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Walden University

College of Health Sciences

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Eugenia Combie-Knowles

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Walden University
2020

Abstract

Public Stigma, Familiarity With Mental Illness, and Attitudes Toward Seeking Mental
Health Services

by

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MHA, Walden University, 2014

MBA, Leeds University, 2001

MSc, University of London, 1997

DM, University of the West Indies, 1996

MD, Institute of Medical Sciences Havana, 1987

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Health Care Administration

Walden University

November 2020

Abstract

Public stigma and adverse beliefs and attitudes toward individuals with mental illness can negatively influence help seeking. The purpose of this quantitative cross-sectional study was to assess associations and the effect of stigmatized attitudes toward mental illness and familiarity with mental illness on help-seeking attitudes in three community health clinics in the Bahamas. Attribution theory and theory of planned behavior provided the framework for the study. Data were collected from a convenience sample of 366 individuals who completed a self-administered questionnaire consisting of sociodemographic questions, the Attribution Questionnaire that assessed stigmatizing attitudes and beliefs toward individuals with mental illness, and the Inventory of Attitudes Toward Seeking Mental Health Services. Descriptive statistics and inferential statistics were used to analyze data from respondents to the questionnaire. Results revealed that age was significantly associated with attitudes toward seeking mental health services (ATSMHS), and the psychological openness and help-seeking propensity subscales respectively. Religion and education were also significantly associated with ATSMHS. Public stigma about mental illness was significantly associated with ATSMHS and the subscales psychological openness and indifference to stigma respectively. Multiple regression analysis revealed that age, ethnicity, religion, and public stigma were significant predictors of ATSMHS. Based on research findings, interventions that target public stigma, sociodemographic and cultural factors, and attitudes towards seeking mental health services can result in positive social change and enhance help seeking for mental health problems.

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Dedication

This dissertation is dedicated to my deceased father, my family, and best friends

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I am grateful and want to thank Dr. Richard Palmer, my dissertation committee chair for your guidance and support during this journey. Thank you Dr. Kimberly Dixon-Lawson and Dr. Robert Hijazi for your feed-back and support.

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Chapter 1: Introduction to the Study

Mental illness is the second greatest contributor to the global burden of disease following cardiovascular disease and contributes to 13% of disability-adjusted life years (March et al., 2018; Vigo, Thornicroft, & Atun, 2016). Depression is expected to be the leading cause of the burden of disease by the year 2030 (Al Ali, Alqurneh, Dalky, & Al-Omari, 2017). Further, mental illness has considerable social and financial costs (Thyloth, Singh, & Subramanian, 2016). The Global Morbidity Study showed that mental and substance abuse disorders accounted for 21.2% of total years lived with disability and major depression was the second leading cause of years lived with disability (Global Burden of Disease Study 2013 Collaborators, 2015). Mortality among individuals with mental disorders is significantly greater than control groups or the general population (Walker, McGee, & Druss, 2015). Dementia is also a global concern due to significant financial expenditure for families and government health agencies (Kenning, Daker-White, Blakemore, Panagioti, & Waheed, 2017).

Goffman (as cited in Pescosolido, 2013) defined *stigma* as an indication to others that a person is deficient in a feature. Stigma is prevalent among individuals with serious mental illnesses such as schizophrenia, bipolar disorder, and depression due to ignorance about mental health problems, prejudicial attitudes, or discriminatory behavior (Hanafiah & Van Bortel, 2015; Thornicroft et al., 2016; Wade et al., 2015). However, stigmatizing attitudes are likely to be different across disorders and are greater in schizophrenia than depression or anxiety disorders (Lee et al., 2013; Yoshioka, Reavley, MacKinnon, & Jorm, 2014). Mental health stigma may affect help-seeking behavior. Clement et al.

(2015) found that stigma was the fourth most frequent barrier to help seeking in a systematic review of 144 qualitative and quantitative studies.

Governments and mental health professionals should address challenges in enhancing the mental health of populations (Andrade et al., 2014; McGovern, 2014). Solutions may entail decentralizing mental health resources to include community mental health or strengthening the health infrastructure to facilitate an integrated care model (McGovern, 2014). However, there may be challenges concerning adequate funding, policies, and the legal framework to address the stigma toward individuals with mental illness and facilitate the integrated practice of physicians and nonphysician mental health practitioners (Durbin, Durbin, Hensel, & Deber, 2016; Mfoafo-M'Carthy & Sossou, 2017).

Although international researchers have studied the effects of public stigma and familiarity with mental illness on help-seeking attitudes, no published research in the Caribbean has emerged addressing the relationships between these variables. There is inadequate research on public stigma in the region to facilitate an evidence-based response to public stigma in the Caribbean. The current study was important in addressing this challenge because the extent of the impact of public stigma and familiarity with mental illness on attitudes toward seeking mental health services in the Bahamas is unknown.

Findings from this study may fill the gap in information about the associations between stigma, familiarity with mental illness, and attitudes toward seeking mental health services among individuals attending community health clinics in the Bahamas.

Public stigma must be tackled because it prevents persons from seeking help for mental health problems. The extent of and the effect of stigma varies across countries due to cultural norms, socialization, and economic factors (Clement et al., 2015; Devonish, 2017; A. Mascayano et al., 2016). Public stigma barriers or facilitators to help-seeking for mental illnesses identified in the current study may be considered in the formulation and implementation of strategies to reduce public stigma and enhance help seeking. Research findings may be used to guide the development of mental health programs to improve the quality of life of persons with mental illness (see Beldie et al., 2012). This approach may advance public health strategies to bring about social change by addressing gaps in mental health treatment and evaluation impacted by public stigma (see Beaulieu et al., 2017; Henderson, Evans-Lacko, & Thornicroft, 2013).

In Chapter 1, I provide an overview of the study. The introduction highlights the necessity for the research and the potential for social change. Other sections include the background, problem statement, and purpose of the study, which provide more detailed information about literature related to the problem and prospects to address the problem. Additional sections include the research questions and hypotheses and supporting theoretical frameworks. Also, information about the nature of the study, definitions, scope and delimitations, limitations, and significance of the study is reported, culminating with a summary.

Background

Researchers have found that stigma and attitudes related to mental illness can influence help-seeking attitudes (Chen & Chandrasekara, 2016; Clement et al., 2015;

Mestdagh & Hansen, 2014; Pattyn, Verhaeghe, Sercu, & Bracke, 2014; Preville et al., 2015; Wade et al., 2015). Negative beliefs, prejudice, fear, and labeling may make individuals who are affected feel devalued and become socially isolated (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Fernando et al., 2017; Jennings et al., 2015; Parcesepe & Cabassa, 2012; Pescosolido, 2013; Reynders, Kerkhof, Molenberghs, & Van Audenhove, 2014; Spence, Owens-Solari, & Goodyer, 2016). Negative beliefs may include individuals have bad genes, individuals with depression are weak, or individuals with schizophrenia are unpredictable (Hanafiah & Bortel, 2015).

There is global interest about the quality of care received by individuals with mental disorders in community settings. Schizophrenia, bipolar disorder, and other psychoses contribute to more hospitalizations, excessive health care expenditure, and unsatisfactory health consequences (Kronenberg et al., 2017). The organization of mental health care and access to mental health services is essential for timely recognition and management of mental disorders to minimize morbidity (Al Ali et al., 2017; Reynders et al., 2014). Also, the recognition of public stigma is important to address adverse effects on help seeking and committing to treatment (Corrigan, Druss, & Perlick, 2014).

Public stigma still exists despite research on stigma globally. Pescosolido (2013) argued that although the public is more receptive to identifying, divulging, and addressing mental health problems, stigma still exists, and that some may dispute has not changed significantly. Pescosolido reported that programs and policies based on what is thought and known from studies about mental illness stigma have not produced consistent beneficial outcomes. More than 70% of adults and young individuals with mental

illnesses do not have access to mental health care (Al Ali et al., 2017; Henderson et al., 2013). Individuals with negative views of mental health services are less likely to use these services, whereas individuals who have previously used mental services have a greater propensity to help seeking (Wrigley, Jackson, Judd, & Komiti, 2005). There is a need for ongoing research to study the effect public stigma related to mental illness may have on attitudes toward seeking mental health care.

Knowledge and understanding of factors such as stigma that discourage use of mental health services can guide efforts to enhance help seeking and diminish health consequences (Murry, Heflinger, Suiter, & Brody, 2011; Singh, Mattoo, & Grover, 2016). At the time of the current study, there was no published research on public stigma, familiarity with mental illness, and attitudes toward seeking mental health services in the Bahamas. Although some international studies have revealed that public stigma and familiarity with mental illness may impact attitudes toward help seeking, little is known about how public stigma affects individuals seeking mental health services in community settings.

Problem Statement

Public stigma may negatively impact help seeking for mental illness, but the extent of the association is unknown in the Bahamas. Public stigma has noticeable negative social consequences with respect to the health, personal relationships, living accommodations, and employment of individuals with mental illness (Brouwers, 2020; Corrigan, Bink, Fokuo, & Schmidt, 2015; Taghva et al. (2017); Thornicroft et al., 2016; Yoshioka et al., 2014). Access to mental health care does not automatically translate into

individuals seeking help for mental health problems (Andrade et al., 2014; Goodwin, Savage, & Horgan, 2016; Reynders et al., 2014). Al Ali et al. (2017) found in their study of 482 participants attending primary health care centers in Jordan that societal stigma and cultural beliefs were elements most likely to influence individuals' attitudes toward seeking mental health services.

Published research on public stigma and attitudes toward seeking mental health services is deficient in the Caribbean region. A. Mascayano et al.'s (2016) recent systematic review included research for only one Caribbean country, Jamaica. A. Mascayano et al. found that although perceived violence and unpredictability contributed to stigma in Latin America and Jamaica like in Western European countries, there were differences with respect to public stigma due to social and cultural differences. The most recent cited Caribbean study addressed the determinants of psychological help-seeking attitudes in Jamaican adolescents aged 15-19 years (Williams, 2014). A recent study addressed attitudes toward mental illness among Caribbean preclinical medical students in Trinidad (Youssef, 2018). This study revealed that although the students' knowledge about mental illness had significantly improved from their preclinical to final year of medical education, negative attitudes towards mental illness continued (Youssef, 2018). Therefore, there is a gap in the literature with respect to public stigma and its relationship with attitudes toward seeking mental health services in the Caribbean.

The influence of cultural and socioeconomic factors on public stigma and attitudes toward seeking mental health services cannot be ignored. The sociocultural interpretation of stigmatizing attitudes is that socialization may permit transmission

through generations of disapproving attitudes such as discrimination toward stigmatized groups (Clement et al., 2015). Cultural beliefs about mental illness were identified as contributory factors to stigma and discrimination in Jamaica (A. Mascayano et al., 2016). A qualitative study in the Caribbean island of Barbados on managers' perceptions of mental illness in the workplace revealed that managers supposed that high levels of stigma and discrimination were caused by cultural norms and socialization with respect to mental illness and undesirable stereotypes (Devonish, 2017). Data about stigma toward mental illness based on the World Bank income groups and World Health Organization country groupings may not reflect the reality of individual Caribbean countries (F. Mascayano, Armijo, & Yang, 2015; A. Mascayano et al., 2016; Maselko, 2017). Lacey, Powell Sears, Crawford, Matusko, and Jackson (2016) found in their population-based comparison of Guyana and Jamaica for associations between social and economic factors and mental illness that social factors made a greater contribution than economic factors to the mental health of persons in both Caribbean countries.

Arthur et al. (2010) acknowledged inadequate investigation of stigma toward mental illness in the Caribbean. The situation has not changed; however, it cannot be assumed that the existence or extent of stigmatized attitudes toward individuals with mental illness is similar in all of the Caribbean islands. There is a dearth of published research on public stigma and attitudes toward seeking mental health services in the Caribbean (A. Mascayano et al., 2016). There is no published evidence about how public stigma is displayed toward individuals with mental illness in the Bahamas and its effect on help seeking. As a result, there is insufficient evidence to inform selection of strategies

or interventions to address public stigma toward mental illness and the negative effects on attitudes toward seeking mental health services. The current study addressed this gap in the literature about public stigma and help seeking for mental health services in the Bahamas.

Purpose of the Study

The purpose of this quantitative cross-sectional study was to investigate associations and the effect of public stigma toward mental illness and familiarity with mental illness on attitudes toward seeking mental health services in three community health clinics in the Bahamas. Public stigma and familiarity with mental illness were the independent variables, and attitudes toward seeking mental health services was the dependent variable. Public stigma scores were measured using the self-administered Attribution Questionnaire-9 (AQ-9), and the attitudes toward seeking mental health services scores were measured using the self-administered Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS). The familiarity with mental illness variable for analysis was the response to the question “Do you know anyone who has experienced a mental health problem?” Covariate variables were sociodemographic variables, which included gender, age, ethnicity, religion, marital status, employment status, educational attainment, and having sought help for a mental health problem.

Research Questions and Hypotheses

RQ1: Is there an association between gender, age, ethnicity, religion, marital status, employment status, educational attainment respectively and attitudes towards seeking mental health services (ATSMHS) scores and subscale scores?

H₀1: Gender, age, ethnicity, religion, marital status, employment status, and educational attainment respectively do not have statistically significant associations with ATSMHS scores and subscale scores.

H_a1: Gender, age, ethnicity, religion, marital status, employment status, and educational attainment respectively have statistically significant associations with ATSMHS scores and subscale scores.

RQ2: Is there an association between knowing anyone who had experienced a mental health problem and ATSMHS scores and subscale scores?

H₀2: Knowing anyone who had experienced a mental health problem does not have a statistically significant association with ATSMHS scores and subscale scores.

H_a2: Knowing anyone who had experienced a mental health problem has a statistically significant association with ATSMHS scores and subscale scores.

RQ3: Is there an association between public stigma scores and ATSMHS scores and subscale scores?

H₀3: Public stigma scores do not have a statistically significant association with ATSMHS scores and subscale scores.

H_a3: Public stigma scores have a statistically significant association with ATSMHS scores and subscale scores.

RQ4: To what extent do public stigma scores and knowing anyone who has experienced a mental health problem predict ATSMHS scores and subscale scores?

H₀4: Public stigma scores and knowing anyone who has experienced a mental health problem do not significantly predict ATSMHS scores and subscale scores.

H_{a4}: Public stigma scores and knowing anyone who has experienced a mental health problem significantly predict ATSMHS scores and subscale scores.

Theoretical Framework

Both attribution theory and theory of planned behavior (TPB) were used to support this study. Stigma involves negative beliefs that may trigger negative emotional attributions such as fear, anger, and blame in individuals, which may result in discrimination (Reynders et al., 2014). Attribution theory (Weiner, Perry, & Magnusson, 1988) encompasses these attributions that through a cognitive process may be given causal meaning that influences behavioral intentions. The attributional concept in this theory postulates that attributional thoughts determine feelings that are associated with action (Schmidt & Weiner, 1988). An individual is likely to help someone in need if the cause is deemed uncontrollable, whereas anger is more likely than assistance if the cause is deemed controllable (Schmidt & Weiner, 1988).

Attribution theory provided the framework to explain how stigmatized attitudes toward individuals with mental illness may influence behavioral intentions and help-seeking behavior. The attribution theory has been used in research on stigma toward women with postpartum depression (Ruybal & Siegel, 2018), in human resource management research to understand attributions that influence decisions and behaviors in different human resource areas (Hewett, Shantz, Mundy, & Alfes, 2018), and to describe causes for individuals with psychiatric disabilities losing their jobs (Nathalie, Prunelle, Nathalie, & Marc, 2013). The effects of stigma identified in this current study were subjected to attributional evaluation in terms of attitudinal and emotional reactions and

apparent causes, as well as to explore future action (see Narikiyo & Kameoka, 1992; Weiner et al., 1988).

TPB is a conceptual framework used to study human action. The proposition of TPB is that human behavior is guided by beliefs about anticipated positive and negative behavioral outcomes, social impediments, or facilitators to enactment of the behavior and perceived control of performing the behavior (Ajzen, 2002; Chen & Chandrasekara, 2016). These behavioral, normative, and control beliefs determine attitude toward a behavior, perceived social pressure, and perceived ability to execute the behavior respectively (Ajzen, 2002). In the current study, help seeking was aligned to the theoretical proposition of the TPB, which presumes that human social behavior is reasoned or planned with consideration of attitude as well as other effects on behavior (see Ajzen, 1991).

Like other behavioral theories, TPB proposes that intentions precede behaviors. The attitude toward the behavior, subjective norm, and perceived behavioral control influence the behavioral intention that will predict the behavior (Ajzen, 2002). A positive attitude to help-seeking behavior is linked to a greater intention to indulge in the behavior (Reynders et al., 2014). The TPB is a valuable theory to comprehend intentions for behavioral change and has been used to predict health-related behavior. I hypothesized that stigma toward mental illness and familiarity with mental illness may be associated with help seeking for mental illness. The TPB facilitated the vision of the possibility or likelihood of changes in attitudes to help seeking resulting from infringements with respect to subjective norms and attitudes related to stigma toward individuals with mental

illness (see Kauer, Buhagiar, & Sanci, 2017). Although it may be assumed that people do what they intend to do, the effect of help-seeking intentions on behavioral change may be moderated by factors of perceived behavioral control such as assertion in seeking professional help (Kauer et al., 2017).

TPB has been used to study a variety of factors and behaviors influencing help-seeking intentions (Taylor, Conner, Lawton, & Lawton, 2011; Mesidor & Sly, 2014) and to study attitudes of community adults to e-mental health services (March et al., 2018). In the current study, stigma was a cognitive variable, and attitude depicted the extent of a person's affirmative or unfavorable judgement of a specific behavior (see Mesidor & Sly, 2014). Although an individual's attitude regarding mental health services can influence intentions to seek help (Mesidor & Sly, 2014), the TPB suggests that cognitive intentions have a more contiguous influence than attitudes on behavior and may directly impact service use (March et al., 2018). Yakunina and Weigold (2011) found that for Asian international students stigma distress was related to greater intentions to seek counseling. However, Mesidor and Sly (2014) found in their study of 111 international and African American college students that mental-health-seeking intentions were significantly predicted by perceived behavioral control and not by attitudes toward mental health services.

Nature of the Study

I used a quantitative cross-sectional design. A survey was used to collect information at one point in time, and this method afforded the advantage of retrieving information economically and conveniently regarding numerous variables from a large

sample using a self-administered questionnaire (see Claydon, 2015). The independent variables were public stigma toward mental illness and familiarity with mental illness, and the dependent variable was attitudes toward seeking mental health services.

Covariates were sociodemographic variables.

A survey is an essential data collection method in health care to examine knowledge, attitude, and behavior at a point in time (McPeake, Bateson, & O'Neill, 2014). The current study questionnaire consisted of four sections. The first section pertained to sociodemographic data, the second section pertained to information about familiarity with mental illness, the third section was the AQ-9 (Corrigan & Calabrese, 2005; Patrick Corrigan Illinois Institute of Technology, 2012), and the fourth section was the IASMHS (MacKenzie, Knox, Gekoski, & Macaulay, 2004). Participants were individuals attending three community health clinics. Participation was voluntary, and the questionnaire was self-administered. Participants' responses were coded for statistical analysis using the Statistical Package for Social Sciences. Descriptive data such as mean, standard deviation, and percentages were obtained for independent variables, which were sociodemographic characteristics and familiarity with mental illness. Correlation and multiple regression analyses were conducted to determine whether the relationships between the independent variables and the dependent variable were significant, and whether public stigma and familiarity with mental illness predicted attitudes toward seeking mental health services when controlling for sociodemographic variables.

Definitions

Attitude: Attitude is a construct in social psychology which is influenced by an individual's experiences, beliefs, and feelings toward a person, object, or situation. Attitudes influence behavior, which may be positive or negative (Haddock & Maio, 2004).

Familiarity: Familiarity implies experience with mental illness or knowledge about mental illness (Corrigan, Druss, & Perlick, 2014).

Help seeking: Help seeking is regarded as a process of being aware of symptoms believed to be a problem that requires help. The help seeker should also be willing to approach available sources of help (Chen & Chandrasekara, 2016).

Mental health: According to the World Health Organization (WHO, 2001) mental health is "not merely the absence of disease or infirmity, but rather a state of complete physical, mental and social well-being" (p. 3).

Mental illness: Mental illness is a health condition which affects a person's thoughts, feelings, or behavior. Mental illness may be associated with impairment in functioning at home, work, and socially (American Psychiatric Association, 2018).

Public stigma: Public stigma is the response that large portions of the public have to people with mental illness, which may involve publicly approved stigmatizing attitudes such as negative stereotype, prejudice, devaluation, injustice, and discrimination (Corrigan, Bink, Fokuo, & Schmidt, 2015; Corrigan, Powell, & Michaels, 2014; Corrigan & Watson, 2002; Pattyn et al., 2014).

Assumptions

I assumed a negative relationship between public stigma toward mental illness and attitudes toward seeking mental health services and a positive relationship between familiarity with mental illness and attitudes toward seeking mental health services based on the literature review. Methodological assumptions were made with respect to research instruments and participants. Content validity and reliability of the AQ-9 and the IASMHS were assumed to permit accurate measurement of public stigma toward mental illness and ATSMHS respectively. I also assumed that the participants would be able to read English to understand the questions in the research instruments and answer questions accurately.

Scope and Delimitations

This cross-sectional study addressed the relationship between public stigma toward mental illness, familiarity with mental illness, and attitudes toward seeking mental health services. The study population included a convenience sample of individuals attending three community health clinics who gave informed consent to participate in the study. Delimitations were that participants had to be 18 years old or older, had to be able to read English, and had to give informed consent to be able to participate in the study. Findings from this study posed a threat to internal validity; therefore, findings were generalizable only to individuals attending these community health clinics. In view of this study being conducted in these clinics, generalizing to other settings must be done cautiously.

Limitations

Cross-sectional designs tend to be strong on representation but inadequate on control. The internal validity of surveys is compromised when participants are not randomly assigned and there is deficient control of unauthentic relations (Frankfort-Nachmias & Nachmias, 2008). Limitations may have occurred with respect to deficient participant response or questionnaires with missing data that contributed to the scores for variables. If the nonresponse rate was too high, the final sample for which results were available may not have been representative of the population, thereby threatening the external validity of the study (see Creswell, 2009). This limitation was addressed in the estimation of sample size and data management practices.

Threats to the internal validity of the study included any adverse event on the day the participant responded to the questionnaire, affecting the participant's responses and the propensity for social desirability. Because participants were self-reporting, there was the possibility that some responses may not have been accurate and therefore threatened the internal validity of the study due to subject error. Therefore, individuals who could not read English were excluded from the study.

Significance

Mental disorders contribute to disability (Mathers & Loncar, 2006) because more than 70% of adults and young individuals do not have access to mental health care (Henderson et al., 2013) and the effect of stigma in delaying help seeking (Andrade et al., 2014; Goodwin et al., 2016). In low-income and middle-income countries, 76% to 85% of individuals with severe mental disorders do not access treatment, whereas in high-

income countries 35% to 50% do not access treatment (WHO, 2013). There is significant international research on stigma and help seeking, but this topic has not been adequately researched in Caribbean countries. Stigma is a universal phenomenon with outcomes that may vary across countries (Semrau, Evans-Lacko, Koschorke, Ashenafi, & Thornicroft, 2015). The current study added to the literature on public stigma, familiarity with mental illness, and attitudes toward seeking mental health services in a Caribbean country. Results from this study may facilitate collaboration at the local and regional level to enhance access to mental health care.

Findings from this research may be used to overcome the challenge of developing and implementing effective strategies to address public stigma and enhance help seeking based on anecdotal rather than objective data (F. Mascayano et al., 2015). A greater appreciation of how public stigma influences help seeking is necessary to reduce the negative effects of public stigma on attitudes toward seeking mental health services (Gronholm, Thornicroft, Laurens, & Evans-Lacko, 2017). Stakeholders may be stimulated to enhance resources, policies, and the legal framework to facilitate the collaboration between mental health professionals and other health professionals for the delivery of an integrated mental health care model (see Durbin et al., 2016). Communities unsupportive of discrimination will be conducive to help seeking by persons with mental illness in their community clinics for mental and other health-related problems (Yoshioka et al., 2014).

Summary

Stigma is a multidimensional phenomenon (Pattyn et al., 2014). Individuals with mental health issues may have health and social challenges due to underutilization of health services. However, contributory factors are still being investigated (Bonabi et al., 2016). The purpose of the current study was to contribute to the current gap in research on public stigma toward mental illness and attitudes toward seeking mental health services in the Bahamas and the Caribbean. This study was conducted in three community health clinics with the intention of utilizing findings to combat public stigma and enhance help seeking. The literature to support this gap in research was presented and consideration was given to the design and methodology, as well as the theoretical framework to support the study. Potential bias and threats to the validity of the study were considered with the view to establish measures to mitigate these potential threats. The literature review about the variables for this study and other related information is presented in Chapter 2 with a more extensive discussion of the theoretical framework for the study.

Chapter 2: Literature Review

This study focused on public stigma, familiarity with mental illness, and attitudes toward seeking mental health services among individuals attending three community health clinics in the Bahamas. The aim of this study was to examine associations and the effect of public stigmatized attitudes toward mental illness and familiarity with mental illness on attitudes toward seeking mental health services. Research evidence suggested that stigma discourages individuals from seeking help for mental illness (Andrade et al., 2014; Corrigan, Druss, & Perlick, 2014; Goodwin et al., 2016). This may lead to worsening of symptoms and problems in personal and social spheres of life. However, there is a dearth of data on public stigmatizing attitudes and these relationships to address public stigma and help-seeking attitudes in the Bahamas.

Stigma related to mental illness may exist at familial, community, and societal levels (Mfoafo-M'Carthy & Sossou, 2017) and may be defined as labeling or stereotyping that distinguishes an individual from others. The process of stereotype endorsement involves prejudice and discrimination, which may lead to financial, political, or public disadvantage (Clement et al., 2015; Corrigan & Shapiro, 2010; Mojtabai, 2010). Stigma is experienced socially as prejudice that results in discrimination, isolation, and marginalization (Pingani et al., 2016; Stuart, Patten, Koller, Modgill, & Liinamaa, 2014). This public stigma may lead to depreciation that is portrayed during social interaction that may become restricted depending on individual and social context factors (Pescosolido, 2013). These stigmatized attitudes associated

with mental illness may negatively affect mental health and help-seeking attitude (Al Ali et al., 2017; Corrigan, Drusss, & Perlick, 2014; Taghva et al., 2017).

Stuart et al. (2014) used a modified version of the Devaluation-Discrimination Scale to measure public attitudes toward individuals with depression in a national survey in Canada. Questions addressed what most people would think instead of what one personally felt about someone who was being treated for depression. Stuart et al. found that about 58% of the 10,389 participants agreed with one or more of the devaluation-discrimination items, more so (38.2%) with respect to disregarding application for employment. Of individuals treated for mental illness in the past 12 months, stigma was reported with respect to housing (18%), economic issues (25%), and school or work (28%).

In this chapter, I review literature pertinent to the variables in this study. This will permit the examination of the gap in the literature with respect to the relationships between public stigma, familiarity with mental illness, and attitudes toward seeking mental health services. Included in this chapter is the literature search strategy used to access content in the literature review. The literature review includes information about the Bahamas, the theoretical foundation supporting this study, associations between stigma and help seeking, barriers to help seeking, familiarity/contact with mental illness, and a summary.

Literature Search Strategy

A search of the literature was conducted in electronic databases (Google Scholar, PsycINFO, ProQuest, EBSCOhost, and PubMed) to identify peer-reviewed journal

articles in medicine, psychology, and community health. The search terms representing variables used in the study included *stigma*, *discrimination*, *stigmatization*, *mental illness*, *mental disorder*, *help seeking*, *primary care*, *primary health services*, *mental health professionals*, *outpatient*, *mental health attitudes*, *mental health beliefs*, *mental health services*, *theoretical framework*, *attribution theory*, and *theory of planned behavior*.

Additional articles were selected by reviewing reference lists of articles reviewed. Most were peer-reviewed articles published within the past 6 years, and important historical articles inclusive of those about the theoretical framework or research instruments.

The Bahamas

The Bahamas has 700 islands and 2,400 cays with an area of 13,900 sq. km, of which 30 islands are inhabited (Pan American Health Organization [PAHO], 2017). The 2010 census showed that the Bahamas had a population of 351,461 (181,204 female, 170,257 male), with 70.09% (246,329; 128,420 female, 117,909 male) of the total population residing in New Providence, and 14.6% (51,368) residing in Grand Bahama (Bahamas Department of Statistics, 2012). Ninety one percent of the total population reported being Black, 5% White, and 2% of a mixed race. In 2010, the distribution of the population in New Providence by age was 26.6% under age 15, 67.4% age 15-64, and 5.7% aged 65 and over (Bahamas Department of Statistics, 2012).

In the Bahamas, the life expectancy at birth was 74.7 years in 2013, the unemployment rate was 12% in 2015, and the average educational achievement was 12.0 years of schooling in 2014 (PAHO, 2017). Admissions to the inpatient mental health facility are mainly for schizophrenia and schizotypal disorders (35%), affective mood

disorders (12.3%), and mental and behavioral disorders due to substance use (21%; PAHO, 2017).

Theoretical Foundation

This research was guided by the attribution theory developed in the 1970s and 1980s by Weiner et al. (1988) and by Ajzen's (1991) TPB proposed in 1986. The attribution theory supported the attribution paradigm of public stigma toward individuals with mental illness (see Corrigan et al., 2003), and TPB supported the conceptual structure for predicting the effect of attitudes, perceived behavioral control, and social norms on behavioral intentions (see Ajzen, 1996).

Attribution Theory

Attribution theory suggests that behavior is adjusted by a cognitive-emotional process by which individuals make attributions about a person's illness (Weiner et al., 1988). The concept of prejudice and discrimination used to explain the stigma faced by individuals with mental illness is centered on the attribution theory. The stigmatizing belief that individuals with mental illness are dangerous engenders fear, which results in a need to distance from the individual or a request for forced treatment. If the individual is perceived to be responsible for the mental illness, the response is anger and refusal to render assistance (Corrigan & Watson 2002; Corrigan et al., 2015; Pingani et al., 2016). Weiner et al. (1988) used the attribution theory to explore the causes of stigmas. Weiner et al. found that mental-behavioral stigmas stimulated more anger than pity due to perceptions of negligence and being preventable. If the perception is that the individual is not trying, help may not be forthcoming because of an angry response. However, an

individual may receive help if the perception is that the individual is trying and the response is pity (Weiner et al., 1988).

The social cognitive model of attribution theory provides a framework to understand the relationship between stigmatizing attitudes and prejudiced behavior (Corrigan et al., 2003). Attribution theory clarifies how personal beliefs can influence viewpoints about personal responsibility and conduct toward individuals (Pingani et al., 2016). Mental causes of an individual's illness tend to be perceived as controllable, which leads to the high attribution of responsibility. Because attributions of responsibility then lead to emotions such as anger or pity that influence motivations to punish or assist stigmatized individuals (Corrigan et al., 2003), assessment of the effects of attributions on decisions or intentions to assist individuals with mental illness is important.

Theory of Planned Behavior

Fishbein and Ajzen (1975) viewed attitude as a learned tendency to react to a belief about an object thereby influencing intentions and behavior towards the object. The authors were interested in the determining factors for and associations between beliefs, attitudes, intentions, and behaviors. They perceived changes in belief as an impetus for changes in attitude, intention, and eventually behavior. However, research has shown that having an intention may not necessarily result in enacting the behavior. Therefore, persons with schizophrenia and substance use disorders may need assistance in implementing an intention (Ajzen & Fishbein, 2005). Ajzen's TPB improves on the theory of reasoned action that explains the prediction of behavior based on behavioral intentions emanating from belief about enacting the behavior (Ajzen & Fishbein, 2005).

A meta-analysis of studies associated with the theory of reasoned action showed that intentions were good predictors of behaviors entirely under voluntary control (Ajzen, 1996). However, control beliefs about a behavior may differ by race, gender, and age, due to personal, cultural, socioeconomic, and environmental factors (Ajzen & Fishbein, 2005).

TPB facilitates the inclusion of behaviors not entirely cognitively controlled. Hence, an individual plans a behavior taking into consideration attitude toward the behavior, perceived control with respect to the behavior, and social norms (Ajzen, 1996; Ajzen & Madden, 1986). Behavioral intentions are better understood in the framework of TPB, since explanation of social behavior towards individuals with mental illness is based not only on the situation but also on beliefs about outcomes (Ajzen, 1991). Perception of the ability to achieve the behavior is based not only on social influences on possible engagement, but also on beliefs about positive and negative consequences of a behavior (Ajzen & Madden, 1986). Therefore, TPB encompasses assessment of a behavior with respect to anticipated outcomes, the effect of social encouragement to engage or not in the behavior, and the ability to achieve the behavior (Chen & Chandrasekara, 2016). The assumption is that a positive attitude to help seeking behavior is related to a greater intention to respond to the attitude. Hence, the intention precedes the manifested behavior (Ajzen & Fishbein, 2005).

TPB has been used in different countries to forecast various types of behavioral intentions. It has been utilized in studies on attitudes of college students and adults respectively in China toward help seeking behavior for mental health issues (Chen &

Chandrasekara, 2016; Mak & Davis, 2014); in the development of an online navigation tool to facilitate mental health help seeking in young adults in Australia (Kauer, Buhagiar, & Sanci, 2017); to study how potential travelers from China choose their travel destination (Lam & Hsu, 2004); and to understand adolescent peer sexual harassment and abuse (Li, Frieze, & Tang, 2010). Chen and Chandrasekara (2016) studied stigmatizing attitudes towards help seeking behavior for mental health problems among 600 university students in Sri Lanka. The instruments utilized were the Mental Health Service Utilization Questions and the Inventory of Attitudes toward Seeking Mental Health Services (IASMHS) supported by the theory of planned behavior. Results showed that public stigma had a greater negative effect on help seeking behavior than self-stigma, more so with respect to the dangerous person for both public stigma and self-stigma (Chen & Chandrasekara, 2016).

Integration of Both Theories

The stigmatization of individuals with mental illness may alter in diverse sociocultural settings (Singh, Mattoo, & Grover, 2016). Hence, the integration of both attribution theory and TPB provides an appropriate model to measure attitudes and predict social behavior related to stigma in specific contexts. The model can be used to clarify how an individual's help seeking behavior is impacted by intentions, subjective norms, attitude toward, and apparent control of the behavior (Chen & Chandrasekara, 2016). Also, the instruments to be used in this study to measure public stigma and help seeking attitudes have been developed to support attribution theory and theory of planned behavior.

Studies investigating stigma involve using hypothetical interpersonal scenarios of individuals with mental illness for the assessment of stigmatized attitudes towards mental illness and the effect on help seeking (Rusch, Evans-Lacko, Henderson, Flach, & Thornicroft, 2011; Rusch et al., 2013, Rusch et al. 2014; Schnyder et al., 2017; Sharp et al., 2015). In accordance with the TPB, the outcome variable is the individual's intention to execute a behavior. The assumption is that the greater the intention, the more likely the accomplishment of the behavior. The predictor variables will be attitudes towards the behavior, and perceptions of social influences and challenges in executing the behavior (Figure. 1). Webb and Sheeran (2006) conducted a meta-analysis of 47 experimental tests which indicated that a medium-to-large sized change in intention produces a small-to-medium change in behavior. The influence of intentions on behavior was negatively affected if social reaction is probable or individuals have insufficient control of the behavior (Webb & Sheeran, 2006).

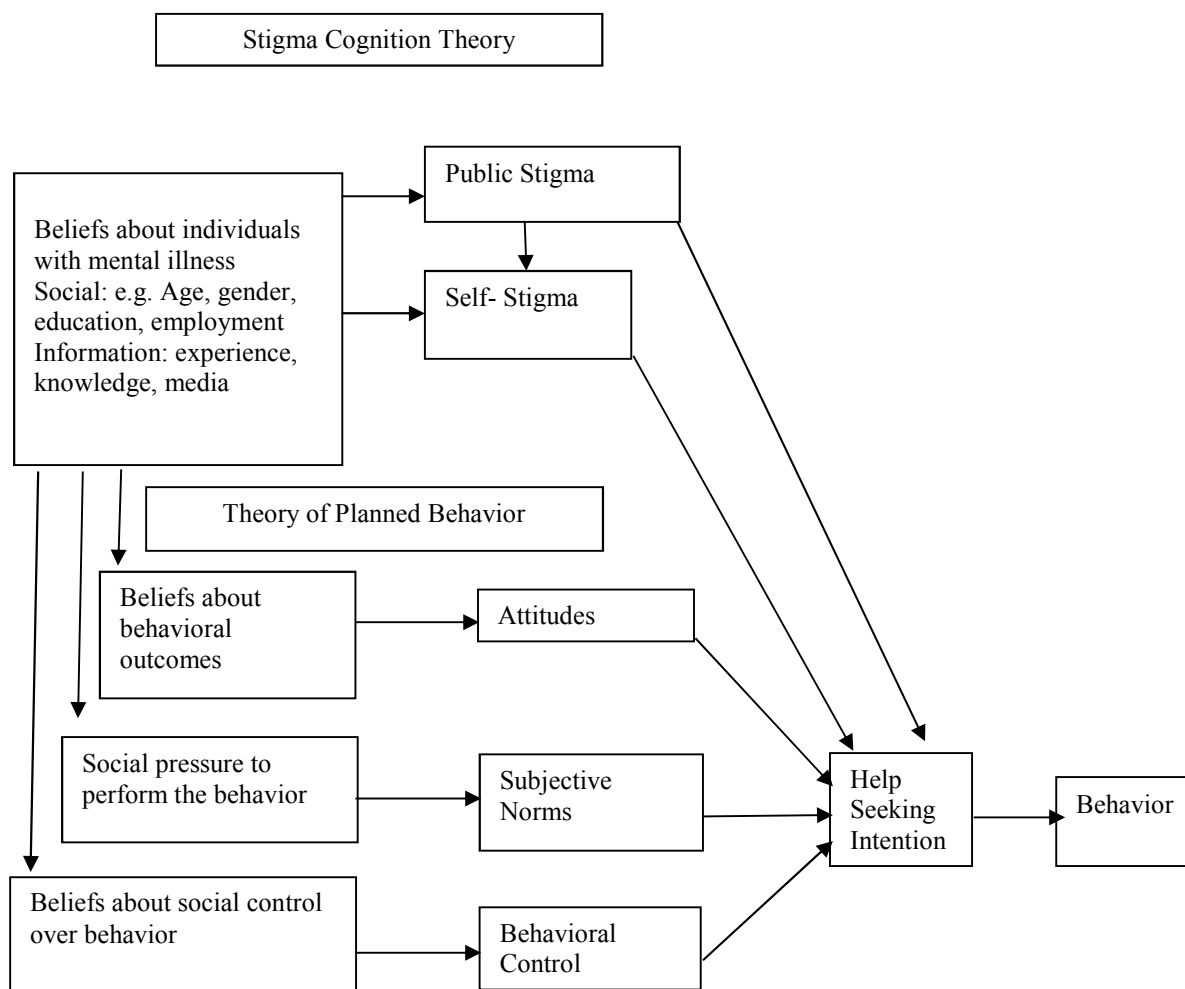


Figure 1. Integrated theoretical model of stigma and help-seeking intention. Adapted with permission from “The psychological mechanism of stigmatizing attitudes toward help seeking behavior for mental health problems,” by Z Chen and W Chandrasekara, 2016, *International Journal of Management, Accounting & Economics*, 3, p. 723. Authors, All Rights Reserved.

Associations Between Public Stigma and Help-Seeking Attitudes

Stigma is a multicomponent construct which can be studied using various scales.

Both perceived public/social stigma and self/internalized stigma can influence help seeking. However, there is debate as to whether they act independently or mediate each

other in their relationship with help-seeking attitudes. Differences in research findings highlight other issues such as the definition of these types of stigma, how they are measured, and their applicability to the help-seeking context (Barney, Griffiths, Jorm, & Christensen, 2006). Public stigma affects the individual and society, and the three elements of public stigma are stereotypes, prejudice, and discrimination (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003). Responses from 596,712 respondents from 229 countries who completed an online world survey of mental illness revealed that 7% to 8% of respondents from developed countries versus 15% or 16% in developing countries approved the statement that individuals with mental illness were more violent than others (Seeman, Tang, Brown, & Ing, 2016). Stereotypes are communally held beliefs such as individuals with mental illness are dangerous and unpredictable and should be blamed for triggering their illness. Prejudicial attitudes result from approval of the negative stereotypes, and discrimination is the behavioral response to prejudice (Corrigan et al., 2003; Corrigan & Shapiro, 2010).

The stereotypes and discrimination involved in public stigma appear in self-report measures as attitudes (Corrigan and Shapiro, 2010). Public prejudice expressed by discriminatory behaviors, can lead to anger, fear, or avoidance, towards individuals with mental illness. Public stigma may limit social interaction because of devaluation of persons with mental illness (Pescosolido, 2013), and decreases prospects of work, independent living, and involvement in psychiatric care (Michaels & Corrigan, 2013). Another consequence is the denial of autonomy in decision making about personal goals and treatment (Corrigan et al., 2003; Corrigan & Shapiro, 2010). With regards to

individuals with mental health problems, studies have revealed that opinions of impulsiveness, blameworthiness, and apprehension about how to relate to or whether to fear violence, were associated with less professional help seeking (Mojtabai, 2010; Pescosolido, 2013; Taghva et al., 2017).

Stigma associated with mental illness may impede access to mental health care by deterring help seeking, thereby permitting progression of the illness. Help seeking refers to introduction to and commitment to care from conventional health care services or talk therapy from a counselor, psychologist, primary care doctor, family medicine practitioner, or psychiatrist (Clement et al., 2015; Corrigan et al., 2015). Research has shown that attitudinal barriers consistently have a greater influence on help seeking than structural barriers (Andrade et al., 2014; Handley et al., 2014), and extreme stigmatizing attitudes have been associated with a reduction in help seeking behavior. Andrade et al. (2014) gave a global perspective of stigma and its effect on help seeking with respect to commencing and maintaining treatment for mental illness. The authors analyzed data from the World Health Organization (WHO) World Mental Health surveys of 24 countries at distinct levels of development. Severe cases stated apprehension of public stigma or discrimination in the workplace as possible reasons for them not seeking treatment. Respondents who had recognized the need for treatment cited stigma as the third most frequent attitudinal barrier for discontinuing treatment.

Adolescents may also be reluctant to seek help due to stigmatizing attitudes and discrimination because of mental illness. Symptoms of some mental illnesses such as schizophrenia and bipolar disorder may begin in adolescence; therefore, these students

also face challenges related to resisting help seeking for mental health issues (Chen & Chandrasekara, 2016; Gulliver, Griffiths, & Christensen, 2010). Yoshioka et al. (2014) surveyed 311 Japanese high school students aged 15 to 17 years for stigmatizing attitudes towards vignette cases describing individuals with depression, social phobia, and psychosis/schizophrenia in the self-report questionnaire. This study showed that stigmatizing attitudes were highest for mental illnesses perceived as dangerous in contrast to those perceived as weak but not sick and stigmatizing attitudes were greater among males than females. Mean social distance scores were highest for schizophrenia ($M = 2.71$; $SD = 0.75$), followed by depression ($M = 2.40$; $SD = 0.66$) and social phobia ($M = 2.38$; $SD = 0.76$) respectively.

Other studies have shown the influence of diagnosis on help seeking attitudes. Chen and Chandrasekhara's (2016) findings from their study of 600 university students in Sri Lanka was similar to Yoshioka et. al.'s (2014) finding that stigma had a greater negative effect with respect to the dangerous person. Chen and Chandrasekhara (2016) and Yoshioka et. al. (2014) also found in their study that public stigma had a greater negative effect than self-stigma on help seeking. This may also be due to perceptions about the causes of serious mental illnesses, which influence help seeking through the social distance response based on beliefs about outcomes (Lee et al., 2013). Lee et al. (2013) used a sample of 149 undergraduate students in the United States to evaluate the effect of diagnosis and attribution on social distance and helping outcomes. They found that diagnosis had a significant indirect effect on helping outcomes mediated by social distance. Social distance scores for schizophrenia were significantly higher than the total

for both bipolar disorder and depression [$t(143) = -3.18, p = 0.002$], due to the perception of being more dangerous.

Public Stigma Versus Self-Stigma

Self-stigma occurs when individuals with mental illness internalize prejudicial behavior, and the individual has the perception of being unfavorable or socially improper for seeking help (Latalova, Kamaradova, & Prasko, 2014; Wade et al., 2015). These individuals may also confront the prejudice of unpredictability and dangerousness, which when internalized can cause avoidance of social interactions or isolation which negatively influence help seeking (Corrigan et al., 2003; Mestdagh & Hansen, 2014). Self-stigma may also have a negative influence on an individual's self-esteem and self-efficacy (Pattyn et al., 2014). Other negative consequences include decreased self-esteem and empowerment, worsening of symptoms, and reluctance to seek help (Luckstead & Deapalski, 2015).

Some investigators have studied both public stigma and self-stigma. Wade et al. (2015) studied the relationship between stigma and help seeking attitudes, and intentions of seeking behavioral health services in a sample of 97 military personnel being evaluated in a military health center. They found that both public and self-stigma influenced attitudes towards help seeking. However, public stigma had an indirect effect on intent to seek help, mediated through self-stigma and attitudes towards behavioral health care. Brown et al. (2010) in their telephone surveys of 449 African American and white individuals 18 years and over, found that internalized stigma determined the relations between public stigma and treatment seeking attitude. However, this was

significant only for the white participants. Internalized stigma was associated with treatment seeking attitude among the African Americans (Brown et al., 2010). Latalova et al. (2014) reviewed studies on public stigma and self-stigma associated with depression in males. Both types of stigmas were significant barriers to help seeking for depression for both genders of African Americans and Caucasians, more so for African Americans.

In countries with less stigmatized behaviors and more health seeking intentions, individuals with mental illness may experience less self- stigma. Mojtabai (2010) used data from 29,248 participants from 25 European Union countries in the Eurobarometer general population survey to assess relationships between individual and social stigmatizing attitudes and the propensity to seek professional help. The author used two short instruments to analyze data which revealed that social and individual stigmatizing attitudes were related to help seeking. Social (*OR* 2.21; *CI* 1.52-3.21; $p < 0.001$) and individual (*OR* 1.06; *CI* 1.01-1.10; $p < 0.05$) perceived dangerousness were related to more propensity to help seeking, whereas perceived blameworthiness was related to less propensity to help seeking (social *OR* 0.39 vs individual *OR* 0.91). However, unlike individual perceived unpredictability (*OR* 0.90; *CI* 0.85-0.95; $p < 0.001$), social perceived unpredictability (*OR* .73; *CI* .50-1.06) was not significantly related with the propensity to help seeking. Social and individual stigmatizing attitudes were significantly related to each other (Mojtabai, 2010).

Self and social stigma also exists among older adults and may lead to social distance. When individuals with mental health problems internalize social stigma, this may negatively affect help seeking (Preville et al., 2015). A meta-analysis of 28

qualitative studies to identify barriers and facilitators to accessing dementia care revealed that although families usually access primary care for patients with problems related to dementia, some are reluctant to seek help because of the shame and stigma related to dementia, or their feelings of denial and fear (Kenning, Daker-White, Blakemore, Panagioti, & Waheed, 2017). Preville et al. (2015) in their cross sectional survey of individuals 65 years and older attending medical services in primary health clinics, found that their views of social stigma towards mental illness had a direct negative effect on their mental health needs ($b = -0.10$), and a significant indirect negative effect ($b = -0.07$) on seeking help for symptoms of psychological distress at primary medical care services mediated by their perceived mental health needs (Preville et al., 2015).

Adolescents also experience public and self-stigma and may refrain from seeking help for mental illness to avoid shame and labeling. For example, adolescents with depression may be more sensitive to public stigma due to the reactions of their friends and associates, and subsequently to self-stigma if the negative attitudes are internalized (Dardas, Silva, Smoski, Noonan, & Simmons, 2017). Jennings et al. (2015) investigated the influence of self and perceived stigma and self-reliance on seeking mental health treatment among 246 psychology college students using various measures. The result was a three-path model suggesting that higher perceived stigma was linked to higher self-stigma, which was linked to higher self-reliance, which was linked to a negative attitude to treatment seeking in the sample. However, Rush et al. (2013) conducted an early psychosis recognition survey in Zurich of individuals 13 to 35 years old who met the study criteria. Findings were that perceived stigma was not associated with help-seeking

attitudes, however, more self-stigma and less stigma stress predicted more positive attitudes towards psychiatric medication. The authors concluded that self-stigma and resistance to stigma stress will positively influence help-seeking.

Some studies among adolescents have found higher perceived public stigma than personal stigma. Callear et al. (2011) found in their study of 1,375 Australian adolescents aged 12 to 17 years old that levels of perceived stigma were significantly higher than personal stigma. Higher perceived stigma measured by the Depression Stigma Scale was predicted by being female ($p = .02$) and personal stigma ($p < .001$). Similarly, Dardas et al. (2017) found in their study of 2,349 Jordanian adolescents aged 12-17 years higher rates of perceived stigma than personal stigma. Females had significantly higher mean scores than males on the perceived stigma subscale. Perceived stigma scores were associated with sex ($p = .02$), age ($p < .001$), and history of mental health problem ($p = 0.03$). As indicated in aforementioned studies, both public stigma and self-stigma can be negatively associated with help-seeking attitudes. Therefore, for this study public stigma and self-stigma will be regarded as two distinct stigma components.

Barriers to Help Seeking

Besides stigma, issues related to gender, cultural conflicts, health beliefs, access to mental health services, negative attitudes of health professionals, and adverse opinions about help seeking have been identified as barriers to mental health services utilization and recovery (Al Ali et al., 2017; Hanafiah & Van Bortel, 2015; Rusch et al., 2014). Low utilization of mental health services has been influenced by individual, interpersonal, and institutional barriers. Individual and interpersonal barriers may be related to

sociodemographic characteristics, beliefs, and stigmatized attitudes; whereas institutional barriers may be with respect to availability, cost, inconvenience, and contact with mental health providers and services (Al Ali et al., 2017; Gulliver et al., 2010). However, these attitudinal and structural barriers may change over time in different sites and among different populations (Mojtabai et al., 2011). The identification of barriers to help seeking for mental illness or discontinuing care is necessary in attempts to decrease the burden of mental illness and provide resources to develop mental health services (Andrade et. al., 2014; Mojtabai et al., 2011).

Attitudinal barriers have been found to consistently influence help seeking. Of the 11,471 respondents from the WHO World Mental Health surveys who had a mental disorder over the past year and did not use mental health services, less than half (38.5%) perceived a need for treatment (Andrade et. al., 2014). Although schizophrenia was not assessed, almost half (48.1%) of those who perceived a need for treatment were serious cases such as bipolar disorder, substance dependence, and suicide attempt associated with another disorder (Andrade et. al., 2014). Significantly higher proportions of respondents with serious disorders reported structural barriers whereas reports of attitudinal barriers were significantly higher among respondents with moderate/mild disorders. Attitudinal barriers were more prevalent than structural barriers in initiating treatment and the majority (96.3%) reported at least one attitudinal barrier irrespective of severity of disorder (Andrade et. al., 2014). Overall, the most frequently reported attitudinal barrier was self-reliance (63.8%) followed by underestimation of the severity of the problem (24.4%). Attitudinal barriers such as wanting to personally deal with the problem or low

perceived need had greater influence than structural barriers such as financial difficulties and unavailability of services in commencing and maintaining treatment (Andrade et. al., 2014).

Mojtabai et al. (2011) found in their analysis of data from the nationally representative National Comorbidity Survey Replication, that attitudinal features were more crucial than structural barriers to commencing (97.4% v. 22.2%) and maintaining (81.9% v. 31.8%) treatment. Some structural barriers for consideration were availability of services, financial deficits, and transportation. Attitudinal barriers were stigma, low observed efficacy of treatments, and wanting to personally address the problem (Mojtabai et al., 2011). Of the respondents with a disorder who did not seek help 44.8% reported low perceived need. Of those who perceived a need, 72.6% did not pursue treatment and 42.2% discontinued treatment because they wanted to personally deal with the problem. Attitudinal barriers were prevalent among the severe cases and reasons for not seeking treatment varied with illness severity. Individuals with mild (57.0%) disorders were more likely to have a low perceived need for seeking help than those with moderate (39.3%) or severe (25.9%) disorders (Mojtabai et al., 2011).

Mental illnesses are common in the child and adolescent population, more so between the ages of 16-24 years (Gulliver et al., 2010). A thematic evaluation was conducted of the results from a systematic review of 15 qualitative and quantitative studies of perceived barriers or facilitators to help seeking in adolescents or young adults. In the eight qualitative studies stigma was the most reported barrier to help seeking by more than 75% of the students. The most frequently reported barriers in the seven

quantitative surveys were “stigma and discomfort discussing mental health problems, relying on self, and failure to perceive a need for help” (Gulliver et al., 2010, p.5). In a systematic review of the literature, Goodwin et al. (2016) addressed the beliefs of adolescents and young adults 13 to 25 years old without mental health problems about mental health services and care. Ten studies which included one case control study, two qualitative studies, and surveys were selected from the United States, South Africa, Japan, Kuwait, Ireland, and other countries. Goodwin et al. found that adolescents and young adults perceived psychiatric hospitals and some mental health professionals as unhelpful and the use of mental health care as a sign of weakness.

Help seeking is a process which may vary not only according to an individual’s intentions but also to relational attributes. The male attitude of self-reliance may make males with depression more susceptible than females to self-stigma from a perception of personal weakness which negatively impacts help seeking (Latalova et al., 2014). Individuals at risk for suicide may not seek help because of the perception of rejection in relationships, as well as difficulty in managing their anger and shame (Rasmussen, Haavind, Dieserud, & Dyregrov, 2014). Besides the stigma of shame being a barrier to help seeking, it may also be a risk factor for individuals with mental illness for suicide. Reynders et al. (2014) surveyed 2,999 individuals ages 18-65 years from the Netherlands and Flanders using posted questionnaires. Participants from the Netherlands had lower suicide rates, less self-stigma, and more positive attitude to help-seeking than participants in Flanders.

Sociodemographic Characteristics

Although stigma ideology or viewpoints about mental illness in communities affect help seeking behavior, attributions do not entirely account for this behavior. Mental illness may affect individuals of any age, religion, gender, socioeconomic, or educational status. Some researchers have found a positive relationship between help seeking attitudes towards mental health services and socio-demographic characteristics such as female gender, higher academic and socioeconomic status, and unmarried individuals (Clement et al., 2015; Picco et al., 2016; Reynders et al., 2014). Latalova et al. (2014) share their viewpoint that gender may influence help seeking based on the impact of cultural variances in attitudes among males and females when asking for help. Thompson et al. (2016) found in their analysis of the Canadian International Quality and Cost of Primary Care survey that although generally patients were less inclined to seek health care for mental than medical issues, women reported visits to a greater level than men for mental and physical health issues respectively. A study of stigmatizing attitudes toward help seeking behavior for mental health problems in China showed that female college students had more positive attitudes ($t = -2.601, p = 0.010$), intention ($t = -4.358, p = 0.000$), and help seeking behavior ($t = -8.597, p = 0.000$) than male students (Chen & Chandrasekara, 2016). Magaard, Seeralan, Schulz, and Brütt (2017) found in their systematic review of 40 observational studies, that being male, younger, or older, and lower educational levels probably reduced help seeking behavior.

The understanding of stigma may differ within various sociocultural contexts (Mantovani, Pizzolati, & Edge, 2017; Singh et al., 2016). Conner et al. (2010)

investigated the influence of public stigma and internalized stigma on racial differences in treatment-seeking attitudes and behaviors among 248 African American and White adults (84% F, 16% M) over 60 years old with depression. Only 56.6% of African American versus 80.5% of White participants reported being comfortable consulting with a mental health professional of another race. Conner et al. found no significant differences by race with respect to public stigma [$t(246) = -.58, p > .05$]. However, African Americans had significantly greater scores than White participants on the Internalized Stigma of Mental Illness Scale [$t(246) = -2.118, p > .035$]. Internalized stigma was significantly negatively associated with attitudes toward seeking mental health services, and significantly positively associated with intentions toward seeking mental health services for both races.

Andrade et al. (2014) in their evaluation of World Mental Health Surveys found that older individuals, men, and individuals with mild to moderate mental disorders were likely to be associated with a low perceived need for treatment. However, in a public survey of stigma in Canada with 10,389 participants, twice as many women (22%) as men (11%) received treatment for a mental illness. Williams (2013, 2014) found in studies of Jamaican adolescents that they were more inclined to pursue psychological support than African-Americans (Williams, 2013), and that factors such as increased age, and less rigid beliefs projected more progressive attitudes to getting psychological assistance (Williams, 2014).

Familiarity With Mental Illness or Services

Research has shown that sociodemographic characteristics may affect help seeking for mental illness among adolescents and adults, and familiarity with mental illness or mental health services may also influence help seeking. Utilization of mental health services can be influenced by factors related to the individual's previous contact with individuals with mental health illness, the extent of knowledge about mental health, previous treatment, personal satisfaction with mental health, and the influence of family and general practitioners (Gulliver et al, 2010; Rusch et al., 2011, 2014). Therefore, the effect of stigma on help seeking for mental health services may be moderated by factors related to contact or familiarity with mental illness or mental health services (Corrigan, Druss, & Perlick, 2014; Pescosolido, Medina, Martin, & Long., 2013).

Some researchers have included these factors in studies investigating the effect of various types of stigma on help-seeking. Results of some of these studies indicated that individuals who have used mental services before were more inclined to seek help (Henderson, Robinson, Evans-Lacko, & Thornicroft, 2017; Wrigley, Jackson, Judd, & Komiti, 2005). Henderson et al. (2017) analyzed data collected from 2012-2016 of a nationally representative sample from the Attitudes to Mental Illness Survey in England. They found that having experienced a mental health problem was a significant predictor of help seeking $OR = 1.82$; 95% CI [1.36, 2.43]. These results varied from those of Spence, Owens-Solari, and Goodyer (2016) in their qualitative study of 17 participants with a history of mental health referral and 12 with no history, aged between 20.1 and 22.2 years. The authors found that individuals with a history of referral were more likely

to use avoidant coping strategies and to self-stigmatize than those without, which may negatively influence help-seeking (Spence et al., 2016).

Associations between variables which may represent familiarity with mental illness and help seeking for mental health services may vary by gender or race. Results from a rapid response survey in Canada (Stuart et al., 2014) revealed that apart from women (22%) reporting having been treated for mental illness twice as much as males (11%), women were more likely to have previous contact with a close friend or family member, or work colleague who was treated for a mental illness. More than 33.3% of these individuals who received treatment in the past 12 months reported discrimination in one or more spheres of life (Stuart et al., 2014). Although Brown et al. (2010) in their survey of African American and White individuals found no significant association between depression stigma and treatment seeking behavior and attitudes, past mental health treatment was a significant covariate.

Mental Health Knowledge

There is support for a positive association between mental health knowledge and affirmative attitudes to obtaining professional help and services, but uncertainty as to whether subjective mental health literacy likewise influences help-seeking (Rusch et al., 2014). Rush et al. (2011) in their analysis of survey data from 1,751 adults in England found that knowledge of mental illness treatment was the most significant predictor of help-seeking and disclosure. Pescosolido et al. (2013) analyzed data from the Stigma in Global Context Mental Health Study of adults from 16 countries. More than two thirds of the respondents to the depression vignette approved help from a general medical doctor,

whereas with regards to the schizophrenia vignette approval of mental health professionals was among the items with the greatest public endorsement (Pescosolido et al., 2013).

Studies may vary with respect to findings about the association between mental health knowledge, stigma, and help seeking for mental health issues. Yokoya, Maeno, Sakamoto, Goto, and Maeno (2018) conducted a brief survey of public knowledge and stigma towards depression at four out-patient locations in the city of Kamisu, Japan, and found no association with health literacy. Regarding stigma about the cause of depression, 30.7% of respondents agreed that a weak personality caused depression. Participants (70.8%) who responded appropriately to the sentence evaluating stigma concerning the cause of depression tended to be in the younger age group of 18 -54 years (65.7% vs. 43.3%; $p < 0.001$) and female (59.5% vs. 45.1%; $p < 0.001$). Pescosolido et al. (2013) found in their assessment of stigma in terms of mental health knowledge and prejudice, that although generally the public viewed mental illness as other illness and disregarded moral deficits or weakness as reasons for mental illnesses, public prejudice was greater for schizophrenia than for depression. Cross-national differences were reported to different elements of stigma with respect to negative reactions to self-harm, and mental illness in children and families (Pescosolido et al., 2013).

Mental Health Professionals

Help seeking with the intention to start treatment may depend on acceptability with respect to mental illness stigma and cultural distrust. Other factors such as accessibility and availability of suitable culturally competent mental health providers are

also important (Reynders et al., 2014). Barney et al. (2006) conducted a study of a random sample of an Australian community of 1312 adults which showed the following associations of help seeking from a general practitioner and respective mental health providers: psychiatrist, $r = 0.40$, 95% CI [.36, .45]; psychologist, $r = .40$, 95% CI [.35, .45], counsellor, $r = 0.37$, 95% CI [.32, .41], and complementary practitioner ($r = .22$, 95% CI [.16, .27] Barney et al., 2006, p. 52). With respect to perceived stigma respondents anticipated unfavorable response from professionals as follows: general practitioners 20%, psychiatrists 17%, complementary practitioners 17%, psychologists 16%, and counsellors 16% (Barney et al., 2006, p. 53). Both perceived and self-stigma were significant predictors of decreasing the propensity to seek help from mental health professionals.

Mental health professionals and service providers may share the stigmatizing beliefs of the public with respect to dangerousness and irresponsibility, and this may negatively influence the quality of services delivered and help seeking experiences of individuals with mental illness (Corrigan & Shapiro, 2010; Friedrich et al., 2013; Hanafiah & Bortel, 2015). This may be due to the fact that in cases of serious mental illness service providers may usually interact with these individuals when they are disturbed (Corrigan & Shapiro, 2010). A qualitative study of health professionals in Malaysia revealed that some health workers engaged in labelling, pessimism, and disregard of physical complaints by individuals with mental illness (Hanafiah & Bortel, 2015). However, the Department of Health in England's Attitudes to Mental Illness Survey revealed that although help seeking intentions from a general practitioner for

mental illness were predicted by more knowledge about mental illness, and other factors such as older age, support for community care, and tolerance, it was not related to exclusion and prejudice (Rusch et al., 2011).

The biases of mental health professionals may also negatively influence help seeking for mental illness. Fifteen unemployed individuals with mental health problems in Germany who participated in a qualitative study expressed being considered “different” by health care professionals leading to evasion of help seeking (Staiger, Waldmann, Rüscher, & Krumm, 2017). Van Boekel, Brouwers, Weeghel, and Garretsen (2014) found in their study of healthcare professionals that biases to working with individuals with substance use disorders stemmed from the belief that they were responsible for their illness, resulting in fear and anger. Those feelings were more prevalent among general practitioners and general psychiatry professionals than among addiction specialists (Van Boekel et al., 2014). These attitudes of mental health professionals may or may not reflect societal beliefs. A survey of changes from 1990 to 2011 in the attitudes of individuals in Germany towards mental health treatment and individuals with mental illness showed that individuals were more accepting of treatment by mental health professionals (Angermeyer, Matschinger, & Schomerus, 2013). However, attitudes towards individuals with schizophrenia were more negative, whereas attitudes towards individuals with depression and alcohol dependence were inconclusive (Angermeyer et al., 2013).

Summary and Conclusions

This chapter described how public stigma against mental illness and familiarity with mental illness or mental health services can affect help seeking attitudes. Although researchers have studied different types of stigma, the aim of this study was to mainly focus on the stigma experienced by the public towards individuals with mental illness, also referred to as public, perceived or social stigma. Stigma involves attitudes and behavior, and persons refrain from seeking help for mental illness to avoid shame and discrimination. The application of attribution theory to this study is important because it highlights public stigma which in the context of help seeking is that someone who seeks psychological help will be perceived as socially unacceptable or undesirable by individuals in society. The TPB is important in providing the framework for predicting behavioral intentions which are influenced by attitudes and perceived social norms.

The literature review showed that stigma has been studied in developed and developing countries around the world, with the intention to develop strategies to combat stigma. Various types of stigma have been studied in many countries using various instruments. However, research findings on the relationship between stigma and help seeking behavior varied across studies based on the type of study and stigma, variables, instruments utilized, sample size, setting, and country. Studies of public and self-stigma have generally shown a negative effect on help seeking, though other studies have found the opposite or no relationship. However, findings may be mediated by other factors such as sociodemographic characteristics, variables representative of familiarity with mental

illness or mental health services, the mental illness being studied and their perceived causes, structural issues, and the culture of the community or country.

Research continues to inform evidence based anti-stigma strategies to improve the mental health and quality of life of individuals with mental illness. The literature review addressed research findings related to the variables public stigma, familiarity with mental illness, and attitudes towards help seeking in various countries. However, these dimensions of stigma have not been studied nor understood in the Bahamas. Stigma is influenced by psychological, cultural, and social factors; hence public stigma in the Bahamas may differ from regional and international countries. Cultural and sociodemographic characteristics of communities and countries do not permit one solution to combating the stigma against mental illness. Therefore, this study is important to fill the gap and dearth of information with respect to stigma and its effect on attitudes towards help seeking. This information is vital for the deinstitutionalization of mental health care and the appropriate use of resources in the development and implementation of evidence-based programs to address public stigma and facilitate help seeking in community settings. In Chapter 3, the research methodology with descriptions of the study design, study variables, research sample, research setting, data collection instruments, and procedures for confidentiality for participants and data analysis will be presented.

Chapter 3: Research Method

The purpose of this study was to assess associations and the effect of public stigmatized attitudes toward mental illness and familiarity with mental illness on attitudes toward seeking mental health services among individuals attending three community health clinics in the Bahamas. This cross-sectional quantitative study addressed the relationships between these variables and the effect of the independent variables on the dependent variable. The goal was to determine the significance of public stigma toward mental illness on help-seeking attitudes to guide strategies to address public stigma and enhance attitudes toward seeking mental health services.

In this chapter, I review the research design and rationale, followed by the methodology including the study population, research instruments, and data analysis and management plan. Subsequent sections address internal and external threats to validity and protection of human subjects through ethical procedures. A summary is provided at the end of the chapter.

Research Design and Rationale

This study was a quantitative observational study with a cross-sectional design. Public stigma toward mental illness and familiarity with mental illness were the independent variables, and attitudes toward seeking mental health services was the dependent variable. Sociodemographic data were covariates. Quantitative cross-sectional studies have been used to study mental illness stigma and help-seeking attitudes (Kauer et al., 2017; Lin, Oveisi, Burri, & Pakpour, 2017; March et al., 2018). Quantitative findings are valuable in the public health context for health services planning (Bowden, 2011;

Pandis, 2014). A quantitative cross-sectional design was chosen because it facilitated the study of many variables about a sample of individuals attending three community health clinics at one point in time. Cross-sectional studies are economical to study large samples of individuals where no follow-up is required (Mann, 2003).

I also evaluated hypotheses with respect to associations between public stigma toward mental illnesses, familiarity with mental illness, and attitudes toward seeking mental health services. The correlational approach in the analysis of data facilitated evaluation of the strength of the relationships between the independent variables and the dependent variable and the potential to identify predictive factors of the dependent variable (see Stangor, 2014). Other observational designs such as case control study or cohort study were deemed unsuitable. A case control study was not appropriate because public stigma toward mental illness was not a new phenomenon and data would not have been collected retrospectively (see Mann, 2003). A cohort design was not appropriate because the focus of this study was not to differentiate cause and effect or to assess incidence and prognosis (see Mann, 2003).

Study Population

The study population consisted of individuals attending three community clinics in the Bahamas. Data from the 2010 census showed that 85% (297,697) of the total population of the Bahamas 351,461 (181,204 female; 170,257 male) resided in New Providence (246,329) and Grand Bahama (51,368). For the age group 18 years and older, 167,023 (88,617 female; 78,406 male) lived in New Providence, and 34,288 (17,968

female; 16,320 male) lived in Grand Bahama (Bahamas Department of Statistics, 2012).

Clinics that could facilitate mental health referrals were selected.

Sampling Procedure

Sampling Strategy

A convenience sampling strategy was used to obtain the estimated sample size for this study from the community clinics. The convenience sample included individuals in the waiting room of the respective clinics waiting to be seen by physicians. Inclusion criteria for this study were individuals 18 years and over who could read English and gave consent to participate in the study. Exclusion criteria were individuals less than 18 years old and those who could not read English or did not give consent. Approval to conduct the study was obtained from the Research/ Ethics Committee, Commonwealth of the Bahamas Institutional Review Board, and the IRB of Walden University before conducting the study.

Statistics from the Health Information and Research Unit on attendance at community clinics are provided in terms of yearly encounters and not in terms of the number of persons attending the clinics. Individuals do not necessarily attend the clinics closest to where they live. Therefore, the ratio of distribution of participants for this study was based on the population distribution for the age group 18 years and over.

Sample Size

An appropriate sample size representative of the sampling population was chosen. This enhanced external validity and facilitated statistical inferences from sample statistics to the sampling population (see Frankfort-Nachmias & Nachmias, 2008). Clement et al.

(2015) conducted a meta-synthesis of quantitative and qualitative studies assessing the impact of mental-health-related stigma on help seeking. Clement et al. found in the studies associations between stigma and help seeking with a median effect size of -0.27 (range -0.273 to 0.34). Effect sizes f^2 for Cohen's d are small = $.02$, medium = $.15$, and large = $.35$ (Cohen, Cohen, West, & Aiken, 2003). An adequate sample size is essential to achieve ethical and valid results (Kadam & Bhalerao, 2010).

The aim of this study was to evaluate associations and the effect of public stigma and familiarity with mental illness on attitudes toward seeking mental health services. In this study a power of 95% and a $p < 0.05$ was accepted as significant. Therefore, 1 in 5 times a real difference may be missed resulting in a type II error of a false negative result. Also, a false positive result may occur 5% of the time resulting in a type I error (Kadam & Bhalerao, 2010). A minimum sample size of 359 was required to verify a significant result ($p < 0.05$) with adequate power (95%) to detect at least a small effect size of $.07$ for 10 independent variables in multiple regression analysis. This sample size was obtained with both the formula for calculation based on G*Power 3.1 sample size calculation for linear multiple regression fixed model, R^2 deviation from 0, (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner, 2007) and the a priori sample size calculation for multiple regression (Soper, 2018).

Procedures

I collected data from participants using the self-administered questionnaire. Participants who were clients attending the participating clinics were recruited while they were in the waiting area of the respective clinics. Once they met the inclusion criteria the

purpose and nature of the study, benefits and risks were explained in private. They were given the consent form to read and then asked if they had any questions. They were invited to participate and if they consented, participants were informed that withdrawal was permissible at any time and were notified that should any emotional distress be experienced while filling out the questionnaire, a referral would be facilitated to a clinician at the respective clinic. A signature was not required, but participants had the option to keep the consent form. They were instructed to place the questionnaire on completion in a sealed, secured box with a slot. The box was collected at the end of the day, and questionnaires were secured in a filing cabinet in my office. Data will be destroyed 5 years after completion of the study.

Instrumentation and Operationalization of Constructs

The questionnaire consisted of four sections pertaining to sociodemographic data, familiarity with mental illness data, the AQ-9, and the IASMHS respectively. Research questions about stigma and help-seeking attitudes toward mental health services were guided by attribution theory (Schmidt & Weiner, 1988) and TPB (Ajzen, 1991, 2002) and were assessed respectively using the AQ-9 and the IASMHS. These instruments are in the public domain, but authorization to use them was sought from the respective developers and was granted.

Section 1: Sociodemographic Data

Section 1 consisted of sociodemographic data inclusive of gender, age, ethnicity, religion, marital status, employment status, and educational attainment which may be confounding variables. Gender was defined by male or female. Age was measured as a

continuous variable. Ethnicity was measured by five categories: Black, White, East Indian, Asian, Other; Religion was measured by four categories: Christian, Hindu, Rastafarian, None, Other; Marital Status was measured by four categories; Married/Common-law relationship, Separated/Widowed/Divorced, Single, Other; Employment status was measured by three categories: Part-time, Full-time, Not employed; and Educational attainment was measured by four categories: Primary (Grades 1-8), Secondary (Grades 9-12), Technical/Vocational, College/University.

Section 2: Familiarity With Mental Illness

Section 2 included familiarity with mental illness variables selected by the researcher based on the information in the literature review of being potential covariates due to influence on help seeking for mental health services. This variable consisted of three questions. The first question asked, “Do you know anyone who had experienced a mental health problem?” Response options included “yes” or “no”. The second question asked, “Have you ever sought help for a mental health problem?” Response options included “yes” or “no” The third question asked, “Who would you seek help from for a mental health problem?” Response options included either “pastor, priest, or religious counselor”, “a family member or a close friend”; “a doctor, psychologist or counselor”, “an herbalist or spiritualist”, and “no one.”

Section 3: Attribution Questionnaire-9

The AQ-9 which is a self-administered assessment of stigmatizing attitudes and beliefs toward people with mental illness developed by Patrick Corrigan was used in this study (Corrigan, Powell, & Michaels, 2014; Pinto, Hickman, Logsdon, & Burant, 2012).

The AQ -9 presents a vignette about Harry, a single 30-year-old man who has schizophrenia. The use of a vignette may decrease social desirability bias since information is elicited about a hypothetical situation presented instead of about past or present behaviors (Parcesepe & Cabassa, 2012). The AQ -9 has been used to study attitudes towards individuals with mental illness (Zaninotto et al., 2018), public stigma towards individuals with drug addiction (Sattler, Escande, Racine, & Goritz, 2017), and public stigma towards an individual portrayed to have schizophrenia (Sheehan et al., 2016).

Scoring. The AQ-9 included nine items which represented pity, dangerousness, fear, blame, segregation, anger, help, avoidance, and coercion (Corrigan, Powell, & Michaels, 2014; Pinto et al., 2012). Participants indicated their attitudes and beliefs towards Harry in reference to the 9 items (Patrick Corrigan Illinois Institute of Technology, 2012). AQ-1 was pity, AQ-2 was dangerousness, AQ-3 was fear, AQ-4 was blame, AQ-5 was segregation, AQ-6 was anger, AQ-7 was help, AQ-8 was avoidance, and AQ-9 was coercion. The response to each item was evaluated with a nine-point Likert scale of “not at all” to “very much” for items 1 to 6 and 8 and 9, and with a nine-point Likert scale of “definitely would help” to “definitely would not help” for item 7.

The total AQ-9 score could range from nine to 81 with the score increasing as the stigmatizing attitudes towards individuals with mental illness increases. These factors represent judgments (dangerousness, blame), emotional responses (pity, fear, anger), and behaviors (help, coercion, segregation, and avoidance) associated with stigma, indicating the individual’s belief about the attitude of others. The higher the score, the more the

factor was being approved by the respondent (Patrick Corrigan Illinois Institute of Technology, 2012).

Validity and reliability. Internal consistencies and test-retest reliabilities obtained from college students, community members, health care providers, and mental health providers for the AQ-9 were all significant at $p < 0.001$ (Corrigan, Powell, & Michaels, 2014). The AQ-9 showed a significant negative association with the Recovery Assessment Scale (two of four groups), Empowerment Scale (four of four groups), and Self-Determination Scale (three of four groups) scores for eight of 12 correlations (Corrigan, Powell, & Michaels, 2014).

Section 4: Inventory of Attitudes Toward Mental Health Services

The Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS) has been self-administered by research participants (Mackenzie, Gekoski, & Knox, 2006). The IASMHS was an improvement to Fischer and Turner's (1970) Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS). In keeping with the theory of planned behavior items were added to include subjective norms and perceived behavioral control such as intentions to become involved in psychological counselling (Hyland et al., 2014), and professionals included individuals competent of dealing with mental health problems (Mackenzie et al., 2004).

Scoring. The IASMHS was used to measure the dependent continuous variables represented by the total score and subscale scores of the IASMHS. The instrument has 24 items and three internally consistent subscales: psychological openness, indifference to stigma, and help-seeking propensity. Psychological openness refers to the degree to

which an individual is open to acknowledging psychological problems. Indifference to stigma refers to how concerned individuals would be should significant others find out they are seeking psychological help. Help seeking propensity indicates the degree of willingness and ability to seek psychological help (Mackenzie et al., 2004). Each subscale has eight items and are scored on a 5-point Likert scale from 0 = disagree to 4 = agree on the 24 items. Psychological openness included items 1, 4, 7, 9, 12, 14, 18, and 21, indifference to stigma included items 3, 6, 11, 16, 17, 20, 23, and 24, and help-seeking propensity included items 2, 5, 8, 10, 13, 15, 19, and 22. Psychological openness and indifference to stigma were reverse-scored scales. Therefore, the IASMHS scale generated a total attitude towards seeking mental health services (ATSMHS) score and three subscale scores. Higher scores signify more psychological openness, less concern about stigma, and more help seeking propensity (Mackenzie et al., 2004).

Validity and reliability. A study with 293 university undergraduates reproduced the 3-factor model using confirmatory factor analysis with the factor correlation ranging from $r = .26$ to $.43$, and another study with 23 student volunteers showed test-retest reliability (Mackenzie et al., 2004). Another study of 208 adult volunteers confirmed the three-factor structure of the IASMHS. The three subscales accounted for 43% of the variance and have shown good internal consistency coefficients of $.82$, $.76$, and $.79$ for psychological openness, help-seeking propensity, and indifference to stigma respectively (Hyland et al., 2015). The instrument's validity is demonstrated by the ability of the IASMHS to differentiate between individuals who may or may not have used mental

health services in the past, and those desirous of using these services prospectively (Mackenzie et al., 2004).

This IASMHS also measures several constructs of the theory of planned behavior, inclusive of intentions to become involved in psychological counselling (Hyland et al., 2015). The questions are about seeking professional help for psychological problems without reference specifically to psychiatrists and psychologists. Hyland et al. (2015) studied 331 Irish police officers. Confirmatory factor analysis of data confirmed the three-factor structure of the IASMHS, which showed exceptional internal reliability. All factor loadings were positively statistically significant (Hyland et al., 2015). Structural equation modelling indicated that help seeking propensity ($B = .51, p = < .001$) was the highest predictor of intentions to seek psychological counselling, seconded by ($B = .25, p = < .05$) psychological openness. Composite reliability scores were (.70) psychological openness, (.70) help seeking propensity, and (.77) indifference to stigma (Hyland et al., 2015).

Data Management

The Statistical Package for Social Sciences Version 25 was used to analyze data. All questionnaires were assigned an identification number since contact information was not requested to ensure anonymity. Data was coded and entered into Microsoft Excel software which was also used to calculate the total and subscale scores of the IASMHS and the AQ-9 total scores. Subsequently, data was cleaned by looking for any misspelling or missing or duplicated data and ensuring that correct formulas were used for reverse scored items before extracting the data to Statistical Package for Social Sciences 25. Then

data was saved on my computer and to an external drive which were both password protected. Data will be destroyed after five years.

Data Analysis

Descriptive Statistics

Descriptive statistics characterizing the sample included sociodemographic data in the questionnaire such as gender, age, ethnicity, religion, marital status, employment status, educational attainment, and the categorical variables for familiarity with mental illness. Categorical variables were described in terms of frequency (percentage) and quantitative variables in terms of mean and standard deviation. Scores for the continuous variable public stigma and the ATSMHS scores and subscales scores were generated. Respective means and distributions were examined for normality.

Inferential Statistics/Hypothesis Testing

In this study public stigma, sociodemographic variables, and familiarity with mental illness variables were the independent variables, and ATSMHS scores and subscales scores were the dependent variables. Inferential analyses such as Pearson's correlation coefficient, independent t-tests, one-way analysis of variance (ANOVA) were performed to evaluate the associations between independent and dependent variables; and multiple regression analysis to evaluate predictors of the dependent variable.

Research Question 1: Is there an association between gender, age, ethnicity, religion, marital status, employment status, educational attainment respectively and ATSMHS scores and subscale scores?

H_01 : Gender, age, ethnicity, religion, marital status, employment status, and educational attainment respectively do not have a statistically significant association with ATSMHS scores and subscale scores.

H_a1 : Gender, age, ethnicity, religion, marital status, employment status, educational attainment respectively have a statistically significant association with ATSMHS scores and subscale scores.

To test RQ 1 which is the association between sociodemographic variables and the ATSMHS scores and subscale scores, bivariate analyses such as Independent Samples t- Tests was used to evaluate differences by gender (male, female); Pearson product moment correlation was used to evaluate the association between the quantitative variables age and ATSMHS scores and subscale scores; and one-way ANOVA was used to evaluate the associations between ATSMHS scores and subscale scores and the independent variables with more than two categories such as ethnicity (Black, White, East Indian, Asian, and Other), religion (Christian, Hindu, Rastafarian, None, Other), marital status (married/common-law relationship, separated/widowed/ divorced, single, and other), employment status (part-time, full-time, not employed), and educational attainment (primary, secondary, technical/vocational, college/university).

Research Question 2: Is there an association between knowing anyone who has experienced a mental health problem and ATSMHS scores and subscale scores?

H_02 : Knowing anyone who has experienced a mental health problem does not have a statistically significant association with ATSMHS scores and subscale scores.

H_{a2}: Knowing anyone who has experienced a mental health problem has a statistically significant association with ATSMHS scores and subscale scores.

To test RQ 2, Independent sample t-tests were used to evaluate differences in ATSMHS scores, and subscale scores based on knowing anyone who has experienced a mental health problem.

Research Question 3: Is there an association between public stigma scores and ATSMHS scores and subscale scores?

H₀₃: Public stigma scores do not have a statistically significant association with ATSMHS scores and subscale scores.

H_{a3}: Public stigma scores have a statistically significant association with ATSMHS scores and subscale scores.

To test RQ 3, Pearson's correlation coefficient was used to evaluate the association between the continuous variables public stigma scores and ATSMHS scores and subscale scores.

Research Question 4: To what extent do public stigma scores and knowing anyone who has experienced a mental health problem predict ATSMHS scores and subscale scores?

H₀₄: Public stigma scores and knowing anyone who has experienced a mental health problem do not significantly predict ATSMHS scores and subscale scores.

H_{a4}: Public stigma scores and knowing anyone who has experienced a mental health problem significantly predict ATSMHS scores and subscale scores.

To test RQ 4, multiple regression analysis was used to analyze the relationship between public stigma scores, knowing anyone who has experienced a mental health problem, and attitudes towards seeking mental health services scores independently and in a complete model after adjusting for potential confounding sociodemographic variables (Chen & Chandrasekara, 2016; Jennings et al., 2015; Yoshioka et al., 2014). The coefficient of determination, R^2 specified the percentage of variation attributed to all the independent variables in the multiple regression equation, whereas the adjusted R^2 considered only the independent variables significantly contributing to the model (see Frankfort-Nachmias & Nachmias, 2008).

Ethical Procedures

Ethical approval for this research proposal was sought from both the Research/Ethics Committee, Commonwealth of the Bahamas IRB and the IRB of Walden University in order to proceed with the study. To ensure anonymity and the privacy of the participants, personal identification information such as name, date of birth, address, and contact number were not documented. Hence, no information will be traceable to any participant. Participants had to give consent to participate. The consent form indicated the purpose and benefits of the study, that the participants' rights would be protected, that information collected would be kept confidential and anonymous, and that the participant could refuse to participate or withdraw at any point in the study without any repercussions.

The survey instrument asked for sociodemographic data and questions about familiarity with mental illness, participants' views about a vignette which described a

man with symptoms of schizophrenia, and about their attitudes towards seeking mental health services. Data collected was protected as described under data analysis. The researcher was not affiliated with any of the clinics participating in this study. This study did not expose participants to direct risk, and should a participant experience any emotional reaction, appropriate referral could be facilitated.

Summary

In this chapter, I described the methodology that was used to address the research questions for this cross sectional quantitative study. The relationship between public stigma towards mental illness, familiarity with mental illness, and attitudes towards seeking mental health services were examined taking into consideration possible confounding factors. Participants were from three community health clinics in the Bahamas. The self-administered questionnaire had four sections pertaining to sociodemographic data, familiarity with mental illness, the Attribution Questionnaire, and the Inventory of Attitudes toward Seeking Mental Health Services. The process of data collection and analysis was explained, highlighting that the process was respectful and ethical, with due consideration to do no harm to participants and to protect their rights and the data that was collected. In Chapter 4, I will present results from analyses of the data.

Chapter 4: Results

The purpose of this quantitative study was to assess associations between sociodemographic characteristics, public stigma, familiarity with mental illness, and attitudes towards seeking mental health services among individuals attending three community health clinics in the Bahamas. The goal was to determine the significance of public stigma and familiarity with mental illness on ATSMHS. This chapter includes the research questions and corresponding null and alternative hypotheses, as well as the results of the study.

Research Questions and Hypotheses

RQ1: Is there an association between gender, age, ethnicity, religion, marital status, employment status, educational attainment respectively and attitude toward seeking mental health services (ATSMHS) scores and subscale scores?

H_01 : Gender, age, ethnicity, religion, marital status, employment status, and educational attainment respectively do not have statistically significant associations with ATSMHS scores and subscale scores.

H_a1 : Gender, age, ethnicity, religion, marital status, employment status, and educational attainment respectively have statistically significant associations with ATSMHS scores and subscale scores.

RQ2: Is there an association between knowing anyone who had experienced a mental health problem and ATSMHS scores and subscale scores?

H_02 : Knowing anyone who had experienced a mental health problem does not have a statistically significant association with ATSMHS scores and subscale scores.

H_{a2}: Knowing anyone who had experienced a mental health problem has a statistically significant association with ATSMHS scores and subscale scores.

RQ3: Is there an association between public stigma scores and ATSMHS scores and subscale scores?

H₀₃: Public stigma scores do not have a statistically significant association with ATSMHS scores and subscale scores.

H_{a3}: Public stigma scores have a statistically significant association with ATSMHS scores and subscale scores.

RQ4: To what extent do public stigma scores and knowing anyone who has experienced a mental health problem predict ATSMHS scores and subscale scores?

H₀₄: Public stigma scores and knowing anyone who has experienced a mental health problem do not significantly predict ATSMHS scores and subscale scores.

H_{a4}: Public stigma scores and knowing anyone who has experienced a mental health problem significantly predict ATSMHS scores and subscale scores.

Data Collection

Data collection began on October 7, 2019 after receiving IRB approval from Walden University on September 20, 2019 (# 09-20-19-0380869) and continued until January 6, 2020. The data collection was conducted as described in Chapter 3. The response rate was 96%; 14 individuals who were approached declined to participate in the study. Eight of the returned surveys were incomplete and were removed from the data set. Data from 366 participants were available for analysis.

Descriptive Statistics

Sociodemographic Characteristics of the Study Sample

The sample consisted of 366 participants, most of whom were female (76.8%, $n = 281$) and the remaining 23.2% were male ($n = 85$). The ages of the participants ranged from 18 to 83 years old ($N = 363$, $M = 45.09$, $SD = 15.40$). Most participants reported their ethnicity as Black 96.2% ($n = 352$), followed by White 2.5% ($n = 9$), and most reported being Christian (89.9%, $n = 328$), followed by 6.8% ($n = 25$) who reported having no religion (see Table 1). Most participants were single (45.7%, $n = 166$), followed by married/common-law relationship (39.1%, $n = 142$). Most were engaged in full-time employment (62%, $n = 227$), and the highest level of education achieved was secondary (41.8%, $n = 151$), followed by college/university (39.1%, $n = 141$) (see Table 2). The ratio of males to females was lower than the general population ratio of 92-95 males per 100 females. The distribution by ethnicity and educational attainment was in keeping with data from the 2010 census (see Bahamas Department of Statistics, 2012).

Table 1

Participants' Sociodemographic Characteristics

	Frequency	Percent	Valid percent
Ethnicity			
Black	352	96.2	96.2
White	9	2.5	2.5
East Indian	2	.5	.5
Asian	2	.5	.5
Other	1	.3	.3
Total	366	100	100
Religion			
Christian	328	89.6	89.6
Hindu	3	.8	.8
Rastafarian	2	.5	.5
None	25	6.8	6.8
Other	7	1.9	1.9
Total	365	99.7	100
Missing	1	.3	
Total	366	100	
Marital status			
Married//common-law	142	38.8	39.1
Separated/widowed/Divorced	55	15	15.2
Single	166	45.4	45.7
Total	363	99.2	100
Missing	3	.8	
Total	366	100	

Table 2

Participants' Employment Status and Level of Education

	Frequency	Percent	Valid percent
Employment			
Part-time	29	7.9	7.9
Full-time	227	62.0	62.0
Not employed	110	30.1	30.1
Total	366	100	100
Education			
Primary (Grades 1-8)	7	1.9	1.9
Secondary (Grades 9-12)	151	41.3	41.8
Technical/vocational	62	16.9	17.2
College/university	141	38.5	39.1
Total	361	98.6	100
Missing	5	1.4	
Total	366	100	

Familiarity With Mental Illness

Most participants reported “Yes” (70.5%, $n = 258$) (see Table 3) to the question “Do you know anyone who experienced a mental health problem,” and most reported “No” (84.7%, $n = 309$) (see Table 4) to the question “Have you ever sought help for a mental health problem.” Most of the participants (59.3%, $n = 214$) reported that they would first seek help for a mental health problem from “A doctor, psychologist, or counselor,” and the least number of participants (2.5%, $n = 9$) would first seek help from an herbalist/spiritualist (see Table 5).

Table 3

Knew Some Who Experienced Mental Health Problem

	Frequency	Percent	Valid percent	Cumulative percent
Yes	258	70.5	70.5	70.5
No	108	29.5	29.5	100.0
Total	366	100.0	100.0	

Table 4

Sought Help for a Mental Health Problem

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Yes	56	15.3	15.3	15.3
	No	309	84.4	84.7	100.0
	Total	365	99.7	100.0	
Missing	999	1	.3		
Total		366	100.0		

Table 5

Whom Participants First Seek Help From for a Mental Health Problem

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Pastor/Priest/Religious Counselor	57	15.6	15.8	15.8
	Family Member/Close Friend	69	18.9	19.1	34.9
	Doctor/Psychologist/Counselor	214	58.5	59.3	94.2
	Herbalist/Spiritualist	9	2.5	2.5	96.7
	No One	12	3.3	3.3	100.0
	Total	361	98.6	100.0	
	Missing	999	5	1.4	
Total		366	100.0		

Public Stigma

The mean scores for the subscales of the AQ-9 were; pity 6.7 ($SD = 2.4$); dangerousness 6.2 ($SD = 2.4$); fear 5.4 ($SD = 2.8$); blame 2.3 ($SD = 2.2$); segregation 4.2 ($SD = 2.8$); anger 2.3 ($SD = 2.1$); help 3.6 ($SD = 2.8$); avoidance, 3.5 ($SD 2.5$); and coercion, 6.5 ($SD 2.7$). The most frequent responses to items of the Attribution Questionnaire (AQ-9) were as follows: “I would feel pity for Harry story” – very much (34.7%, $n = 127$); “How dangerous you would feel Harry is?” – very much (23.2%, $n = 85$); “How scared of Harry would you feel?” – very much (20.5%, $n = 75$); “I would think that it was Harry’s own fault that he is in the present condition” – not at all (61.2%, $n = 224$); “I think it would be best for Harry’s community if he were put away in a psychiatric hospital” – not at all (28.2%, $n = 103$), “How angry would you feel at Harry?”

– not at all (60.3%, 220), “How likely is it that you would help Harry?” definitely would help (40.1%, $n = 146$); “I would try to stay away from Harry” not at all (32%, 117); and “How much do you agree that Harry should be forced into treatment with his doctor even if he does not want to?” very much (38.5%, 141) (see Appendix B).

Attitudes Toward Seeking Mental Health Services

The mean scores for the IASMHS Likert scale total and subscales were the following, ATSMHS total score 65.6 ($SD = 12.4$); psychological openness 20.2 ($SD = 6.4$); indifference to stigma 20.3($SD = 6.2$); and help seeking propensity 25.2 ($SD = 5.7$). The sample descriptive with respect to responses to the ATSMHS scale is illustrated in Table 6. The majority of the responses to the 24 items were “agree” except for item 1, item 6, item 14, and item 23 (See Table 6).

Table 6

Descriptive Statistics of Items in IASMHS Likert Scale

	Disagree 0	Somewhat disagree 1	Are undecided 2	Somewhat agree 3	Agree 4
Item 1	142 (38.9%)	83 (22.7%)	16 (4.4%)	52 (14.2%)	72 (19.7%)
Item 2	20 (5.5%)	23 (6.3%)	25 (6.8%)	79 (21.6%)	218 (59.7%)
Item 3	23 (6.3%)	23 (6.3%)	22 (6%)	33 (9%)	265 (72.4%)
Item 4	76 (20.8%)	69 (18.9%)	25 (6.8%)	53 (14.5%)	143 (39.1%)
Item 5	12 (3.3%)	11 (3%)	17 (4.6%)	68 (18.6%)	258 (70.5%)
Item 6	92 (25.1%)	115 (31.4%)	20 (5.5%)	33 (9%)	106 (9%)
Item 7	27 (7.4%)	20 (5.5%)	23 (6.3%)	46 (12.6%)	250 (68.3%)
Item 8	21 (5.7%)	23 (6.3)	53 (14.5%)	104 (28.4%)	165 (45.1%)
Item 9	31 (8.5%)	40 (10.9%)	15 (4.1%)	66 (18%)	214 (58.5%)
Item 10	17 (4.6%)	16 (4.4%)	19 (5.2%)	73 (19.9%)	240 (65.5%)
Item 11	34 (9.3%)	64 (17.5%)	41 (11.2%)	59 (16.1%)	167 (45.6%)
Item 12	22 (6%)	32 (8.7%)	22 (6%)	68 (18.6%)	222 (60.7%)
Item 13	35 (9.6%)	56 (15.3%)	29 (7.9%)	85 (23.2%)	161 (44%)
Item 14	116 (31.7%)	83 (22.7%)	24 (6.6%)	44 (12%)	98 (26.8%)
Item 15	36 (9.8%)	26 (7.1%)	34 (9.3%)	6 (20.8%)	193 (52.7%)
Item 16	27 (7.4%)	59 (16.1%)	22 (6%)	74 (20.2%)	184 (50.3%)
Item 17	73 (19.9%)	92 (25.1%)	34 (9.3%)	51 (13.9%)	115 (31.4%)
Item 18	80 (21.9%)	73 (19.9%)	47 (12.8%)	66 (18%)	98 (26.8%)
Item 19	24 (6.6%)	28 (7.7%)	34 (9.3%)	70 (19.1%)	210 (57.4%)
Item 20	26 (7.1%)	61 (16.7%)	24 (6.6%)	60 (16.4%)	195 (53.3%)
Item 21	39 (10.7%)	40 (10.9%)	24 (6.6%)	90 (24.6%)	173 (47.3%)
Item 22	23 (6.3%)	23 (6.3%)	36 (9.8%)	74 (20.2%)	210 (57.4%)
Item 23	125 (34.2%)	87 (23.8%)	50 (13.7%)	42 (11.5%)	60 (16.4%)
Item 24	34 (9.3%)	52 (14.2%)	25 (6.8%)	51 (13.9%)	204 (55.7%)

Analysis of Research Question 1

Gender

An Independent-Samples t Test was conducted to evaluate the hypothesis that there is an association between gender and respective ATSMHS score and subscales scores. Levene's test was not significant for all the dependent variables, therefore equal variance for males and females can be assumed. There was no significant difference between the ATSMHS mean scores for males and females, $t(364) = 1.68, p = .09$, no significant difference between the psychological openness mean scores for males and females, $t(364) = 1.59, p = .11$, and no significant difference between the indifference to stigma mean scores for males and females, $t(364) = -1.05, p = .29$. The difference between the help seeking propensity mean scores for males and females was statistically significant $t(364) = 3.02, p = .003$ (see Table 7).

Taking into consideration the significant difference between the sample size of males and female the t value that does not assume equal variances is also significant $t(124.88) = 2.80, p = .006$. The 281 female participants ($M = 25.65, SD = 5.48$) had significantly higher help seeking propensity mean scores than the 85 male participants ($M = 23.53, SD = 6.30$), 95% CI [.62, 3.62] (see Table 8). The effect size eta squared (η^2) = $t^2 / t^2 + df = 7.84 / 132.719 = .06$. The null hypothesis was rejected with respect to differences between gender and help seeking propensity. Female participants were more inclined than males to seek help for mental health problems.

Table 7

Independent Samples Test

		Levene's test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2- tailed	Mean differ ence	Std. error differ ence	95% Confidence interval of the difference	
									Lower	Upper
TotalScore _ATSMHS	Equal variances assumed	.449	.503	1.678	364	.094	2.57082	1.53167	-.44121	5.58285
	Equal variances not assumed			1.624	132.124	.107	2.57082	1.58294	-.56037	5.70201
Psych Openness _Score	Equal variances assumed	.018	.892	1.585	364	.114	1.25305	.79051	-.30149	2.80758
	Equal variances not assumed			1.596	140.168	.113	1.25305	.78512	-.29917	2.80526
Indifference to_Stigma _Score	Equal variances assumed	2.925	.088	-1.054	364	.293	-.80406	.76278	-2.30407	.69595
	Equal variances not assumed			-1.132	156.059	.260	-.80406	.71051	-2.20753	.59940
Help Seeking Propensity _Score	Equal variances assumed	3.682	.056	3.018	364	.003	2.12183	.70316	.73907	3.50460
	Equal variances not assumed			2.801	124.879	.006	2.12183	.75763	.62238	3.62128

Age

Pearson correlation coefficient was used to evaluate the association between age and the ATSMHS score and subscale scores. Results for Pearson product-moment correlation coefficient (r) analysis between the 363 participants' age ($M = 45.09$, $SD = 15.40$) and ATSMHS scores ($M = 65.57$, $SD = 12.40$) showed a small positively

statistically significant association ($r = .16, p < .01$). With respect to subscale scores, age had a small positively statistically significant association ($r = .11, p < .05$) with the psychological openness scores ($M = 20.15, SD = 6.40$), no statistically significant association ($r = -.02, p = .65$) with indifference to stigma scores ($M = 20.27, SD = 6.16$); and a small positive significant association ($r = .25, p < .01$) with help seeking propensity scores ($M = 25.16, SD = 5.74$) (see Tables 9). The null hypothesis was rejected with respect to the relationship between age and ATSMHS, psychological openness, and help seeking propensity respectively. Hence, as individuals got older, they were more inclined to be psychologically open, to seek help, and have positive attitudes towards seeking mental health services.

Table 8

Group Statistics

	Participants sex	N	Mean	Std. deviation	Std. error mean
TotalScore_ATSMHS	Female	281	66.1708	12.19101	.72725
	Male	85	63.6000	12.96258	1.40599
PsychOpenness_Score	Female	281	20.4413	6.40460	.38207
	Male	85	19.1882	6.32360	.68589
Indifferenceto_Stigma_Score	Female	281	20.0783	6.33479	.37790
	Male	85	20.8824	5.54723	.60168
HelpSeekingPropensity_Score	Female	281	25.6512	5.48043	.32693
	Male	85	23.5294	6.30115	.68346

Table 9

Correlations of Age by ATSMHS Scores and Subscale Scores

		Total score_ ATSMHS	Psych openness _score	Indifference to stigma_score	Help seeking propensity _score
Participants age (years)	Pearson correlation	.158**	.105*	-.024	.252**
	Sig. (2-tailed)	.003	.047	.653	.000
	N	363	363	363	363

♦Correlation significant at the 0.05 level, **Correlation significant at the 0.01 level

Associations Between Independent Variables and ATSMHS Scores and Subscale Scores

A multi-way ANOVA was conducted to evaluate the relationship between the independent variables; ethnicity, religion, marital status, employment status, and educational attainment and the respective ATSMHS total score and subscale scores. With respect to the independent variable ethnicity included five levels, religion included five levels, marital status included four levels, employment included three levels, and educational attainment included four levels.

Associations With ATSMHS Scores

Table 10

ATSMHS Levene's Test of Equality of Error Variance

		Levene statistic	df 1	df 2	Sig
TotalScore_ATSMHS	Based on Mean	1.265	31	298	.164

Tests the null hypothesis that the error variance of the dependent variable is equal across groups. a. Dependent variable: TotalScore_ATSMHS

Table 11

ATSMHS Tests of Between-Subjects Effects

Source	Type III Sum of squares	df	Mean square	F	Sig	Partial eta squared
Corrected Model	14557.31	58	250.988	1.820	.001	.262
Intercept	72523.992	1	72523.992	525.851	.000	.638
Ethnicity	903.761	4	225.940	1.638	.165	.022
Religion	1424.771	4	356.193	2.583	.037	.034
Marital status	89.299	2	44.650	.324	.724	.002
Employment Status	621.996	2	310.998	2.255	.107	.015
Education	1373.852	3	457.951	3.320	.020	.032
Error	41099.346	298	137.917			
Total	1595343.0	357				
Corrected Total	55656.655	356				

a. R Squared = .262 (Adjusted R Squared = .118)

The Lavene's test was not significant, $F(31, 298) = 1.27, p = .16$ for the dependent variable ATSMHS, hence the equality of variances assumption was not violated (see Table 10). All the aforementioned independent variables accounted for 11.8% of the variance in ATSMHS scores. However, the ANOVA for the differences in

group means on the dependent variable ATSMHS was only significant for religion, $F(4, 298) = 2.58, p = .04$ and education, $F(3, 298) = 3.32, p = .02$. Religion accounted for 3.4% and education for 3.2% of the variance in ATSMHS score respectively (see Table 11). Therefore, the null hypothesis was rejected for religion and education.

Post hoc comparisons using the LSD test were conducted to evaluate pairwise differences among the means. Results indicated that the mean difference for participants who attained a college/university education was significantly higher than those who attained a secondary grade education, $p = .04, MD = 2.84, SE = 1.38; 95\% CI [.12, 5.56]$, or a technical/vocational education, $p = .04, MD = 3.69, SE = 1.80; 95\% CI [.14, 7.24]$ (see Figure 2). With respect to religion, the mean difference for participants who were Christians was significantly higher than those who were Hindu, $p < .01, MD = -26.17, SE = 6.81; 95\% CI [12.77, 39.58]$, those who were Rastafarian, $p = .01, MD = 20.51, SE = 8.33; 95\% CI [4.11-36.90]$, and participants who reported having no religion, $p = .004, MD = 6.99, SE = 2.44; 95\% CI [2.19-11.78]$ (see Figure 3).

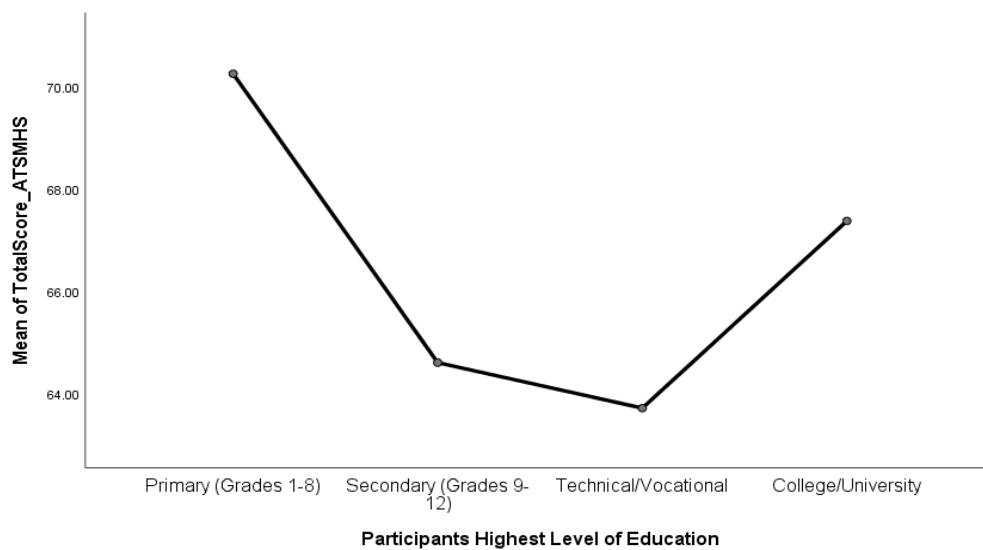


Figure 2. Mean ATSMHS scores by education.

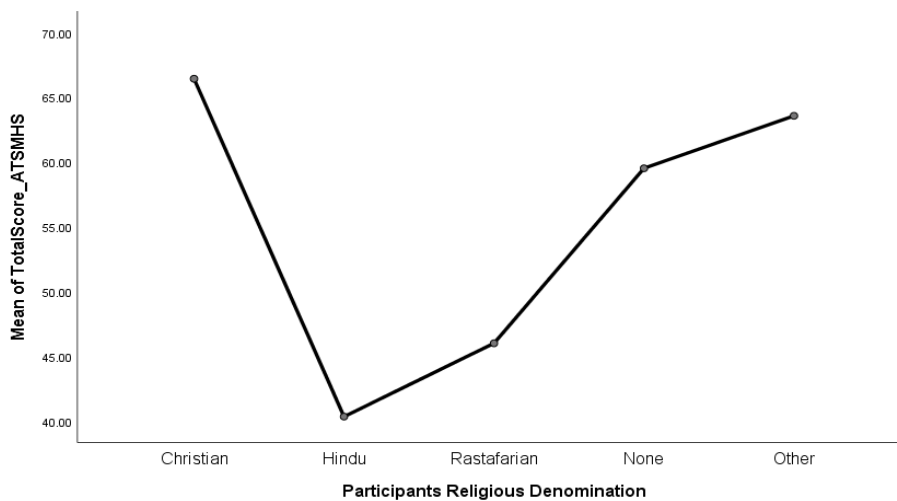


Figure 3. Mean ATSMHS by religion.

Associations With Psychological Openness Scores

Table 12

Psychological Openness Levene's Test of Equality of Error Variances

		Levene statistic	df 1	df 2	Sig
Psychological Openness_Score	Based on mean	1.078	31	298	.361

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: Psychological Openness Scores

The Levene's test was not significant for psychological openness scores, $F(31, 298) = 1.08, p = .36$, hence equal variances can be assumed (see Table 12). All the independent variables accounted for 8.4% of the variance in psychological openness scores. However, the ANOVA for differences in group means for psychological openness scores was only significant for employment status, $F(2, 298) = 3.75, p = .03$ and education, $F(3, 298) = 3.19, p = .02$. Employment status accounted for 2.5% and education accounted for 3.1% of the variance in psychological openness score respectively (see Table 13). Hence, the null hypothesis was rejected for employment and education.

Results of Post hoc comparisons for psychological openness scores using the LSD test indicated that the pairwise mean differences among participants who reported part time employment was significantly lower than those who reported full time employment, $p = .002, MD = -3.71, SE = 1.21; 95\% CI [-6.10, -1.33]$ or not employed, $p = .01, MD = -3.55, SE = 1.28; 95\% CI [-6.08, -1.03]$ respectively (see Figure 4). With respect to education the mean difference for participants with a College/University education was

significantly higher than those who reported a secondary education, $p = <.01$, $MD = 3.19$, $SE = .72$; 95% CI [1.77, 4.61], and those who reported a technical/vocational education, $p = .01$, $MD = 2.56$, $SE = .94$; 95% CI [.71, 4.42] (see Figure 5).

Table 13

Psychological Openness Tests of Between-Subjects Effects

Source	Type III Sum of squares	df	Mean square	F	Sig	Partial eta squared
Corrected Model	3418.911	58	58.947	1.565	.009	.234
Intercept	6549.943	1	6549.943	173.931	.000	.369
Ethnicity	80.250	4	20.062	.533	.712	.007
Religion	323.821	4	80.955	2.150	.075	.028
Marital Status	81.292	2	40.646	1.079	.341	.007
Employment status	282.480	2	141.240	3.751	.025	.025
Education	360.848	3	120.283	3.194	.024	.031
Error	11222.137	298	37.658			
Total	160174.00	357				
Corrected Total	14641.048	358				

a. R Squared = .234 (Adjusted R Squared = .084)

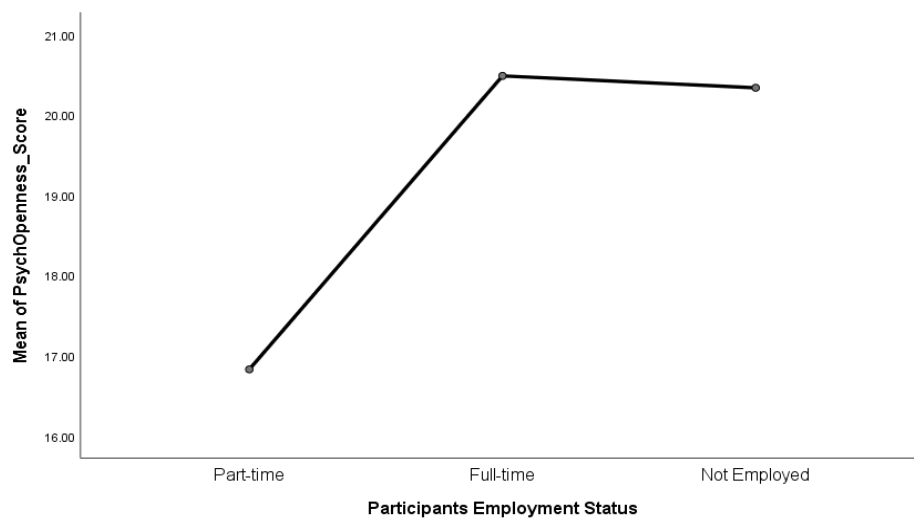


Figure 4. Mean psychological openness by employment.

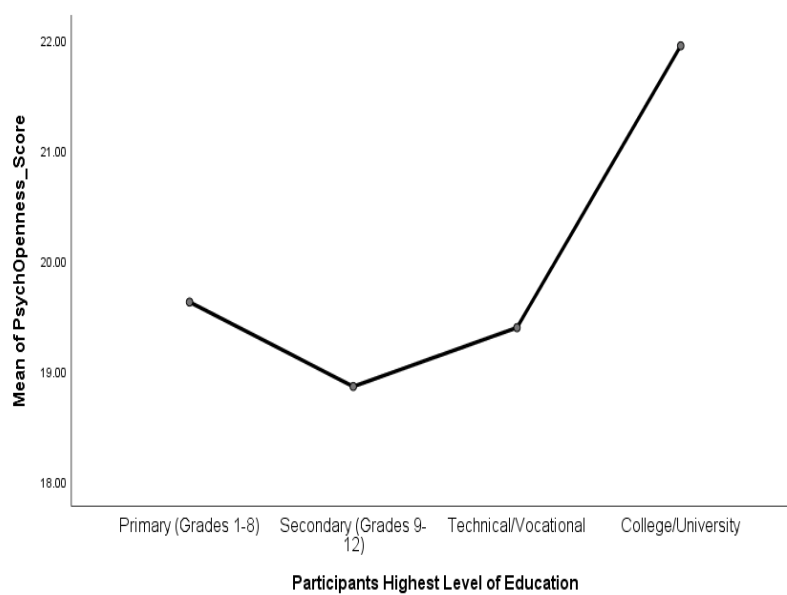


Figure 5. Mean psychological openness by education.

Associations With Indifference to Stigma Scores

The Levene's test was not significant for indifference to stigma scores, $F(31, 298) = 1.47, p = .06$, hence equal variances can be assumed (Table 14). All the independent variables accounted for 8% of the variance in indifference to stigma scores. The ANOVA for differences in group means for indifference to stigma scores was significant for religion, $F(4, 298) = 3.05, p = .02$, marital status, $F(2, 298) = 3.38, p = .04$, and education, $F(3, 298) = 3.46, p = .02$. Religion accounted for 3.9%, marital status accounted for 2.2%, and education for 3.4% of the variance in indifference to stigma scores (see Table 15). Hence, the null hypotheses were rejected for religion, marital status, and education (see Table 15).

Table 14

Indifference to Stigma Levene's Test of Equality of Error Variances

		Levene	df 1	df 2	Sig
		statistic			
Indifferenceto_Stigma_Score	Based on mean	1.472	31	298	.056

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: Indifferenceto_Stigma_Score

Results of Post hoc comparisons for indifference to stigma scores using the LSD test indicated that the mean difference for participants who reported being Hindu was significantly lower than those who reported being Christian, $p = .01, MD = -8.84, SE = 3.43; CI [-15.60, -2.09]$ or those who reported "None", $p = .02, MD = -8.45, SE = 3.62; CI [-15.57, -1.34]$ respectively (see Figure 6). With respect to education the mean difference for participants who attained primary level education was significantly higher

than those who reported a secondary education, $p = .04$, $MD = 4.68$, $SE = 2.29$; CI [.17, 9.18], technical/vocational education, $p = .02$, $MD = 5.78$, $SE = 2.36$; CI [1.13, 10.43], or college/university education $p = .04$, $MD = 4.73$, $SE = 2.29$; CI [.22, 9.25] (see Figure 7). With respect to marital status single individuals had significantly higher mean differences than the other groups (see Figure 8).

Table 15

Indifference to Stigma Tests of Between-Subjects Effects

Source	Type III Sum of squares	df	Mean square	F	Sig	Partial eta squared
Corrected model	3104.852	58	53.532	1.528	.013	.229
Intercept	6131.067	1	6131.067	174.971	.000	.370
Ethnicity	341.338	4	85.334	2.435	.047	.032
Religion	427.844	4	106.961	3.052	.017	.039
Marital status	236.701	2	118.351	3.378	.035	.022
Employment status	73.344	2	36.672	1.047	.352	.007
Education	363.721	3	121.240	3.460	.017	.034
Error	10442.078	298	35.041			
Total	161350.00	357				
Corrected Total	13546.930	356				

a. R Squared = .229 (Adjusted R Squared = .079)

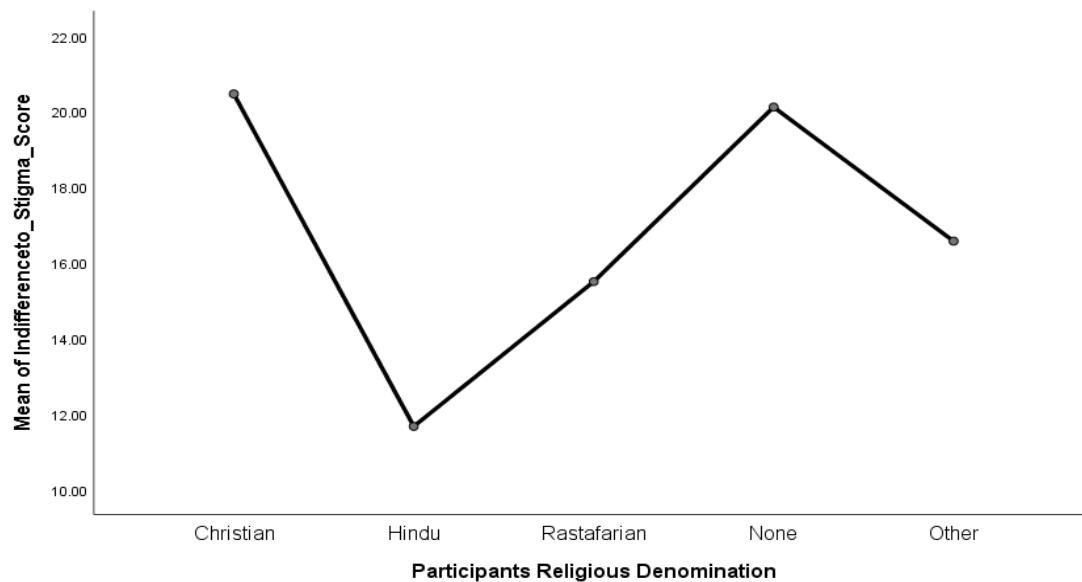


Figure 6. Mean indifference to stigma by religion.

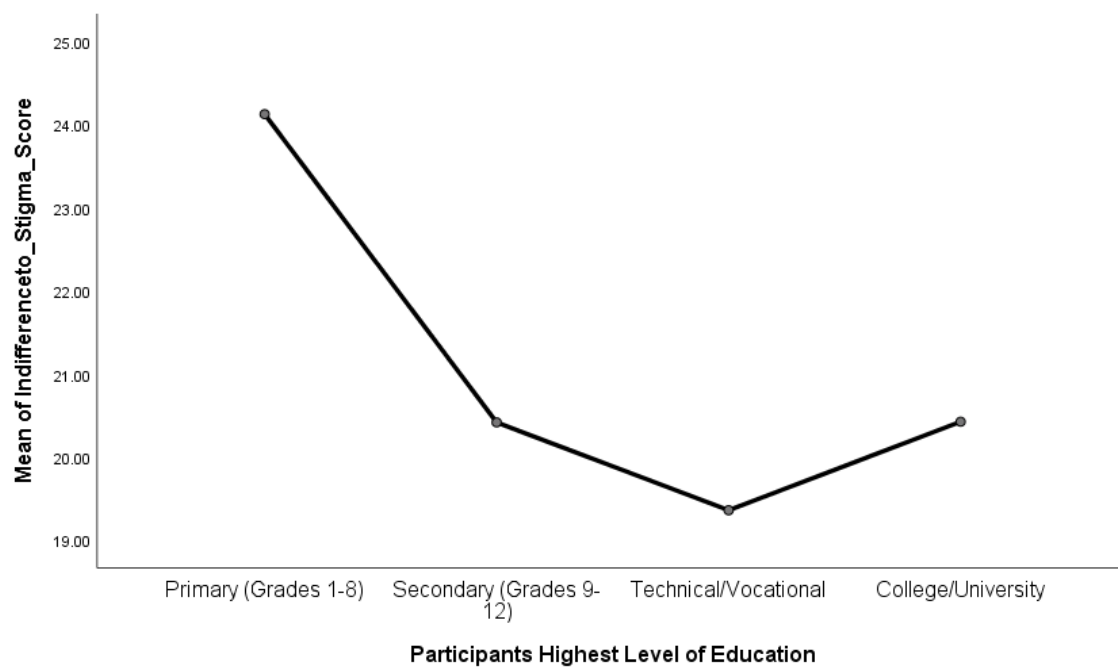


Figure 7. Mean indifference to stigma by education.

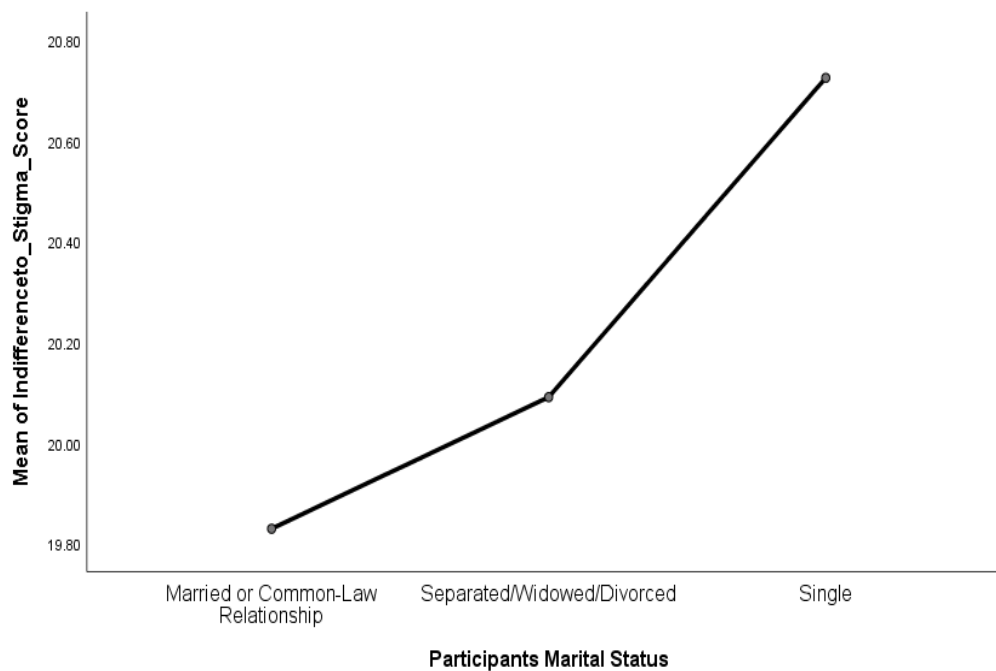


Figure 8. Mean indifference to stigma by marital status.

Associations With Help-Seeking Propensity Scores

The Levene's test was significant for help seeking propensity scores, $F(31, 298) = 1.57, p = .03$, so equal variances cannot be assumed (see Table 16). The independent variables accounted for 12.3 % of the variance in help seeking propensity. The ANOVA was not significant for ethnicity ($p = .13$), religion ($p = .17$), marital status ($p = .35$), employment status ($p = .60$) and education respectively ($p = .53$) and Table 17). Hence, these results failed to reject the null hypothesis for all these variables.

Table 16

Help-Seeking Propensity Levene's Test of Equality of Error Variances

		Levene statistic	df 1	df 2	Sig
Help Seeking Propensity _Score	Based on mean	1.571	31	298	.031

Tests the null hypothesis that the error variance of the dependent variable is equal across groups
a. Dependent variable: Help Seeking Propensity Score

Table 17

Help-Seeking Propensity Tests of Between-Subjects Effects

Source	Type III Sum of squares	df	Mean square	F	Sig	Partial eta squared
Corrected model	3095.988	58	53.379	1.862	.000	.266
Intercept	12115.392	1	12115.392	422.586	.000	.586
Ethnicity	206.652	4	51.663	1.802	.128	.024
Religion	184.815	4	46.204	1.612	.171	.021
Marital status	60.617	2	30.309	1.057	.349	.007
Employment status	29.168	2	14.584	.509	.602	.003
Education	64.113	3	21.371	.745	.526	.007
Error	8543.558	298	28.670			
Total	237171.00	357				
Corrected Total	11639.546	356				

a. R Squared = .266 (Adjusted R Squared = .123) Computed using alpha = .05

Analysis of Research Question 2

An independent-samples t test was conducted to evaluate the hypothesis of an association between whether participants know someone who had experienced a mental health problem and the ATSMHS scale and subscales scores respectively. Mean scores for participants who knew someone who had experienced a mental health problem were higher than those who did not know someone who has experienced a mental health problem for ATSMHS scores and psychological openness scores, and lower for indifference to stigma scores and help seeking propensity scores (see Table 18).

Table 18

Group Statistics

	Whether participants know someone who experienced a mental health problem		N	Mean	Std. deviation	Std. error mean
	No	Yes				
TotalScore	No		108	63.6574	13.63350	1.31188
_ATSMHS	Yes		258	66.3760	11.78744	.73385
PsychOpenness	No		108	18.2037	7.13522	.68659
_Score	Yes		258	20.9651	5.89093	.36675
Indifference to	No		108	20.2685	6.66502	.64134
_Stigma_Score	Yes		258	20.2636	5.95380	.37067
HelpSeeking	No		108	25.1852	6.46073	.62168
Propensity_Score	Yes		258	25.1473	5.42813	.33794

The independent samples t test was only significant with respect to the association between knowing someone who experienced a mental health problem and psychological openness. The Lavene's test for psychological openness was significant, ($p = .008$), hence the t test for equal variances not assumed is reported. The test was significant $t(170.98) =$

-3.55, $p < .001$, 95% CI [-4.30, -1.22] for psychological openness (see Table 19). Hence, the null hypothesis was rejected with respect to association between knowing someone who experienced a mental health problem and psychological openness. Results failed to reject the null hypothesis with respect to the association between knowing someone who experienced a mental health problem and ATSMHS $t(364) = -1.92$, $p = .06$, indifference to stigma, $t(364) = .007$, $p = .99$, and help seeking propensity $t(364) = .06$, $p = .95$ (see Table 19). Hence, those who knew someone who had a mental health problem were more likely to be psychologically open.

Table 19

Independent Samples Test

		Levene's Test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean differen ce	Std. error differen ce	95% Confidence interval of the difference	
									Lower	Upper
Total Score_	Equal variances assumed	2.291	.131	-1.919	364	.056	-2.71856	1.41642	-5.50396	.06684
ATSMHS	Equal variances not assumed			-1.809	177.217	.072	-2.71856	1.50319	-5.68502	.24789
Psych Open	Equal variances assumed	7.214	.008	-3.835	364	.000	-2.76141	.72001	-4.17732	-1.34551
Ness _Score	Equal variances not assumed			-3.548	170.978	.001	-2.76141	.77840	-4.29793	-1.22490
Indifferen ceTo	Equal variances assumed	2.285	.132	.007	364	.994	.00495	.70730	-1.38595	1.39585
_Stigma _Score	Equal variances not assumed			.007	181.969	.995	.00495	.74075	-1.45662	1.46652
Help Seeking	Equal variances assumed	2.908	.089	.057	364	.954	.03790	.65911	-1.25824	1.33404
Propensity _Score	Equal variances not assumed			.054	173.278	.957	.03790	.70760	-1.35872	1.43452

Analysis of Research Question 3

Pearson Product Moment Correlation Coefficient was conducted to evaluate whether there was an association between public stigma scores and ATSMHS scores and subscales scores respectively. Results for the correlational analysis of the 366 participants between public stigma scores ($M = 40.47$, $SD = 12.08$) and ATSMHS scores ($M = 65.57$,

$SD = 12.40$) showed a moderately negatively statistically significant association $r = -.33$, $p < .001$. The stigma scores had a moderate negative statistically significant association ($r = -.32$, $p < .001$) with the psychological openness scores ($M = 20.15$, $SD = 6.40$), a small negatively statistically significant association ($r = -.27$, $p < .001$) with indifference to stigma scores ($M = 20.27$, $SD = 6.16$); and an insignificant association ($r = -.06$, $p = .23$) with help seeking propensity scores ($M = 25.16$, $SD = 5.74$) (see Table 20). Hence, the results failed to reject the null hypothesis with respect to help seeking propensity.

Individuals experiencing higher levels of public stigma were less likely to have positive ATSMHS, be psychologically open, and be indifferent to stigma.

Table 20

Correlations

		TotalScore _stigma	TotalScore _ATSMHS	PsychOpen ness_score	Indifference to_stigma_ score	HelpSeeking propensity _score
Total Score	Pearson correlation	1	-.329**	-.318**	-.274**	-.062
_Stigma	Sig. (2-tailed)		.000	.000	.000	.233
	N	366	366	366	366	366

** . Correlation is significant at the 0.01 level (2-tailed).

Analysis of Research Question 4

Multiple regression analyses were conducted to determine the extent to which public stigma and knowing someone who has experienced a mental health problem predicted ATSMHS score and subscale scores in a complete model with all the independent variables, and to determine which independent variables were the best

predictors for the aforementioned dependent variables respectively. The sample descriptive for the independent variable public stigma scores, ranged from 9 to 74, with a mean of 40. Descriptive data for the dependent variables were as follows: ATSMHS scores ranged from 4 to 95, with a mean of 66; psychological openness scores ranged from 0 to 32, with a mean of 20; indifference to stigma scores ranged from 4 to 32, with a mean of 20; and total help seeking propensity scores ranged from 0 to 32, with a mean of 25 (see Table 21). Since the sample size in this study was more than 300 participants, absolute skew and absolute kurtosis values less than 2 without considering z values indicated that data was normally distributed for the respective continuous variables (Kim, 2013) (see Table 22).

Table 27

Descriptive Statistics

		TotalScore_ stigma	TotalScore ATSMHS	Psych openness score	Indifference to_stigma score	HelpSeeking propensity_ score
N	Valid	366	366	366	366	366
	Missing	0	0	0	0	0
Mean		40.4699	65.5738	20.1503	20.2650	25.1585
Std. Error of Mean		.63146	.64837	.33449	.32214	.30020
Std. Deviation		12.08046	12.40410	6.39922	6.16292	5.74309
Skewness		-.018	-.399	-.505	-.274	-1.042
Std. Error of Skewness		.128	.128	.128	.128	.128
Kurtosis		-.140	.950	-.052	-.438	1.046
Std. Error of Kurtosis		.254	.254	.254	.254	.254
Range		65.00	91.00	32.00	28.00	32.00
Minimum		9.00	4.00	.00	4.00	.00
Maximum		74.00	95.00	32.00	32.00	32.00

Multiple Regression Model for ATSMHS

The assumptions of normality, homoscedasticity, and multicollinearity were given consideration. The frequency histogram for ATSMHS and stigma was normally distributed (see Figures 9 and 10). Also, normality was supported by the Q-Q plot which did not show significant deviations from the diagonal line. The skewness (-.40) and kurtosis (.950) were not significant, supported by no dots in an S shape around the diagonal line in the Q-Q plot and a minority of the dots dropping above the line (see Figure 11) (Field, 2014). Also, the assumption of independence of residuals and homoscedasticity were not violated as shown in the scatterplot of the residuals with points equally distributed above and below 0 on the X axis and to the left and right of zero on the y axis and in the P-P plot (see Figures 12 and 13) (Field, 2014).

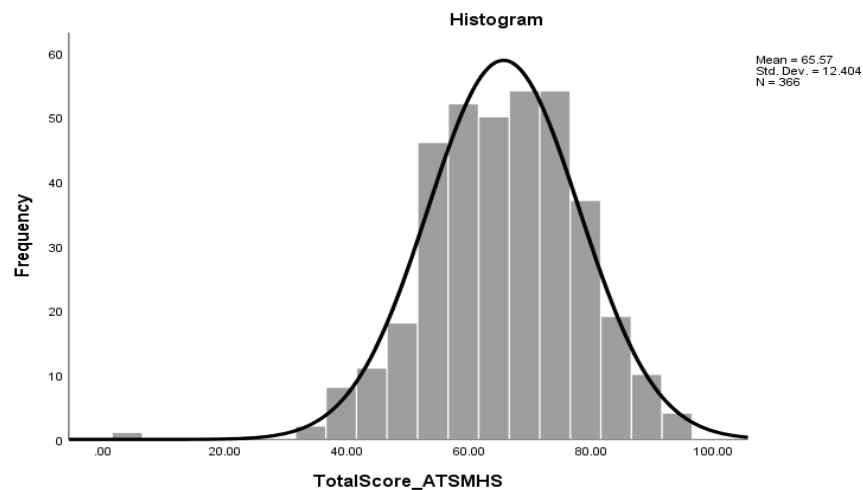


Figure 9. Normality histogram of TotalScore_ATSMHS.

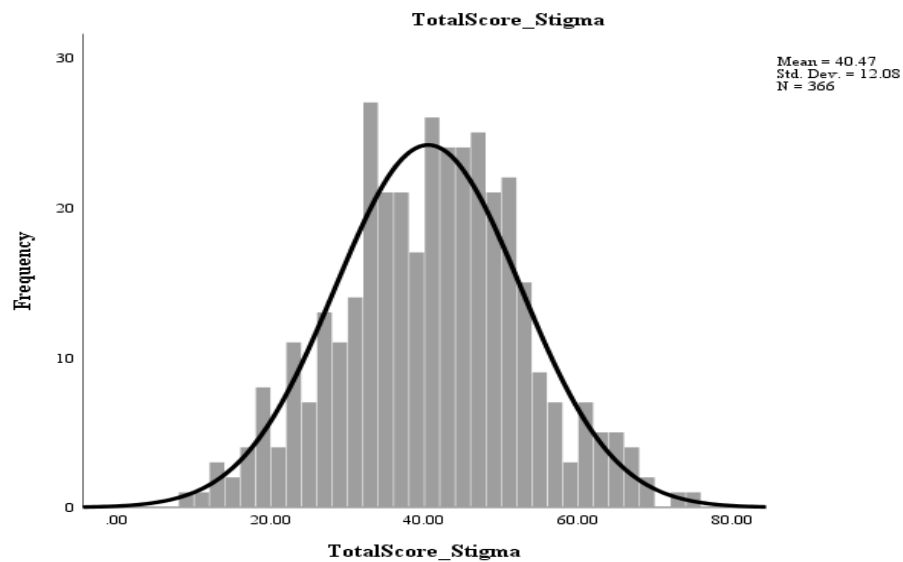


Figure 10. Normality histogram of TotalScore_Stigma.

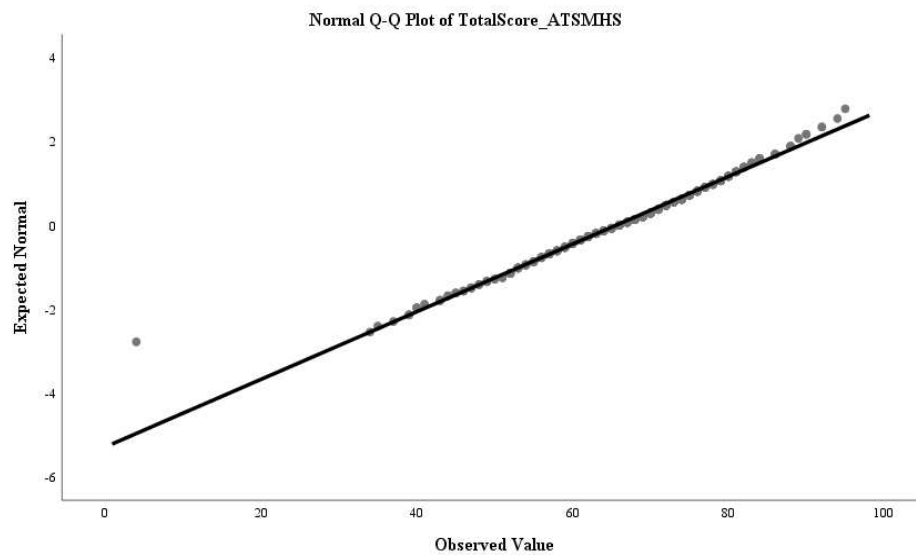


Figure 11. Normality Q-Q plot of TotalScore_ATSMHS.

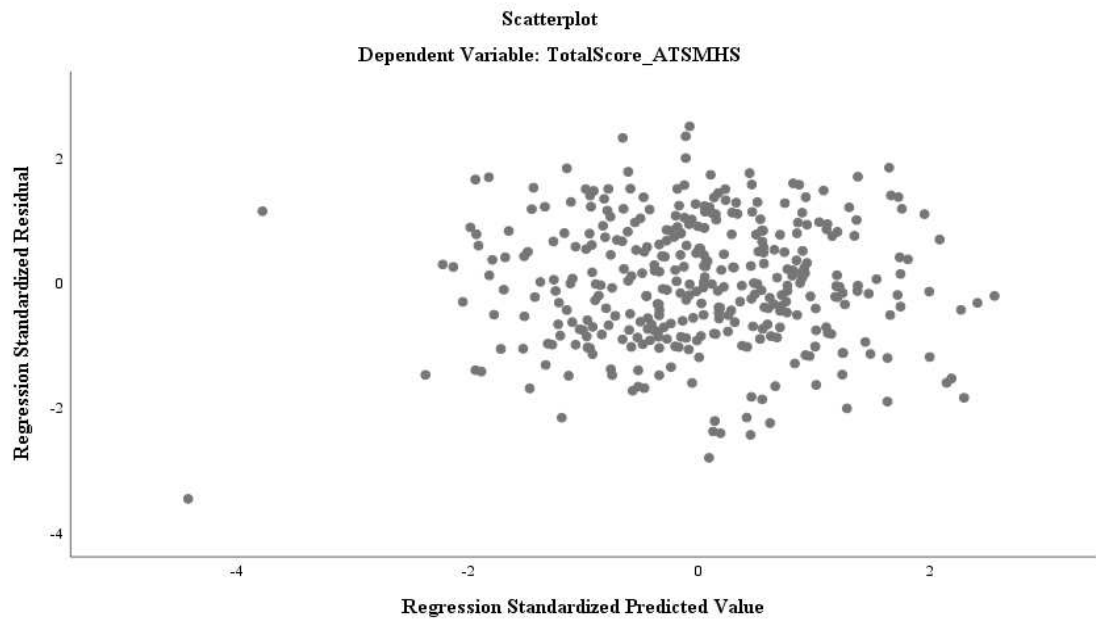


Figure 12. Homoscedasticity of outliers.

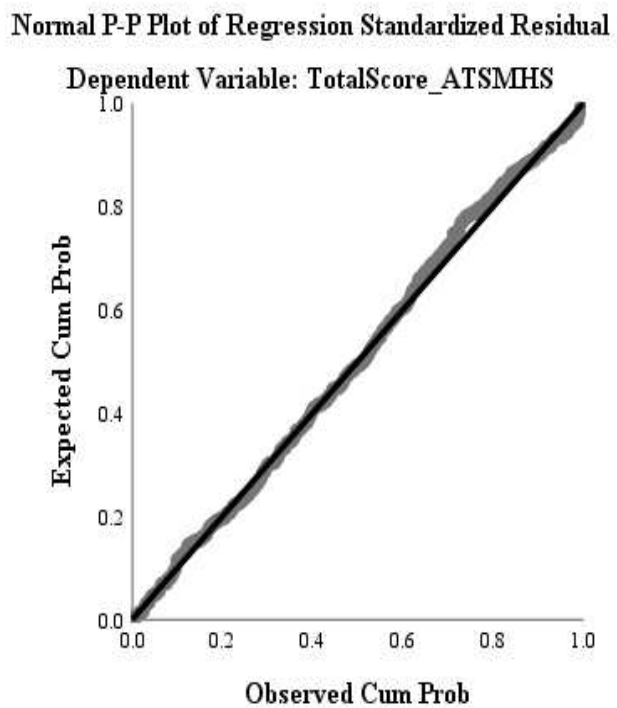


Figure 13. P-P plot.

Multicollinearity was not violated since the VIF values were below 10 and the tolerance statistic greater than 0.2. Also, associations between predictor independent variables was less than .7 (see Table 23), indicative of no collinearity within the data (Field, 2014). Results from the complete model with all the independent variables and the dependent variable ATSMHS indicated that there was a collective significant effect on ATSMHS, $F(10, 342) = 6.90, p < .001, R^2 = .17, \text{adjusted } R^2 = .144$ (see Table 22). In the model significant predictors were age $t = 2.59, p < .01, r = .16$; ethnicity $t = -2.43, p < .02, r = -.14$; religion $t = -2.21, p < .03, r = -.16$, and stigma $t = -5.77, p < .001, r = -.32$ (see Table 23). Whether or not participants knew someone who experienced a mental health problem ($t = .16, p = .88, r = -.10$) was not a significant predictor. Approximately 14.4% of the variance in ATSMHS was predicted by all the independent variables.

Table 22

Model Summary for ATSMHS

Model	R	Adjusted Square	Std. error of the estimate	Change statistics			Sig. F change	
				R Square	F change	df1		df2
1	.410 ^a	.168	11.55730	.168	6.903	10	342	.000

a. Predictors: (Constant), TotalScore_Stigma, Participants Ethnicity, Participants Age (Years), Whether Or Not Participants Have Sought Help For A Mental Health Problem, Participants Sex, Participants Religious Denomination, Participants Employment Status, Participants Highest Level of Education, Whether Or Not Participants Know Anyone Who Experienced A Mental Health Problem, Participants Marital Status

Table 23

Coefficients of Significant Predictors

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	95.0% Confidence interval for B		Correlations			Collinearity statistics	
	B	Std. error	Beta			Lower bound	Upper bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	69.215	4.167		16.612	.000	61.019	77.410					
Age (Years)	.111	.043	.137	2.587	.010	.027	.196	.164	.139	.128	.866	1.155
Ethnicity	-4.030	1.661	-.121	-2.426	.016	-7.297	-.763	-.137	-.130	-.120	.978	1.022
Religion	-1.539	.697	-.111	-2.208	.028	-2.911	-.168	-.155	-.119	-.109	.959	1.043
Know anyone who experienced a mental health problem	.221	1.425	.008	.155	.877	-2.581	3.023	-.096	.008	.008	.897	1.115
TotalScore_Stigma	-.304	.053	-.296	-5.770	.000	-.407	-.200	-.322	-.298	-.285	.923	1.083

a. Dependent Variable: TotalScore_ATSMHS

About 13.9% of the variance in ATSMHS was accounted for by age (1.9%), ethnicity (1.7%), religion (1.4%), and stigma (8.9%) respectively when controlling for all other predictors. The model suggests that although individuals experiencing public stigma are less likely to have positive ATSMHS, ethnicity and religious denomination may also negatively impact ATSMHS, and increasing age may be a positive influence. Hence the null hypothesis was rejected with respect to public stigma and results failed to reject the null hypothesis with respect to knowing someone who experienced a mental health problem.

Multiple Regression Model for Psychological Openness

The psychological openness scores were normally distributed in the frequency histogram (see Figure 14) and the Q-Q plot and P-P plot showed slight negative skewness (see Figures 15 and 16). Also, homoscedasticity and multicollinearity were not violated (see Figure 17 and Table 25).

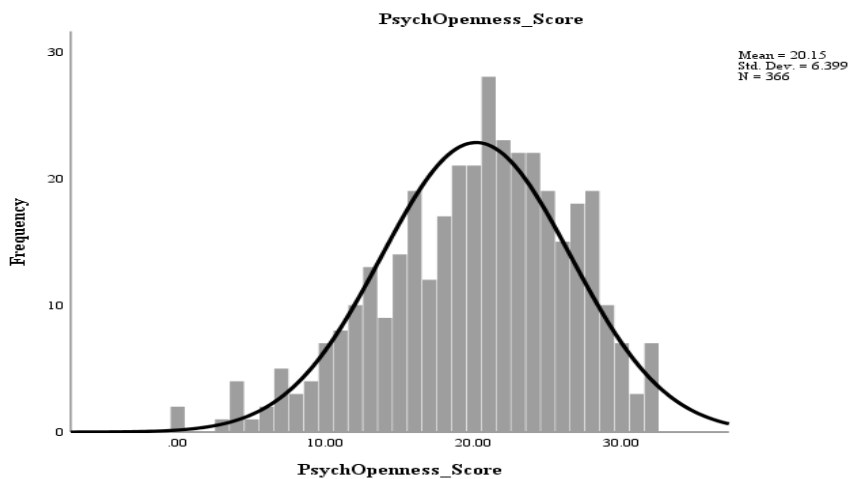


Figure 14. Normality histogram of PsychOpenness_Score.

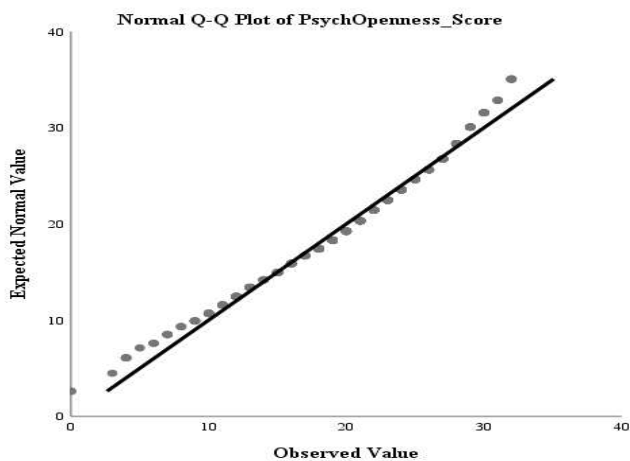


Figure 15. Normality Q-Q plot of PsychOpenness_Score.

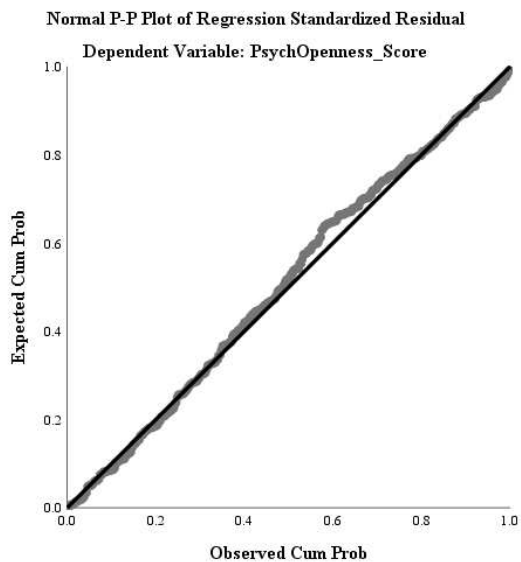


Figure 16. P-P plots.

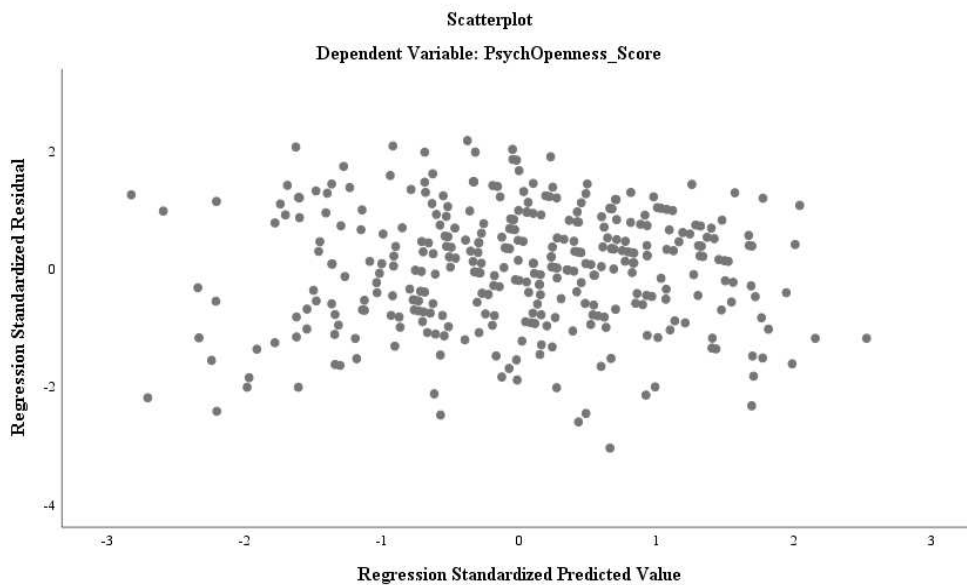


Figure 17. Homoscedasticity of outliers.

Results from the complete model to evaluate the extent to which all the independent variables predicted the independent variable psychological openness indicated that there was a collective significant effect $R^2 = .18$, adjusted $R^2 = .15$, $F(10, 342) = 7.28$, $p = <.001$ (see Table 24).

Table 24

Model Summary for Psychological Openness

Mode	R	Adjusted Square	Std. error of the estimate	Change statistics		
				R Square change	F change	Sig. F change
1	.419 ^a	.176	5.91599	.176	7.284	.000

a. Predictors: (Constant), TotalScore_Stigma, Participants Ethnicity, Participants Age (Years), Whether Or Not Participants Have Sought Help For A Mental Health Problem, Participants Sex, Participants Religious Denomination, Participants Employment Status, Participants Highest Level of Education, Whether Or Not Participants Know Anyone Who Experienced A Mental Health Problem, Participants Marital Status

Table 25

Significant Coefficients

Unstandardized coefficients	Standardized coefficients	t	Sig.	95.0% Confidence interval for B		Zero-order correlations			Collinearity statistics		
				Lower bound	Upper bound	r	Partial	Part	Tolerance	VIF	
21.067	2.133	9.877	.000	16.872	25.262						
1.115	.352	.163	3.169	.002	.423	1.807	.220	.169	.156	.908	1.101
-1.594	.729	-.113	-2.186	.030	-3.028	-.159	-.211	-.117	-.107	.897	1.115
-.134	.027	-.254	-4.980	.000	-.187	-.081	-.320	-.260	-.244	.923	1.083

a. Dependent Variable: PsychOpenness_Score

About 15% of the variance in psychological openness scores was predicted by all the independent variables. About 11.1% of the variance in psychological openness was accounted for by education (2.9%), knowing someone who experienced a mental health problem (1.4%), and stigma (6.8%) respectively when controlling for all other predictors. In the model significant predictors were educational attainment $t = 3.17, p = .002, r = .22$, knowing someone who experienced a mental health problem $t = -2.19, p = .03, r = -.12$, and public stigma $t = -4.98, p = < .001, r = -.26$ (see Table 25). Hence the null hypothesis was rejected with respect to public stigma, educational attainment, and knowing someone who experienced a mental health problem.

Multiple Regression Model for Indifference to Stigma

The indifference to stigma scores was normally distributed (see Figure 18). The Q-Q and P-P plots showed slight negative skewness (see Figures 19 and 20) and homoscedasticity and collinearity were not violated (see Figure 21 and Table 27). Results from the complete model to evaluate the extent to which all the independent variables predicted the indifference to stigma scores indicated that there was a collective significant effect $R^2 = .12$, adjusted $R^2 = .09$, $F(10, 342) = 4.64$, $p < .001$ (see Table 26).

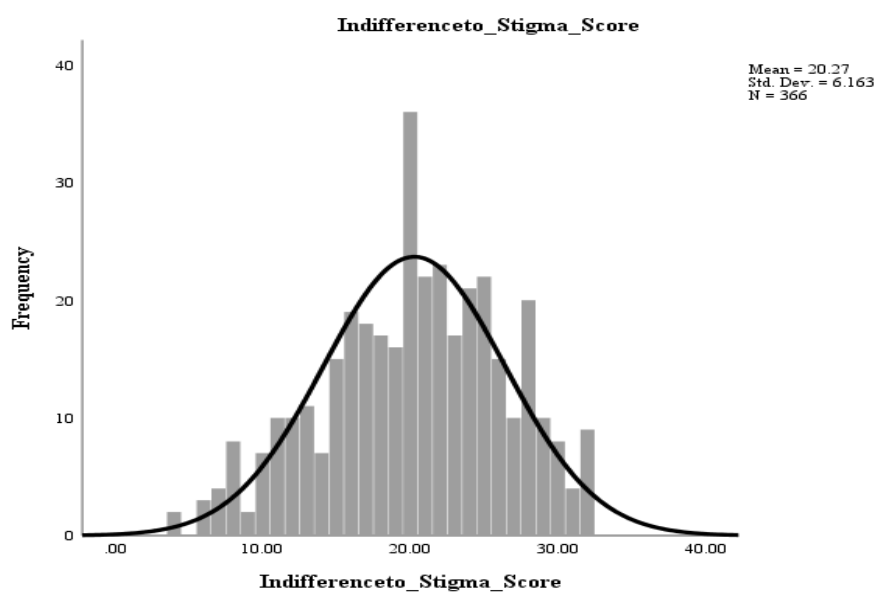


Figure 18. Normality histogram of Indifferenceto_Stigma_Score.

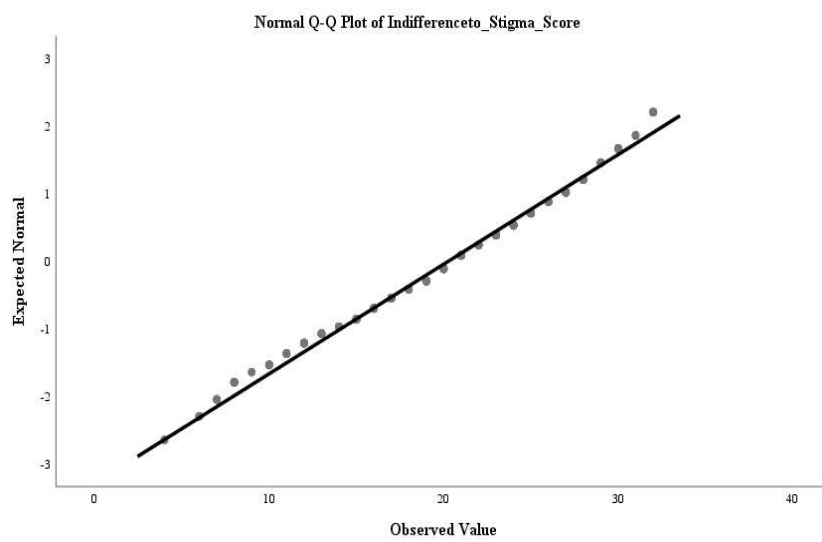


Figure 19. Normality Q-Q plot of Indifferenceto_Stigma_Score.

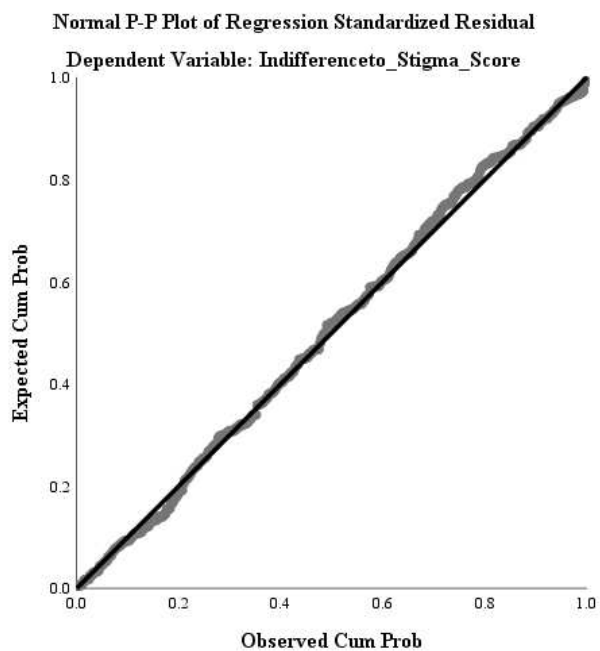


Figure 20. P-P plot.

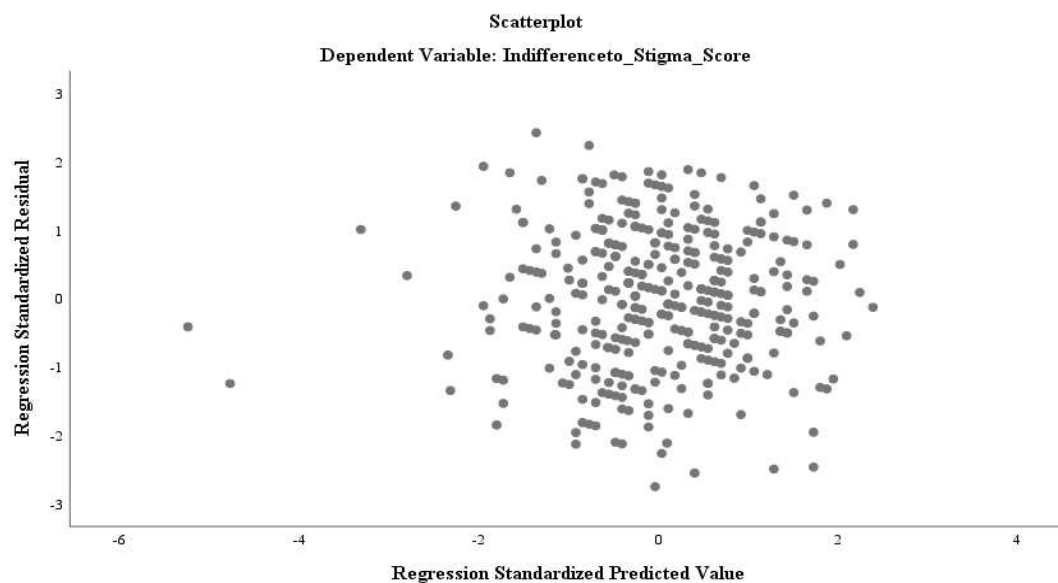


Figure 21. Homoscedasticity of outliers.

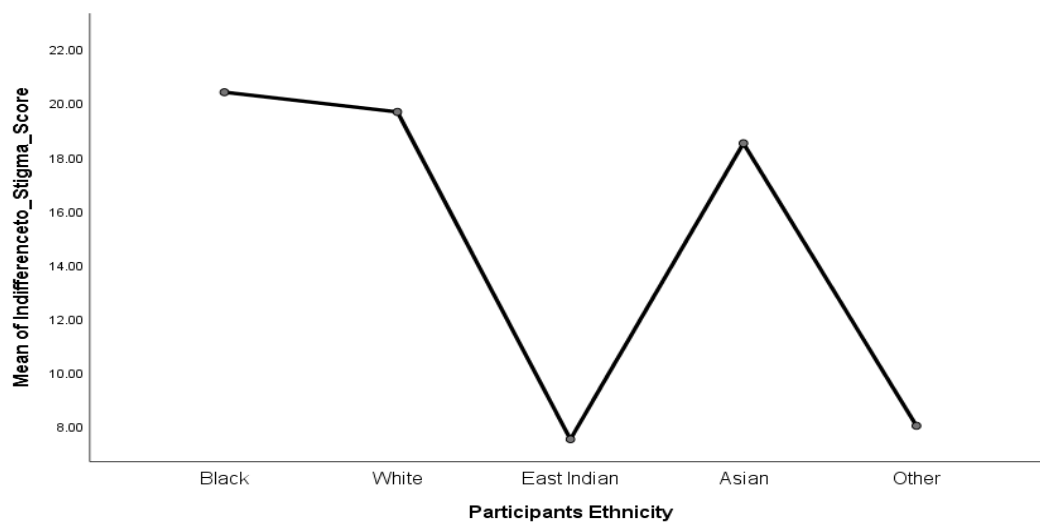


Figure 22. Mean Indifferenceto_Stigma_Score by ethnicity.

Approximately 9.4% of the variance in indifference to stigma scores was predicted by all the independent variables (see Table 26). However, in the model significant predictors of indifference to stigma were participants ethnicity $t = -2.47, p = .01, r = -.13$, and public stigma $t = -5.48, p < .001, r = -.28$, respectively accounting for 1.8% and 8% of the variance in indifference to stigma when controlling for all other variables. Whether or not participants knew someone who experienced a mental health problem $t = 1.08, p = .28, r = -.00$, was not a significant predictor (see Table 27). As public stigma increased indifference to stigma decreased. Black, White, and Asians had higher mean indifference to stigma scores than individuals who reported being East Indian or Other (see Figure 22). The null hypothesis was rejected with regards to public stigma, but the multiple regression results failed to reject the null hypothesis with respect to knowing anyone who experienced a mental health problem.

Table 26

Model Summary for Indifference to Stigma

Mode	R	Adjusted Square	Std. error of the estimate	Change statistics			Sig. F change		
				R Square	F change	df1		df2	
1	.346 ^a	.120	.094	5.88013	.120	4.642	10	342	.000

a. Predictors: (Constant), TotalScore_Stigma, Participants Ethnicity, Participants Age (Years), Whether Or Not Participants Have Sought Help For A Mental Health Problem, Participants Sex, Participants Religious Denomination, Participants Employment Status, Participants Highest Level of Education, Whether Or Not Participants Know Anyone Who Experienced A Mental Health Problem, Participants Marital Status

Table 27

Significant Coefficients

Model	Unstandardized coefficients		Standardized coefficients		Sig.	95.0% Confidence interval for B		Zero-order Correlations			Collinearity statistics	
	B	Std. Error	Beta	t		Lower bound	Upper bound	order	Partial	Part	ce	VIF
	(Constant)	26.107	2.120			12.315	.000	21.938	30.277			
Ethnicity	-.2089	.845	-.127	-2.473	.014	-3.752	-.427	-.145	-.133	-.125	.978	1.022
Know anyone who experienced a mental health problem	.783	.725	.058	1.080	.281	-.643	2.208	.000	.058	.055	.897	1.115
TotalScore_Stigma	-.147	.027	-.289	-5.480	.000	-.200	-.094	-.269	-.284	-.278	.923	1.083

a. Dependent Variable: Indifferenceto_Stigma_Score

Multiple Regression Model for Help-Seeking Propensity

The help seeking propensity scores were slightly skewed to the left (see Figure 23). Observation revealed that the Q-Q and P-P plots showed negative skewness (see Figures 24 and 25) and homoscedasticity some outliers (see Figure 26). Collinearity was not violated (see Table 29). Results from the complete model with all the independent variables to predict help seeking propensity scores indicated that there was a collective significant effect $R^2 = .14$, adjusted $R^2 = .11$, $F(10, 342) = 5.40$, $p < .001$. These variables accounted for about 11% of the variance in help seeking propensity scores (see Table 28). Significant predictors were gender $t = 3.30$, $p < .001$, $r = .17$; age $t = 4.71$, $p < .001$, $r = .26$; and religion $t = -2.23$, $p = .03$, $r = -.14$ (see Table 29). These significant predictors accounted for 10% of the variance in help seeking propensity scores (gender

3%, age 6%, and religion 1%) when controlling for all other predictors. Hence, the multiple regression results failed to reject the null hypothesis with respect to knowing someone who experienced a mental health problem and public stigma.

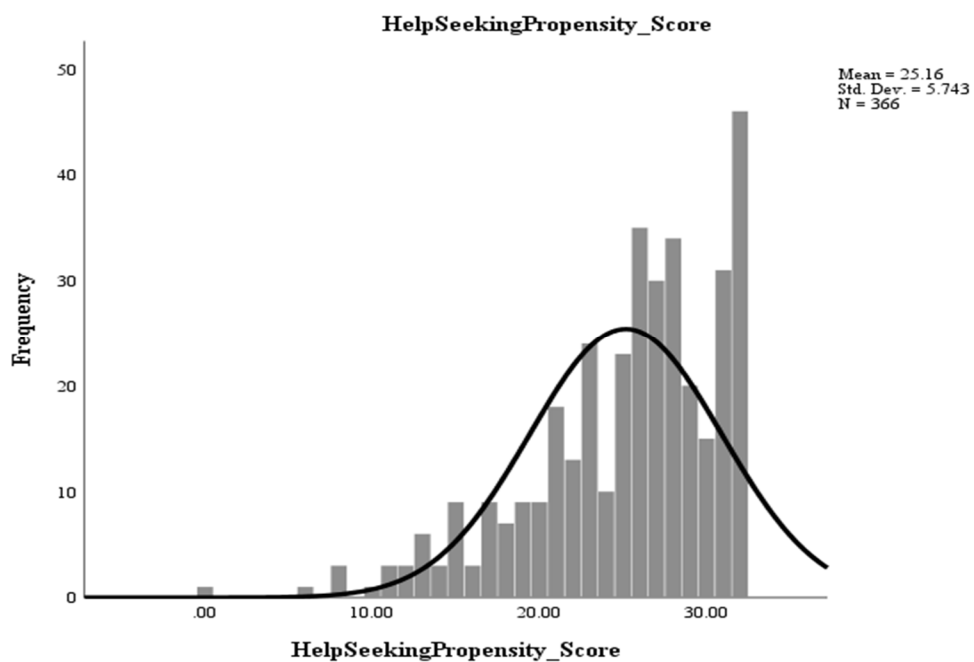


Figure 23. Normality histogram of HelpSeekingPropensity_Score.

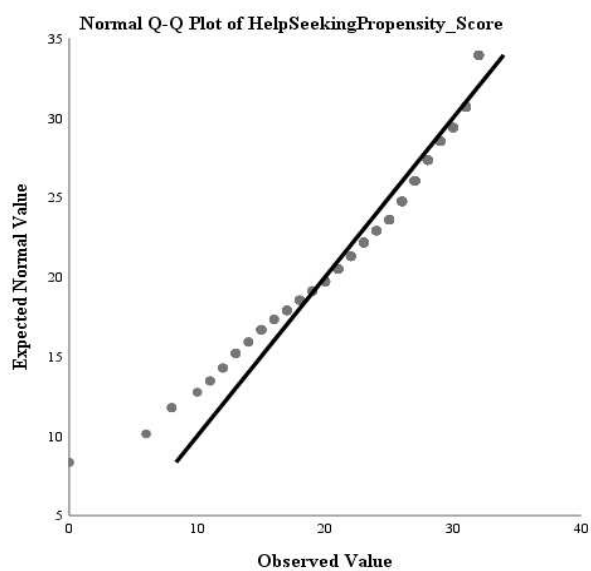


Figure 24. Normality Q-Q plot of Help Seeking Propensity Score.

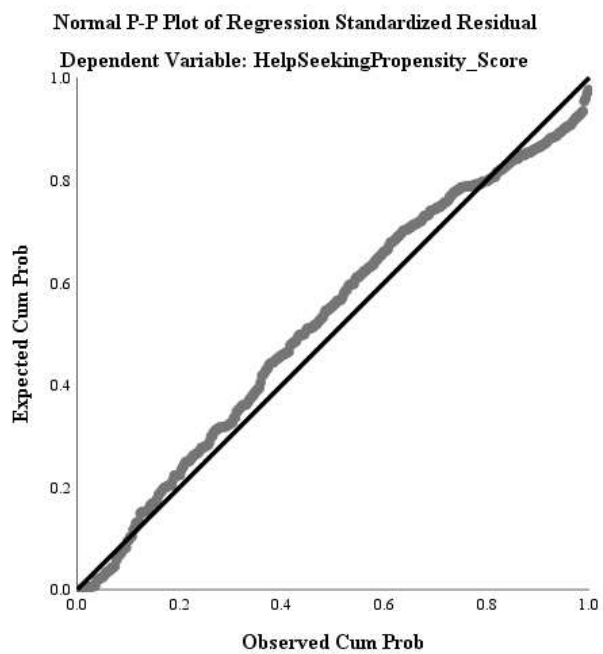


Figure 25. P-P plot.

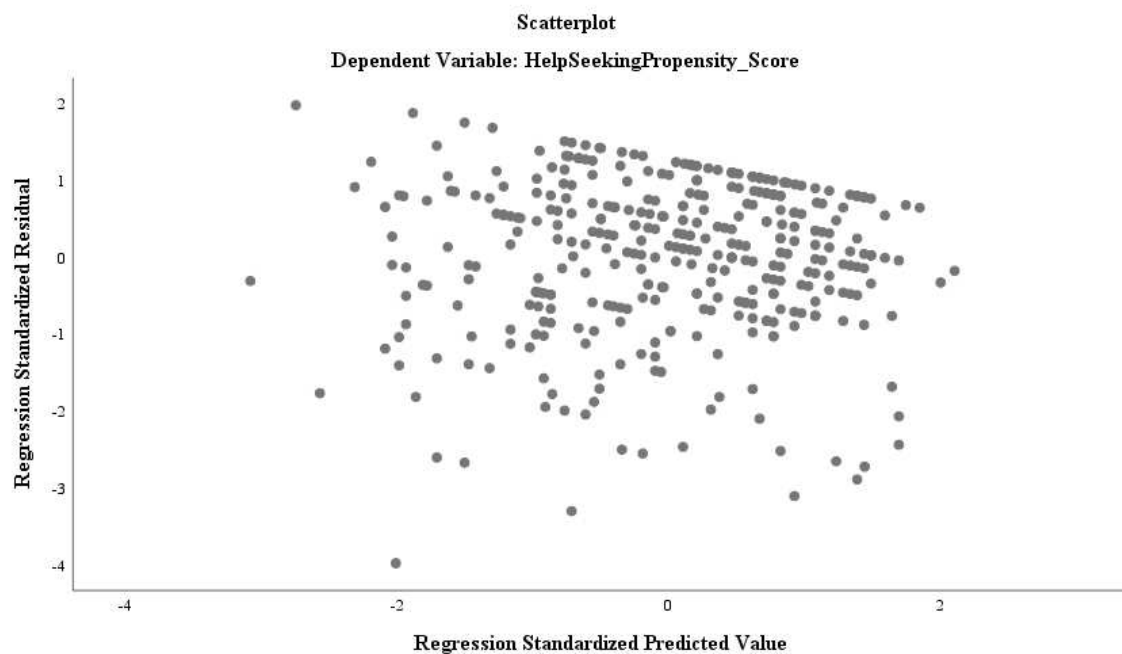


Figure 26. Homoscedasticity of outliers.

Table 28

Model Summary for Help-Seeking Propensity

Mode	R	Adjusted R Square	Std. error of the estimate	Change statistics			Sig. F change		
				R Square change	F change	df1		df2	
1	.369 ^a	.136	.111	5.33371	.136	5.403	10	342	.000

- a. Predictors: (Constant), TotalScore_Stigma, Participants Ethnicity, Participants Age (Years), Whether Or Not Participants Have Sought Help For A Mental Health Problem, Participants Sex, Participants Religious Denomination, Participants Employment Status, Participants Highest Level of Education, Whether Or Not Participants Know Anyone Who Experienced A Mental Health Problem, Participants Marital Status

Table 29

Coefficients

Model	Unstandardized coefficients		Standardized coefficients		t	Sig.	95.0% Confidence interval for B		Zero-order Partial Correlations			Collinearity statistics	
	B	Std. error	Beta				Lower bound	Upper bound	r	Partial	Part	Tolerance	VIF
(Constant)	22.041	1.923			11.462	.000	18.259	25.823					
Gender	2.244	.679	.168		3.303	.001	.908	3.580	.173	.176	.166	.979	1.022
Age (Years)	.094	.020	.254		4.708	.000	.054	.133	.260	.247	.237	.866	1.155
Religion	-.718	.322	-.115		-2.232	.026	-1.351	-.085	-.137	-.120	-.112	.959	1.043
Know anyone with mental health problem	1.032	.657	.083		1.569	.117	-.261	2.325	.027	.085	.079	.897	1.115
TotalScore_Stigma	-.023	.024	-.049		-.938	.349	-.071	.025	-.054	-.051	-.047	.923	1.083

a. Dependent Variable: HelpSeekingPropensity_Score

Summary

In this chapter, results for 366 patients were reported in alignment with the four research questions. The response rate was 96% and data was collected with respect to gender, age, ethnicity, religion, marital status, employment status, education, familiarity with mental illness, and public stigma. ATSMHS scores and subscale scores for psychological openness, indifference to stigma, and help seeking propensity were retrieved. Data analysis produced both descriptive and inferential results. The majority of

the participants were female, of Black ethnicity, Christians, single, in full time employment, and attained a secondary level education.

A majority of participants felt very much pity for Harry's story, although they were very much scared of him. They were not angry with him and did not at all feel that it was his own fault that he was in the present condition, nor was it in the best interest of Harry's community to put him away in a psychiatric hospital. Although a majority reported that they would not stay away from Harry, and would most definitely help him, they agreed that Harry should be forced into treatment with his doctor even if he does not want to.

Evaluation of research question 1 resulted in the null hypothesis being rejected with regards to the association between gender and help seeking propensity. Age was significantly associated with ATSMHS, psychological openness, and help seeking propensity, hence the null hypotheses were rejected. The null hypothesis was rejected with respect to the association between ATSMHS and religion and education respectively; associations between psychological openness and education and employment status respectively; and associations between indifference to stigma and religion, education, and marital status.

For research question 2, knowing someone who experienced a mental health problem was significantly associated only with psychological openness. Hence, the null hypothesis was rejected. With respect to research question 3 the null hypotheses were rejected for associations between stigma and the dependent variables ATSMHS, psychological openness, and indifference to stigma respectively. Results failed to reject

the null hypothesis with respect to help seeking propensity. Individuals experiencing higher levels of public stigma were less likely to have positive ATSMHS, be psychologically open, and be indifferent to stigma.

Multiple regression analyses conducted for research question 4 revealed that although stigma was a significant predictor of ATSMHS, results failed to reject the null hypothesis with respect to knowing someone who experienced a mental health problem. With respect to psychological openness the null hypothesis was rejected with respect to both public stigma and knowing someone who experienced a mental health problem. Public stigma was a significant predictor of indifference to stigma; however, results failed to reject the null hypothesis with respect to knowing someone who experienced a mental health problem. Results with respect to help seeking propensity failed to reject the null hypothesis with regards to knowing someone who experienced a mental health problem and public stigma. Chapter 5 will address these results taking into consideration characteristics of this sample and the literature review. This will facilitate discussion to inform recommendations to stimulate social change.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative cross-sectional study was to investigate associations and the effect of public stigma toward mental illness and familiarity with mental illness on attitudes toward seeking mental health services in three community health clinics in the Bahamas. The Caribbean region has a scarcity of research concerning public stigma and attitudes toward seeking mental health services. Data analysis included descriptive statistics and inferential statistics such as independent *t* tests, Pearson's correlation coefficient, ANOVA, and multiple regression analyses. More than two thirds of the respondents knew someone who had experienced a mental health problem, and almost one sixth of the respondents had sought help for a mental health problem. Age was significantly associated with ATSMHS and the subscales psychological openness and help-seeking propensity. Religion and education were significantly associated with ATSMHS. Public stigma was significantly associated with ATSMHS, and the subscales psychological openness and indifference to stigma. Multiple regression analysis revealed that gender, age, ethnicity, religion, education, and public stigma were significant predictors of attitudes toward seeking mental health services.

Interpretation of the Findings

Public Stigma

With respect to public stigma, results indicated that the most frequent responses by participants of “very much” were to the stereotypes dangerousness, fear, and coercion. Thonon and Laroi (2016) in their evaluation of stigma toward individuals diagnosed with schizophrenia among 544 individuals in Belgium found that fear and dangerousness were

predictors of avoidance responses. In this current study, the most frequent responses by participants of “not at all” were to the stereotypes blame, anger, avoidance, and segregation. Participants also reported feeling “very much” pity for Harry and that they “definitely would help.” This may be explained by the attribution and danger appraisal processes in mental illness stigma and discrimination postulated by Corrigan et al. (2003) in their attribution model of public discrimination toward persons with mental illness. The negative effects of perceptions of dangerousness such as discrimination on helping and rejecting responses may be mediated by responsibility beliefs (Corrigan et al., 2003). Based on the model in the current study, the fact that most participants did not blame Harry for his situation may support some of their positive emotional reactions including pity and wanting to help.

Responses of some participants may have been influenced by the fact that the vignette revealed that Harry had schizophrenia. Most participants reported feeling that Harry was “very much” dangerous, “not at all” to be blamed, and that they “definitely would help.” Similar results were found in a meta-analytic review of the biogenetic explanations of stigma among laypeople, which revealed that for schizophrenia there was a significant negative relationship with blame and significant positive relationship with dangerousness (Kvaale, Gottdiener, & Haslam, 2013). Biogenetic explanations of schizophrenia in antistigma campaigns have been negatively associated with blame in contrast to positive associations with vulnerability-stress and psychosocial explanations (Schlier, Schmick, & Lincoln, 2014). However, results from this current study were not totally aligned with the genetic contingency theory described in Lee et al.’s (2013) study

of undergraduate students in the United States. Responses to a diagnosis of schizophrenia were increased desire for social distancing and reduced likelihood of helping mediated by increased perceived dangerousness.

Familiarity With Mental Illness

The fact that the majority of participants (70.5%) in this study knew someone who experienced a mental health problem may also have contributed to some of the participants' positive responses previously discussed. This finding is supported by a study of attitudes toward persons with mental illness among undergraduate psychology students using the AQ-9 instrument which revealed that the 76.5% who had no previous contact with individuals with mental illness reported higher levels of danger, fear, blame, segregation, avoidance, and coercion (Zaninotto et al., 2018). Feeg, Prager, Moylan, Smith, and Cullinan (2014) found in their study of college students that those who were younger and less familiar with mental illness were more inclined to report stigmatized attitudes and social distancing from persons with mental illness. Only 15% of participants in this current study had sought help for a mental health problem. Consideration may be given to the likelihood that participants may have under-reported whether they had sought help for a mental health problem for possible reasons such as self-esteem or self-stigma (Bharadwaj, Pai, & Suziedelyte, 2017; Spence et al., 2016). Also, they may have concerns about negative stereotypes and attributions by primary care providers towards persons with mental illness (see Mittal et al., 2014). Mittal et al. (2014) identified primary care physicians' deficiencies with respect to familiarity with individuals with

mental illness and education about mental illness as potential deterrents to help-seeking behavior.

Sociodemographic Characteristics

Although the current study did not specifically address relationships between sociodemographic characteristics and subscales of the AQ-9, gender and age may have influenced responses to the vignette. Pingani et al. (2016) in their study of university students, mostly female (69.8%) with a mean age of 22.78 ± 3.80 , found that the total score on the Attribution Questionnaire 27 and subscales scores for coercion, segregation, fear, and avoidance decreased as age increased. Age and gender were not associated with the subscales responsibility and anger, but gender was associated positively with help and negatively with dangerous subscales. However, Preville et al. (2015) in their study investigating perceived social stigma against mental disorders among adults 65 years and older recruited from waiting rooms of primary medical health services clinics did not find any significant associations with age and gender. Also, Pescosolido (2013) in his discourse on public stigma argued that age and education have been weak or unreliable predictors of public stigma because cultural attitudes may also influence public stigma.

Research Question 1

The results of this current study indicated that females had significantly higher scores than males for help-seeking propensity. Yousaf, Popat, and Hunter (2015) also found in their study that men had lower scores than women on attitudes toward seeking psychological help as measured by the IASMHS, and that male masculinity ideals such as being strong and independent negatively predicted attitudes toward seeking psychological

help. Research in Canada revealed that women made significantly more visits than males to their primary care provider for mental health problems (Thompson et al., 2016).

In this current study, education was significantly associated with ATSMHS, psychological openness, and indifference to stigma. Individuals who attained a college/university education were more likely to have positive attitudes toward seeking mental health services and to be psychologically open than those with other levels of education. Also, individuals with primary grade education were more likely to be indifferent to stigma than those with other levels of education, meaning that they were not concerned about significant others finding out if they were receiving psychological care. Employment was significantly associated with psychological openness. Individuals who were not employed or were in full-time employment were more likely to be psychologically open than those in part-time employment. Research has shown that female gender, higher educational and socioeconomic status, and being single are positively associated with attitudes toward seeking mental health services (Clement et al., 2015; Picco et al., 2016; Reynders et al., 2014).

This current study revealed that as individuals got older, they were more inclined to have positive ATSMHS, have more psychological openness, and have more help-seeking propensity. These results are supported by studies that revealed the increased likelihood of individuals seeking mental health services as they get older (Williams, 2014; Yousaf et al., 2015). Yousaf et al. (2015) found that participants over 40 years old had significantly more positive attitudes toward seeking psychological help than those

18-40 years old. This is a concern for the younger population because mental disorders usually commence in adolescence and young adulthood (Turner et al., 2016).

Results from this current study showed no significant associations between ethnicity and ATSMHS scores and subscale scores. Yousaf et al. (2015) also found no relationship between IASMHS scores and the various ethnic groups which participated in a study in London. However, research findings have varied with respect to racial/ethnic differences on attitudes toward seeking mental health services. Anglin, Alberti, Link, and Phelan (2008) found in their study of racial differences in the use of mental health services, that African Americans were more likely than Whites to have positive attitudes towards seeking mental health care for schizophrenia and depression from mental health professionals. However, African Americans also believed that mental health problems resolve spontaneously, hence delaying seeking care. Cheng, Kwan, and Sevig (2013) found in their study of ethnic minority American college students, that they experienced higher levels of perceived stigmatization by family and less positive attitudes towards seeking professional psychological help.

This current study revealed that religion was significantly associated with ATSMHS and indifference to stigma. Christians were more likely than Hindus and Rastafarians to have positive attitudes towards seeking mental health services and to be indifferent to stigma. A study in primary health centers in Jordan revealed that cultural and religious beliefs about the causes and management of mental health issues predicted help seeking, and only 16% of participants selected using mental health professionals as a primary choice (Ali et al., 2017). Marital status was significantly associated with

indifference to stigma in this current study. Individuals who were single were less concerned about stigma than those who were in a married/common-law or separated/widowed/divorced relationship. This may be due to not having to be concerned about how mental illness may affect a marriage or committed relationship. The aforementioned relationships were further investigated in multiple regression analyses to evaluate whether the aforementioned independent variables were significant predictors of ATSMHS scores and subscale scores so results will be further discussed under Research Question 4.

Research Question 2

Two hundred and fifty eight (70.5%) of the participants reported that they knew someone who experienced a mental health problem and 56 (15.3%) reported that they had sought help for a mental health problem. The majority (59.3%) reported that they would first seek help from a doctor/psychologist/counsellor, followed by 19.1% of participants reporting first seeking help from a family member or close friend. This may be so because participants were individuals who were already attending outpatient clinics. However, cultural values and beliefs may also influence the use of outpatient mental health services among ethnic groups (Al Ali et al., 2017; Turner et al., 2016).

This current study found that participants who knew anyone who experienced a mental health problem were more likely than those who did not to be psychologically open which entails acknowledging the presence of a psychological problem and need for professional care for the problem. It was also notable that the majority of participants in the current study were female. A rapid response survey in Canada revealed that women

were more likely than men to have contact with someone who had been treated for a mental illness (Stuart et al., 2014). In their study of college students, Lyndon, Crowe, Wuensch, McCammon, and Davis (2019) found that the negative effects of biogenetic causal attributions on stigma were not observed when familiarity with persons with mental illness was considered. Hence, familiarity with mental illness may have contributed to the positive association in this current study between knowing anyone who experienced a mental health problem and psychological openness. In contrast, results of an Australian household survey of individuals 18 years and over revealed that knowing anyone who experienced a mental health problem was not significantly associated with attitudes towards help seeking for mental health problems (Wrigley et al., 2005). Similarly, Rusch et al. (2011) found in their study that past and present contact with persons with mental illness was not associated with help seeking intention. However, in the aforementioned study help seeking was only assessed in terms of seeking help from a general practitioner.

This current study did not reveal a significant association between individuals having previously sought help for a mental health problem and being psychologically open to seeking mental health services. A qualitative study of participants with or without a history of mental health referral found that for those with a history of referral, help seeking was more likely to be negatively impacted (Spence et al., 2016). In contrast, some studies found that having experienced a mental health problem or accessed mental services was significantly associated with help seeking (Henderson et al., 2017; Wrigley et al., 2005). Besides the fact that only 15.3% of participants reported having sought help

for a mental health problem, consideration can be given to the possibility that some of the participants who had sought help for a mental health problem may also have experienced self-stigma. Both public stigma and self-stigma have been associated with negative attitudes to help seeking, and sometimes the effect of public stigma was found to be mediated through self-stigma (Latalova et al., 2014; Pattyn et al., 2014; Rush et al., 2014; Wade et al., 2015). Self-stigma may also be due to either negative reactions of friends or associates, or the perception that the general practitioner may not be helpful (Dardas et al., 2017; Jennings et al., 2015; Turner et al., 2015). Self-stigma and existing stigma in health care settings may have been a deterrent to help seeking for some individuals (Mestdagh & Henson, 2014; Turner et al., 2016). Fernando et al. (2017) found in their study that although half of the 100 patients surveyed in an adult psychiatric clinic reported they would not disclose their mental health problems to other persons 56% reported enhanced family support. Therefore, some participants in this current study may have felt more comfortable seeking help from family and friends.

Research Question 3

This current study found that public stigma had a negative significant association with the ATSMHS and specifically the subscales psychological openness and indifference to stigma respectively. These findings are generally consistent with results from a systematic review of quantitative and qualitative studies indicating that stigma had a small to moderate effect on help seeking (Clement et al., 2015). Similar results were found with respect to less perceived stigma and biological attributions in reference to schizophrenia being positively associated with attitudes towards psychological help

seeking (Latalova et al., 2014; Wrigley et al., 2005), and perceived stigma being negatively associated to attitudes toward seeking professional psychological help among White and Asian college students (Pedersen & Paves, 2014). Research in primary health care centers in Jordan also revealed that perceived societal stigma significantly negatively predicted help seeking attitudes from a general practitioner or mental health professional (Ali et al., 2017). A study of individuals 65 years and older recruited from primary health service clinics in Canada indicated that social stigma had a negative association with usage of primary health services for psychological problems, mediated by perceived mental health need (Preville et al., 2015).

Findings from this current study did not reveal any significant association between public stigma and help seeking propensity. A survey of British adults revealed that help seeking intentions were not associated with stigmatizing attitudes of prejudice and exclusion (Rusch et al., 2011). However, data from 25 European countries revealed that perceived dangerousness was associated with more propensity to seek help and blame was associated with less propensity to seek help (Mojtabai, 2010). Notable in this current study was that 23.2% reported that Harry was “very much” dangerous compared with 61.2% who reported that it was “not at all” Harry’s own fault that he is in the present condition. Research in Germany among individuals 13-35 years old ($M = 21.37$, $SD = 5.8$) at risk of psychosis revealed that stigma stress rather than perceived public stigma, measured by the Perceived Devaluation-Discrimination Questionnaire predicted negative attitudes towards help seeking (Rusch et al., 2013). Therefore, it may be the case that public stigma, attitudinal barriers, and stigma stress regardless of the disorder may

influence one's perceived willingness to seek help and commence treatment (Andrade et al., 2014; Mojtabai, 2010, 2011; Rusch et al., 2013).

Noteworthy in this current study was that despite a majority of participants reporting some positive attitudes, for example “not at all” with respect to blame, and anger, and segregation, results showed an insignificant association between public stigma and the subscale help seeking propensity. This may be partially explained by the evaluation of England's Time to change program which indicated that positive attitudes towards the mentally ill rather than the lack of negative attitudes may be more important to help seeking behavior (Henderson et al., 2017). Schnyder et al. (2017) noted that although their meta-analysis did not find a significant association between public stigma and active help seeking in the general population, there was a tendency towards a decrease in help seeking as stigma increased. Hence, participants may not have reported sufficient positive attitudes to attain a significant association with help seeking propensity.

Research Question 4

Several sociodemographic variables and public stigma were significant predictors of ATSMHS scores and subscale scores. This current study revealed that age, ethnicity, religion, and public stigma were significant predictors of ATSMHS, and gender, age, and religion were significant predictors of help seeking propensity. Ethnicity and public stigma were significant predictors of indifference to stigma, and higher education and knowing anyone who experienced a mental health problem and public stigma were significant predictors of psychological openness. Marital and employment status were not

significant predictors of ATSMHS scores and subscale scores in this current study. Public stigma significantly negatively predicted the ATSMHS scores and the subscale scores with the exception of help seeking propensity.

Similar findings were reported in a general population survey in Slovenia with respect to males, those with lower educational attainment, and younger persons reporting more stigmatized attitudes towards help seeking behavior assessed using the IASMHS (Roskar et al., 2017). Analyses of epidemiological data of young to middle aged adult Swiss citizens revealed that younger males experiencing shame, with lower education attainment and perceived dearth of knowledge about mental health, showed greater negative attitudes towards help seeking from professionals (Rush et al., 2014). Likewise, results of a systematic review of depression revealed that being male, of lower educational status, and younger or older may decrease help seeking behavior (Magaard et al., 2017). In this current study females were significantly more likely than males to be willing to pursue help for psychological issues. Other studies have also supported this finding (e.g., Chen & Chandrasekara, 2016; Kessler, Agines, & Bowen, 2015; Thompson et al., 2016; Yousaf et al., 2015). However, Picco et al. (2016) in their study of Singapore residents 18-65 years old, did not find gender differences with respect to any of the three Attitudes Towards Seeking Professional Psychological Help Short Form factors. This current study found that participants with a college/university education were more likely than those with other levels of educational attainment to psychologically open to seeking help (Figure 6). This is consistent with research findings by Picco et al. (2016) that a

higher education was associated with positive attitudes towards seeking help for psychological problems.

Results of this current study are encouraging in view of Yap, Reavley, and Jorm's (2013) telephone survey of individuals aged 15-25 years old which revealed that older participants, females, and those who knew a friend or family member with a history of professional help seeking for a mental health problem were more likely to state the intention to seek help from a general practitioner, counselor, or mental health professional. Findings of this current study are also supported by results of a meta-analysis of undergraduate and graduate students indicating that female gender predicted positive attitudes to seeking psychological help (Nam et al., 2010). Studies of Jamaican adolescents aged 15-19 years old showed that they had the same or more positive attitudes than African-American adolescents towards seeking psychological help (Williams, 2013) and that increased age predicted more positive attitudes toward seeking psychological help (Williams, 2014). However, a study of 482 individuals in primary care centers in Jordon revealed that gender, age, and level of education were not predictors of attitudes towards seeking formal mental health services. Ages ranged from 18-74, 52.9% were female, and 67.6% attained diploma and bachelor's degree (Ali et al., 2017).

This current study revealed that Black and White participants and Christians with lower levels of public stigma were more likely than East Indian and Asian, and Hindus and Rastafarians respectively to have positive attitudes towards seeking mental health services as they get older. Participants who had attained a college/university level of

education and knew anyone who experienced a mental health problem were more likely than those with other levels of educational attainment who did not know anyone who experienced a mental health problem to be psychologically open to seeking mental health services. Blacks and Whites were more likely than East Indian and Asian to be indifferent to stigma. Females, older participants, and Christians were more likely than males, younger participants, and Hindus or Rastafarians respectively to show greater help seeking propensity.

The TPB postulates that when individuals consider a behavior they also consider social norms and beliefs about outcomes (Ajzen 1991; Ajzen & Madden, 1986). Also, control beliefs about a behavior may vary by age, ethnicity, gender, and environmental factors (Ajzen & Fishbein, 2005). The aforementioned relationships may be influenced by cultural and religious factors such as not wanting to shame their family or viewing the illness as a weakness (Picco et al., 2016). East Indians and Asians care about the view of their families with respect to mental illness (Singh et al., 2016). Hence, some of the participants in the current study may have been reluctant to seek help if they anticipated it bringing shame to the family (Murray et al., 2011). Norms and other cultural beliefs such as evil spirits or being able to handle the problem may have affected help seeking for both genders, and more so males (Mantovani et al., 2017; Nam et al., 2010; Williams, 2014). A dearth of participants' knowledge about mental health and symptoms and treatment of mental illness may have negatively affected ATSMHS and subscales (Rush et al., 2014; Turner et al., 2016). Consideration should also be given to the possibility that some participants who previously sought help for mental health problems may be

experiencing self-stigma which may decrease their self-esteem and self-efficacy and negatively impact their attitudes towards help seeking (Latalova et al., 2014; Luckstead & Deapalski, 2015; Pattyn et al., 2014; Wade et al., 2015).

Limitations of the Study

This cross sectional study only revealed the extent of the relationship between the variables which precludes any inferences about causality. Methodological assumptions were made with respect to research instruments and participants. Content validity and reliability of the AQ-9 and IASMHS would permit accurate measurement of public stigma towards mental illness and attitudes towards seeking mental health services respectively. A convenience sample with an underrepresentation of the male gender was studied. This may pose a threat to the internal validity of the study and results may not be generalizable to the general population.

Another threat to internal validity may be social desirability bias caused by the propensity of participants to report responses that portray a positive image to conceal stigmatizing beliefs (Corrigan et al., 2015; Corrigan & Shapiro, 2010). This may have been alleviated by allowing participants to respond to survey questions anonymously. This current study used a vignette to evaluate the public's attitudes and beliefs about a scenario about a man with schizophrenia which may have decreased social desirability bias (Parcesepe & Cabassa, 2013). It was not feasible to include all variables which may impact attitudes towards seeking mental health services in this study. Therefore, statistical analyses were used to control for confounding variables to rule out spurious relations that may explain changes in attitudes towards seeking mental health services.

Since the correlation of two variables does not prove causation which may be due to ambiguous temporal precedence, multiple regression analysis was conducted to enhance the quality of inferences (see Frankfort-Nachmias & Nachmias, 2008).

The literature review comprised of different types of studies in different countries based on different populations or ethnic groups using different research instruments to measure public stigma and attitudes towards seeking mental health services. These factors and the fact that public stigma was evaluated in reference to a vignette about someone with schizophrenia may limit general interpretations of findings. The effect of causal attributions, structural barriers, service related factors, religious beliefs, and sociocultural contexts on public stigma and ATSMHS cannot be ignored (Gronholm et al., 2017; Mantovani et al., 2017; Pedersen & Paves, 2014; Singh et al., 2016). Also, help seeking intentions may not emphatically reflect actual help seeking for mental health services (Pedersen & Paves, 2014; Yap et al., 2013).

Public stigma accounted for 10.4% of the variance in ATSMHS, 6.8% of the variance in psychological openness, 8% of the variance in indifference to stigma, and zero percent of the variance in help seeking propensity. Hence, the variances explained by regression models in this study were small indicating that other important variables were not included in this study. However, findings of this study are an impetus to direct initiatives at decreasing public stigma in order to enhance attitudes towards seeking mental health services, mindful of help seeking propensity to bring about social change in the medium to long term.

Recommendations

Mental Health Literacy and Anti-stigma Programs

Based on the research findings interventions targeting public stigma, associated sociodemographic and cultural factors, and attitudes towards seeking mental health services will be necessary to bring about social change (Handley et al., 2014). Mental health literacy and anti-stigma programs targeting communities and patients attending primary health care clinics can be the initial focus. Since lower educational attainment was negatively associated with ATSMHS, psychological openness, and indifference to stigma, the mental health literacy and anti-stigma programs should also focus on appropriate methods to educate those individuals who use public health services about the origins and consequences of mental illness, coping mechanisms, and treatment (Yokoya et al., 2018). Although public stigma was not a significant predictor of help seeking propensity, enhancement of this subscale can still be achieved with psychoeducation and minimizing external obstacles to enhance the intention and perceived ability to seek help for psychological problems (Kantor, Knefel, & Lueger-Schuster, 2017).

Anti-stigma programs can positively influence stigma and help seeking for mental health problems. Population based anti-stigma programs such as the Time to Change Anti-stigma Campaign in England has stimulated positive changes in attitudes and behaviors towards persons with mental illness. The aim of the program is to educate and not discriminate (Evans-Lacko, Kohrt, Henderson, & Thornicroft, 2017). Henderson, Robinson, Evans-Lacko, and Thornicroft. (2017) in their analysis of data from the Attitudes to Mental Health Survey found that individuals who were knowledgeable of the

Time to Change Anti-stigma program were more likely to reveal mental health concerns to acquaintances, family, or an employer; and to seek professional help for a mental health concern. Jung, von Sternberg and Davis (2017) found in their study of 211 (67.6% females) public housing staff ages 22-64 years in Texas, that mental health literacy and social support positively influenced attitudes towards seeking mental health services. Results of a study in Sweden indicated that mental health literacy and personal or family experience of mental illness were respectively negatively associated with stigma and social distance, which were significantly greater for an individual with psychosis versus depression (Svensson & Hansson, 2016).

Although the majority of participants (70.5%) knew someone who had experienced a mental health problem, they can also benefit from anti-stigma programs. Corrigan et al. (2002) found in their study of mental illness stigmas that individuals who had previous contact with persons with mental illness have responded more favorably than other groups to anti-stigma programs. A randomized trial to evaluate the effectiveness of mental health first aid training in Denmark revealed that 6 months after training the intervention group showed more confidence in contacting, communicating with, and assisting persons with mental illness than the control group (Jensen, Morthorst, Vendsborg, Hjorthøj, & Nordentoft, 2016). Mental health literacy and anti-stigma programs should also facilitate opportunities for recognizing and addressing cultural barriers and organizational or functional deficiencies that unintentionally deter help seeking for mental illnesses in primary care settings; and also create support networks

and policies (Corrigan, Markowitz, & Watson, 2004; Gronholm et al., 2017; Handley et al., 2014; Mehta et al., 2015; Singh et al., 2016).

Health Care Providers

Since a majority (59.3%) of the participant reported they would seek help for a mental health problem from a doctor, psychologist, or counsellor; nurses, and other clinicians working in community clinics should be active participants in initiatives to decrease public stigma and enhance help seeking for mental illnesses. Collaborative care with behavioral health providers and primary care physicians can increase access to mental health care in primary care settings and less use of emergency departments (Turner et al., 2016). Mental health literacy covers knowledge, attitudes, and beliefs related to mental disorders, risk factors, and help seeking, as well as preventative measures and treatment. Anti-stigma campaigns should not focus on one specific explanatory model, but rather address vulnerability to mental illness in terms of psychosocial and biogenetic factors (Schlier et al., 2014).

Interventions will need to be adapted to foster help seeking for mental health problems within primary care settings (Durbin et al., 2016; Henderson et al., 2017). Therefore, health care providers will also need training with regards to how to use their knowledge and training effectively. Provision of tools and resources for health care workers involved in mental health care and individuals seeking care to achieve goals, can improve the quality of life of individuals with mental illnesses (Damayanti, Hufad, & Kamil, 2017). Beaulieu et al. (2017) evaluated the outcome of a skilled based approach program for primary care providers and found a significant enhancement in the

confidence and comfort of physicians who did the program in managing mental illness. The WHO Mental Health Gap Action Programme designed to give primary care practitioners the tools to recognize and treat mental illness in primary care and community clinics is also a resource for consideration (WHO, 2018). Budget allocation for the education of primary care physicians and nurses and other health care providers will determine how quickly those tasks can be accomplished.

Research

There is no current in-country published research on attitudes of community health professionals towards individuals with mental illness, institutional deficiencies to help seeking for mental health services, or program evaluation. Hence, community-based participatory research including health care workers, community members, patients, and family members should be conducted to evaluate the effect of mental health literacy or anti-stigma programs, and the direction for future research (Corrigan & Shapiro, 2010; Corrigan, Druss, & Perlick, 2014). All stakeholders should have input into how research will be conducted and the issues for evaluation such as theoretical areas such as knowledge, behavioral, or psychological activities, and structural or community resources (Corrigan & Shapiro, 2010; Corrigan, Druss, & Perlick, 2014). Findings from quantitative and qualitative research have revealed areas that can be targeted to reduce stigma and increase positive attitudes towards seeking mental health services. However, research methodology should be aligned with the objective of producing evidence for making informed decisions with respect to allocation of resources to achieve specific goals such as expanding knowledge about illness in communities, facilitating the

provision of mental health services by primary care physicians, and strengthening referral systems (Singh et al., 2016; Thornicroft et al., 2016; Turner et al., 2016). Also, qualitative research targeting individuals with mental illness or mental health stakeholders can be used to explore structural and policy issues in mental health services (Corrigan, Druss, & Perlick, 2014; Taghva et al., 2017).

Implications

Results from this study has prospective positive social change implications. This study will add to the literature evidence of how public stigma and familiarity with mental illness influence attitudes towards seeking mental health services. Societal beliefs engender public stigma and cultural beliefs may lead to structural stigma (Mantovani et al., 2017). Hence, the dissemination of research findings in public and health platforms will facilitate enhanced advocacy and collaboration among health care workers and stakeholders. This will stimulate the impetus to strengthen the national mental health plan, and to develop and provide evidence based and cost-effective programs to decrease public stigma and enhance help seeking for mental health problems. Facilitation of an integrated mental health care model will also enhance help seeking and care for individuals with mental illness. Evidence based strategies will facilitate the necessary policy and practice changes taking into consideration culture and public stigma. The concurrent promotion of affirming attitudes such as recovery, autonomy, and empowerment will enhance social inclusion for individuals with mental health problems, and policy changes will combat the structural barriers to help seeking (Corrigan, Druss, & Perlick, 2014; Taghva et al., 2017).

Effective communication between health professionals and the public will empower individuals seeking mental health services and minimize negative attitudes towards mental health practitioners (Teh, Hayashi, Latner, & Mueller, 2016). Government and stakeholders may also be inspired to enhance resources, policies, and the legal framework to combat public stigma and enhance access to mental health services (Durbin et al., 2016). Results of this study may not only facilitate collaboration locally, but also regionally in the Caribbean in the endeavor to decrease stigma and enhance access to mental health care in the region. Healthcare administrators, clinicians, and policy makers can use research and local data to effectively target public education, establish anti-stigma campaigns, and develop patient-centered community mental health programs (Yap et al., 2012). Anti-stigma campaigns may target the public, mental health professionals, adolescents, and other groups. Also, further research may be stimulated to assess anti-stigma campaigns or programs and related issues.

Interventions to reduce stigma towards individuals seeking mental health services and the provision of quality mental health programs and policies, can promote social change by reducing the burden of mental illnesses (Staiger et al., 2017). Enhanced advocacy can facilitate the integration of mental health services into primary care, and collaboration among health care workers to bring about social change (Picco et al., 2015). The effective integration of mental health into primary care has prospects of reducing the overall burden of disease of mental illness in the future, through the implementation of cost-effective programs to combat public stigma, increased access to mental health professionals, and increased patient satisfaction (Beaulieu et al., 2017). Therefore, social

change will be possible with the reduction of public stigma towards individuals with mental illness in the medium to long term, the prospect of enhancing employment and educational opportunities, and social inclusion for individuals with mental illness (Ottewell, 2019; Singh et al., 2016).

Conclusion

The goal of this study was to examine associations and the effect of public stigma towards mental illness, and familiarity with mental illness on attitudes towards seeking mental health services in three community health clinics in the Bahamas. As previously discussed, stigma and the personal and societal consequences are a global concern. Hence, researchers continue to contribute through their work insights into different types of stigma and how to approach the associated challenges. In this current study, gender, age, ethnicity, religion, education, knowing someone who experienced a mental health problem, and public stigma were significant predictors of attitudes towards seeking mental health services. These findings may be used to inform interventions to reduce public stigma, enhance help seeking, and reduce the negative consequences of mental illness. However, there is still much work to be accomplished with respect to mental health literacy, treatment engagement, cultural awareness, further research, and required policy changes. Social change is the ultimate goal of the implementation of recommendations previously discussed, which can be attained through a multidisciplinary approach and the integration of mental health care into primary care. Clients, families, acquaintances, primary health care providers, and health facilities, with the support of

communities, organizations, and government must work collaboratively to bring about social change and reduce the public health burden of mental illness.

Stigma influences help seeking at the personal, health, and system levels (Corrigan, Druss, & Perlick, 2014). The results of this study indicated that public stigma has a moderate negative effect on attitudes towards seeking mental health services and knowing someone who had experienced a mental health problem had a small positive effect specifically on psychological openness. However, the effect of public stigma on the ATSMHS scores and subscale scores suggests that a significant portion of the variance of the independent variables was not explained by public stigma. Research has shown that stigma and help seeking behavior are also mediated by culture, mental health literacy, health providers and other factors (Corrigan, Druss, & Perlick, 2014). There is evidence that public health approaches to combating stigma implemented by a mental health literate workforce can enable access to mental health care (Henderson et al., 2017). Hence, while implementing strategies to address public stigma and establishing policies to support changes there will be opportunities for further research.

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Appendix A: Attitudes About Mental Health

This research questionnaire has four sections. Each section will give instructions as to how to answer the questions. Please read carefully before answering questions.

No: _____

Section 1: Sociodemographic Data

This Section 1 asks personal questions about you and questions about your employment and education status.

Please place an **X** in the box with the appropriate answer.

1. Gender: Male Female

2. What was your age on your last birthday? _____ years

3. Ethnicity: Black White East Indian Asian
 Other, please state _____

4. Religion: Christian Hindu Rastafarian
 None Other, please state _____

5. Marital Status: Married/Common-law relationship
 Separated/Widowed/Divorced
 Single
 Other, please state _____

6. Employment Status: Part-time Full-time Not employed

7. Highest level of education achieved:

<input type="checkbox"/> Primary (Grades 1-8)	<input type="checkbox"/> Secondary (Grades 9 -12)
<input type="checkbox"/> Technical/Vocational	<input type="checkbox"/> College/University

For each statement, indicate with a **X** in the appropriate box whether you *disagree* (0), *somewhat disagree* (1), *are undecided* (2), *somewhat agree* (3), or *agree* (4):

	Disagree	Somewhat Disagree	Are Undecided	Somewhat Agree	Agree
	0	1	2	3	4
1. There are certain problems which should not be discussed outside of one's immediate family					
2. I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems					
3. I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems					
4. Keeping one's mind on a job is a good solution for avoiding personal worries and concerns					
5. If good friends asked my advice about a psychological problem, I might recommend that they see a professional					
6. Having been mentally ill carries with it a burden of shame					

Disagree	Somewhat Disagree	Are Undecided	Somewhat Agree	Agree
0	1	2	3	4

7. It is probably best not to know everything about oneself

8. If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy

9. People should work out their own problems; getting professional help should be a last resort

10. If I were to experience psychological problems, I could get professional help if I wanted to

11. Important people in my life would think less of me if they were to find out that I was experiencing psychological problems

12. Psychological problems, like many things, tend to work out by themselves

Disagree	Somewhat Disagree	Are Undecided	Somewhat Agree	Agree
0	1	2	3	4

13. It would be relatively easy for me to find the time to see a professional for psychological problems

14. There are experiences in my life I would not discuss with anyone

15. I would want to get professional help if I were worried or upset for a long period of time

16. I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it

17. Having been diagnosed with a mental disorder is a blot on a person's life

Disagree	Somewhat Disagree	Are Undecided	Somewhat Agree	Agree
0	1	2	3	4

18. There is something admirable in the attitude of people who are willing to cope with their conflicts and fears without resorting to professional help

19. If I believed I were having a mental breakdown, my first inclination would be to get professional attention

20. I would feel uneasy going to a professional because of what some people would think

21. People with strong characters can get over psychological problems by themselves and would have little need for professional help

22. I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family

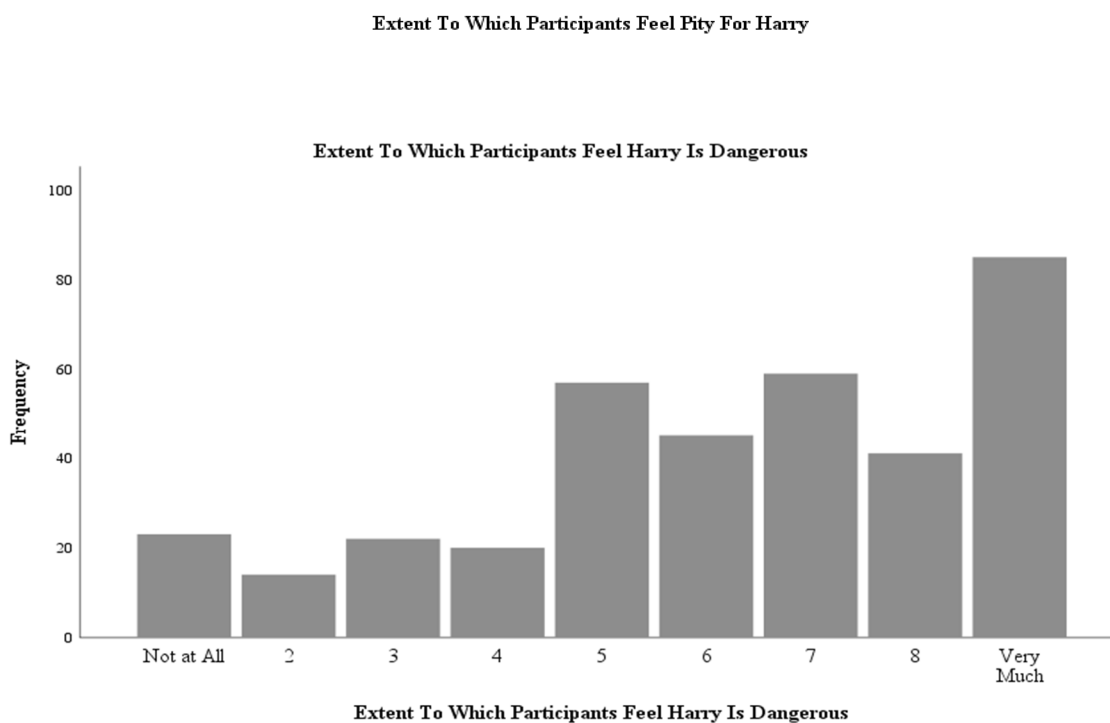
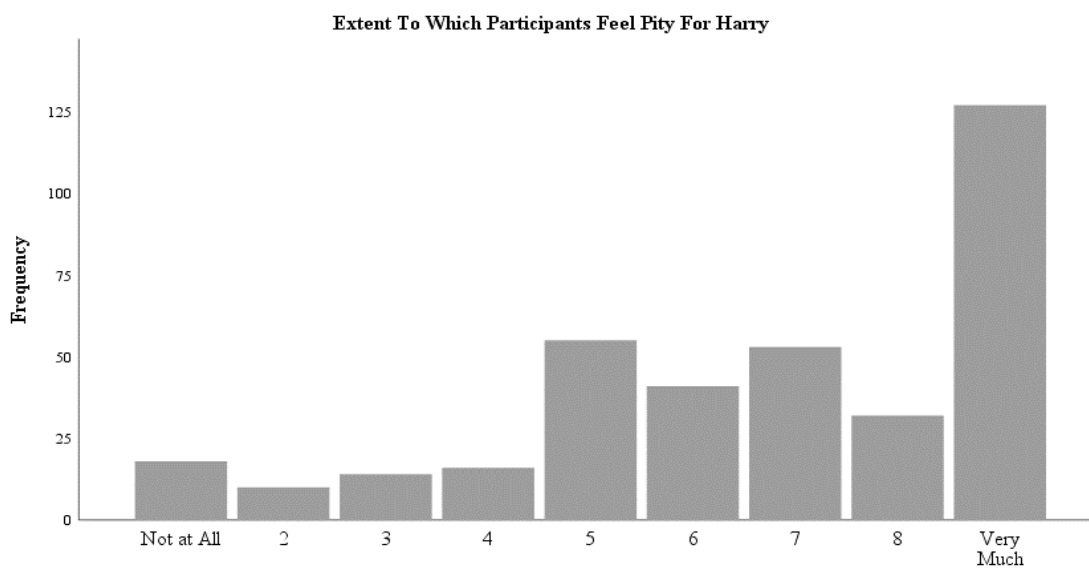
Disagree	Somewhat Disagree	Are Undecided	Somewhat Agree	Agree
0	1	2	3	4

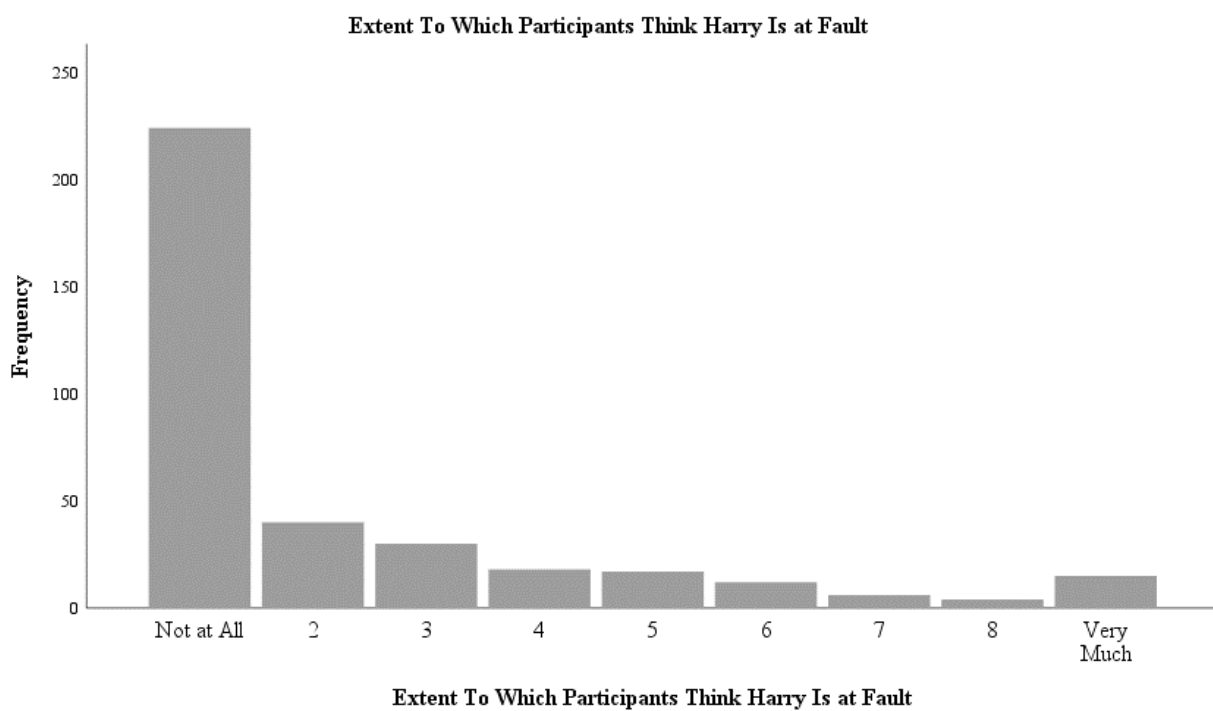
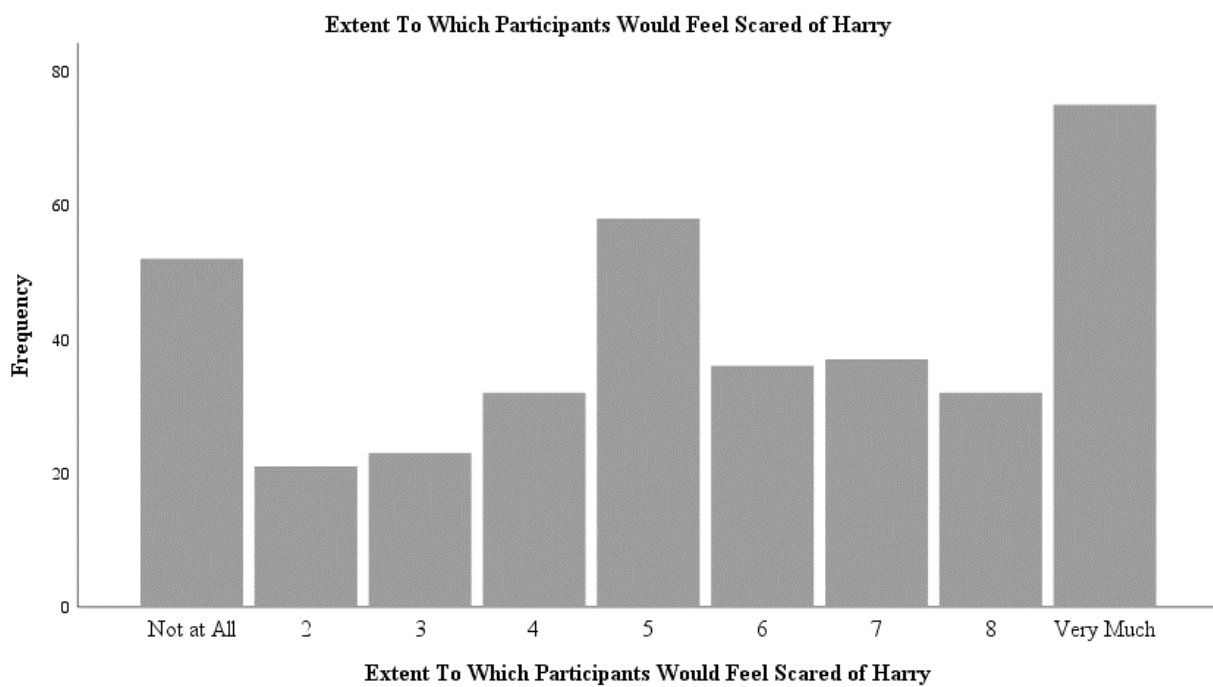
23. Had I received treatment for psychological problems, I would not feel that it ought to be “covered up.”

24. I would be embarrassed if my neighbor saw me going into the office of a professional who deals with psychological problems

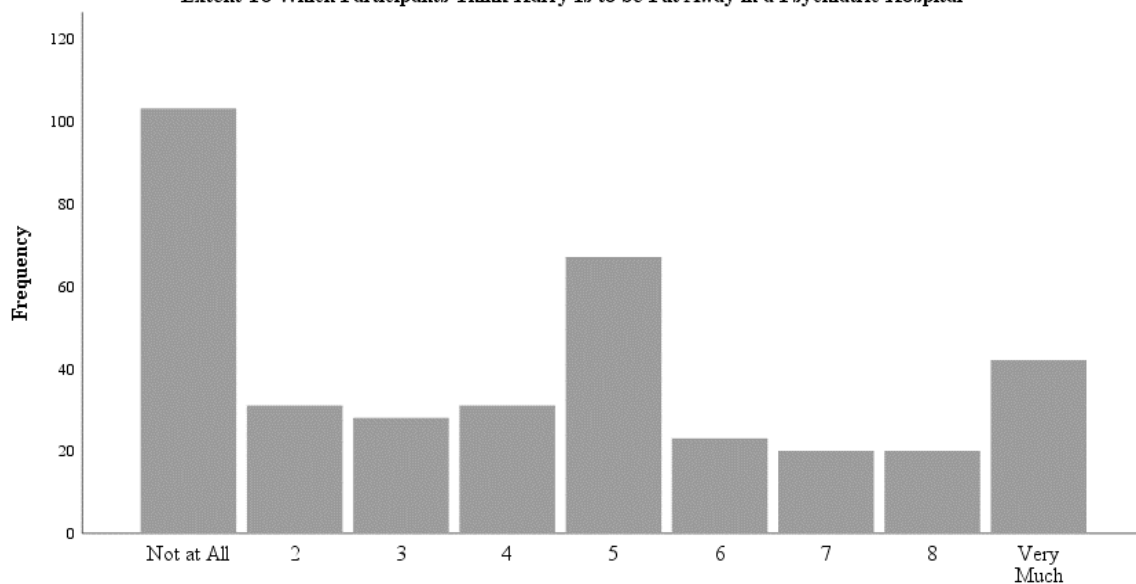
Please check that you have answered all questions. Thank you for participating in the survey. Please insert your completed questionnaire in the secured box by the receptionist’s desk.

Appendix B: Distribution of Items of AQ-9 Questionnaire



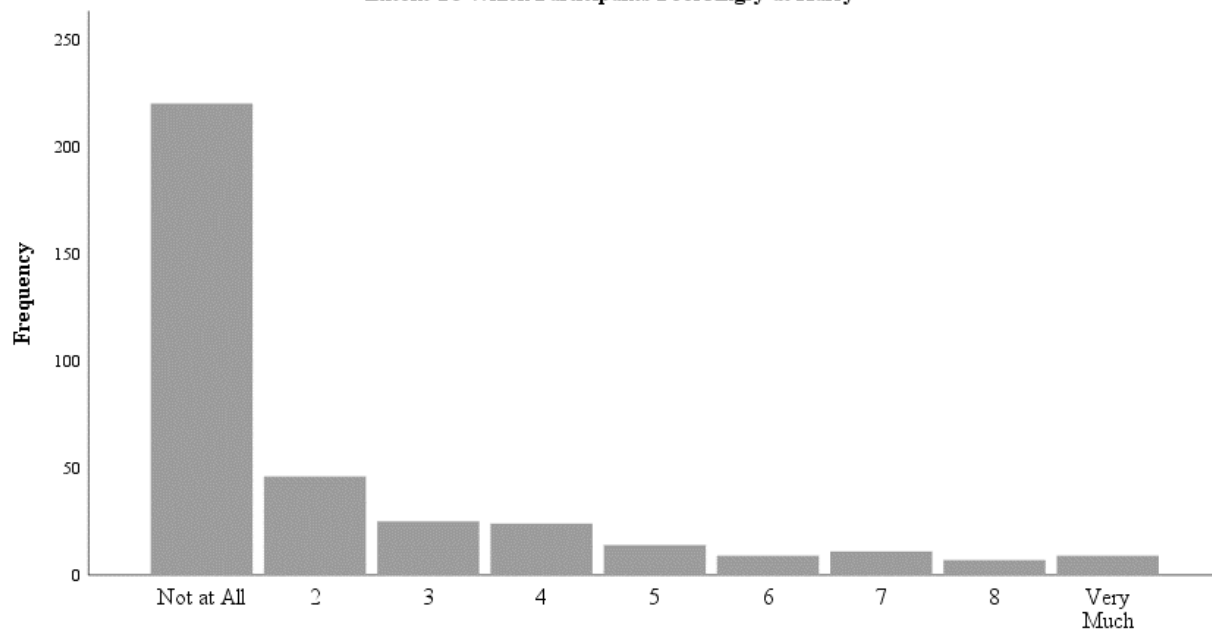


Extent To Which Participants Think Harry Is to be Put Away in a Psychiatric Hospital

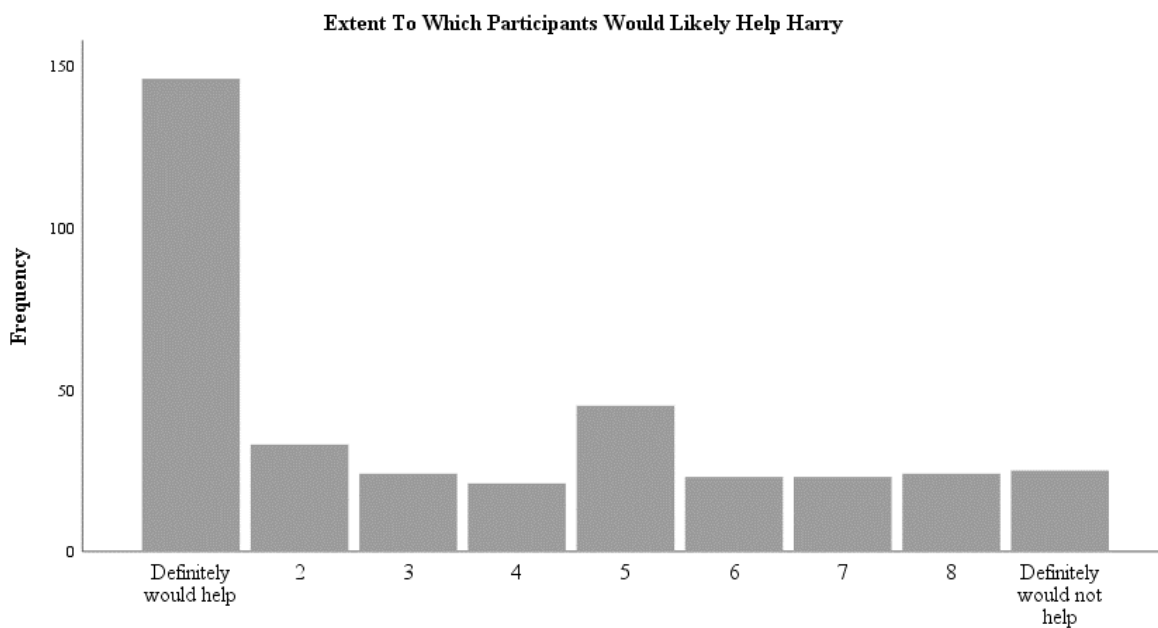


Extent To Which Participants Think Harry Is to be Put Away in a Psychiatric Hospital

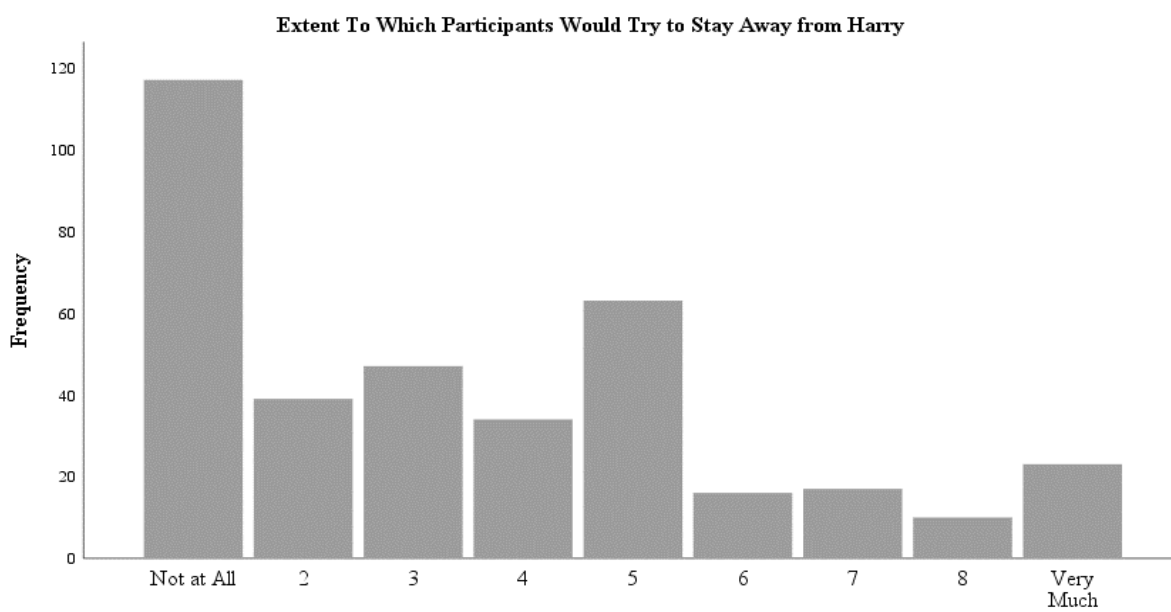
Extent To Which Participants Feel Angry at Harry



Extent To Which Participants Feel Angry at Harry

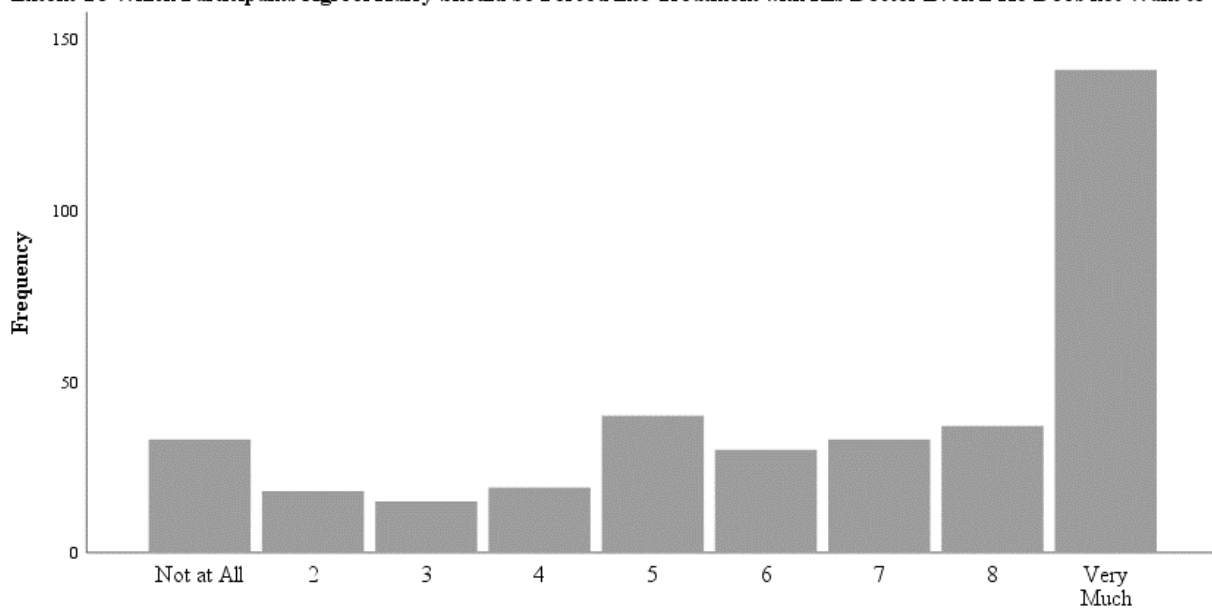


Extent To Which Participants Would Likely Help Harry



Extent To Which Participants Would Try to Stay Away from Harry

Extent To Which Participants Agree Harry Should be Forced into Treatment with His Doctor Even if He Does not Want to



Extent To Which Participants Agree Harry Should be Forced into Treatment with His Doctor Even if He Does not Want to

Appendix C: Permission to Modify Figure 1

On Wed, Mar 21, 2018 at 12:22 AM Eugenia Combie-Knowles <[REDACTED]> wrote:
Dr. [REDACTED]

Thank you for granting me permission.

Regards,

Eugenia Combie

From: [REDACTED] >
Sent: Tuesday, March 20, 2018 2:44:08 PM
To: Eugenia Combie-Knowles
Subject: Re: Integrated Theoretical Model of the Mechanisms of Help Seeking Behavior

Dear Eugenia Combie,
Yes, you can, but please acknowledge it well. Dissertation is for masters or Ph.D.?

Thanks,

Dr. [REDACTED]

Dr. [REDACTED]

On Tue, Mar 20, 2018 at 11:26 PM, Eugenia Combie-Knowles <[REDACTED]> wrote:
Dear Sir/Madam

I am requesting permission to make modifications to your diagram on the “Integrated Theoretical Model of the Mechanisms of Help Seeking Behavior” for my dissertation. It appeared in your article “Chen, Z., & Chandrasekara, W. (2016). The psychological mechanism of stigmatizing attitudes toward help seeking behavior for mental health problems. *International Journal Of Management, Accounting & Economics*, 3(11), 720-734. Page 4 Retrieved from <http://search.ebscohost.com>. I look forward to your response.

Eugenia Combie

Appendix D: Permission to Use the AQ-9

From: Eugenia Combie-Knowles
Sent: Saturday, April 20, 2019 12:11 AM
To: [REDACTED]
Subject: RE: Attribution Questionnaire AQ-9

Thank you very much [REDACTED]

Regards,

Eugenia

From: [REDACTED] >
Sent: Saturday, April 20, 2019 12:10:22 AM
To: Eugenia Combie-Knowles
Subject: RE: Attribution Questionnaire AQ-9

You have my permission

[REDACTED]

[REDACTED]

National Consortium on Stigma and Empowerment (www.NCSEI.org)
 Honest, Open, Proud Program (www.HOPprogram.org)
Stigma and Health, an APA Journal (<http://www.apa.org/pubs/journals/sah/index.aspx>)

Chicago Health Disparities Center (www.chicagohealthdisparities.org)

From: Eugenia Combie-Knowles <[REDACTED]>
Sent: Friday, April 19, 2019 10:09 PM
To: [REDACTED]
Subject: Attribution Questionnaire AQ-9

Good Day [REDACTED]

My name is Eugenia Combie-Knowles. I am a PhD student of Walden University presently working on my research proposal for my PhD Health Services. [REDACTED] my research topic is Public Stigma, Familiarity With Mental Illness, and Attitudes Toward Seeking Mental Health Services. I am requesting your permission to use the Attribution Questionnaire (AQ-9). I look forward to your response. Thank you.

Regards,

Eugenia Combie-Knowles

Appendix E: Permission to Use the IASMHS

From: Eugenia Combie-Knowles
Sent: Monday, July 15, 2019 7:08 PM
To: [REDACTED]
Subject: RE: Permission to use the ATSMHS Questionnaire

Thank you very much Dr. [REDACTED]

Regards,

Eugenia

From: [REDACTED]
Sent: Monday, July 15, 2019 4:16:31 AM
To: Eugenia Combie-Knowles
Subject: Re: Permission to use the ATSMHS Questionnaire

Hi Eugenia,

You have my permission to use our inventory. Good luck with your dissertation research. I've attached a Word version with scoring instructions.

[REDACTED]

From: Eugenia Combie-Knowles [REDACTED]
Date: Sunday, July 14, 2019 at 1:19 AM
To: [REDACTED]
Subject: Permission to use the ATSMHS Questionnaire

Good Day [REDACTED]

My name is Eugenia Combie-Knowles. I am a student at the Walden University presently working on my dissertation for the PhD in Health Services. The title of my dissertation is Public Stigma, Familiarity with Mental illness, and Attitudes Towards Seeking Mental Health Services. Therefore, I am requesting your permission to use the Inventory of Attitudes Towards Seeking Mental Health Services as one of my data collection instruments. I look forward to your response. Thank you.

Regards,
Eugenia Combie-Knowles