills null hypothesis was retained.

Table E14

Sleeping Pills Categories (Mary Post) x Sleeping Pills Categories (Mary Pre) Crosstabulation

		Sleeping Pills Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Sleeping Pills Categories (Mary Post)	Disagree	13	3	1	17
	Neutral	7	15	2	24
	Agree	2	0	3	5
Total		22	18	6	46

Antipsychotic Meds Help (Mary)

Results on Table E15 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 2.33$, $p = .506$. The antipsychotic null hypothesis was retained.

Table E15

Antipsychotic Rx Categories (Mary Post) x Anti-psychotic Rx Categories (Mary Pre) Crosstabulation

		Anti-psychotic Rx Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Antipsychotic Rx Categories (Mary Post)	Disagree	16	7	0	23
	Neutral	7	9	2	18
	Agree	2	1	0	3
Total		25	17	2	44

More Exercise Help (Mary)

Results on Table E16 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 0.14$, $p = .931$. The null hypothesis was retained. The majority of participants agreed in both the pretest and posttest that more exercise would help Mary's depression.

Table E16

Get Active Categories (Mary Post) x Get Active Categories (Mary Pre) Crosstabulation

		Get Active Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Get Active Categories (Mary Post)	Disagree	0	0	1	1
	Neutral	0	3	4	7
	Agree	1	3	34	38
Total		1	6	39	46

Getting Out and About More (Mary)

Results on Table E17 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 0.07$, $p = .796$. The 'getting out more often' null hypothesis was retained. The majority of participants agreed in both the pretest and posttest that getting out more often, as with exercise, would help Mary's depression.

Table E17

Get Out More Categories (Mary Post) x Get Out More Categories (Mary Pre) Crosstabulation

		Get Out More Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Get Out More Categories (Mary Post)	Disagree	1	0	0	1
	Neutral	0	6	7	13
	Agree	0	8	24	32
Total		1	14	31	46

Courses on Stress Management Help (Mary)

Results on Table E18 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 2.44$, $p = .485$. The course on stress management null hypothesis was retained. The majority of

participants agreed in both the pretest and posttest that studying stress management would help Mary's depression.

Table E18

Course Categories (Mary Post) x Courses Categories (Mary Pre) Crosstabulation

		Courses Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Course Categories (Mary Post)	Disagree	0	1	0	1
	Neutral	2	2	5	9
	Agree	2	4	30	36
Total		4	7	35	46

Cut Out Alcohol Help (Mary)

Results on Table E19 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 1.00$, $p = .607$. The null hypothesis was retained. The majority of participants agreed in both the pretest and posttest that less alcohol would help Mary's depression.

Table E19

Cut Out Alcohol Categories (Mary Post) x Cut Out Alcohol Categories (Mary Pre) Crosstabulation

		Cut Out Alcohol Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Cut Out Alcohol Categories (Mary Post)	Disagree	0	0	1	1
	Neutral	0	6	6	12
	Agree	1	3	27	31
Total		1	9	34	44

Psychiatric Ward Help (Mary)

Results on Table E20 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 1.67$, $p = .644$. The admittance to a psychiatric ward null hypothesis was retained. Participants disagreed or were neutral in both the pretest and the posttest.

Table E20

Psychiatric Ward (Mary Post) x Psychiatric Ward Categories (Mary Pre) Crosstabulation

		Psychiatric Ward Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Psychiatric Ward (Mary Post)	Disagree	20	5	0	25
	Neutral	7	9	2	18
	Agree	1	1	0	2
Total		28	15	2	45

Electroconvulsive Therapy Help (Mary)

Results on Table E21 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 1.40$, $p = .497$. The helpfulness of electroconvulsive therapy null hypothesis was retained. More participants disagreed.

Table E21

Electroconvulsive Tx Categories (Mary Post) x Electroconvulsive Tx Categories (Mary Pre) Crosstabulation

		Electroconvulsive Tx Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Electroconvulsive Tx Categories (Mary Post)	Disagree	23	4	0	27
	Neutral	6	11	1	18

	Agree	0	0	1	1
Total		29	15	2	46

Occasional Drink Help (Mary)

Results on Table E22 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 2.29$, $p = .319$. The null hypothesis that an occasional drink would help Mary's depression was retained. More participants disagreed.

Table E22

Occasional Drink Categories (Mary Post) x Occasional Drink Categories (Mary Pre) Crosstabulation

		Occasional Drink Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Occasional Drink Categories (Mary Post)	Disagree	29	2	0	31
	Neutral	5	7	1	13
	Agree	0	0	1	1
Total		34	9	2	45

Special Diet Help (Mary)

Results on Table E23 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 0.47$, $p = .924$. The special diet null hypothesis was retained. More participants in both the pretest and the posttest were neutral about the helpfulness of a special diet for Mary's depression.

Table E23

Special Diet Categories (Mary Post) x Special Diet Categories (Mary Pre) Crosstabulation

		Special Diet Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Special Diet Categories (Mary Post)	Disagree	5	2	1	8
	Neutral	1	19	4	24
	Agree	1	3	9	13
Total		7	24	14	45

Mary's Problem Makes her Unpredictable (Mary)

Results on Table E24 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 1.03$, $p = .795$. The unpredictable null hypothesis was retained. Most of the participants either disagreed or were neutral about Mary's depression making her unpredictable.

Table E24

Unpredictable Categories (Mary Post) x Unpredictable Categories (Mary Pre) Crosstabulation

		Unpredictable Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Unpredictable Categories (Mary Post)	Disagree	18	8	1	27
	Neutral	5	6	2	13
	Agree	1	1	3	5
Total		24	15	6	45

Mary's Problem Should Not be Discussed (Mary)

Results on Table E25 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 0.67$, $p = .717$. The lack of discussion null hypothesis was retained. The majority of participants disagreed with the statement that Mary's depression should not be discussed.

Table E25

No Discuss Categories (Mary Post) x No Discuss Categories (Mary Pre) Crosstabulation

		No Discuss Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
No Discuss Categories (Mary Post)	Disagree	34	2	2	38
	Neutral	1	4	0	5
	Agree	1	0	1	2
Total		36	6	3	45

Hire Mary Despite her Problem (Mary)

Results on Table E26 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 2.33$, $p = .506$. The null hypothesis was retained. More participants agreed or were neutral about hiring Mary despite her depression in both the pretest and the posttest.

Table E26

Hire Anyway Categories (Mary Post) x Hire Anyway Categories (Mary Pre) Crosstabulation

		Hire Anyway Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Hire Anyway Categories (Mary Post)	Disagree	0	1	1	2
	Neutral	2	16	2	20
	Agree	1	6	16	23
Total		3	23	19	45

Mary's Problem Due to Imbalance (Mary)

Results on Table E27 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 1.00$, $p = .607$. The null hypothesis was retained. The majority agreed that Mary's depression was due to a chemical imbalance.

Table E27

Chemical Imbalance Categories (Mary Post) x Chemical Imbalance Categories (Mary Pre) Crosstabulation

		Chemical Imbalance Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Chemical Imbalance Categories (Mary Post)	Disagree	1	1	0	2
	Neutral	0	1	3	4
	Agree	0	3	37	40
Total		1	5	40	46

Mary's Problem from Religious Failure (Mary)

Results on Table E28 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 4.57$, $p = .102$. The null hypothesis was retained. Most of the participants disagreed that Mary's depression stemmed from a religious failure in both the pretest and posttest.

Table E28

Religious Failure Categories (Mary Post) x Religious Failure Categories (Mary Pre) Crosstabulation

		Religious Failure Categories (Mary Pre)			
		Disagree	Neutral	Agree	Total
Religious Failure Categories (Mary Post)	Disagree	34	6	1	41
	Neutral	1	1	0	2
	Agree	0	0	1	1
Total		35	7	2	44

Best Resource: Pharmacist (John)

Results on Table E29 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 41) = 6.10$,

p = .107. The pharmacist null hypothesis was retained. Participants generally disagreed that pharmacists would be helpful for John's psychosis.

Table E29

Pharm Categories (John Post) x Pharm Categories (John Pre) Crosstabulation

		Pharm Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Pharm Categories (John Post)	Disagree	17	3	1	21
	Neutral	10	4	0	14
	Agree	2	2	2	6
Total		29	9	3	41

Best Resource: Counselor (John)

Results on Table E30 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 43) = 0.25$, p = .968. The counselor null hypothesis was retained. Most participants disagreed that counselors would help John.

Table E30

Counselor Categories (John Post) x Counselor Categories (John Pre) Crosstabulation

		Counselor Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Counselor Categories (John Post)	Disagree	2	2	5	9
	Neutral	2	1	3	6
	Agree	4	4	20	28
Total		8	7	28	43

Best Resource: Social Workers (John)

Results on Table E31 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 0.68$, p = .877. The null hypothesis was retained.

Table E31

Social Worker Categories (John Post) x Social Worker Categories (John Pre) Crosstabulation

		Social Worker Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Social Worker Categories (John Post)	Disagree	7	4	3	14
	Neutral	6	6	4	16
	Agree	4	3	7	14
Total		17	13	14	44

Best Resource: Telecounseling (John)

Results on Table E32 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 43) = 2.02$, $p = .569$. The telecounseling null hypothesis was retained. Participants either tended to disagree or remained neutral.

Table E32

Telecounseling Categories (John Post) x Telecounseling Categories (John Pre) Crosstabulation

		Telecounseling Categories (John Pre)			
		Disagree	Neutral	Agree	Total
TeleCounseling Categories (John Post)	Disagree	14	4	3	21
	Neutral	7	5	3	15
	Agree	1	2	4	7
Total		22	11	10	43

Best Resource: Clinical Psychologist (John)

Results on Table E33 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 1.67$,

p = .435. The clinical psychologist null hypothesis was retained. Consensus was that a clinical psychologist would be a helpful resource for John's psychosis.

Table E33

Clinical Psychologist Categories (John Post) x Clinical Psychologist Categories (John Pre) Crosstabulation

		Clinical Psychologist Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Clinical Psychologist Categories (John Post)	Disagree	1	0	0	1
	Neutral	1	2	2	5
	Agree	0	4	34	38
Total		2	6	36	44

Best Resource: Family (John)

Results on Table E34 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 5.47$, p = .141. The family null hypothesis was retained. Participants generally agreed that family would help John's psychosis.

Table E34

Family Categories (John Post) x Family Categories (John Pre) Crosstabulation

		Family Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Family Categories (John Post)	Disagree	1	1	4	6
	Neutral	3	1	1	5
	Agree	1	5	27	33
Total		5	7	32	44

Best Resource: Friends (John)

Results on Table E35 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 3.31$, $p = .346$. The friend null hypothesis was retained. Participants generally agreed that friends would help John's psychosis.

Table E35

Friends Categories (John Post) x Friends Categories (John Pre) Crosstabulation

		Friends Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Friends Categories (John Post)	Disagree	2	1	2	5
	Neutral	2	1	2	5
	Agree	3	7	25	35
Total		7	9	29	45

Best Resource: Naturopath (John)

Results on Table E36 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 5.37$, $p = .147$. The naturopath null hypothesis was retained. Participants either tended to disagree or remained neutral about the helpfulness of naturopath services for psychosis.

Table E36

Naturopath Categories (John Post) x Naturopath Categories (John Pre) Crosstabulation

		Naturopath Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Naturopath Categories (John Post)	Disagree	13	4	0	17
	Neutral	10	10	1	21
	Agree	1	4	2	7
Total		24	18	3	45

Best Resource: Clergy (John)

Results on Table E37 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 0.64$, $p = .721$. The clergy null hypothesis was retained. Consensus was that clergy would be helpful.

Table E37

Clergy Categories (John Post) x Clergy Categories (John Pre) Crosstabulation

		Clergy Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Clergy Categories (John Post)	Disagree	0	1	2	3
	Neutral	2	5	4	11
	Agree	3	5	23	31
Total		5	11	29	45

Vitamins Help (John)

Results on Table E38 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 3.58$, $p = .310$. The null hypothesis was retained. Participants either tended to disagree or remained neutral about the helpfulness of vitamins for psychosis.

Table E38

Vitamins Categories (John Post) x Vitamins Categories (John Pre) Crosstabulation

		Vitamins Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Vitamins Categories (John Post)	Disagree	5	5	1	11
	Neutral	11	13	1	25
	Agree	2	3	4	9
Total		18	21	6	45

St John's Wort Help (John)

Results on Table E39 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 1.67$, $p = .197$. The St. John's wort null hypothesis was retained. Participants tended to either disagree or feel neutral about the helpfulness of St. John's wort for psychosis.

Table E39

St. John's Wort Categories (John Post) x St John's Wort Categories (John Pre) Crosstabulation

		St John's Wort Categories (John Pre)			
		Disagree	Neutral	Agree	Total
St. John's Wort Categories (John Post)	Disagree	15	5	0	20
	Neutral	10	14	0	24
	Agree	0	0	1	1
Total		25	19	1	45

Anti-depressants (John)

Results on Table E40 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 0.29$, $p = .962$. The null hypothesis was retained. Participants tended toward neutrality.

Table E40

Anti-depressants Categories (John Post) x Anti-depressants Categories (John Pre) Crosstabulation

		Anti-depressants Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Anti-depressants Categories (John Post)	Disagree	2	6	2	10
	Neutral	5	14	2	21
	Agree	2	3	8	13
Total		9	23	12	44

Sleeping Pills Help (John)

Results on Table E41 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 5.07$, $p = .167$. The sleeping pill null hypothesis was retained. Participants either disagreed, though some were neutral, about the helpfulness of sleeping pills services for psychosis.

Table E41

Sleeping Pills Categories (John Post) x Sleeping Pills Categories (John Pre) Crosstabulation

		Sleeping Pills Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Sleeping Pills Categories (John Post)	Disagree	19	8	2	29
	Neutral	7	6	0	13
	Agree	0	3	0	3
Total		26	17	2	45

Antipsychotic Meds Help (John)

Results on Table E42 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 1.33$, $p = .513$. The anti-psychotic null hypothesis was retained.

Table E42

Antipsychotics Rx Categories (John Post) x Anti-psychotics Rx Categories (John Pre) Crosstabulation

		Anti-psychotics Rx Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Antipsychotics Rx Categories (John Post)	Disagree	1	2	0	3
	Neutral	1	6	3	10
	Agree	0	1	30	31
Total		2	9	33	44

Tranquilizers Help (John)

Results on Table E44 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 3.47$, $p = .325$. The tranquilizer null hypothesis was retained.

Table E44

Tranquilizers Categories (John Post) x Tranquilizers Categories (John Pre) Crosstabulation

		Tranquilizers Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Tranquilizers Categories (John Post)	Disagree	8	6	1	15
	Neutral	11	15	0	26
	Agree	0	1	3	4
Total		19	22	4	45

More Exercise Help (John)

Results on Table E45 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 43) = 0.64$, $p = .887$. The null hypothesis was retained. Participants tended to agree that more exercise would help John's psychosis.

Table E45

Get Active Categories (John Post) x Get Active Categories (John Pre) Crosstabulation

		Get Active Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Get Active Categories (John Post)	Disagree	1	2	3	6
	Neutral	2	6	3	11
	Agree	4	5	17	26
Total		7	13	23	43

Studying Psychosis Help (John)

Results on Table E46 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 4.24$, $p = .237$. The studying depression null hypothesis was retained. The majority of participants agreed in both the pretest and posttest that learning more about people with similar problems would help John's psychosis.

Table E46

Study Psychosis Categories (John Post) x Study Psychosis Categories (John Pre) Crosstabulation

		Study Depression Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Study Depression Categories (John Post)	Disagree	1	2	2	5
	Neutral	1	0	1	2
	Agree	1	6	31	38
Total		3	8	34	45

Getting Out & About More (John)

Results on Table E47 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 2.60$, $p = .457$. The get-out-more null hypothesis was retained. Participants either tended to agree or remain neutral about the helpfulness of getting out and about more for psychosis.

Table E47

Get Out More Categories (John Post) x Get Out More Categories (John Pre) Crosstabulation

	Get Out More Categories (John Pre)			
	Disagree	Neutral	Agree	Total

Get Out More Categories (John Post)	Disagree	1	3	1	5
	Neutral	3	10	3	16
	Agree	0	7	17	24
Total		4	20	21	45

Courses on Stress Mgmt. Help (John)

Results on Table E48 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 0.51$, $p = .916$. The stress management courses null hypothesis was retained. Participants agreed or in some case were neutral about the helpfulness of course related to stress management and relaxation for John's psychosis.

Table E48

Courses Categories (John Post) x Course Categories (John Pre) Crosstabulation

		Course Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Courses Categories (John Post)	Disagree	0	4	1	5
	Neutral	5	3	4	12
	Agree	1	6	21	28
Total		6	13	26	45

Cut Out Alcohol Help (John)

Results on Table E49 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 0.14$, $p = .986$. The cutting-out-alcohol null hypothesis was retained. The majority of participants, in both the pretest and the posttest, agreed that John ought to cut out alcohol.

Table E49

Cut Out Alcohol Categories (John Post) x Cut Out Alcohol Categories (John Pre) Crosstabulation

		Cut Out Alcohol Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Cut Out Alcohol Categories (John Post)	Disagree	1	1	2	4
	Neutral	1	5	4	10
	Agree	2	3	27	32
Total		4	9	33	46

Hypnosis Help (John)

Results on Table E50 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 3.88$, $p = .144$. The null hypothesis was retained. Participants either tended to disagree or feel neutral about the helpfulness of hypnosis services for psychosis.

Table E50

Hypnosis Categories (John Post) x Hypnosis Categories (John Pre) Crosstabulation

		Hypnosis Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Hypnosis Categories (John Post)	Disagree	10	12	0	22
	Neutral	5	16	1	22
	Agree	0	0	1	1
Total		15	28	2	45

Psychiatric Ward Help (John)

Results on Table E51 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 2.80$, $p = .423$. The admittance to the psychiatric ward null hypothesis was retained. Participants either tended to agree or feel neutral about the helpfulness of time in a psychiatric ward for John's psychosis.

Table E51

Psychiatric Ward Categories (John Post) x Psychiatric Ward Categories (John Pre) Crosstabulation

		Psychiatric Ward Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Psychiatric Ward Categories (John Post)	Disagree	0	3	1	4
	Neutral	2	11	7	20
	Agree	0	3	18	21
Total		2	17	26	45

Electroconvulsive Therapy Help (John)

Results on Table E52 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 1.33$, $p = .513$. The electroconvulsive therapy null hypothesis was retained. Participants disagreed or were neutral about the helpfulness of electroconvulsive therapy for psychosis.

Table E52
Electroconvulsive Tx Categories (John Post) x Electroconvulsive Tx Categories (John Pre) Crosstabulation

		Electroconvulsive Tx Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Electroconvulsive Tx Categories (John Post)	Disagree	13	7	0	20
	Neutral	5	18	0	23
	Agree	0	1	2	3
Total		18	26	2	46

Occasional Drink Help (John)

Results on Table E53 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 4.00$,

p = .135. The occasional drink null hypothesis was retained. Participants generally disagreed that an occasional drink would help John's psychosis.

Table E53

Occasional Drink Categories (John Post) x Occasional Drink Categories (John Pre) Crosstabulation

		Occasional Drink Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Occasional Drink Categories (John Post)	Disagree	29	3	1	33
	Neutral	9	3	0	12
	Agree	0	0	1	1
Total		38	6	2	46

Special Diet Help (John)

Results on Table E54 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 45) = 2.38$, p = .498. The special diet null hypothesis was retained. Participants were divided on whether a special diet would be helpful to John's psychosis.

Table E54

Special Diet Categories (John Post) x Special Diet Categories (John Pre) Crosstabulation

		Special Diet Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Special Diet Categories (John Post)	Disagree	4	6	1	11
	Neutral	5	13	5	23
	Agree	0	2	9	11
Total		9	21	15	45

John's Problem is No Medical Condition (John)

Results on Table E55 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 44) = 1.67$, $p = .644$. The no-medical-condition null hypothesis was retained. In both the pretest and posttest, participants disagreed that John's psychosis failed to meet the qualifications of a medical condition.

Table E55

No Medical Condition Categories (John Post) x No Medical Cond Categories (John Pre) Crosstabulation

		No Medical Cond Categories (John Pre)			
		Disagree	Neutral	Agree	Total
No Medical Condition Categories (John Post)	Disagree	36	2	1	39
	Neutral	1	1	1	3
	Agree	2	0	0	2
Total		39	3	2	44

John's Problem Makes Him Dangerous (John)

Results on Table E56 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 2.11$, $p = .550$. The dangerous null hypothesis was retained. By and large, participants either disagree or were neutral that psychosis made John dangerous.

Table E56

Dangerous Categories (John Post) x Dangerous Categories (John Pre) Crosstabulation

		Dangerous Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Dangerous Categories (John Post)	Disagree	12	3	1	16
	Neutral	1	16	5	22
	Agree	0	4	4	8
Total		13	23	10	46

John's Problem Makes Him Unpredictable (John)

Results on Table E57 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 2.38$, $p = .498$. The null hypothesis was retained. Participants either tended to agree or remain neutral about the unpredictability of psychosis.

Table E57

Unpredictable Categories (John Post) x Unpredictable Categories (John Pre) Crosstabulation

		Unpredictable Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Unpredictable Categories (John Post)	Disagree	4	5	0	9
	Neutral	2	6	6	14
	Agree	1	5	17	23
Total		7	16	23	46

John's Problem Should Not be Discussed (John)

Results on Table E58 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 0.64$, $p = .886$. The null hypothesis was retained. Participants disagreed that John's psychosis should not be discussed.

Table E58

No Discuss Categories (John Post) x No Discuss Categories (John Pre) Crosstabulation

		No Discuss Categories (John Pre)			
		Disagree	Neutral	Agree	Total
No Discuss Categories (John Post)	Disagree	26	5	3	34
	Neutral	4	3	2	9
	Agree	2	1	0	3
Total		32	9	5	46

Hire John Despite his Problem (John)

Results on Table E59 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 7.00$, $p = .072$. The p value was close enough to the significance level of *alpha* = .05 to constitute a trend toward statistical significance, but the null hypothesis was retained. In both the pretest and posttest, more participants were neutral than agreed or disagreed. However, several participants shifted away from their pretest opinion of disagree; ultimately more participants were neutral in the posttest.

Table E59

Hire Anyway Categories (John Post) x Hire Anyway Categories (John Pre) Crosstabulation

		Hire Anyway Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Hire Anyway Categories (John Post)	Disagree	9	0	0	9
	Neutral	6	13	5	24
	Agree	1	5	7	13
Total		16	18	12	46

John's Problem Due to Imbalance (John)

Results on Table E60 showed that the distribution of opinion in the pretest did not differ from the distribution of opinion in the posttest, McNemar-Bowker $X^2(3, 46) = 0.53$, $p = .766$. The null hypothesis was retained. Consensus was agreement that John's psychosis was due to a chemical imbalance.

Table E60

Chemical Imbalance Categories (John Post) x Chemical Imbalance Categories (John Pre) Crosstabulation

		Chemical Imbalance Categories (John Pre)			
		Disagree	Neutral	Agree	Total
Chemical Imbalance Categories (John Post)	Disagree	0	2	0	2
	Neutral	1	1	2	4
	Agree	0	3	37	40
Total		1	6	39	46