Measuring the Impact of a Mental Health Intervention on Perception of Stigma and Help-Seeking Behaviors

by

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Abstract

Mental illness is a condition that alters an individual's thoughts, feelings, and behaviors. Within the United States, the stigma associated with mental illness is highest among the African American community. African Americans are less likely than other groups to acknowledge the seriousness of a mental illness. The aim of this study was to determine the relationship between perceived mental health stigma and help-seeking behaviors before and after the implementation of a faith-based mental health intervention among African American females. Additionally, income was explored as a possible influence on the relationship between the perception of stigma and help-seeking behaviors. Program participants completed paper-based pre-and post-tests administered by program evaluators during Week 1 and Week 8 of the program. The survey instrument used to collect the pre- and post-test data consisted of a combination of questions mandated by the California Department of Public Health Office of Health Equity and questions developed by the program evaluators. A paired-samples t-test was used to answer the first research question, while a multiple linear regression was used to answer the second question. The findings of the study indicated that participant scores remained closer to "Probably Willing" to socialize, make friends, work, and live with someone who has a mental illness. In addition, neither perceived stigma nor income was found to be a significant predictor of help-seeking behaviors.

Key words: mental health, perceived stigma, help-seeking behavior, knowledge, income

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Review of Literature

Mental Illness Among African American Females

Mental illness is a condition that alters an individual's thoughts, feelings, and behaviors and may lead to depression, anxiety, and other related core issues affecting the ability to function with others (Centers for Disease Control and Prevention [CDC], 2018). Lacking the knowledge to identify these mental health disorders and where to seek help increases the chances of not receiving or delaying treatment (Henderson, Evans-Lacko, & Thornicroft, 2013). Knowledge can be gained through educational interventions that can gear change in stigma and barriers (Griffiths, Carron-Arthur, Parsons, & Reid, 2014). Improving knowledge of core mental health issues, such as depression, post-traumatic stress disorder (PTSD), anxiety, and substance abuse, is critical in order to reduce the stigma associated with mental illness and increase the possibility of seeking professional help or treatment for better mental health.

Between 2009-2012 depression was found in 30 million people, or 7.6% of the American population aged 12 and over in U.S. households (CDC, 2014). Recent research, from a study published by the CDC (2010) with a sample size of 145,225 women, reported that 4% of women suffer from major depression. When compared by race, African American and Hispanic women experience higher rates of depression (4%) than Whites (3.1%). Additionally, African American females receive the lowest rate of mental health treatment and continue to remain the most undertreated group for depression in the United States of America (CDC, 2014).

The risk for PTSD among African Americans is much higher than Whites because African Americans have a higher risk of receiving maltreatment as a child and/or witnessing

domestic violence. In a study by Roberts et al. (2011), findings suggested that PTSD prevalence among African Americans (8.7%) were doubled in comparison to Asians (4%), due to this population enduring more intense and frequent traumatic events. Other researchers have found that sexual and nonsexual violence are among the highest causes of trauma, increasing the prevalence of PTSD found among African American women.

Over the years, African American women have been misdiagnosed or underdiagnosed with PTSD, most likely due to the lack of cultural understanding and adequate health professionals to meet the specific concerns of this population (Alim et al., 2006). The lack of knowledge and awareness of available free and low-cost resources to treat mental illnesses contributes to the lack of African American women treated or diagnosed with PTSD (National Alliance on Mental Illness, 2018).

Anxiety is the most common mental illness in the United States, affecting 18.1% of the population annually (Anxiety and Depression Association of America, 2016). Gender, childhood abuse, years of education, and a distributed family environment are risk factors for anxiety (Carlos et al., 2014). The National Institute of Mental Health ([NIMH], 2017) reported findings on gender differences from a diagnostic interview with data stating that 23.4% of the females had an anxiety disorder in comparison to 14.3% of males among adults age 18 or older in the United States. Demographic information regarding anxiety disorder prevalence also showed that the combination of being a female and having lack of cost effective resources puts females at greater risk for anxiety (National Institute of Mental Health, 2017).

Substance abuse occurs when there is recurring use or misuse of tobacco, alcohol, cannabis, stimulants, hallucinogens, and opioids that lead to impairment and being unable to

meet everyday responsibilities (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015). Tobacco use disorders cause 480,000 deaths each year (SAMHSA, 2015). A study conducted in 2014 with 66.9 million Americans found that African Americans were the fourth leading populations for tobacco abuse (SAMHSA, 2015). African Americans accounted for 26.6% of those who participated in the study (SAMHSA, 2015). In 2002, research on African American women has showed that the abuse of alcohol among African-American women between 40 to 49 years old had the highest prevalence for abusing alcohol (Rosenberg, Palmer, & Adams-Campbell, 2002). As for the use of illicit drugs, data from the Health and Human Services (2008) showed that 18% of substance-related admissions to hospitals/clinics were African American women.

The Center for Substance Abuse Treatment (2009) showed that African-American women face increased susceptibility to substance abuse due to inadequate housing and financial resources. There are several factors such as sexism, racism, socio-economic status and medical care that can push African American women to substance abuse. Recent evidence showed that the current rate of illicit substance abuse among African American is at a rate of 6.2%; one half percent greater than the national average of 5.7% (Stevens-Watkins, Perry, Harp, & Oser, 2012). Additionally, the National Survey on Drug Use and Health ([NSDUH], 2013) reports that 11.4 % of women between the ages of 15 to 44 were current illicit drug users in a two-year period. Data was compared to the 2011 report, and rates were shown to not be statistically different. The abuse of illicit drugs continues to exist among women; however, it was noted that individuals with a college education had lower rates of current illicit drug use (6.7%) in comparison to those who did not graduate high school (11.8%) (NSDUH, 2013).

The Stigma of Mental Illness

The stigma associated with mental illness is strongest among the African American community. African Americans are less likely than other groups to acknowledge the seriousness of a mental illness due to the affect stigma has on self-esteem and the personal labeling that comes with mental illnesses (Department of Health and Human Services [DHHS], 2014). Kawaii-Bogue, Williams, and MacNear (2017) state that aside from personal factors, African Americans are disadvantaged when seeking mental health care due to help-seeking patterns and barriers that affect access and utilization. African Americans are disadvantaged in the ability to obtain appropriate health care due to being over-represented in socially marginalized groups (e.g. impoverished, homeless communities, and victims) and the stigmatization that is present in the use of mental health resources (Kawaii-Bogue, Williams, & MacNear, 2017). African American women are among the most undertreated ethnic group in the nation, which results in a negative impact over the course of their lives (National Alliance on Mental Illness, 2018a). McGuire and Miranda (2008) state that only 25% of African Americans diagnosed to receive mental health treatment actually receive treatment in comparison to the 37.6% Whites who receive treatment.

Mental illness and its sensitivity in nature that disallows open discussion, makes treatment and help-seeking challenging. Illnesses go undertreated because of the stigma associated with seeking help or treatment, including the labeling and perceptions regarding what it means to have a mental illness. Stigma attached to mental illnesses and the lack of knowledge about mental illnesses can result in many women suffering in silence, self-medicating, and in many cases, contemplating or committing suicide (National Alliance on Mental Illness, 2018a).

Over the past few decades, research on African Americans has been limited due to lack of participation or involvement in science and medicine that arose from the historical perspectives of unethical research (Scharff et al., 2010). The low levels of trust for the medical community, stigma, and a lack of diverse professionals available to understand individuals and meet their needs is a problem (Boulware, Cooper, LaVeist, Powe, & Ratner, 2003). Suite, La Bril, Primm, and Harrison-Ross (2007) state how the stigma and cultural bias behind the low number of practicing African American health professionals and mental health professionals discourages people of color from seeking care. Contributing factors to not seeking care also include practitioners' misunderstanding of culture and inadequate knowledge of background. The percentage of culturally fit healthcare workers to treat mental illnesses was reported to be 2% of psychiatrists, 2% of psychologists, and 11% of social workers in the United States (American Psychological Association, 2014; Data USA, 2016). The lack of trust, research, and cultural understanding makes mental illness stigmatized and misunderstood among African American women (National Alliance on Mental Illness, 2018a).

Based on data from the U.S. Census Bureau (2016) education reports, San Bernardino County has lower educational levels than national averages and its neighboring county, with only 19.3% of its adult population (+25 years) obtaining a bachelor's degree and 78.8% holding a high school diploma. Riverside County also has lower educational levels than national averages with only 20.9% of its adult population (+25 years) obtaining a bachelor's degree and 80.1% holding a high school diploma. The national average for adults ages 25 and older with a bachelor's is 29.8% and 86.7% with a high school diploma (U.S. Census, 2016). However, in comparing higher education rates to local counties, Riverside and San

Bernardino Counties are lower than Los Angeles County where 30.3% of adults have a bachelor's degree. The existing levels of education among these communities is supporting evidence of the lack of knowledge in these communities.

Riverside and San Bernardino Counties face many socio-economic challenges that put education and income averages lower than its neighboring communities. According to the Community Indicators Report of San Bernardino County (2015), 21.3% of women living in San Bernardino live in poverty. African American women living in these counties face many socioeconomic factors such as living in neighborhoods with limited resources, no opportunities for growth and insufficient household incomes. Based on the U.S. Census Bureau (2016), Riverside County per capita income marked an income of $23,783 and San Bernardino County per capita income marked an income of $21,857, both lower than the national and Los Angeles County per capita income of $28,930 and $28,337 respectively. Riverside and San Bernardino Counties have socioeconomic factors that facilitate stigma in regard to mental illnesses and the lack of being properly educated on mental health issues. However, the National Alliance on Mental Health (2018a) states that programs implemented in churches can increase awareness of mental health, resources, and have an effect in reducing related stigma to mental health.

Relationship Between Income and Mental Illness

Addressing and increasing knowledge of core mental health issues, which include depression, PTSD, anxiety, and substance abuse, is critical in being able to reduce the stigma associated with mental health. Knowledge can also increase the possibility of seeking cost effective help or treatment. The National Alliance on Mental Illness (2018a) states that African Americans are often socioeconomically disadvantaged when seeking mental health

care due to financial burden, not having resources in their communities, and being unaware of the free resources available to them.

Riverside County, California is geographically the fourth largest county in the United States of America (over 7,300 square miles) and is larger than the states of Rhode Island and Connecticut. Like San Bernardino County, Riverside County has many characteristics that contribute to the stigma that inhibits help-seeking and support. Riverside County has a higher percentage of its population living in poverty with limited resources, lack of cultural enrichment, and little opportunity for personal development, and 50.3% of the population is female and 7.1% of the population is Black or African American (U.S. Census, 2016). Based on the U.S. Census Bureau (2016), Riverside County has a per capita income of $23,783 and San Bernardino County has a per capita income of $21,857, not only showing that the socioeconomic status in these communities is low, but the need for free mental health resources is crucial for diagnoses and treatment.

Fear of seeking help for mental illness exists regardless of economic status, but people meeting federal poverty levels were more than twice as likely to have some level of depression in past studies (DHHS, 2001). According to Heidrich and Ward (2009), approximately 7.5 million African Americans have an undiagnosed mental illness, and women may be over represented in this population. Additionally, negative experiences such as racism, discrimination, and sexism are associated with the onset of mental illness among African American women (Heidrich & Ward, 2009). The U.S. Department of Health and Human Services (1999) states that stigma is one of the largest barriers affecting African Americans' attitudes toward seeking treatment due to the negative labeling that might result from seeking help and treatment.

Help-Seeking

Although the literature on this subject is scarce, a few studies have effectively determined some reasons why African American women do or do not have adequate access to mental health resources or why they do or do not seek mental health services and/or treatment (Noonan et al., 2016). African American females view mental illness as an impairing stigma and as a result, refuse to seek treatment or simply ignore the problem (DHHS, 2001). Other reasons for not seeking treatment include low socioeconomic status, lack of health insurance, and the race/ethnicity of the therapist. Using mental health services might not even be considered as an option for betterment because of the presence of stigma associated with mental illness (Akabar, Bazile, & Thompson-Sanders, 2004).

Lack of treatment may come from lack of insurance. The DHHS (2011) reported that in 2011 there was 49.9 million individuals uninsured. Of those uninsured individuals, African Americans were among the highest uninsured (20.8%) in comparison to Whites (12%) (DHHS, 2011). As a result, women self-medicate; in some cases, they cope in a positive way, such as prayer or speaking with a significant other, but in the vast majority of cases their coping mechanisms include alcohol use, drug abuse, illicit sex, isolation, and in the worst-case scenario, suicide (DHHS, 2011).

Psychologist Angela Neal-Barnett, Ph.D. (2003), an expert on anxiety disorders among African American women, states that when growing up and going to an African American church, women wouldn't refer to anxiety by its medical term, but would call it a case of "nerves" or "bad nerves." Mental illness often goes untreated in African American women because they have been taught that asking for a help is a sign of weakness. Nonetheless, self-treating has been seen to do more harm than good, because when women

take matters into their own hands it may not always be beneficial or positive (Neal-Barnett, 2003).

Programs have been implemented in order to improve awareness and knowledge of mental health issues, but they are still lacking in addressing mental health topics, especially when it comes to anxiety among the African-American population (Simon, 2018). Despite progress in equality, racism continues to be a reason that African Americans don't seek or reach out for help when it comes to their mental health. In addition to racism, negative stereotypes and attitudes continue to be the controllers of not being able to confidently reach out for help in regard to mental illnesses (Mental Health America, 2013).

Faith and spirituality are very important and can be a part of a great support system, but they should not be used as sole treatment for mental illness (Simon, 2018). According to the research available, religion is the preferred coping method for mental health illnesses among African Americans (Ward et al., 2009). The National Alliance on Mental Health (2018) states that among the African American community, family and spiritual beliefs tend to be a good support system and tend to be used as a treatment instead of seeking medical or professional help to overcome mental health concerns. Ward et al. (2013) found that African Americans do see the need for treatment when there is a problem related to mental health; they just do not see the need for outside treatment or help. Neal-Barnett (2003) strongly believes that religious institutions can influence an individual's thoughts. An individual's thoughts can change when the idea of having a safe place and finding someone who understands the issue is available, and this in return can help the individual feel no shame when asking for help from fellow church members (Neal-Barnett, 2003).

Simon (2018) argues that institutions like churches might not have the tools necessary to help address mental health concerns among their congregations and can have a negative impact on mental illness help-seeking behaviors. Further, African American women are more likely to experience a mental illness like anxiety and use the Bible as a sanity reference (Simon, 2018). For example, in the Bible in Luke 22, Jesus cries in pain while in the Garden of Gethsemane; African American women then compare themselves to Jesus and justify their anxiety as a normal human emotion in response to a great stressor (Simon, 2018). However, a study conducted by DeHaven, Hunter, Wilder, Walton, and Berry (2004) reported that the use of faith-based institutions in conjunction with an evidence-based program was a beneficial method to produce an increase in knowledge, change behaviors, and reduce risks associated with disease and disease symptoms.

Conclusion

Mental health is very important for the functioning of everyday tasks. During the course of existence many people experience life events that impact the way one thinks and how it enables one to complete daily tasks. Previous research has shown stigma is a potential barrier and plays a huge role in the ability to seek help or treatment in regard to mental illnesses and mental health concerns (Vidourek, King, Nabors, & Merianos, 2014). This study will examine the relationship between perceived mental health stigma and help-seeking behaviors before and after the implementation of a faith-based mental health intervention among African American females. Additionally, income will be explored as a possible influence on the relationship between the perception of stigma and help-seeking behaviors. Peer-reviewed literature has shown that those with mental health literacy have an increased ability to recognize specific disorders, beliefs about risk factors and causes, follow self-help

interventions, utilize resources for professional help, generate attitudes that facilitate recognition, implement appropriate help-seeking, and understanding of how to seek out mental health information (Jorm, 2000).

Introduction

Purpose of Study

The purpose of this study is to examine the relationship between perceived mental health stigma and help-seeking behaviors before and after the implementation of a faith-based mental health intervention among African American females. Additionally, income will be explored as a possible influence on the relationship between the perception of stigma and help-seeking behaviors.

Research Questions

This study aims to answer the following questions:

1. Did the intervention decrease perceived mental health stigma among African American women?
2. Is perceived stigma associated with help-seeking? And does income influence that relationship?

Hypotheses

It is hypothesized that African American women will report decreased mental health stigma after participating in the mental health intervention. It is also hypothesized that perceived stigma is associated with help-seeking behaviors and income does not influence that relationship.

Method

Design

This study employed a one-group pre-test/post-test quasi-experimental design to examine the efficacy of elements of a mental health program. The data used in this study were collected between January and May of 2018 as part of a statewide initiative to evaluate the program as a community defined evidence practice. Community defined evidence practice is defined as a practice used in communities that yields positive results (DHHS, 2009). The sampling technique used was a non-random convenience sample.

Program participants completed paper-based pre- and post-tests administered by program evaluators during Week 1 and Week 8 of the program. The survey instrument used to collect the pre- and post-test data consisted of a combination of questions mandated by the California Department of Public Health Office of Health Equity and questions developed by the program evaluators. The survey questions were developed to assess perceived stigma (six questions), knowledge of core mental health issues and help-seeking behaviors (eight questions), and some demographic questions to help understand the participants (six questions).

This study was approved by the Institutional Review Board (IRB) at California Baptist University under exempt status on December 20, 2017 (see Appendix A). In line with IRB requirements, all participants were informed of their rights and provided consent. The consent form was read aloud to participants during the first program session, prior to the dissemination of the survey. Participants were further instructed that they could chose to discontinue their participation in the program at any time. All participants provided their consent prior to completing the pre- and post-test.

Intervention

The program was an 8-week intervention. During the study period, the intervention was implemented in three (3) churches, as a part of a six (6) church, 5-year implementation plan. The target population for the program included African American women age 18 and older. Held for two hours each of the eight weeks, the program sessions consisted of knowledge-based learning and activities. To facilitate further understanding of the core mental health issues in the community, all discussions, group activities, and lectures were facilitated by a licensed clinical psychologist (see Table 2).

Participants

The participants (n = 55) in this study include female congregational members of three Black churches located in the counties of San Bernardino and Riverside, California. The data sample includes 46 pre-tests and 44 post-tests. For analysis purposes, pre-tests and post-tests were matched for a total of 39 matched pairs. These churches represent half of the churches scheduled to implement the intervention over the course of a 5-year evaluation. In order to participate in the program, participants were required to be at least 18 years of age. All participants were expected to complete the pre-test survey during session one and the post-test during session eight. The program was intended to be implemented among African American women; however, women within the churches of different or ethnic identities were permitted to participate in the program.

Procedures

Data used for this research were collected by members of the evaluation team, which consisted of two program evaluators and a trained research assistant. The signed consent forms were collected by members of the evaluation team prior to the distribution of the pre-

test. The evaluators orally informed the participants about the project and the purpose of data collection prior to the participants' signing the consent form.

The pre-test was self-administered, included 58 questions, and consisted of questions pertaining to demographics, program specific questions, and state mandated questions. The post-test was also self-administered; however, there were 59 questions due to the addition of several state mandated questions and removal of demographic questions. Participants completed the pre-test and post-test surveys in an average of 30 minutes.

Data Analysis

A paired-samples t-test was used to answer the first research question, while a multiple linear regression was used to answer the second research question. Using G*Power Software, Version 3.1.9.2, a large effect size, an alpha level of .05, and a power of 80% was selected to estimate the minimum sample size of 34 to answer the first research question and a sample size of 68 to answer the second research question. The sample size for this study included 39 pre-test and post-test matched participants, which exceeds the minimum required sample size for the first research question. However, the analysis performed to answer the second research question may be underpowered. Prior to conducting the statistical analyses, descriptive statistics were run on various variables (e.g. knowledge scores, perceived stigma, and help-seeking) to verify that all statistical assumptions were met.

Independent Variables

The independent variables in the study include perceived stigma and income. Perceived stigma was assessed using several questions that asked participants were asked to indicate their level of agreement regarding how willing they were to socialize, make friends with, work, and live near someone with a mental illness. The questions were assessed using

Likert-type scale options of “Definitely Willing” = 4, “Probably Willing” = 3, “Neither Willing or Unwilling” = 2, “Probably Unwilling” = 1, and “Definitely Unwilling” = 0. The average scores for individual participants were produced from the responses to six specific question in section two of the survey. An average score closer to 4 indicates that participants were willing to socialize, make friends, work, and live near someone with a mental illness. A score closer to 0 indicates that individuals are less willing or unwilling at all to socialize, make friends, work, and live near someone with a mental illness.

Income is a categorical variable with 12 response options: “$0 to $4,999” = 1, “$5,000 to $9,999” = 2, “$10,000 to $14,999” = 3, “$15,000 to $19,999” = 4, “$20,000 to $24,999” = 5, “$25,000 to $34,999” = 6, “$35,000 to $44,999” = 7, “$45,000 to $54,999” = 8, “$55,000 to $64,999” = 9, “$65,000 to $74,999” = 10, “$75,000 to $99,999” = 11, “$100,000, and Over” = 12. The income variable is one that cannot be summed for analysis because of its categorical nature. Participants were asked to select 1 of 12 categories to represent their household income level. In order to perform the analysis, the income variable was recoded into two groups, a high (1 = high) versus low (0 = low) income. These categories were determined using the Federal Poverty Guidelines of 2017 where low income is defined as having a family size of 5 or more with income less than $57,560 (Families U.S.A., 2017). The recoded variable was created by identifying those with 5 or more household members and income at or below category 8 (“income of $45,000 to $54,999”). All income category options 9 and above, and/or with fewer household members would be considered high income. In order to analyze the new income variable, SPSS v24 was used to calculate and compute the groups.

Dependent Variables

The dependent variables include help-seeking and perceived stigma. Of the help-seeking measures on the survey, eight questions were used in this research study (see Table 3). Participants were asked to indicate their level of agreement with the statements using Likert-type scale options which include "Strongly Agree" = 4, "Agree" = 3, "Neither Agree or Disagree" = 2, "Disagree" = 1, and "Strongly Disagree" = 0. The scores were summed and averaged in which the average score closer to 4 indicates positive mental health help-seeking behavior and scores closer to 0 indicate negative mental health help-seeking behavior. Questions 1 through 4 in this section required reverse coding to ensure appropriate scoring.

Perceived stigma was assessed using six questions where participants indicated their level of agreement regarding how willing they were to socialize with, make friends with, work with, and live near someone with a mental illness (see Table 3). The questions were assessed using Likert-type scale options of "Definitely Willing" = 4, "Probably Willing" = 3, "Neither Willing or Unwilling" = 2, "Probably Unwilling" = 1, and "Definitely Unwilling" = 0. The average score for individual participants were produced from the responses to the six questions in this section of the survey. An average score closer to 4 indicates that participants were willing to socialize, make friends with, work with, and live near someone with a mental illness and a score closer to 0 indicates that they were less willing or not willing at all to do the same.

Research Findings

There were 55 participants in this study. Forty-six completed the pre-test measures and 44 completed the post-test measures. The demographic characteristics of the participants are shown in Table 1. During the pre-test, participants provided demographic information by answering six questions. The average age for participants was 54.8 years with a range of 23 to 91 years. The majority (92.9%) of the intervention participants classified themselves as Black or African American. Additionally, most participants reported their marital status as married or living together (41.3%) followed by never married (26.1%). When asked to state their level of education most participants (79.6%) reported completing Some College or AA Degree, College Graduate or Above. The number of persons per household ranged from one to nine, with a median of three persons per household. Of the participants sampled, 15.2% were considered low income with a household size of five or more and an annual income of less than $57,560.

Changes in Perceived Mental Health Stigma

In order to determine if the hypothesized decrease in perceived mental health stigma among African American women was achieved, a paired samples t-test was performed. No statistically significant difference was found ($t(35) = 0.819$, $p = 0.418$) between pre-test and post-test scores for perceived mental health stigma. The mean pre-test score for the participants' perceived mental health stigma ($M = 2.81$, $sd = 0.51$) was not significantly different from the participants' mean post-test score ($M = 2.89$, $sd = 0.62$). It appears that the participant scores remained closer to "Probably Willing" to socialize, make friends, work, and live with someone who has a mental illness.

Relationship Between Perceived Stigma and Help-Seeking Behaviors

Two regression models were tested to determine if, following participation in the intervention, perceived stigma is associated with help-seeking behaviors and if income influenced that relationship. A linear regression (Model 1) and a multiple linear regression (Model 2) were used in an attempt to model the relationship between the variables by fitting a linear equation to observed data. The first model examined the relationship between the post-test measure of help-seeking behaviors and perceived stigma. This model did not demonstrate a significant relationship between the two variables (R^2= .077, F (1, 37) = 3.084, p >.05).

The second model was developed to assess whether the relationship between post-test measures of help-seeking behaviors and perceived stigma were influenced by income. This model did not demonstrate a significant relationship between the two variables (R^2= .04, F (2, 26) = .549, p >.05). Based upon these analyses, neither perceived stigma nor income are significant predictors of help-seeking behaviors. Though not statistically significant, the perceived stigma coefficient showed a change of at least 10% (model 1 β=.277 and model 2 β=.166), demonstrating the confounding influence of income on the relationship between perceived mental health stigma and help-seeking behaviors (see Table 4).

Discussion

The purpose of this study was to examine the relationship between perceived mental health stigma and help-seeking behaviors before and after the implementation of a faith-based mental health intervention among African American females. Additionally, income was explored as a possible influence on the relationship between the perception of stigma and help-seeking behaviors.

The results from this study suggest that the implementation of a faith-based mental health intervention among African American females did not decrease participants' perception of mental health stigma. However, the participants in this study were not representative of either San Bernardino and Riverside County. The majority of the participants had higher education rates than the average for Riverside and San Bernardino Counties and incomes higher than the federal poverty level. The mean pre-test scores for the participants' perceived mental health stigma (M= 2.81, *sd* = 0.51) was not significantly different from the participants' mean post-test scores (M= 2.89, *sd* = 0.62). The participant scores remained closer to a ranking of "Probably Willing" to socialize, make friends, work, and live with someone that has a mental illness. These findings are consistent with Ward et al. (2013), suggesting that African American women are not very open-minded in regard to mental illness. A recent study confirmed these beliefs and stated that African American females reported believing that those with a mental health disorder have a "weak mind, poor health and a troubled spirit" (Waite & Killian, 2008).

This study also found neither perceived stigma nor income was a significant predictor of help-seeking behaviors. These results are inconsistent with the literature. Literature has shown that many factors play a role in mental health among this minority group. More

specifically, mental health issues are rooted in factors such as racism, poverty, culture, and discrimination. One sole factor contributing towards stigmatizing help-seeking behaviors has not been identified (Sareen at al., 2007). It is evident that several barriers need to be removed to see improvement in the stigmatization of mental health among the African American community. These changes can begin by training more culturally competent professionals in an effort to avoid stigmatizing patients and ensuring that there is equal treatment regardless of color, socioeconomic status, or any other barrier that plays a role in help-seeking (Noonan et al., 2011).

Although neither perceived stigma nor income was a significant predictor of help-seeking behaviors, income may have confounded the relationship between perceived stigma and help-seeking. The low use of mental health services by African Americans could be due to barriers such as stigma as well as the quality and availability of resources that have been well-documented over the years (Ward & Besson, 2012). A study by Jung and associates (2014) showed that Blacks with depression and without insurance received less medication than those who were insured. African Americans have been known to endure limited resources such as medication due to racial bias, socioeconomic status, and insurance status (Noonan et al., 2016). This tells us that access to mental health services by way of a payer source may be an important factor to further explore.

Limitations of the Study

This study has several limitations. First, this study employed a one-group pre-test/post-test quasi-experimental design to examine the efficacy of elements of a mental health program. Methodologically, it is a weaker design as it lacks a comparison group. A non-random convenient sample was used, further weakening the study and increasing the

chances of selection bias. Selection bias may have occurred since the intervention was not offered to every faith-based institution across the two California counties sampled. Only six, predominantly African American churches were selected to participate in the intervention, and all participants enrolled in the program were female. It was also noticed that this group may have not been a representative sample of the counties due to levels of education and income.

Second, the analysis performed to answer the second research question was underpowered. Of the minimally required 68 participant sample size, only 38 post-test surveys were used. This low sample size resulted from challenges with participant recruitment and may have negatively impacted the results of this study. Lastly, social desirability may have influenced the results of this study. The survey distributor was present when the participants completed the survey. The nature of the questions and self-reported measures could have led participants to answer the survey questions in a way that would have a positive result on the researchers' desired responses (Crosby et al., 2006). Not only were the researchers present at the time the survey was being administered, but participants may have also felt pressured to answer in a certain way since fellow church members sat next to them during their completion of the survey.

Implications for Public Health Practice

This study explored the perception of stigma among African American women and the relationship between perceived stigma and help-seeking behaviors. Although there is ongoing research on stigma perception and help-seeking behaviors for mental health issues (Cabassa & Parcesepe, 2012), research continues to be limited among the African American population. Emerging research focusing on the African American community will help

policy-makers and health educators construct policies, programs, and interventions to meet the needs of this diverse population.

This study supports the importance of including minority groups in this type of research in an effort to reverse historical hostility, mistrust, and cultural incompetence of health care practitioners and researchers (Plescia et al., 2008). The use of religious coping among African Americans can help address physical and mental health issues (Chatters et al., 2008). Public health practitioners can use information from this study to better implement more community defined evidence practice programs that are led by culturally appropriate facilitators within the faith community. The implementation of such programs can expand awareness and the importance of addressing mental health stigma in the African American community while being religious in nature.

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Table 1

Demographics Details for Program Participants (*n* = 46)

		n	%	*M*	*SD*
Gender					
	Female	46	100		
Program Participants					
	Program 2	19	41.3		
	Program 3	19	41.3		
	Program 4	8	17.4		
Age				54.8	15.98
Education					
	9-11th grade	1	2.3		
	High School graduate or GED	8	18.2		
	Some College or AA Degree	26	59.1		
	College Graduate or Above	9	20.5		
Ethnicity					
	Black or African American	39	92.9		
	Latino, Hispanic, or Spanish	1	2.4		
	White	1	2.4		
	Multi-Racial	1	2.4		
Marital Status					
	Married or Living Together	19	41.3		
	Widowed	5	10.9		
	Divorced or Separated	10	21.7		
	Never Married	12	26.1		
# of Persons in Household				3.4	2.0
Household Income					
	Low < $57,560	7	17.5		
	High > $57,560	33	82.5		

Note: n = sample size; % = percentage; *M* = mean; and SD = standard deviation.

Table 2

Listing of Topics and Description of Content for the Seven Modules of the Mental Health Intervention

Module	Title	Description of Content
Module 1	Introduction to the Program	In this module facilitators distribute the pre-test and give a brief introduction of the program opening with the core mental health issues; anxiety, depression, substance abuse and PTSD, expectations and goals. Participant engage in an icebreaker called "Conocimiento".
Module 2	Good Mental Health	A discussion of the common signs of brokenness. Participants will discover what happens when brokenness goes untreated.
Module 3	I Will Survive	A discussion that focuses on the ineffective and effective strategies for coping with emotional and psychological pain. Video Presentation/Small Group Activity “Call Me Crazy - Video”.
Module 4	Getting to the Root of the Matter	In this module there is a discussion of the causes of anxiety, depression, substance abuse and PTSD.
Module 5	You just Don't Understand Me	In this module participants will be introduced to the cultural and social barriers that may result in mental illness.
Module 6	Breaking the Chains that Bind	Participants will be introduced to the steps towards recovery. Discussing treatment modalities and strategies, for depression, anxiety, PTSD and substance abuse.
Module 7	Epilogue Passing it On	A discussion that takes participants from the journey they have been on and taking it to create something they can pass on.

Table 3

Questions for the Pre/Posttest Scales of Perceived Stigma, Help-seeking and Income

Scale Questions	Scale Measurement
Before or After participating in the program:	
Perceived Stigma	
...How willing would you be to move next door to someone with a mental illness?	0 = Definitely Unwilling; 4 = Definitely Willing
...How willing would you be to spend an evening socializing with someone with a mental illness?	0 = Definitely Unwilling; 4 = Definitely Willing
...How willing would you be to make friends with someone with a mental illness?	0 = Definitely Unwilling; 4 = Definitely Willing
...How willing would you be to have someone with a mental illness start working closely with you on a job?	0 = Definitely Unwilling; 4 = Definitely Willing
...How willing would you be to have someone with a mental illness marry into your family?	0 = Definitely Unwilling; 4 = Definitely Willing
…How willing would you be to employ someone if you knew they had a mental illness?	0 = Definitely Unwilling; 4 = Definitely Willing
Help-seeking	
...If I had a mental illness I would not tell anyone	0 = Strongly Disagree; 4 = Strongly Agree
...Seeing a mental health professional means you are not strong enough to manage your own difficulties	0 = Strongly Disagree; 4 = Strongly Agree
...If I had a mental illness I would not seek help from a mental health professional	0 = Strongly Disagree; 4 = Strongly Agree
...I believe treatment for a mental illness, provided by a mental health professional, would not be effective	0 = Strongly Disagree; 4 = Strongly Agree
...I am confident that I know where to seek information about mental illness	0 = Strongly Disagree; 4 = Strongly Agree
...I am confident I have access to resources (doctor, Internet, friends) that I can use to seek information about mental illness	0 = Strongly Disagree; 4 = Strongly Agree
...I feel that mental health professionals understand my cultural experience and background	0 = Strongly Disagree; 4 = Strongly Agree
...I would only seek care from a mental health professional who shares my cultural experience and background	0 = Strongly Disagree; 4 = Strongly Agree
Income	
Circle the option that best describes your annual family income.	1 = $ 0 to $ 4,999; 12 = $100,000 and Over

Table 4

Results from Multiple Linear Regression Analyses Evaluating the Predictive Strength of Perceived Stigma, and Income on Help-seeking Behaviors

	Predictor	B	SE B	β	CI
Model 1					
	Constant	2.431	0.272		1.880, 2.982
	Perceived Stigma Post Score	0.165	0.094	.277	-.025, .356
Model 2					
	Constant	2.494	0.425		1.620, 3.367
	Perceived Stigma Post Score	0.109	0.127	.166	-.152, .371
	Income Pre Score	0.137	0.198	.134	-.269, .544

Note: $R^2 = .077$ for Model 1 ($p > .05$), $R^2 = .04$ for Model 2 ($p > .05$)

Appendix A: IRB Approval

From: **Institutional Review Board** IRB@calbaptist.edu
Subject: IRB 015-1718-EXT Approval
Date: January 8, 2018 at 11:51 AM
To: Marshare Penny mpenny@calbaptist.edu, Jessica Miller jemiller@calbaptist.edu
Cc: Institutional Review Board IRB@calbaptist.edu

IR

RE: IRB Review
IRB No.: 015-1718-EXT

Project: CRDP Pahse 2, Broke Crayons Still Color Local Evaluation

Date Complete Application Received: 11/13/2017; CA HHS IRB Determination received 12/20/2017

Principle Investigator: Marshare Penny
Co-PI: Jessica Miller

College/Department: CHS

IRB Determination: Exempt Determination Accepted (FWA #00000681) and **approval granted** under the conditions of that determination. CBU is not the IRB of record.

Date: January 8, 2018