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EXPLORING RELATIONSHIPS BETWEEN DEPRESSION SELF-STIGMA AND  
TRUST IN PRIMARY CARE PROVIDER ON WILLINGNESS TO SEEK HELP

by

Tana May Karenke, RN, BSN

A Dissertation submitted to the Faculty of the Graduate School,  
Marquette University,  
in Partial Fulfillment of the requirements for the Degree  
Doctor of Philosophy

Milwaukee, Wisconsin

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## ABSTRACT

EXPLORING RELATIONSHIPS BETWEEN DEPRESSION SELF-STIGMA AND  
TRUST IN PRIMARY CARE PROVIDER ON WILLINGNESS TO SEEK HELP

Tana M. Karenke, RN, BSN

Marquette University, 2022

Depression is a mood disorder characterized by persistent feelings of sadness and/or loss of interest that effects an individual's ability to carry out day-to-day activities. Depression can diminish one's social functioning, interpersonal relationships, personal care, and work productivity. Despite the availability of various treatments for depression, roughly 34% of people suffering from depression symptoms do not seek treatment.

Significant barriers for seeking help for depression symptoms include the stigma of mental illness and a lack of trust in healthcare providers; however, there is a paucity of research exploring the relationship between mental illness stigma and the role of trust in providers on willingness to seek help for depression symptoms. The research shows that increased mental illness stigma is associated with decreased trust in providers, while higher levels of patient trust in providers is associated with more positive health outcomes and satisfaction.

The primary care setting is frequently the first point of care for patients experiencing mental health challenges, yet the majority of the literature exploring mental health help-seeking attitudes is focused on mental health professionals and not Primary Care Providers (PCPs). The role of trust in one's PCP as a potential moderator to depression self-stigma and facilitator to increased willingness to seek help for depression symptoms from a PCP remains underexplored. This study aims to fill a gap in the state of the science by investigating the role of trust in one's PCP and depression self-stigma in predicting willingness to seek help for depression symptoms from a PCP.

A non-experimental correlational cross-sectional descriptive survey study design was used. The variables of interest depression self-stigma and trust in provider were measured using reliable and validated instruments. Participants were recruited through a non-probability convenience sample by way of a public Facebook advertisement and a research flyer posted throughout the community with a link to the online Qualtrics survey.

Findings from this study gleans important implications to nursing practice, as a large portion of Nurse Practitioners (NPs) are working as PCPs. Results of this study consistently revealed that trust in PCP predicted willingness to seek help for depression symptoms from a PCP. These findings help guide future mental healthcare initiatives and best practices in relation to the patient-provider relationship in the Primary Care setting.

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Tana May Karenke, RN, BSN

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## **Chapter 1: Introduction**

### **Background**

Depression is a mood disorder that impacts an individual's ability to carry out day-to-day functions. Depression causes persistent feelings of sadness, emptiness, hopelessness, irritable mood, a loss of interest in activities once enjoyed, and somatic and cognitive symptoms, such as pain and fatigue (American Psychiatric Association [APA], 2020; American Psychiatric Association, 2013; National Institute of Mental Health [NIMH], 2021). Depression severity is based on the number and intensity of symptoms (DSM-5) (American Psychiatric Association, 2013). Individuals marked by mild symptoms are still at risk for the development of severe depression. Therefore, early treatment for all forms of depression is indicated to prevent poor outcomes.

Depression is characterized by changes in affect, cognition, and neurovegetative functions lasting at least two weeks, though it is often longer lasting (American Psychiatric Association, 2013). Depression can cause functional impairments that limit one's ability to carry out major life activities, such as work, school, and family responsibilities (NIMH, 2022; WHO, 2021). Prevalent functional impairments associated with depression include lost work productivity due to absenteeism and presenteeism (Greenberg et al., 2015; Sheehan et al., 2017). Individuals with depression may have poor job performance due to impaired concentration or increased fatigue and tiredness and therefore not perform well at work (American Psychiatric Association, 2013). Additionally, individuals with depression might use an increased number of sick days or simply not report to work (American Psychiatric Association, 2013). While Major Depressive Disorder is correlated with decreased work productivity, even minor

depressive symptoms, such as fatigue and inability to concentrate are associated with decreased work productivity (Sheehan et al., 2017). Depression can also impair one's social functioning, interpersonal relationships, personal care, and their overall quality of life (QOL) (Sheehan et al., 2017). An individual who experiences moderate to severe depression intensity can encounter difficulty in carrying out day-to-day activities such as, social interactions, work responsibilities, or other domestic responsibilities (WHO, 2021).

Harrowing consequences of depression include suicidality, attempted suicide, and successful completion of suicide (WHO, 2021). While there is a link between suicide and mental disorders such as depression, many suicides are due to an acute crisis with an inability to deal with life stresses, such as financial problems, divorce, relationship break-ups, and chronic pain and illness (WHO, 2021). It is difficult to discern the exact cause of suicide. Data estimating lifetime risk of suicide among individuals with a mood disorder varies between studies and is not very representative of the prevalence of suicide due to depression in the general population (Isometsä, 2014). Much of the data available on risk of suicide has been in individuals with a psychotic disorder or as treated inpatients (Isometsä, 2014). It is estimated that between 30%-40% of patients, both in inpatient and outpatient settings, suffering from Major Depressive Disorder (MDD) attempt suicide (Isometsä, 2014). Currently, the most reliable predictor of suicide is a previous suicide attempt (WHO, 2021).

There are two main effective treatments for depression: Psychotherapies and medication. These treatments can be used independently or in combination. (WHO, 2021). A combination of psychotherapy and pharmacotherapy has been shown to be more effective for Major Depressive Disorder than medication alone (Cuijpers et al.,

2014). Furthermore, if major depressive symptoms are resistant to psychotherapy and/or pharmacotherapy, other treatments such as electroconvulsive therapy (ECT) is an option to explore (NIMH, 2021).

### **Key Variables**

**Stigma.** Barriers to effective depression treatment include the cost associated with treatment and medications, and concern for medication side-effects (Baeza-Velasco et al., 2019; Hudson et al., 2015; Walker et al., 2015). Another significant barrier for seeking help for depression is the stigma of mental illness (Brown et al., 2010; Clement et al., 2015; Corrigan et al., 2014; Menke & Flynn, 2009; Schnyder et al., 2017). The term stigma comes from the Latin word *stigmat*, meaning "mark, brand," and ultimately originates from the Greek word *stizein*, meaning "to tattoo" (Merriam-Webster, n.d.). The first notable conceptualization of stigma was described as a situation in which an individual is disqualified from full social acceptance due to an attribute that is deeply discrediting, resulting in a spoiled identity (Goffman, 1963). Over the next 40 years the concept of stigma evolved to include the effects of labeling individuals with a mental illness (Becker 1963; Link, 1987; Scheff 1963). In mental illness, labeling theory posits that individuals who are marked as deviant are so due to authority figures, such as police officers, judges, and psychiatrists; all of whom have the authority to classify deviant behavior as mentally ill (Becker 1963; Scheff 1963). Through this authoritative labeling, mental illness stereotypes are culturally constructed (Scheff 1963). This furthermore evolved into Modified Labeling Theory (Link, 1987; Link et al. 1989). Modified Labeling Theory further expounds on labeling theory by shifting the focus from the public's stereotypical perceptions of mental illness to the damaging effects endured by

the labeled individual (Link et al., 1989). In this theory, labeled individuals feel shame, different from and devalued by society, which manifests in lower self-esteem, heightened need for secrecy and social withdrawal (Link et al. 1989).

Historically, individuals with mental illnesses have been perceived as dangerous, unpredictable, weak, and incompetent, especially in American culture (Phelan et al., 2000). This pervasive cultural view of mental illness is likely attributable to the early medical model of mental illness and how mental illness in general became analogous with psychosis (Phelan et al., 2000). The crystallization of psychotic features and misconceptions of mental illness held by the public can further manifest in stereotype threat (Link et al., 1989). Stereotype threat is a phenomenon that occurs when an individual becomes aware of the stereotype being applied to them (Steele & Anderson, 1995). The stereotype then becomes a threat or challenge for the individual due to the individual now being evaluated in accordance with the stereotype (Steele & Anderson, 1995). This challenge can further manifest in the false confirmation of the stereotype by the individual which is then exhibited through their behavior (Steele & Anderson, 1995).

In the last twenty years, stigma in the context of mental health has received more attention, resulting in the precedent mental illness stigma theories undergoing further categorization. The antecedent effects of mental illness stigma, such as cultural stereotyping, discriminating, and labeling, as well as the internalized effects of feeling shame, different, devalued, withdrawing from social engagement, and secrecy (Link et al., 1989) have been further delineated into two main constructs, public stigma and self-stigma (Corrigan & Watson, 2002; Vogel et al., 2017). Public stigma is the societal view of a person with a mental illness, while self-stigma is the internalization of the public

stigma (Corrigan & Watson, 2002; Vogel et al., 2017). Within the last ten years, Corrigan and colleagues have presented The Progressive Model of self-stigma (Corrigan et al., 2011), also referred to as the Stage Model of Self-stigma (Corrigan & Rao, 2012). This model outlines four procedural stages involved in the internalization of stigma, known as self-stigma. In this framework, one's awareness of the public stigma about their condition (stereotype awareness) precedes one's agreement with the negative views held by the general public (personal agreement). This personal agreement then translates into the application, or internalization (self-concurrence), of the stigma (Corrigan et al., 2011; Corrigan & Rao, 2012); thus, the formation of self-stigma. A consequential fourth stage to the model is self-harm in the form of low self-esteem and low self-efficacy (Corrigan et al., 2011; Corrigan & Rao, 2012). Low self-esteem and low self-efficacy further manifest as a "why try?" effect (Corrigan et al., 2011; Corrigan & Rao, 2012). It is this "why try?" effect that serves as a barrier to achieving life goals (Corrigan et al., 2011; Corrigan & Rao, 2012), including seeking care and engaging in treatment (Corrigan et al., 2014; Corrigan et al., 2009).

Recent research has demonstrated that self-stigma is the key barrier to seeking psychological help (Arnaez et al., 2020; Clement et al., 2015; Jennings et al., 2015; Vogel et al., 2017). Findings from a cross-cultural study by Vogel et al. (2017) suggests a pathway through which higher levels of public stigma are associated with higher levels of self-stigma, and it is ultimately the higher levels of self-stigma that are associated with negative attitudes about seeking psychological help. This finding is in line with earlier research that demonstrates the mediating effect of self-stigma on public stigma and

willingness to seek counseling for psychological and interpersonal concerns (Vogel et al., 2007).

A more recent mediation model demonstrated that self-stigma, as well as self-reliance, fully mediated the relationship between perceived (public) stigma and attitudes toward seeking treatment (Jennings et al., 2015). In the model, the direct effect between perceived (public) stigma and attitudes toward seeking treatment were not significant after adding the mediators (Jennings et al., 2015). The authors discovered that both forms of stigma were related to self-reliance, and that self-reliance mediated the relationship between perceived (public) stigma and self-stigma, and treatment-seeking (Jennings et al., 2015). This is the only article to date found in the literature that examined the relationships of both public stigma and self-stigma with self-reliance and treatment-seeking. The authors anticipate that heightened stigma might contribute to individuals feeling they should manage their psychological problems on their own rather than seek professional help (Jennings et al., 2015). The role of self-stigma and self-reliance requires further research in order to support this assumption.

Jennings and colleagues (2015) also discovered the mediating role and strength of self-stigma, as opposed to public stigma alone, on treatment-seeking attitudes. Furthermore, a recent systematic review exploring the impact of mental health stigma on help-seeking showed small negative associations between internalized stigma and treatment stigma (Clement et al., 2015). Analysis of the studies examining the association between stigma and help-seeking found no association between anticipated stigma, experienced stigma, perceived (public) stigma, stigma endorsement, or other stigma on help seeking (Clement et al., 2015), thus pointing to the predominant role of self-stigma

on seeking help. Likewise, internalized stigma was also recognized in the qualitative studies as a barrier to help-seeking (Clement et al., 2015). Like the overall findings in the systematic review by Clement and colleagues (2015), a more recent study also found internalized stigma showed a stronger association than perceived stigma regarding barriers to care (Arnaez et al., 2020). Historically, mental illness stigma has been explored and understood as a significant barrier to seeking help for a mental illness, though the relationship between public stigma and self-stigma has been less understood until recently. The extant research exploring the dynamics of public stigma and self-stigma of mental illness on help-seeking attitudes points to a cascading effect of the internalization process of public stigma into self-stigma, with self-stigma being a highly influential barrier to seeking help.

**Depression Self-Stigma.** In this study, depression self-stigma is a form of mental illness stigma and is defined as the internalization of negative stereotypes about depression.

**Medical Mistrust.** Another significant barrier to engaging in healthcare overall is medical mistrust especially among minority populations and socioeconomically disadvantaged patients (Arnett et al., 2016; Benkert et al., 2019; Cuevas et al., 2019; Powell et al., 2019); however, the role of medical mistrust as a barrier to seeking help for a depression is underexplored. One qualitative study was located that addressed a lack of trust in provider as a barrier to seeking help for depressive symptoms in pregnant women (Jesse et al., 2008). In the literature the terms “medical mistrust”, “provider mistrust”, and “provider distrust” are often used interchangeably; however, the overarching conceptualization of medical mistrust is defined as mistrust in medical institutions and



the greater healthcare system, while mistrust in provider is conceptualized as mistrust or distrust in a physician or other healthcare provider. It is important to note that medical mistrust can also serve as a precursor to mistrust in provider (Cuevas et al., 2019), though this relationship requires further investigation. For the purpose of this study the term medical mistrust will be used and encompasses all levels of mistrust in the healthcare system and providers.

Medical mistrust and racially-ethnically diverse group discrimination predict reduced treatment adherence, intention to use a health service, poorer health service delivery outcomes, and lower satisfaction with care (Benkert et al., 2019). Medical mistrust predicts lower cancer screening rates and is linked to decreased engagement with healthcare overall (Benkert et al., 2019). It has been well documented in the literature that racial disparities exist in healthcare (Benkert et al., 2019; Institute of Medicine [IOM], 2003). One contribution to this disparity is medical mistrust. America's history of unethical medical experimentation on African Americans, particularly the Tuskegee Syphilis Study, has profoundly rooted a sense of cultural mistrust towards health care providers. Another contributor to medical mistrust is poor patient-provider communication due to a lack of racial concordance in the healthcare setting (Shen et al., 2018). In a systematic review, Benkert et al. (2019) found in most of the qualitative studies, the participants described medical mistrust as affecting their behavioral actions, such as cancer screening and healthcare seeking overall (Benkert et al., 2019). Most of the quantitative studies found that medical mistrust and perceived discrimination were negatively associated with treatment adherence, intention to use a health service, health service delivery outcomes, and satisfaction with care (Benkert et al., 2019). In a

secondary data analysis of a larger study assessing the effect of Patient Centered Communication (PCC) on patients' ratings of physicians and acceptance of medical recommendations, Cuevas et al. (2019) found that African American participants reported higher levels of medical mistrust compared to the White participants in the study.

Moreover, racial disparities in the primary care setting have been identified. Historically, African Americans have been found to use the emergency department (ED) as their primary source of healthcare more frequently than their White American counterparts (Arnett et al., 2016; Brown et al., 2012). In a cross-sectional study using data from a larger Exploring Health Disparities in Integrated Communities (EHDIC) study, Arnett et al. (2016) looked at the role of medical mistrust in selecting location of care. Results of this study revealed that the African American participants were more likely than their White counterparts to use the ED versus a primary care setting; however, when medical mistrust was added to the model, racial differences in the risk of using the ED versus the primary care setting were not found (Arnett et al., 2016). This study demonstrates that medical mistrust accounted for the racial disparity in choosing the ED over the primary care setting as usual source of care.

Furthermore, it has been recognized that African American men report higher levels of medical mistrust and have been found to delay preventive healthcare more frequently than non-Hispanic White men (Powell et al., 2019). In a secondary data analysis using data from a larger African American Men's Health and Social Life study, Powell et al. (2019) examined associations between medical mistrust, perceived racism in healthcare, everyday racism, and preventive health screening delay in African American men from a geographically and socioeconomically heterogeneous community-based

sample. Results indicated that African American men with higher medical mistrust were more likely to delay routine check-ups and blood pressure screenings (Powell et al., 2019). While the literature examining the influence of medical mistrust as a barrier to seeking help for mental illness is sparse, it has been well established that medical mistrust is a barrier to seeking healthcare overall, particularly among racial-ethnic minority and socioeconomically disadvantaged patients.

Trust is an essential component to the patient-provider relationship. Results of four recent studies link trust in one's provider to positive patient outcomes (Abel & Efird, 2013; AlRuthia et al., 2019; AlRuthia et al., 2020; Birkhäuser et al., 2017). In a cross-sectional study including African American women with a diagnosis of hypertension, results demonstrated that the participants with higher reported trust in their health care providers were more likely to maintain adherence to their antihypertensive medications than the participants who did not trust their health care providers (Abel & Efird, 2013). Trust in this study was measured using the Trust in Physician Scale (Anderson & Dedrick, 1990). In a second study, a meta-analysis of 47 studies examining trust in the health care professionals and health outcomes, found a small to moderate correlation between trust and health outcomes. Patients with higher measured trust in their provider reported more beneficial health behaviors, fewer symptoms, higher quality of life, and increased satisfaction with treatment (Birkhäuser et al., 2017). The analysis found the Trust in Physician Scale (Anderson & Dedrick, 1990) to be the most commonly used measure (n=24) across the 47 studies (Birkhäuser et al., 2017). While the Trust in Physician Scale (Anderson & Dedrick, 1990) is a reliable and validated measure of trust frequently cited within the literature, it was not designed to measure trust in non-

physician providers, such as Nurse Practitioners and Physician Assistants, who are playing an increasing role in the delivery of primary care. It is estimated that over 75% of currently practicing NPs, and 35% of actively practicing PAs are providing care in the primary care setting (Park et al., 2019).

Furthermore, the construct of trust measured in the Trust in Physician Scale is interpersonal trust (Anderson & Dedrick, 1990). Interpersonal trust is inherently unilateral; meaning, in the patient-provider dyad, patients are the sole bearers of trust. Interpersonal trust focuses on a person's belief that the physician's actions and words are credible and reliable (Anderson & Dedrick, 1990). This trust is separate from the other extant concept of trust, called collaborative trust, which is partnership-based and focuses on trust that develops between a patient and health care provider over time (Bova et al., 2006).

**Trust in Primary Care Provider.** In the healthcare setting, trust can be categorized as trust in the healthcare system or trust in healthcare providers (Hong et al., 2018). Trust is defined as a noun and a verb. Trust as a noun is defined as: 1 (a) “assured reliance on the character, ability, strength, or truth of someone or something, (b) one in which confidence is placed” (Miriam-Webster, n.d). Trust as a verb is defined as: (a) “to rely on the truthfulness or accuracy of,” (b) “to place confidence in: rely on,” (c) to hope or expect confidently” (Miriam-Webster, n.d.). In this study, trust in PCP is a modification of the dictionary definition of trust and the Bova et al. (2006) concept of collaborative trust. Trust in this study refers to the patient's belief, developed over time through a partnership centered on mutual respect and goal sharing, that their PCP is able and willing to act truthfully and, in the patient's best interests.

**Willingness to seek help from a PCP.** Willingness to seek help is operationally defined as the state of being prepared with a potential course of action to seek help from one's PCP. Unwillingness to seek help is operationally defined as the reluctance to carry out a course of action to seek help from one's primary care provider. In the literature, instruments to measure mental health help-seeking attitudes rely exclusively on attitudes regarding seeking help from a mental health professional, such as a therapist or psychiatrist, and not a PCP. Due to the paucity of measures available for this study, the concept of 'willingness to seek help from a PCP' will be measured by a single-item 11point Likert-scale question developed by the researcher.

**Depression.** The definition of depression symptoms for this study is adapted from the DSM-5 criteria, which defines depressive disorders as all sharing common features. These common features include persistent feelings of sadness, emptiness, hopelessness, irritable mood, lost interest in activities once enjoyed, and somatic and cognitive symptoms that impact an individual's ability to carry out day-to-day functions (American Psychiatric Association, 2013). This study will report measurement of depression symptoms, as defined by the DSM-5 criteria, not the clinical diagnosis of depression.

### **Statement of the Problem**

Despite the availability of various treatments for depression, counseling and medications for example, individuals stigmatized by depression and other mental illnesses often avoid seeking help due to mental illness stigma (Corrigan et al., 2014). The primary care setting is frequently the first point of care for patients with mental health concerns (Crowley & Kirschner, 2015); however, much of the literature exploring mental health help-seeking attitudes is focused on mental health professionals, such as

psychiatrists, therapists and counselors, and not PCPs. Moreover, PCPs also include providers other than physicians, such as Nurse Practitioners. In the face of primary care physician shortage, public policy has advocated for increased use of Nurse Practitioners (Auerbach et al., 2020). Additionally, nurses are repeatedly found to be the most honest and ethical profession in the United States (Gallup Organization, 2021), and this might play a role in the utilization of primary care for those with highly stigmatized conditions, such as depression. Given that Nurse Practitioners are registered nurses, their formal education uniquely prepares them for building therapeutic and trusting relationships. As our nation shifts access to mental health care to the primary care setting, the role of Nurse Practitioners in building trusting relationships with their patients will be key to removing barriers to mental health help-seeking such as stigma and medical mistrust. Moreover, integrating behavioral health into primary care has been shown to reduce depression severity and improve patients' experience of care (Balasubramanian et al., 2017). Research has demonstrated that individuals with increased mental illness stigma report less trust in healthcare providers (Verhaeghe & Bracke, 2011), yet there is a gap in the literature on the role of trust in PCPs in relation to depression self-stigma and seeking help for depression.

### **Purpose of the Study**

The purpose of this quantitative study is to investigate the role of trust in one's PCP and depression self-stigma in predicting willingness to seek help for depression symptoms from a PCP. More specifically, the study aims to evaluate if higher trust in a PCP moderates the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP.

## **Aims and Hypotheses**

**Aim 1:** To examine the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as socioeconomic status (SES), race, age, and depression symptom severity.

**Hypothesis 1:** Individuals reporting lower depression self-stigma will be more likely to seek help for depression symptoms from a PCP.

**Aim 2:** To examine the relationship between trust in PCP and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as SES, race, age, and depression symptom severity.

**Hypothesis 2:** Individuals reporting higher trust in their PCP will be more likely to have greater willingness to seek help for depression symptoms from a PCP.

**Aim 3:** To examine if trust in PCP moderates the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as SES, race, age, and depression symptom severity.

**Hypothesis 3:** Individuals reporting lower depression self-stigma and higher trust in their PCP are predicted to have greater willingness to seek help for depression symptoms from their PCP.

**Hypothesis 4:** Increased trust in PCP will moderate the effects of depression self-stigma on willingness to seek help for depression from a PCP.

## Significance of the Study

Depression is the leading cause of disability worldwide, and largely contributes to the global burden of disease (World Health Organization [WHO], 2021). In the United States it is estimated that 21 million adults had at least one major depressive episode in the year 2020 (NIMH, 2022). Internationally, more than 280 million people of all ages are affected by depression (WHO, 2021). Furthermore, while there are numerous effective treatments available for depression, in the United States, approximately 34% of people suffering from a major depressive episode did not receive treatment in 2020 (NIMH, 2022). Historically, the prevalence of depression in Black (24.6%) and Hispanic (19.6%) populations, is reported to be lower than in White populations (34.7%); however, in 2015, 31% of Black and Hispanic adults received mental healthcare for any mental illness, compared to 48% of White individuals (American Psychiatric Association, 2017), thus illustrating the growing prevalence of depression in racially-ethnically minority populations.

Globally, in low and middle-income countries, including the United States, it is estimated that approximately 75% of individuals with depression do not receive treatment (WHO, 2021). The economic burden of Major Depressive Disorder (MDD) in the United States is estimated to have increased by 21.5% between 2005 and 2010, from \$173.2 billion to \$210.5 billion from 2005 to 2010, an estimated 21.5% increase (Greenberg et al., 2015). Of this leap in cost, 45%–47% is estimated to be due to direct costs, such as service utilization and treatments, 48%–50% attributed to workplace cost related to lost work productivity, and 5% accounting for suicide-related costs, as calculated by amount of lifetime earnings lost (Greenberg et al., 2015). If left untreated depression can lead to



suicide (WHO, 2021). In 2010 the adult suicide rate was estimated at 15.9 per 100,000 deaths, with 50% of the deaths by suicide being attributed to MDD (Greenberg et al., 2015). In 2019, death by suicide was the tenth leading cause of death in the United States, with an estimated 47,500 deaths by suicide (Centers for Disease Control and Prevention [CDC], 2021).

Mental illness stigma is an established barrier to seeking help for a mental health concern. As well, medical mistrust is a significant barrier to seeking healthcare overall; however, there is a dearth of research exploring the relationship between mental illness stigma and the promising role of trust in providers on willingness to seek help. Eight studies were located (Colligan et al., 2020; Fischer et al., 2016; Fleurantin, 2016; Jesse et al., 2008; Kravitz et al., 2011; O'Toole et al., 2015; Pescosolido et al., 2007; Verhaeghe & Bracke, 2011) that explore the role of mental illness stigma and trust in provider on service utilization and health outcomes, but do not examine the exclusive relationship between trust in provider and mental illness stigma and its effects on willingness to seek help. Furthermore, one study (Verhaeghe & Bracke, 2011) examined the effect of mental illness stigma in adults on provider trust and patient satisfaction and outcomes but did not explore the effects of provider trust on stigma and help-seeking attitudes. Higher levels of patient trust in providers is associated with more positive health behaviors, fewer symptoms, increased satisfaction, and higher quality of life (Birkhäuser et al., 2017). Therefore, it is essential to explore the role of trust in PCPs as a potential buffer to depression self-stigma and facilitator to increased willingness to seek help for depression symptoms.

## Definition of Terms

**Depression Self-Stigma.** Depression self-stigma is a form of mental illness stigma. For the purpose of this study depression self-stigma is defined as the internalization of negative stereotypes about depression.

**Trust in Primary Care Provider.** Trust in PCP is a modification of the dictionary definition of trust and the Bova et al. (2006) concept of collaborative trust. Trust in this study refers to the patient's belief, developed over time through a partnership centered on mutual respect and goal sharing, that their PCP is able and willing to act truthfully and in the patient's best interests.

**Depression.** Depression is a mood disorder consisting of persistent feelings of sadness, emptiness, hopelessness, irritable mood, lost interest in activities once enjoyed, and somatic and cognitive symptoms that impact an individual's ability to carry out day-to-day functions (American Psychiatric Association, 2016). Depression will not be clinically diagnosed in this study, rather depression symptoms will be measured.

**Willingness to seek help from a PCP.** For the purpose of this study, willingness to seek help from a PCP is defined as the state at which a patient is prepared with a potential course of action to seek help from one's PCP for depression symptoms. Willingness to seek help for depression symptoms from a PCP in this study does not measure patient activation.

## Assumptions

Several assumptions underlie this study. A quantitative methodology is suggested based on the assumption that individuals who might feel stigmatized by their depression can anonymously complete surveys online. It is also assumed that in the analysis the

relationships between the independent variables and the dependent variable can be discerned through multiple regression, and trust as a moderator can furthermore be detected through hierarchical multiple regression. The assumption that patient trust in provider carries the potential to moderate the effects of depression self-stigma is based on the current state of the literature. While the role of trust as a moderator on depression self-stigma and willingness to seek help is underexplored, the literature suggests that increased trust in provider can influence help-seeking attitudes.

### **Limitations**

Limitations in this study include reliance on digital, online completion of surveys, and English-speaking individuals who are able to read. Due to the unforeseen social and research effects of Covid-19 during the time of this study, in-person delivery of questionnaires was not possible. It is possible an important demographic was missed in this study; individuals who cannot afford a smartphone or computer and internet service, and those who exclusively speak and read other languages. This limitation is important to consider when interpreting results, given the higher rates of medical mistrust reported in ethnically and socioeconomically diverse populations. Future research should include translated questionnaires and paper and pencil delivery to those interested who do not own a digital device with internet. Furthermore, while the empirical evidence is currently being explored, the effects of social distancing poses some threat to external validity due to the anticipated effects of social isolation on depression symptoms. The pervasive effects of the Covid-19 global pandemic are likely to also affect health care seeking habits in general due to aspects of fear of the virus and structural barriers such as limited appointment availability and long waiting periods. To assess the impact of Covid-19, a

question ascertaining information on the influence of Covid-19 and health seeking was added for future exploration. Furthermore, willingness to seek help for depression symptoms in this study will be anonymously self-reported with no means to measure or discern true activation of help-seeking behavior. Due to the survey design, a potential threat to internal validity is the possibility of participant inclination to answer Likert scale items that statistically regress to the mean (Tappen, 2016). Moreover, the non-experimental, correlational cross-sectional design, with non-probability convenience sampling does not allow for causal conclusions or generalization to the general population. Research in the future should look to follow an experimental, randomized, or longitudinal design. Results from this study can inform ideas for future direction in research and intervention at the primary care level.

### **Delimitations**

Delimitations describe the limits that are set by the researcher on the objectives and scope of the study (Lunenburg & Irby, 2008). Due to the stigma of depression, many people suffering from depressive symptoms are not actively seeking help, and therefore, have not been clinically diagnosed with a depressive disorder. As such, recruitment for this study is limited to locating participants that report not actively seeking treatment for their depression symptoms. Thus, in the present study, depression severity will be measured using a self-report instrument that screens for depressive symptoms rather than a clinically diagnostic instrument.

### **Conclusion**

The purpose of this study is to investigate the role of trust in one's PCP and depression self-stigma in predicting willingness to seek help for depression symptoms

from a PCP. The results of this study can inform future directions and research questions that will help address the complex, multifaceted nature of depression, depression self-stigma, trust in provider, and willingness to seek help from a PCP for depression symptoms. Moreover, exploring the role of trust in the patient-provider relationship may have significant clinical implications for improving relationship skills and characteristics of trustworthiness in primary care providers, especially as it relates to serving ethnically-racially diverse and disadvantaged populations. At present there is a lack of racial/ethnic concordance between primarily white providers and racially/ethnically diverse patient populations. While increasing diversity in the healthcare workforce is of upmost importance, increasing healthcare relationship skills, such as the understanding of the beneficial characteristics of collaborative trust can help ameliorate continued experiences of perceived discrimination and social distance in the primary care environment. This study contributes to nursing science by exploring the effect of trust in one's PCP. Nurse Practitioners work in the role of PCP in the primary care setting. While our nation faces increased mental health needs and a shortage of mental healthcare providers, Nurse Practitioners will assess and treat many individuals with depression. Understanding the role of trust in seeking care for depression symptoms from a PCP will better equip Nurse Practitioners with the skills needed to build collaborative, trusting relationships with their vulnerable patients.

## **Chapter 2: Review of the Literature**

### **Introduction**

Mental illness stigma and medical mistrust are widely cited within the literature as barriers to seeking help for mental illness. Yet, the literature examining the relationship between mental illness stigma and trust in provider is lacking. Few studies were located (Colligan et al., 2020; Fischer et al., 2016; Fleurantin, 2016; Jesse et al., 2008; Kravitz et al., 2011; O'Toole et al., 2015; Pescosolido et al., 2007; Verhaeghe & Bracke, 2011) that explored the role of mental illness stigma and trust in provider on service satisfaction and health outcomes, but these do not specifically look at the relationship between trust in providers and mental illness stigma and its effects on help-seeking intention.

Additionally, examining the relationships between mental illness stigma and trust in provider in a narrower scope, focusing solely on depression self-stigma and trust in a primary care provider remains underexplored. This chapter will present the search strategy used to locate articles examining the relationship between mental illness stigma and trust in provider, present the conceptual frameworks that underpin the study, and review the extant literature on stigma and medical mistrust as a barrier to help-seeking, as well as trust in providers as a potential facilitator to seeking help for depression.

### **Search Description**

The web-based academic databases PsycINFO, PubMed, CINAHL, Web of Science, and the Cochrane Library were searched using various combinations of the search terms: “stigma,” “mental illness,” “mental health,” “self-stigma,” “depression,” “trust,” “provider trust,” “barriers,” “facilitators,” and “outcomes” over the date span of 2010 – 2020. Inclusion criteria included full articles published in English, quantitative

and qualitative studies including adult participants, meta-analyses, systematic reviews, and doctoral dissertations. Additionally, reference lists from reviewed publications were inspected for additional articles pertinent to the topic. Furthermore, review articles, indexed seminal works, and books describing the individual phenomenon stigma and the individual phenomenon of trust in provider were reviewed.

## **Theoretical Framework**

### **Theory of Care-seeking Behavior**

This study is guided by the Theory of Care-seeking Behavior (CSB) (Lauver, 1992a). The Theory of CSB is a middle-range theory that offers a framework for investigating and understanding care-seeking behaviors. Lauver's theory is based on the Theory of Interpersonal Behavior (IPB) (Triandis, 1977, 1980). The theory of IPB offers an approach to understanding the probability of engaging in a behavior based on variables such as, affect, physiologic arousal related to a specific behavior, perceived consequences and values attached to those consequences, social factors, habit, and the presence or absence of facilitating conditions (Lauver; 1992a; Triandis, 1977; Triandis, 1980). Lauver's theory is situated around the fundamental tenants of the IPB but offers a more parsimonious framework for understanding variables that influence a specific type of health behavior, care-seeking. Additionally, the Theory of Care-seeking Behavior is understood to influence either intention or behavior; whereas Triandis' theory proposes that the framework's variables influence intention, which in turn, influences behavior (Lauver, 1992b).

Lauver's Theory of CSB focuses on the probability of engaging in care-seeking as a function of salient psychosocial variables and the role of external facilitating conditions

(Lauver, 1992a). Factors such as clinical and socio-demographic variables are also present in the theory and can exert a direct influence on care-seeking behavior but are found to more frequently influence behavior indirectly (Yu et al., 2019). Clinical and socio-demographic variables can influence care-seeking behavior indirectly through the framework's fundamental psychosocial variables, or through the pathway of mediation or moderation based on the presence or absence of external facilitating conditions (Yu et al., 2019).

The mechanical psychosocial variables in the Theory of CSB include affect, utility, norms, and habit (Lauver, 1992a), as shown in Figure 1. Affect reflects the feelings associated with care-seeking (Lauver, 1992a). These feelings can include anxiety, embarrassment, and depression about a possible diagnosis (Lauver, 1992a; 1992b). The concept utility is underpinned by the constructs of expectations and values related to the overall perceived worth of care-seeking (Lauver, 1992a). Expectations are beliefs about the likelihood of experiencing worthy outcomes from seeking care (Lauver, 1992a). Values refer to the perceived importance of the potential outcomes from seeking care (Lauver, 1992a). To give these two constructs quantitative meaning, they are computed by multiplying and summing the products, based on Triandis' (1980) sum of products score (Lauver, 1992a; 1994). Later work by Lauver and colleagues, shows refinement to the concept of utility as being operationalized as "beliefs," which relate to the expectation of useful outcomes from seeking care (Yu et al., 2019). Norms centers around the influence of social and personal norms and interpersonal agreements to engage in care-seeking (Lauver, 1992a). Personal norms entail one's personal beliefs about care-seeking, while social norms refer to others' beliefs about care-seeking



(Lauver, 1992a). Interpersonal agreement is situated within the concept norms and indicates a promise to engage in care-seeking (Lauver, 1992a). Habit represents how an individual typically acts when experiencing symptoms; it reflects past experience with care-seeking (Lauver, 1992a).

In the Theory of CSB, facilitating conditions refer to specific, objective, external conditions that enable an individual to seek care (Lauver, 1992a). These conditions can include having an identified provider, adequate health insurance coverage, and affordability (Lauver 1992a; Lauver, 1992b). While the theory particularizes such external facilitating factors as being objective in nature, this research will look at the subjective nature of trust in provider in an objective, quantifiable way to help delineate the features of trust in provider for future translation to clinical practice.

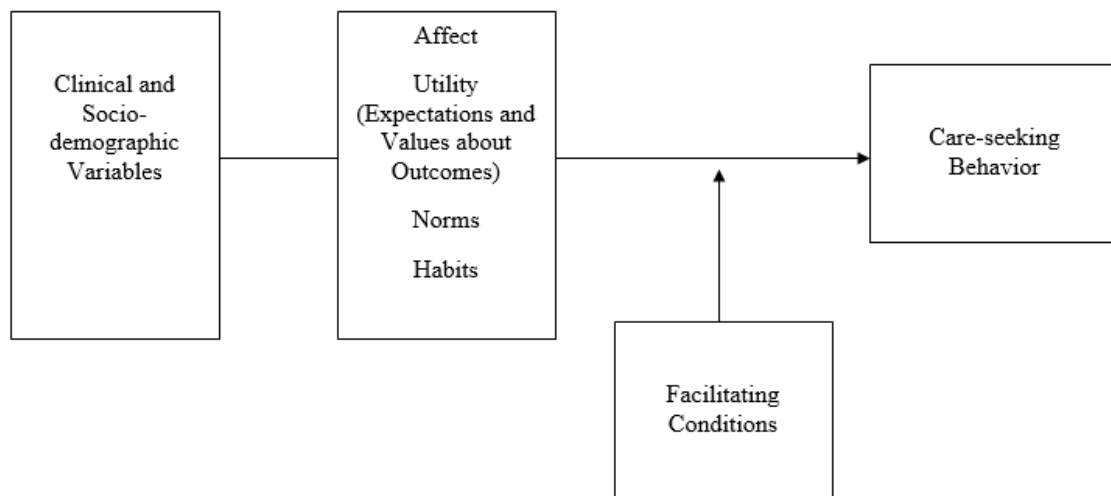
The outcome in Lauver's theory is the care-seeking behavior or intention to seek care (Lauver 1992a; Lauver 1992b). The Theory of CSB is a useful framework for this study because it captures the potentially direct and indirect role of clinical variables, such as depression severity, and demographic characteristics, such as age, race, and SES in seeking care for depression from a PCP. Furthermore, psychosocial variables such as depression and associated feelings, such as embarrassment for seeking care (affect), depression self-stigma as a function of social and personal norms regarding perceptions of depression and associated internalized stigma are expected to influence willingness to seek help for depression from a PCP. Additional concepts in the theory include expectations and values as a function of utility beliefs, and previous care-seeking behaviors for other conditions (habit). For the purpose of this study, a reliable and valid measure assessing these constructs could not be found in the literature. The theory has

recently been used by Lauver and colleagues to guide the development of a survey about immigrant women's reasons for seeking postpartum depression (PPD) screening (Yu et al., 2019); however, the items measuring utility beliefs in this instrument are specific to PPD and do not reflect the more generalized language needed to assess utility beliefs related to depression. In this study, the facilitating condition of interest is trust in provider. See Figure 1 for a diagram of the Theory of Care-seeking Behavior. See Figure 2 for this study's theoretical framework concepts. Figure 3 depicts this study's organizing framework substruction diagram.

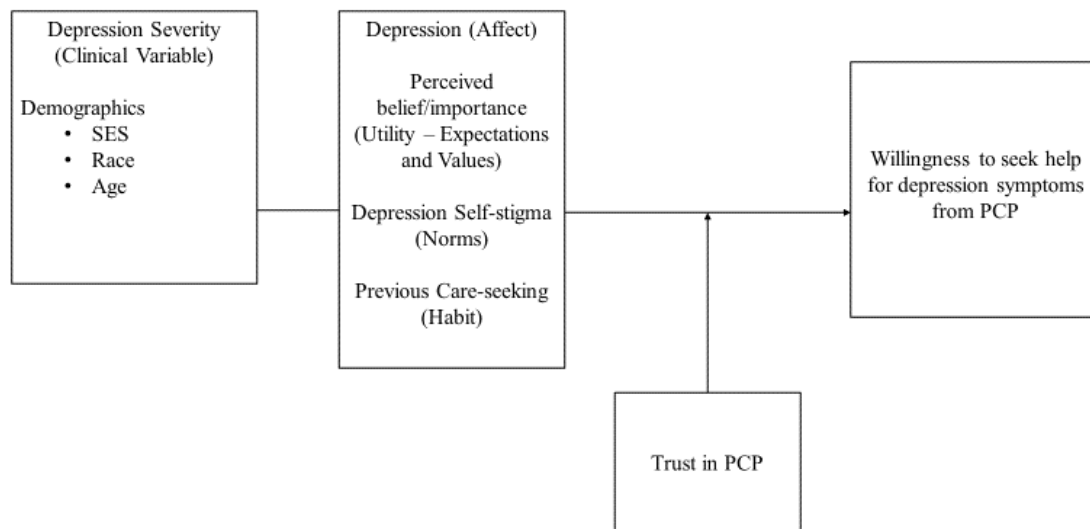
### Conceptual Theoretical Empirical Structure

**Figure 1**

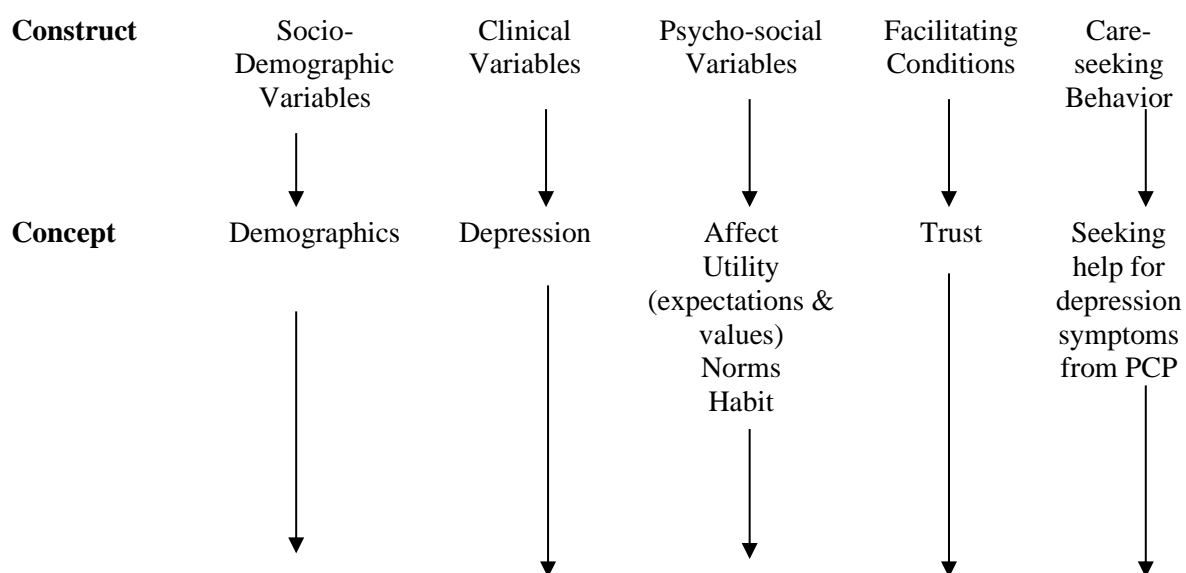
*Theory of Care-seeking Behavior*

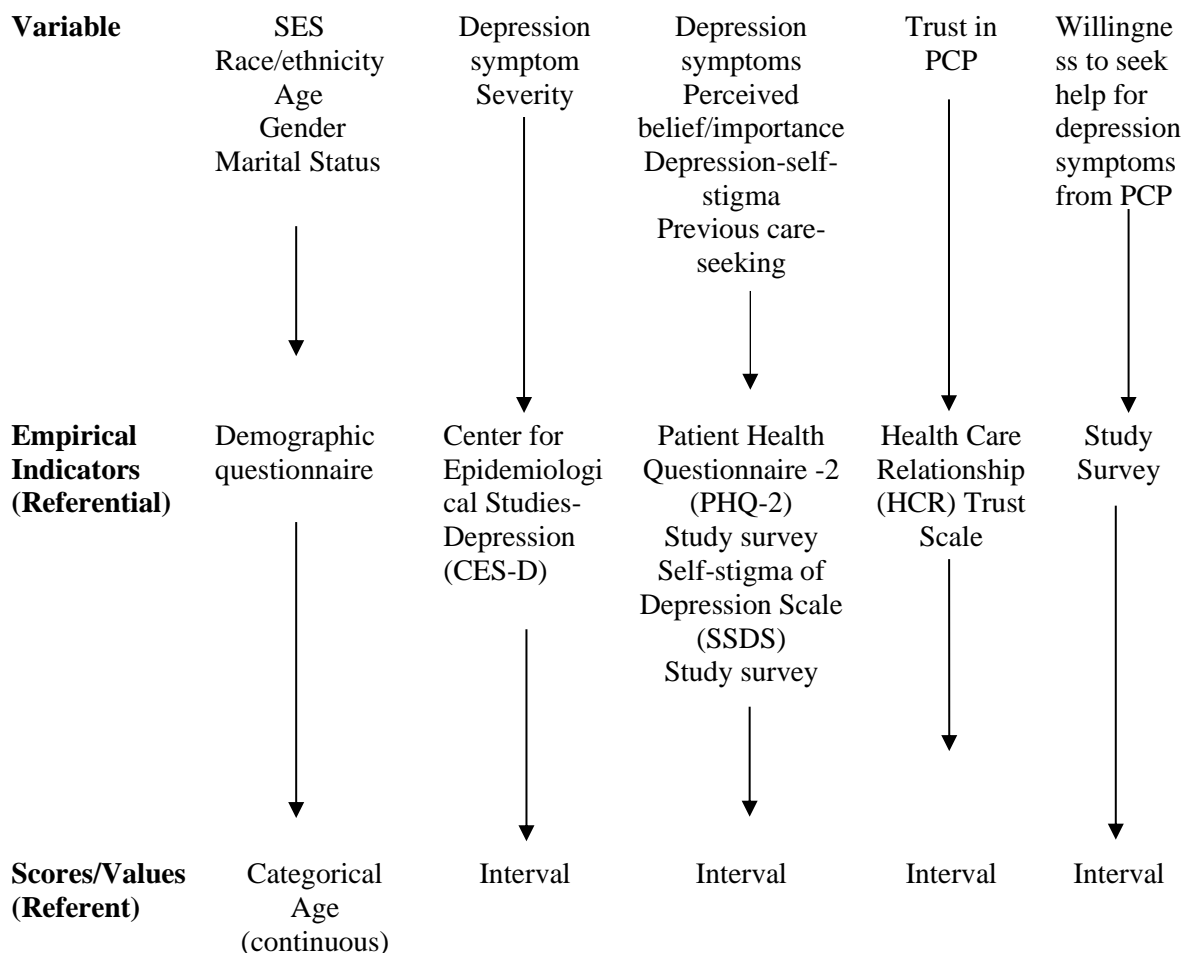


*(Lauver, 1992a)*

**Figure 2***Theoretical Framework Study Concepts*

*Note. Adapted from Lauver (1992a)*

**Figure 3***Organizing Framework of the Study: Substruction Diagram*



## Review of the Literature

### Stigma

Stigma is a social construct that is a reflection of a culture and not a property of an individual (Ainlay et al., 1986). What is perceived as stigma in one culture or context might not be considered as a stigma in another social/cultural context (Ainlay et al., 1986). Furthermore, each society creates hierarchies of desirable and undesirable traits, and creates a system for the managing such undesirable or stigmatizing traits; typically, by separating “us” from “them” (Ainlay et al., 1986). Societal development can change the trajectory of stigma and even result in the destigmatization of certain groups or traits

(Ainlay et al., 1986). Stigma is therefore an ambiguous construct and various traits that provide a basis for stigma vary across cultural, social-psychological, and historical contexts (Ainlay et al., 1986; Heatherton, 2000).

The first notable writings on stigma described stigma as a situation in which an individual is disqualified from full social acceptance due to an attribute that is deeply discrediting, resulting in a spoiled identity (Goffman, 1963). In his seminal work on stigma, Goffman (1963) described stigma as an attribute that is deeply discrediting; a situation in which an individual is disqualified from full social acceptance. Goffman (1963) described the organization of society by establishing a means of categorizing people and their attributes associated with a particular category believed to be ordinary and natural. This way, when one first encounters a stranger, first appearances leads one to anticipate the stranger's category and attributes; also known as their "social identity" (Goffman, 1963). When an individual's social identity is perceived as different from the others, the individual may be tainted and thus discounted by society (Goffman, 1963). Goffman (1963) further delineates those who are stigmatized as deviant from the "normal" and those who stigmatize others are considered to be the "normals." The terms "normal" and "deviant" are a matter of the language of relationships in the social-psychological process of stigmatization, and not an attribute intrinsically attached to an individual (Goffman, 1963).

Over the next 40 years the conceptualization of stigma progressed to also encompass the effects of labeling individuals with a mental illness (Becker 1963; Link, 1987; Scheff 1963). Labeling theory predicts that individuals who are marked as deviant by enforcers of law, such as police and judges (Becker, 1963), and psychiatrists that have

the authority to classify deviant behavior as mental illness (Scheff, 1963). This authoritative labeling, lead to the construction of mental illness stereotypes (Becker, 1963; Scheff 1963). Over the next twenty years, labeling theory evolved into Modified Labeling Theory (MLT) (Link, 1987; Link et al. 1989). MLT further breaks down labeling theory by shifting the focus from the public's stereotypical perceptions of mental illness to the damaging effects of the labeled individual (Link et al., 1989). This theory predict that labeled individuals feel shame and feel different from and devalued by society. These feelings manifest as lower self-esteem, heightened need for secrecy and social withdrawal (Link et al. 1989). Individuals labeled with a stigmatizing identity, such as needing psychological help, are likely to internalize such "devalued" aspects of that identity and withdraw from situations that emphasize such a "diminished" or "devalued" status (Link & Phelan, 2001), such as seeking help.

As well, during this time Jones et al. (1984) put forth a framework for situating the critical dimensions that underlie to totality of the cognitive and behavioral elements of the stigmatizing process. A six-dimensional framework was developed in order to better understand the social reactions to the phenomenon of stigma across various health conditions (Jones et al., 1984). These six dimensions include: (1) concealability, (2) course, (3) disruptiveness, (4) aesthetic qualities, (5) origin, and (6) peril. Concealability considers whether the condition is hidden or obvious and to what extent is the visibility of the condition is controllable (Jones et al., 1984). This is a critical dimension of stigma, as the difference in concealability influences social interactions (Jones et al., 1984). For instance, some mental health conditions might be successfully "hidden" in social interactions (Jones et al., 1984). Therefore, certain mental health conditions lend to

different experiences with stigma. More concealable mental illnesses, such as depression, might not elicit the same judgement as a more outwardly visible illness, such as schizophrenia.

The second dimension in this framework is the ‘course’ of the mental illness (Jones et al., 1984). The dimension of ‘course’ encompasses condition features or marks that may diminish over time (Jones et al., 1984) for example, a burn scar becomes a subdued stigma; however, blindness does not improve over time (Jones et al., 1984) and thus remains a stigma over the course of a lifetime.

The third dimension in this framework is ‘disruptiveness’ (Jones et al., 1984). In this construct disruptiveness considers whether the property of the condition or mark hinders, strains, or adds difficulty to interpersonal relationships (Jones et al., 1984).

Aesthetics is the fourth dimension in this framework and considers to what extent the condition or mark is repellent, ugly, or upsetting (Jones et al., 1984). The role of aesthetics in the stigmatization process is slightly different than the other dimensional roles that involve a more cognitive affective response. The aesthetic nature of a condition or mark can exert a primitive affective response or “gut reaction” rather than involve a more cognitive process of identification (Jones et al., 1984).

The fifth dimension in this framework is the origin, which focuses on how the mark or condition came into existence. The origin of a condition or mark can greatly influence how others view and treat the afflicted individual (Jones et al., 1984). For instance, when an individual is believed to be responsible for the mark, a sense of punishment is often involved in the response of others (Jones et al., 1984).

The sixth dimension in this framework is ‘peril’. Peril involves the perception of danger posed by a stigmatized individual (Jones et al., 1984). While this dimension is salient in the public perceptions of those with a mental illness, a sense of peril can also manifest in the perceptions of those who do not pose a threat of physical harm, but rather are feeble, emaciated and dying, thus reminding us of our own fate (Jones et al., 1984). The six dimensions of stigma presented by Jones et al. (1984) offer a framework to guide our understanding of the dynamics of the social process of marking or stigmatizing individuals and groups of people.

Historically, those who are mentally ill have been perceived as dangerous, unpredictable, weak, and incompetent, especially in American culture (Phelan et al., 2000). The lasting effects of this culturally constructed view of mental illness is likely attributable to the early medical model of mental illness, which contributed to mental illness in general becoming tantamount to psychosis (Phelan et al., 2000). In the twenty years since the seminal works on stigma and labeling theory, stigma has consistently been conceptualized with two primary working components: (1) recognition of a difference based on a distinguishing characteristic, and (2) the consequential devaluation of an individual based on that characteristic (Heatherton, 2000).

Furthermore, MLT continued to evolve as Link and Phelan (2001) offered further conceptualization of stigma through the interworking of four domains: (1) distinguishing and labeling human differences, (2) associating human differences with negative attributes, (3) separating us from them through labeling, and (4) status loss and discrimination. The initial step in the stigmatizing process occurs through the distinguishing and labeling of human differences (Link & Phelan, 2001). Rather than



using terms such as “mark,” “attribute,” or “condition” Link and Phelan (2001) use the term “label” as a means of demonstrating that stigma is a social selection and is therefore affixed to a person rather than being a valid designation (Link & Phelan, 2001). The second component of stigma manifests when human differences are labeled and associated with negative attributes, with the label connecting a person to set characteristics deemed undesirable by society, thus forming a stereotype (Link & Phelan, 2001). The third element of the stigma process occurs when the socially imposed labels that form a stereotype signify a separation of “us” from “them” (Link & Phelan, 2001). This separation of “us” from “them” then precipitates as the fourth component of the stigma process where the labeled person experiences discrimination and a loss of social status (Link & Phelan, 2001).

In the last twenty years, stigma in the context of mental health, has received more attention, resulting in the extant mental illness stigma theories receiving further classification. The precedent effects of mental illness stigma, such as cultural stereotyping, discriminating, and labeling, as well as the internalized effects of feeling shame, different, devalued, withdrawing from social engagement, and secrecy (Link et al., 1989) have been further categorized into two main constructs, public stigma and self-stigma (Corrigan & Watson, 2002; Vogel et al., 2017). Public stigma is the societal view of a person with a mental illness, while self-stigma is the internalization of the public stigma (Corrigan & Watson, 2002; Vogel et al., 2017). Corrigan (2000) expanded further upon extant stigma and attribution theory and focused on stigma in the context of mental illness. From this, the development of a social-cognitive paradigm of public stigma and self-stigma led to further classifications of stigma. Corrigan and Watson (2002)

conceptualize stigma as two discernible constructs; public-stigma and self-stigma. Corrigan and Watson (2002) compare the constructs of public stigma and self-stigma by organizing each construct's shared subdomains of stereotype, prejudice, and discrimination. These subdomains bear the same title in each construct but carry different manifestations. In public stigma, stereotype is defined as the negative belief about a group (Corrigan & Watson, 2002). This could be perceived dangerousness, incompetence, and character weakness (Corrigan & Watson, 2002). Whereas in self-stigma, stereotype is defined as the negative belief about the self and can include an individual believing he is incompetent or has a character weakness (Corrigan & Watson, 2002). Prejudice in both domains is defined as the agreement with the negative belief and/or the negative emotion but differs in the manifestations of the prejudice. In public stigma this can illicit emotional responses in the public such as anger or fear. In self-stigma, prejudice manifests as low self-esteem and low self-efficacy (Corrigan & Watson, 2002). Lastly, discrimination is defined as the behavioral response to the prejudice (Corrigan & Watson, 2002). In public stigma this can manifest in avoidance, withheld employment and housing opportunities, and withheld help in general (Corrigan & Watson, 2002). In self-stigma, discrimination manifests as an individual failing to pursue work and other life goals (Corrigan & Watson, 2002).

The subsequent development of the Progressive Model of Self-stigma (Corrigan et al., 2011) further narrows the scope of stigma by focusing on the more granular process of internalizing public and perceived stigma into the development of self-stigma. The Progressive Model of self-stigma, also referred to as the Stage Model of Self-stigma (Corrigan & Rao, 2012) provides a model for organizing the four sequential stages in the

process of the internalization of stigma, known as self-stigma. In this model, the first stage involves an individual's awareness of the public stigma about their condition (stereotype awareness) (Corrigan et al., 2011; Corrigan & Rao, 2012). This public stigma leads to an individual's agreement with the negative views held by the general public (personal agreement) (Corrigan et al., 2011; Corrigan & Rao, 2012). This agreement in turn develops into the application, or internalization (self-concurrence), of the stigma; leading ultimately to the formation of self-stigma (Corrigan et al., 2011; Corrigan & Rao, 2012). A subsequent fourth stage to the model is self-harm, which manifests in low self-esteem and low self-efficacy (Corrigan et al., 2011; Corrigan & Rao, 2012). Self-efficacy is psychological concept that refers to an individual's belief in their own capacity and confidence to execute behaviors to complete necessary tasks and achievements (Bandura, 1977). Low self-esteem and low self-efficacy can then further translate into a "why try?" effect where an individual stops trying to attain a goal (Corrigan et al., 2011; Corrigan & Rao, 2012). It is this "why try?" effect that can hinder life goal attainment, including seeking care and engaging in treatment (Corrigan et al., 2014; Corrigan et al., 2009). Previous works on stigma focus heavily on the relational, social process of stigmatization, whereas Corrigan and colleagues (2011; 2012) focus on the detrimental ramifications of self-stigma at the level of the individual. Therefore, Corrigan's work is useful for understanding depression self-stigma at the level of an individual's hesitancy to seek help.

### **Stigma as a Barrier to Help-seeking**

It is well documented within the literature that mental illness stigma is a common barrier to seeking help for mental illness (Brown et al., 2010; Clement et al., 2015;

Corrigan et al., 2014; Menke & Flynn, 2009; Schnyder et al., 2017). In their systematic review of exploring the impact of mental health stigma on help-seeking Clement et al. (2015) found stigma to have a small to moderate negative effect on seeking help ( $d = -0.27$ ). This review included 90,189 participants across 144 quantitative and qualitative studies (Clement et al., 2015). Of the 144 included studies, 56 studies focused on the association between stigma and help-seeking, 44 focused on reporting stigma barriers, and 51 focused on qualitative reports of stigma and help-seeking (Clement et al., 2015). Of particular interest in this review are the studies including stigma barriers. Unlike the studies reporting association between stigma and help-seeking, the studies examining stigma as a barrier were carried out in the general population, with only two of the studies sampling university students (Clement et al., 2015). Analysis of the studies examine stigma as a barrier to help-seeking across the following subgroups of stigma: shame/embarrassment, negative social judgment, disclosure concerns/confidentiality, employment-related discrimination, and stigma in general/other (Clement et al., 2015). Synthesis of the studies reveal that stigma was a barrier to seeking help due to shame/embarrassment, negative social judgment, and disclosure concerns/confidentiality in 21-23% of the studies (Clement et al., 2015). As well, it is important to note the wide variation of barriers related to stigma across the studies and subgroups: shame/embarrassment (8-59%), negative social judgment (4-73%), disclosure concerns/confidentiality (4-68%), employment-related discrimination (9-71%), stigma generally/other (5-43%) (Clement et al., 2015).

Analysis of the studies examining the association between stigma and help-seeking reveals no association across anticipated stigma, experienced stigma, perceived

stigma, stigma endorsement, or other stigma on help seeking; however, small negative associations were found between internalized stigma and treatment stigma (Clement et al., 2015). Likewise, internalized stigma was also recognized in the qualitative studies as a barrier to help-seeking (Clement et al., 2015). This finding is in line with Corrigan et al. (2011) Progressive (Stage) Model of Self-stigma signifying the stage at which stigma is internalized carries the most damaging effects. It is well cited in both the quantitative and qualitative literature that stigma is a common barrier to seeking treatment for mental illness. Comparing effect sizes for different types of stigma revealed that treatment stigma and internalized stigma consistently showed a small negative association with help-seeking (Clement et al., 2015).

Conversely, a more recent systematic review by Schnyder et al. (2017) investigating the type of stigma on help-seeking attitudes found public stigma and self-stigma failed to show significant associations with seeking help; however, both directionally suggested more stigma predicts less active help-seeking. This systematic review and meta-analysis investigated twenty-seven studies including 31, 677 participants aged 15 years and older (Schnyder et al., 2017). Random effects meta-analyses with reported odds ratio (OR) as outcome were run for each of the five stigma types categorized in the literature: help-seeking attitudes, personal stigma, self-stigma, perceived public stigma, and general stigma. The meta-analyses found negative help-seeking attitudes (OR= 0.80, 95% CI 0.73–0.88) and higher personal stigma (OR= 0.82, 95% CI [0.69, 0.98]) were associated with less active help-seeking. While higher self-stigma indicated less active help-seeking, the results were not statistically significant (OR= 0.97, 95% [CI 0.93,1.02]). Additionally, public stigma (OR= 0.97, 95% CI [0.93,

1.02]) and unspecified general stigma (OR= 0.98, 95% CI [0.84, 1.15]) showed no associations with less active help-seeking. While the study interpreted statistical significance in the form of 95% CI, it is important to take into consideration that the 95% CI does not report a measure's statistical significance as does the p-value (Szumilas, 2010). Rather, the 95% CI can be used as a proxy for statistical significance if it does not overlap the value of 1 (OR=1); however, interpreting an OR with a 95% CI that crosses the value of 1 as indicating a lack of association is not an appropriate interpretation for statistical significance (Szumilas, 2010). Of additional importance, Schnyder and colleagues (2017) also point out most of the studies that evaluated self-stigma in this review used a single item asking about a person's embarrassment to measure seeking help for mental illness symptoms. While embarrassment and shame appear to be barriers to seeking help for mental illness, it is unclear whether the underlying features of embarrassment and shame fully capture the construct of self-stigma (Schnyder et al., 2017). The role of self-stigma on willingness to seek help for mental health concerns requires further investigation (Schnyder et al., 2017). Moreover, the authors conclude mental illness stigma is associated with less help-seeking (Schnyder et al., 2017). The authors also mention the small association findings between self-stigma and help-seeking by Clement et al. (2015) and agree effects of self-stigma on help-seeking requires further exploration (Schnyder et al., 2017).

Similar to the overall findings in the systematic review by Clement and colleagues (2015), more recent studies have demonstrated internalized stigma as having a stronger association than perceived, or public, stigma with regard to barriers to care (Arnaez et al., 2020; Jennings et al., 2015; Vogel et al., 2017). A recent study by Jennings et al. (2015)

demonstrated that self-stigma, as well as self-reliance, fully mediated the relationship between perceived (public) stigma and attitudes toward seeking treatment. The study sample included undergraduate students ( $N = 246$ ) from a Southeastern US university (Jennings et al., 2015). The participants completed a variety of modified and existing self-report instruments or surveys that measured symptoms of depression and alcohol-related concerns, perceived stigma and self-stigma on seeking treatment, self-reliance on addressing mental health concerns, self-reported mental health concerns, attitudes toward seeking treatment, and treatment-seeking behavior (Jennings et al., 2015). In the model, the direct effect between perceived (public) stigma and attitudes toward seeking treatment were not significant after adding the mediators self-stigma and self-reliance (Jennings et al., 2015). Furthermore, the authors discovered that both forms of stigma were associated with self-reliance, with self-reliance mediating the relationship between perceived (public) stigma and self-stigma, and treatment-seeking (Jennings et al., 2015). The authors anticipate that heightened stigma might contribute an individual feeling that he or she should manage their psychological problems on their own rather than seek professional help (Jennings et al., 2015). This is the only publication to date found in the literature that examined the relationships of both public stigma and self-stigma with self-reliance and treatment-seeking. The role of self-stigma and self-reliance requires further research in order to support this assumption. Jennings and colleagues (2015) also discovered the mediating role and strength of self-stigma, as opposed to public stigma alone, on treatment-seeking attitudes. Thus, demonstrating the help-seeking inhibitory effects of self-stigma versus public stigma.

Findings from a cross-cultural study by Vogel et al. (2017) suggest a pathway through which higher levels of public stigma are associated with higher levels of self-stigma, but more importantly, it is the higher levels of self-stigma that are more strongly associated with negative attitudes toward seeking psychological help. This study included participants ( $N = 3,276$ ) from universities across the following countries: Australia, Brazil, Canada, Hong Kong, Portugal, Romania, Taiwan, Turkey, United Arab Emirates, and United States (Vogel et al., 2017). Participants completed the Self-Stigma of Seeking Help Scale (SSOSH; Vogel et al., 2006), the Stigma Scale for Receiving Psychological Help Scale (SSRPH; Komiya et al., 2000), and the Attitudes Toward Seeking Professional Psychological Help Scale–Short Form (ATSPPHS-SF; Fischer & Farina, 1995) (Vogel et al., 2017). Through Structural Equation Modeling (SEM), the authors found self-stigma mediated the relationship between public stigma and attitudes toward seeking help across all the countries. It is important to note that this study included young adults enrolled in college. Additionally, there were statistically significant differences in strengths of association across several countries, highlighting the importance of cultural influences to stigma and help seeking beliefs. To date, this is the first cross-cultural study to examine the effects of self-stigma on seeking psychological help. The overall findings of this recent study are in line with earlier research that demonstrates the mediating effect of self-stigma on public stigma and decreased willingness to seek counseling for psychological and interpersonal concerns in those with perceived public stigma and self-stigma (Vogel et al., 2007).

Authors of a more recent study also concluded that internalized stigma shows a stronger association than perceived stigma as a barrier to seeking care for mental illness



(Arnaez et al., 2020). In this cross-sectional study, a purposeful sample (N= 2,551) of U.S. undergraduate students completed a series of surveys to assess depressive symptoms, perceived stigma, internalized stigma, and perceptions of barriers to care (Arnaez et al., 2020). Measures included the Patient Health Questionnaire-9 (PHQ-9; Kroenke & Spitzer, 2001); the Perceived Devaluation and Discrimination Scale (PDDS Link et al., 2001), a version modified for depression of the Internalized Stigma of Mental Illness Scale (ISMI Ritsher et al., 2003), and the Barriers to Care Checklist (BCC; Vanheusden et al., 2008) (Arnaez et al., 2020). Demographics included: female students (n= 1603), male students (n=948), students identifying as White (n=1907), students identifying as Hispanic and/or Black (n=234), students identifying as East Asian (n=232), and students identifying as other (n=178) (Arnaez et al., 2020). The authors do not further specify the number of students that identified as Hispanic or Black separately (Arnaez et al., 2020). Results of a multivariable-adjusted linear regression showed that internalized stigma was strongly associated with barriers to seeking mental health care compared to perceived stigma (Arnaez et al., 2020). Barriers to seeking mental health care in this study included perceived need for treatment, negative treatment expectations, and structural barriers, with negative treatment expectations and structural barriers showing the strongest associations with internalized stigma (Arnaez et al., 2020). The authors acknowledge that these findings are in line with the findings reported by Clement et al. (2015) showing internalized stigma had a stronger relationship with barriers to seeking mental health care than perceived stigma, thus pointing to the more influential role of internalized or self-stigma on help seeking compared to perceived or public stigma.

The findings in the literature overall suggest internalized or self-stigma to be a more influential predictor to help-seeking, though conflicting findings regarding the predictive nature of perceived stigma versus self-stigma on perceived barriers to seeking help for mental illness are present within the literature. This inconsistency is likely due to the conceptual ambiguity of mental illness stigma and the variety of different instruments with differing dimensions used to measure stigma and perceived barriers to care. It is also difficult to discern at which point perceived stigma is effectively internalized to form self-stigma and its effects on perceived barriers to seeking help for depression. The effects of depression self-stigma on help seeking intention are underexplored.

### **Stigma as a Barrier in Ethnically/Racially Diverse Populations**

Mental illness stigma is widely recognized in the general population as a significant barrier to treatment-seeking; however, mental illness stigma and the interplay of other socio-cultural factors vary across contexts and populations. Commonly cited barriers to mental health help-seeking in an African American population include stigma, poverty, racism, discrimination, racial-ethnic mismatch in provider, mistrust in provider, reliance on other coping mechanisms, such as faith, cultural beliefs in being “strong,” and fear (Alang, 2016; Bryant et al., 2013; Gaston et al., 2016). In their study comparing the differences in relationships between stigma, depression, and treatment use in White and African American Primary Care Patients, Menke and Flynn (2009) found that overall African American patients reported greater mental health stigma than their White counterparts. Participants in this study (n=1013) were recruited in primary care waiting areas in Southeastern Michigan and were asked to complete the Link Stigma Scale—Secrecy Subscale (LSCS-SS), the LSCS—Devaluation and Discrimination Subscale (Link

et al., 1997), and Center for Epidemiologic Studies Depression Scale (CES-D; Radoff, 1977). It was also found that patients with the higher depression scores also had higher stigma scores (Menke & Flynn, 2009). Multivariate analyses demonstrated that increased depression severity fully mediated the relationship between stigma and treatment use (Menke & Flynn, 2009). Additionally, White patients were more likely to use depression treatment than African American patients (Menke & Flynn, 2009).

Similar to the findings by Menke and Flynn (2009), in their cross-sectional survey design study of 449 African American and White adults Brown et al. (2010) found that African Americans carried more negative attitudes about seeking help for depression than white participants. Furthermore, internalized stigma mediated the relationship between public stigma and attitudes toward mental health treatment in both the African American and White participants, meaning public stigma is associated with attitudes toward depression treatment only through its effect on internalized stigma (Brown et al., 2010). This finding is consistent with synthesis by Clement et al. (2015) and the Corrigan et al. (2011) Progressive Model of Self-stigma which asserts the most harmful effects of public stigma occur when one internalizes the stigma, thus developing self-stigma. In this study, severity of depression symptoms were evaluated using The Patient Health Questionnaire (PHQ-9; Kroenke & Spitzer, 2001), while stigma was measured using The Internalized Stigma of Mental Illness Scale (ISMI; Ritsher et al., 2003) (Brown et al., 2010). Furthermore, the authors used a modified version of the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; Fisher & Turner, 1970) to assess attitudes toward seeking mental health treatment. Due to latent methodological and conceptual limitations of the ATSPPHS, the authors modified the scale to include more

culturally relevant language for African American participants, thus developing the Attitudes Toward Mental Health Treatment Scale (ATMHT) (Brown et al., 2010). In addition to these measures, the authors also incorporated a two question, ‘yes’ or ‘no’ survey assessing a history of mental illness treatment, and a one question 7-point Likert-scale item assessing intention to seek treatment for depression (Brown et al., 2010). Of note in the Brown et al. (2010) study, most of the participants were aged 55 years and older, three quarters were women, and two thirds reported an income of less than \$35,000. Additionally, a greater proportion of the White participants had a high school diploma, reported being currently married, and had an income of at least \$35,000 (Brown et al., 2010). The demographics and results of this study underscore the need to explore how the social determinants of health and education, and age might influence depression self-stigma and perceptions on seeking help.

Authors of another study examining the relationships between attitudes, stigma, and participation in counseling in an exclusively African American and Latinx sample (n=129) in the southeastern region of the US found a small positive correlation between attitude and intentions to seek counseling; however, as stigma increased attitude toward participating in counseling decreased (Fripp & Carlson, 2017). This study measured stigma using Self-Stigma of Seeking Help Scale (SSOSH; Vogel et al., 2006), and The Attitude Toward Seeking Professional Psychological Help (ATSPPH; Fischer & Turner, 1970) to measure attitudes toward participating in counseling (Fripp & Carlson, 2017). While higher ATSPPH scores in this study suggest increased willingness to participate in counseling services, the influence of stigma alters attitudes toward help-seeking. Fripp and Carlson (2017) draw attention to the issue of the terms “stigma” and “attitude” being

used interchangeably in the literature. This study demonstrates the importance of exploring the two constructs as separate phenomena that appear to exert an influence over one or the other.

While Fripp and Carlson (2017) found a negative correlation between stigma and help-seeking attitudes in both African American and Latinx participants, DeFreitas et al. (2018) found African American students reported higher rates of mental health stigma than Latino students. Nevertheless, another study conducted among Latino college students showed that those with higher levels of stigma were less open to seeking treatment for their mental health concerns (Mendoza et al., 2015). Of note, these studies evaluated attitudes in undergraduate populations and therefore might not reflect the beliefs and attitudes held within the community at large, particularly those that are mentally ill, and those with lower socioeconomic status. Still, the findings align with the literature and demonstrate the need to explore ways in which our healthcare system can reduce stigma and better meet the needs of our diverse population.

Moreover, it is important to consider the cross-sectional nature, narrowed geographical location, and for some, the undergraduate convenience sampling, of these studies and therefore the inability to generalize findings onto all people of color and other ethnic minorities underrepresented in the literature. Further highlighting this matter, Gaston et al. (2016) aimed to explore the differences in perceptions of seeking mental health treatment among Americans who identify as Black or African-American, African, and Caribbean Black descent. In their systematic review Gaston et al. (2016) concluded the most prevalent cultural barrier to treatment for mental illness among African Americans, Africans, and Caribbean Blacks was stigma; however, the review included 23

studies with an African American population, two with those identifying as Caribbean Black, two with an African population, and three with a mixed population (Gaston et al., 2016). The dearth of research across populations of color that do not identify as African American underscores the need to examine mental illness stigma across a more diverse population of people of color. Other salient barriers included distrust of the mental health medical system and experiences of discrimination. Gaston and colleagues (2016) underscore the underrepresented nature of the research examining the cultural differences and perceptions of mental illness and help-seeking across various subgroups of people of color. Understanding the unique aspects of stigma, discrimination, distrust in the healthcare system, and attitudes toward mental illness and help-seeking across ethnic-culturally diverse populations is complex, multidimensional, historically contextual, and requires further research.

## **Trust**

**Dictionary Definition of Trust.** Trust as a noun is defined as: 1 (a)

“assured reliance on the character, ability, strength, or truth of someone or something, (b) one in which confidence is placed” (Miriam-Webster, n.d). Trust as a verb is defined as: (a) “to rely on the truthfulness or accuracy of,” (b) “to place confidence in: rely on,” (c) to hope or expect confidently” (Miriam-Webster, n.d.).

**Conceptualizations of Trust.** Various conceptualizations and dimensions of trust exist across disciplines within the literature. In psychology, the concept of trust is predominantly situated around the idea of interpersonal trust (Hupcey et al., 2001), and is defined as, “an expectancy held by an individual or a group that the word, promise, verbal, or written statement of another individual or group can be relied on” (Rotter,

1971, p. 444). Interpersonal trust is also recurrently reflected in the medical literature. Since the early work by Caterinicchio (1979) measuring the relationship between interpersonal trust in the patient-physician dyad to patient outcomes, researchers have explored the most salient factors involved in the development of patient trust in physicians. This exploratory work led to the development of the following widely used scales: the Trust in Physicians Scale (Anderson & Dedrick, 1990), later modified by Thom et al. (1999) the Primary Care Assessment Survey (PCAS) (Safran et al., 1998), and the Wake Forest Physician Trust Scale (Hall et al., 2002).

Further conceptualizations and definitions of patient-provider trust have since evolved. Hall et al. (2001) asserts that, while there are contextual differences in the definitions of trust, the majority center on the optimistic acceptance of the trustor, who in a state of vulnerability or uncertainty, believes that the trustee will care for their interests. Through a review of the literature, focus groups, expert panel review, and pilot testing Hall et al, (2001; 2002) identified patient trust as having five overlapping domains: fidelity, competency, honesty, confidentiality, and global trust. This furthermore resulted in the development and psychometric testing of the Wake Forest Physician Trust Scale (Hall et al., 2002). Fidelity involves caring and advocating for the patient's welfare and interests while also avoiding conflicts of interests (Hall et al., 2002). Competence includes the provider exhibiting sufficient practice and interpersonal skills, correct decision making, while also avoiding mistakes (Hall et al., 2002). Honesty is defined as speaking the truth and not telling intentional falsehoods (Hall et al., 2002). Confidentiality is concerned with the proper utilization of sensitive information (Hall et

al., 2002). Finally, global trust combines some or all of the separate domains of interpersonal trust (Hall et al., 2002).

While similar fundamental components of trust, such as loyalty or caring, competency, honesty, and confidentiality (Hall, 2006; Robinson, 2016), and the expectation of competence, goodwill of others, the elements of fragility and vulnerability, and risk (Bell & Duffy, 2009) are mentioned in both the medical and nursing literature, there are different overarching conceptualizations of trust in the nursing and medical literature. First, with the exception of Hall et al. (2002), most of the medical literature examines trust in the context of the physician-patient dyad, and does not account for other healthcare providers such as nurse practitioners and physician assistants. Next, the majority of the medical literature is concerned with interpersonal trust, which is inherently unilateral; meaning, in the patient-provider dyad, patients are the sole bearers of trust.

Early phenomenological qualitative work by Thorne and Robinson (1988a) produced a conceptualization of the healthcare relationship as an evolving process over three stages: naïve trusting, disenchantment, and guarded alliance. Naïve trust encompasses the initial unrealistic beliefs and expectations patients and families have toward their healthcare provider and the healthcare system (Thorne & Robinson, 1988a). In this stage, patients and families foster the expectation that they will be involved in the care and come to better understand and manage an illness (Thorne & Robinson, 1988a). It is through this interaction that trust can become shattered, thus leading to the second stage of disenchantment (Thorne & Robinson, 1988a). Disenchantment occurs as patients and families realize they are expected to leave care to the professionals and have little



influence or control over decisions, thus leading to distrust (Thorne & Robinson, 1988a). While trust has become shattered in this stage, it can be repaired through guarded alliance in the third stage. The reconstruction of trust in this stage is based on informed trust rather than naïve trust facilitates a more cooperative relationship that involves the patient/family perspective and the professional perspective (Thorne & Robinson, 1988a). It is through this work that trust in the healthcare relationship is furthermore conceptualized as reciprocal trust (Thorne & Robinson, 1988b). Reciprocal trust underscores the misguided expectation that patients place total trust in their healthcare professionals (Thorne & Robinson, 1988b). Rather than trust in the healthcare relationship being viewed as unilateral, it is a dynamic that embraces the reciprocity of trust by both parties (Thorne & Robinson, 1988b).

A later concept analysis of healthcare trust by Lynn-McHale and Deatrck (2000) imparts the importance of understanding that healthcare involves both the person needing care and their family (Lynn-McHale & Deatrck, 2000). The premise of their concept analysis centers on the relationship between the patient, family and health care provider (Lynn-McHale & Deatrck, 2000). Trust in the healthcare relationship between the provider and the family is a process that evolves over time, occurs on varying levels, is based on mutual intention, boundaries, reciprocity, and expectations (Lynn-McHale & Deatrck, 2000).

Building on the previous work of Thorne and Robinson (1988a) and Lynn-McHale & Deatrck, (2000), Bova et al. (2006) developed the concept of Collaborative Trust. The evolution of the concept of Collaborative Trust came through in the authors' qualitative work with HIV-infected adults and their perspectives of trust in providers

(Bova et al., 2006). The concept of Collaborative Trust furthermore guided the development of the Healthcare Relationship Trust (HCR) Trust Scale (Bova et al., 2006). Collaborative Trust is conceptualized as an interworking of three domains: (1) interpersonal connection, (2) respectful communication, and (3) professional partnering (Bova et al., 2006). In the first domain, interpersonal connection is viewed as emotional connection and honesty (Bova et al., 2006). Emotional connection and honesty is established when a healthcare provider shows compassion, a caring demeanor, and empathy toward the patient (Bova et al., 2006). In the second domain, respectful communication is recognized as treating patients as individuals and allowing patients to feel worthy of the provider's time and effort (Bova et al., 2006). Such communication includes protecting the patient's rights, privacy, and maintaining confidentiality (Bova et al., 2006). In the third domain, professional partnering involves knowledge sharing, partnership, and professional connection (Bova et al., 2006). Given the many different treatments for depression, including a variety of medications and psychotherapies, collaborative trust is a vital component to the healthcare relationship between a patient and a provider, especially when discussing treatment options and preferences.

While certain underlying components to trust are shared across the medical and nursing literature, trust in the healthcare relationship in the nursing paradigm centers on the reciprocal, shared, and collaborative nature of the provider-patient relationship while the medical view of trust mostly encompasses interpersonal trust and is fundamentally one-sided. This finding is an evident construct in the various scales measuring patient trust in physicians. Due to the existing instruments measuring solely patient trust in their physician, Bova et al. (2006) developed and psychometrically tested the Health Care

Relationship (HCR) Trust Scale, an instrument that measures trust in other healthcare providers, such as Nurse Practitioners and Physician Assistants, as well as Physicians. Additionally, the development of the HCR Trust Scale attends to the limited dimensions of patient trust in existing instruments, the need to measure trust in a variety of healthcare providers while also identifying other underlying dimensions of patient trust, and the need to develop a measurement of patient trust in vulnerable populations (Bova et al., 2006). The underlying framework guiding the development of the HCR Trust Scale is collaborative trust (Bova et al., 2006).

### **Medical Mistrust as a Barrier in Ethnically/Racially Diverse Populations**

The milestone publication “Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care” (Institute of Medicine [IOM], 2003) documented that racial disparities exist in healthcare (Benkert et al., 2019). One contribution to this disparity is medical mistrust. America’s history of unethical medical experimentation on African Americans, particularly the Tuskegee Syphilis Study, has deeply rooted a sense of cultural mistrust towards health care providers (IOM, 2003).

In a systematic review of 124 qualitative (n=36) and quantitative studies (n=88), Benkert et al. (2019) found in most of the qualitative studies, the participants described medical mistrust as affecting their behavioral actions, such as cancer screening (n=8) and seeking health or mental health care (n=5). The majority of the qualitative studies included African American participants (n=13); however, the studies also included Native Americans or Indigenous peoples (n=2), foreign-born or recent migrant populations (n=7), socioeconomically disadvantaged White participants (n=2), and mixed-race samples (n=9). Most of the medical mistrust experiences were associated with

direct or vicarious experiences, such as intergenerational or social system narratives, as well as past experiences of discrimination or poor treatment, including bias, stigmatization, and poor communication (Benkert et al., 2019). It is important to note the authors do not define medical mistrust as the same as “no trust,” but rather conceptualize medical mistrust as a trustor’s negative beliefs that the trustee will go against their best interest (Benkert et al., 2019).

Most of the quantitative studies focused primarily on African American, non-Hispanic (n=34) or mixed race (n=25) samples, while a small number of studies focused on Latinx/Hispanic (n=11) or Native American (n=2) populations (Benkert et al., 2019). The majority of the studies were cross-sectional and used multivariate regression for analysis (Benkert et al., 2019). The authors found that the association between medical mistrust and race/ethnicity or socioeconomic status is well established (Benkert et al., 2019). Authors of most of the quantitative studies found that medical mistrust and racial/ethnic minority perceived discrimination were negatively associated with various behavioral responses, such as treatment adherence, intention to use a health service, health service delivery outcomes, and satisfaction with care (Benkert et al., 2019). The authors acknowledge the mediating or moderating effect of medical mistrust versus perceived discrimination as antecedents to negative behavioral responses remains primarily theoretical and requires further testing to establish pathways of relationship (Benkert et al., 2019).

In a secondary data analysis of a larger study assessing the effect of patient centered communication (PCC) on patients’ ratings of physicians and acceptance of medical recommendations Cuevas et al. (2019) found that African American participants

reported higher levels of medical mistrust compared to the White participants in the study. This study involved 231 primary care African American (n= 101) and White (n=130) participants that were randomly assigned to one of two conditions, either low patient centered communication or high patient centered communication as portrayed in a video vignette depicting a cardiologist recommending coronary bypass surgery to a patient (Cuevas et al., 2019). Mistrust in this study was conceptualized as medical mistrust, which is the mistrust in medical institutions, and physician mistrust, which is the mistrust of a physician (Cuevas et al., 2019). Medical mistrust was measured by the Health Care System Distrust Scale (Rose et al., 2004), and physician mistrust was measured by the Trust in Physician Scale (Anderson & Dedrick, 1990). After controlling for sociodemographic factors, higher levels of medical mistrust were associated with greater physician mistrust and less agreement with the fictional bypass surgery (Cuevas et al., 2019). Furthermore, the relationships between medical mistrust, physician mistrust, and surgery endorsement were weaker in the sample that viewed the vignettes with highly portrayed PCC compared to the participants that viewed the low PCC vignette (Cuevas et al., 2019). While the African American participants in this study reported greater medical mistrust compared to the White participants, race did not moderate the relationships between medical mistrust, physician mistrust, and endorsement of the hypothetical bypass surgery (Cuevas et al., 2019).

These findings align with a previous study by Cuevas and colleagues (2016) that highlights the importance of PCC as a means to improve patient-provider relationships for African Americans in the healthcare setting. In this study African Americans participants expressed experiences of poor communication with their health care

providers, such as providers not acknowledging the patients' perspectives, medical mistrust, and perceived discrimination during medical encounters (Cuevas et al., 2016). One contributor to these experiences is racial discordance between patients and providers (Cuevas et al., 2016). A lack of African American providers in our healthcare system contributes to patient perceptions and experiences of lack of rapport, trust, provider empathy, and ability to relate to patients' lived experiences as African American (Parker & Satkoske, 2012). It is therefore imperative that providers are taught patient centered communication and embrace ways to strengthen the patient-provider relationship through collaborative trust. Importantly, the United States must continue conscientious efforts to increase diverse representation in our healthcare system.

Racial disparities in the primary care setting have been identified. Historically, African Americans have been found to use the emergency department (ED) as their primary source of healthcare more frequently than their White American counterparts (Arnett et al., 2016; Brown et al., 2012). In a cross-sectional study using data from a larger Exploring Health Disparities in Integrated Communities (EHDIC) study, Arnett et al. (2016) looked at the role of medical mistrust in selecting location of care. The sample included self-identified African American and non-Hispanic White adults (N=1408) living in a low-income and racially integrated community, with exposure to the same healthcare facilities (Arnett et al., 2016). The authors used multinomial logistic regression to examine the relationship between race, medical mistrust, and choice of care setting (Arnett et al., 2016). The results revealed that the African American participants were more likely than their White counterparts to use the emergency department (ED) (relative risk ratio [RRR] = 1.43; 95 % CI: [1.06, 1.94]), as well as hospital outpatient departments

(RRR= 1.50; 95 % CI; [1.10, 2.05]) versus a primary care setting (Arnett et al., 2016). However, when medical mistrust was added to the model, racial differences in the risk of using the ED versus the primary care setting disappeared (RRR= 1.29; 95 % CI [0.91, 1.83]), meaning that accounting for medical mistrust eliminated the ED as primary source of healthcare (Arnett et al., 2016). Furthermore, differences in the use of the hospital outpatient setting between the African American and White participants was still present after accounting for medical mistrust (RRR= 1.67; 95 % CI [1.16, 2.40]) (Arnett et al., 2016). Moreover, this study reveals that medical mistrust accounts for the racial disparity in choosing the ED over the primary care setting as primary source of healthcare in a racially integrated low-income urban environment.

African American men have historically reported higher levels of medical mistrust and are found to delay preventative care more frequently than non-Hispanic White men (Powell et al., 2019). In a secondary data analysis using data from a larger African American Men's Health and Social Life study, Powell et al. (2019) examined associations between medical mistrust, perceived racism in healthcare, everyday racism, and preventative screening delay of 610 African American men aged 20 years and older from a geographically and socioeconomically diverse community-based sample. Most of the participants (81%) were recruited from barbershops in Michigan, Georgia, California, and North Carolina, while the remaining participants (19%) were recruited from a community college in Southeastern Michigan and a historically Black university in North Carolina (Powell et al., 2019). Medical mistrust was measured using the Medical Mistrust Index (LaVeist et al., 2009). The authors used multiple logistic regression and tests for mediation to evaluate the association medical mistrust, perceived racism in healthcare,

and everyday racism and preventive health screening delays, including routine checkups, blood pressure screening, and cholesterol screening Powell et al. (2019). Results indicated that African American men with higher medical mistrust were more likely to delay routine screening follow ups (OR = 2.76; 95CI [1.70, 4.47];  $p < .0001$ ) and blood pressure screenings (OR=2.50; 95 CI [1.49, 4.19];  $p < .0001$  (Powell et al., 2019). As well, the participants with more frequently reported exposure to everyday racism were more likely to delay routine follow-ups and blood pressure screenings (Powell et al., 2019). Furthermore, higher levels of perceived racism in healthcare was associated with an increased probability of delaying cholesterol testing (Powell et al., 2019). The authors note this is of particular interest because the process of obtaining a cholesterol sample is more invasive than blood pressure screening, and thus highlights the matter of increased worry about differential treatment by healthcare systems and/or providers (Powell et al., 2019). Mediation analysis revealed that medical mistrust did not mediate the relationship between everyday racism and delaying routine follow up or blood pressure screening (Powell et al., 2019). Despite the mediation findings in this study, the multidimensional confluence of African American men's interactional social histories and medical injustices, everyday racism, medical mistrust, and perceived racism in healthcare and other demographic factors likely contribute to delays in preventative screening in this population (Powell et al., 2019).

In a secondary data analysis using data from a larger project, Proyecto de Salud para Latinos, Oakley et al. (2019) looked at the associations between cultural and structural factors and medical mistrust in a sample of young-adult (ages 18-25) Latinx participants (N=499) living in rural Oregon. Medical mistrust was measured using a



modified version of the Group-Based Medical Mistrust Scale (GBMMS; Thompson et al., 2004). The authors used bivariate analyses between the independent variables and medical mistrust, followed by three-step hierarchical, multivariable linear regression to assess the association between cultural variables on medical mistrust (Oakley et al., 2019). It was identified that everyday discrimination and machismo values were associated with medical mistrust (Oakley et al., 2019). Interestingly, machismo values were a significant association found in the women participants only (Oakley et al., 2019). The authors acknowledge a potential explanation for this finding might be the predominance of non-Hispanic White male providers (Oakley et al., 2019). Additionally, it is possible that a Latinx population living in a more rural area, with less minority/immigrant settlement might be more susceptible to experiences of discrimination, thus diminishing trust in health care providers (Oakley et al., 2019).

### **Patient Trust in Provider and Improved Health Outcomes**

In the context of health care, trust is an essential element to the patient provider relationship, resulting in more positive patient outcomes (AlRuthia et al., 2019; AlRuthia et al., 2020; Birkhäuser et al., 2017), yet there is a dearth of information on the role of trust in mental health help-seeking behaviors and attitudes. A recent meta-analysis examining trust in the health care professionals and health outcomes found a small to moderate correlation between trust and health outcomes ( $r = 0.24$ , 95% CI [0.19, 0.29]) (Birkhäuser et al., 2017). Patients with higher measured trust in their provider reported more positive health behaviors, less symptoms, higher quality of life, and increased treatment satisfaction (Birkhäuser et al., 2017) This analysis included 47 quantitative studies presenting data on the association between trust in the health care providers and

health outcomes, with a total of 34,817 patients in a variety of healthcare settings and geographical locations (Birkhäuser et al., 2017). Studies included the following continents and/or countries: Asia (n=2), Australia (n=2), Europe (n=6), and North America (34). The Trust in Physician Scale (Anderson & Dedrick, 1990) was the most frequently cited measure (n=24), with 23 measures amalgamated and reported as “other.” The authors do not demarcate the other trust measures, but do acknowledge the quantity of measures do not add up to 47 due to missing information (Birkhäuser et al., 2017). While the overall results showed small to moderate correlations between trust in provider and perceived health outcomes, the objective and observer-rated outcomes showed non-significant to small correlations (Birkhäuser et al., 2017). As well, the authors found smaller associations between trust in provider and health outcomes in higher quality studies (Birkhäuser et al., 2017). The authors furthermore acknowledge the wide range of conceptualizations regarding measuring health outcomes, thus highlighting the need to differentiate between health outcome measurements. Furthermore, the lack of conceptual clarity within the literature measuring trust in provider adds another layer of ambiguity and highlights the need to create distinctions across the various conceptualizations and definitions of patient trust.

In more recent research, AlRuthia et al. (2019) measured the relationship between patient trust in primary care physicians and medication knowledge in a sample of 293 primary care patients in Saudi Arabia with a diagnosis of diabetes. Patient trust was measured using the revised healthcare relationship (HCR) Trust Scale – R (Bova et al., 2012), and medication knowledge was measured by the self-reported Medication Knowledge Questionnaire (Burge et al., 2005), with both forms having been translated

into the Arabic language by bilingual healthcare professionals (AlRuthia et al., 2019). Linear regression was used to examine the relationship between medication knowledge and trust in primary care provider, with a positive relationship being found between patients' knowledge of medications and trust in their primary care physician ( $\beta=0.115$ ; 95% CI [0.076, 0.153];  $p < .0001$ ) (AlRuthia et al., 2019). Additionally, medication knowledge was found to be positively associated with the female gender and education, pointing to the possible latent effects of health literacy on the variables medication knowledge and trust in primary care provider; however, there was not a statistically significant association between health literacy and medication knowledge (AlRuthia et al., 2019).

AlRuthia and colleagues (2020) further examined the relationships between trust in primary care providers in patients with diabetes that included their levels of depression and anxiety. This cross-sectional study that was conducted in multiple primary care clinics across three public hospitals in Saudi Arabia and included 367 primary care patients diagnosed with diabetes (AlRuthia et al., 2020). Patient trust was measured using the Revised Health Care Relationship (HCR) Trust scale (Bova et al., 2012). Depression symptoms were measured using the Patient Health Questionnaire 9-item (PHQ-9), anxiety was measured using the Generalized Anxiety Disorder 7-item (GAD-7). Linear regression was used to evaluate the association of patient trust in provider and depression and anxiety scores, and results showed that higher HCR-Trust scores were negatively associated with PHQ-9 scores ( $\beta = -0.18$ ; 95% CI [-0.23,-0.13];  $p < .0001$ ), and GAD-7 scores ( $\beta = -0.17$ ; 95% CI [-0.22, -0.12];  $p < .0001$ ) (AlRuthia et al., 2020). Results of this study indicate patient trust in their primary care physician is associated with lower

levels of depression and anxiety in patients with diabetes. The authors acknowledge the importance for healthcare providers to develop trusting relationships with their patients, especially patients with chronic illnesses such as diabetes. While this study did not measure the relationship between trust in primary care provider, depression stigma and help-seeking attitudes for depression, it did reveal that patients with higher trust in their provider exhibited lower levels of depression and anxiety. This is one of the few studies found in the literature that examines the relationship between trust in provider and depressive symptoms.

A recent mixed methods study involving 166 psychiatric patients at a community health center evaluated trust in psychiatric provider and patient activation behaviors (Bonfils et al., 2017). In this study, patient trust was measured using the HCR-Trust Scale (Bova et al., 2006). Patient activation was measured qualitatively by audio recording visits and quantitatively with the Patient Activation Measure – Mental Health (PAM-MH; Green et al., 2010; (Bonfils et al., 2017). Results are surprising in that trust in psychiatric provider did not correlate with increased patient activation behaviors (Bonfils et al., 2017). While these findings are in contrast to the findings in the literature showing improved health-related behaviors with increased trust in providers in other medical settings, this study included psychiatric patients already being treated for severe mental illness in a mental health setting (Bonfils et al., 2017); it did not evaluate willingness to seek help for depression or other mental illness from a primary care provider. While the results of this study are contrary to the literature showing increased trust in provider being associated with better health outcomes, it is surprising that the concept of trust as a

facilitator for treatment-seeking has not received more attention in relation to mental health.

### **The Relationship Between Trust in Provider and Seeking Help**

More recent research has highlighted the multitude of barriers associated with mental illness treatment avoidance, including trust in providers and mental illness stigma (Colligan et al., 2020; Fischer et al., 2016; Fleurantin, 2016; Jesse et al., 2008; Kravitz et al., 2011; O'Toole et al., 2015; Pescosolido et al., 2007; Verhaeghe & Bracke, 2011), yet the relationship between mental illness stigma and trust in providers effecting help-seeking intention is understudied. Verhaeghe and Bracke (2011) used secondary survey data from a previous larger study in Belgium to explore whether mental health stigma relates to patient trust in mental health providers, and if there is a relationship between trust and stigma in patient/service user satisfaction. The researchers used multilevel regression to analyze survey data from mental health service users from 36 different mental health organizations/centers (N=650). Trust was measured using the Trust in Physician Scale (Anderson & Dedrick, 1990). Stigma was measured across three constructs of stigma: Public stigma, self-stigma, and stigma expectations. Public stigma and self-stigma were measured using an adapted version of the Social Rejection Scale (Fife & Wright, 2000), and stigma expectations was measured using the Devaluation-Discrimination Scale (Link, 1987). The dependent variable of service user satisfaction was measured using a Dutch version of the Client Satisfaction Questionnaire 8 (De Brey, 1983; Nguyen, Attkisson, & Stegner, 1983). Results show patients with more stigma experiences reported less trust in healthcare providers, which contributed to less service user satisfaction. Additionally, patients with more severe symptoms, and those with a

psychotic disorder, were more susceptible to experiences of stigma and less service user satisfaction (Verhaeghe & Bracke, 2011).

Trust in physicians has also been evaluated for its effect on beliefs in using psychiatric medications in children. Pescosolido et al. (2007) aimed to investigate stigma associated with receiving mental health care and the parent willingness to use psychiatric medication in children and adolescents with mental health disorders. While this study relates stigma and trust in provider in the context of adult views of using psychiatric medication in children, it is one of the few studies in the literature that examines the relationship between mental illness stigma and trust in providers. This study was a secondary data analysis from a previous National Stigma Study – Children (NSS-C) from 2002. This previous study used a representative sample of the U.S population (N=1393), though due to missing data the final sample included 1062 participants (Pescosolido et al., 2007). The authors indicate the overall profile from the full sample did not differ (Pescosolido et al., 2007). Key findings include participants who perceived more stigma surrounding mental health treatment were less likely to support use of psychiatric medication for children and adolescents; however, participants who reported more trust in physicians had more favorable attitudes for the use of psychiatric medications in children and adolescents (Pescosolido et al., 2007). Additional valuable findings include more educated individuals who belonged to a liberal religion were less likely to see treatment as stigmatizing, while participants living in the south were more likely to see treatment as stigmatizing (Pescosolido et al., 2007). Women were found to perceive less stigma than men, and being married or a parent had no effect (Pescosolido et al., 2007).

Verhaeghe and Bracke (2011) situate trust within the context of mental health services, which has thus far been neglected in mental health research. In this study trust is conceptualized as the belief that healthcare providers will care for patients properly, will be competent, honest, pursue the interests of the patient, and protect privacy (Verhaeghe & Bracke, 2011). The authors used an adapted Trust in Physicians scale to measure trust in this study. Discussion to the validity and reliability of the adapted scale is missing from the paper, and is therefore a limitation to the study. Pescosolido et al. (2007) also situate trust in within the context of mental health services, but do not state which scale they used to measure trust. It appears to be a modified questionnaire based on the Trust in Physicians scale but is not specified or furthermore discussed regarding validity and reliability. Additionally, trust is not defined or operationalized within the context of this study. Despite the limitations in measuring trust in both studies, and the lack of definition of trust in Pescosolido et al. (2007), these are the only two studies found within the literature that evaluate the role of trust specifically within the context of mental health stigma. Both articles found similar results, in that increased trust was associated with more favorable attitudes for use of psychiatric medications in children (less stigma) (Pescosolido et al., 2007), while increased mental health stigma was associated with less trust in healthcare providers (Verhaeghe & Bracke, 2011). Authors of both studies recommend future research efforts to explore relationships between providers and patients as a means to find strategies to decrease stigma associated with mental health (Pescosolido et al., 2007; Verhaeghe & Bracke, 2011).

Along with medical mistrust, a lack of confidence in PCPs has been cited as a barrier to seeking treatment for depression from a PCP. In their qualitative study

including 116 participants across fifteen focus groups, Kravitz et al. (2011) found patients with depression expressed being deterred from seeking help due reservations about the ability of PCPs to sufficiently treat a mental illness diagnosis, as well as lack of trust in their PCP. However, in the qualitative analysis it also became evident that all participants wanted to believe that their PCP would care about them personally, put the patient's interests first, and have adequate knowledge to address their depression. Participants also expressed deterrence from seeking help for depression from their PCP due to social, economic, and cultural factors that undermine trust (Kravitz et al., 2011). Participants identifying as low-income expressed being especially concerned that PCPs seemed aloof from the struggles of poverty, unemployment, and mental illness stigma (Kravitz et al., 2011). As such, lower income women in the study considered trust an absolute requirement before disclosing depression symptoms to their PCP (Kravitz et al., 2011).

In a qualitative study exploring barriers to seeking help for prenatal depressive symptoms Jesse et al. (2008) found four salient themes elucidating barriers to seeking help: a lack of trust in provider and healthcare system, judgment and/or stigma, and dissatisfaction with the health care system, and not wanting help. Additionally, two themes surfaced regarding overcoming barriers were: facilitating trust and offering support and help (Jesse et al., 2008). Participants in this study included 21 rural low-income pregnant or recently African American (n=16) and Caucasian (n=5) pregnant women over age 18 that participated in four focus groups grouped by reported race (Jesse et al., 2008). Lack of trust was the most commonly mentioned barrier for seeking help for depressive symptoms and was more commonly expressed in African American participants (Jesse et al., 2008). Within the theme "lack of trust," the most prevalent



concerns for the African American participants, but not the Caucasian participants, were fear about breaches in confidentiality, privacy concerns, and lack of trust in their relationships with providers (Jesse et al., 2008). Other frequently cited barriers in regards to trust cited by both African American and Caucasian participants included concern for the provider to keep information to self/not sharing everything, and a lack of provider understanding and rapport (Jesse et al., 2008). In regards to the theme “Judgment/stigma,” both groups shared feeling shame and embarrassment regarding their depressive symptoms (Jesse et al., 2008). African American participants cited attitudes of health care providers and stigma associated with mental health services as major barriers; however, these were not shared views among the Caucasian participants (Jesse et al., 2008). Facilitating trust was the most frequently cited way to overcome barriers to seeking help for depression, and was expressed in all of the participants (Jesse et al., 2008). Predominant subthemes to facilitating trust included: inquiring as to how the women are doing, developing rapport with the patient and show caring and understanding, and provider encouraging women to open up about their feelings, and assure their patients of confidentiality (Jesse et al., 2008). While there were shared overarching themes surrounding trust and mental illness stigma, constructs within these themes differed between African American and Caucasian women. Concerns shared among the African American participants are consistent with similar findings within the literature and underscore the perverse and lasting effects of past historical injustices in medical research and systemic racism on the experiences leading to a lack of trust and stigma in this population.

In a qualitative phenomenological study exploring the lived experiences of 12 individuals with self-reported depression, feelings of shame, fear, lack of trust and support in providers, distrust within the healthcare system, lack of confidence, lack of relationships and intimacy, and lack of communication emerged as common themes, with feelings of shame being the most frequently cited by participants (Fleurantin, 2016). While this study does not explore the role of provider trust as a potential facilitator in seeking help for depression it does highlight participant sentiments of “mistreatment at the hands of health professionals who were perceived as shutting them down from seeking the help they so desperately needed” (Fleurantin, 2016, p. 44). This is a shared lived experience that is relevant to the need to explore the healthcare provider relationship and its potential to serve as a barrier or facilitator to seeking treatment.

A recent qualitative study exploring barriers and facilitators to depression screening in older adults from the perspective of both providers and patients Colligan et al. (2020) found the most common barrier shared by both providers and patients was mental illness and depression stigma. This study included 102 providers and 247 patients or proxies to patients stratified across 43 focus groups (Colligan et al., 2020). The sampling included standard Medicare recipients as well as 18 focus groups with recipients from a vulnerable population that included English or Spanish-speaking patients from the following demographic categories: African-American; Hispanic; Asian-American; rural; gay, lesbian, bisexual, transgender, LGBTQ, and dually eligible for Medicare and Medicaid (Colligan et al., 2020). Another commonly cited barrier included limited resources and an inadequate supply of mental health providers, especially among rural participants (Colligan et al., 2020). A major facilitator included sensitive

communication which involved discussing depression in a sensitive manner and building trusting relationships between provider and patient (Colligan et al., 2020). This recent qualitative study is unique in that it also includes the perspectives of healthcare providers. The findings align with the literature and underscore the need to increase depression and mental illness screening and initial point of care at the primary care level due to the shortage of mental health professionals, especially in rural areas.

In veteran populations, barriers to mental health help-seeking included, the belief in the need for self-reliance, stoicism, stigma, lack of trust in providers, the Veterans Administration system, and complicated care processes (Fischer et al., 2016; O'Toole et al., 2015). In their mixed methods study involving 142 homeless veterans not actively receiving primary care services, O'Toole et al. (2015) discovered three main reasons participants delayed or did not engage in care. These reasons included complicated care processes unique to this population, issues with provider and healthcare system trust, and stigma surrounding substance use and homelessness (O'Toole et al., 2015). While this study is not specific to mental illness or depression, participant diagnoses also included: depression (n=12), anxiety (n=9), PTSD (n=6), and bipolar disorder (n=2). While stigma and lack of trust are prevalent barriers to engaging with primary care in this population, this study also highlights the need to make access to mental health care at the primary care level a more conducive process for homeless populations.

Similar findings were addressed by Fischer et al. (2016), in a qualitative study that included rural veterans (n=25) and rural providers (n=11) across four states: Arkansas, Colorado, Maine, and Wisconsin. Shared perspectives included stigma associated with mental illness and health care in general, and a lack of trust in the VA as

barriers to help-seeking and/or engagement with care (Fischer et al., 2016). Other prevalent barriers included the importance of self-reliance and stoicism (Fischer et al., 2016). Stigma is a conceptually complex construct that includes a variety of underlying dimensions across populations and cultures. Some of these dimensions include shame, embarrassment, social distance, and discrimination (Link et al., 1989; Link & Phelan, 2001), however, the ubiquitous ideals of stoicism and staunch autonomy as potential dimensions to stigma in rural populations requires further exploration.

### **Gap in the Literature**

While the literature demonstrates that medical mistrust and mental illness stigma are common deterrents to treatment-seeking across multiple populations, there is a dearth of research evaluating the mechanisms of trust in provider on mental illness stigma and help-seeking intention. Patients with more mental illness stigma report less trust in providers (Verhaeghe & Bracke, 2011), however, the effects of increased trust in provider on mental illness stigma are not explored. Furthermore, most of the studies evaluated relationships between trust in physicians and patient satisfaction or outcomes. To date there are no quantitative studies that examine the role of trust in PCP as a moderator between depression self-stigma and willingness to seek help for depression from a PCP.

### **Conclusion**

This chapter includes definitions of the variables of interest: depression symptoms, depression self-stigma, trust in PCP, and willingness to seek help for depression symptoms from a PCP. The conceptual framework used in this study is The Theory of Care-seeking Behavior. The literature consists of a plethora of information on

mental illness stigma, medical mistrust, and the benefits of patient trust in provider, but lacked studies investigating the role of trust in provider in potentially mitigating the effects of mental illness stigma. To the researcher's knowledge a study examining the role of trust in PCP as a prospective moderator between depression self-stigma and willingness to seek help for depression from a PCP has not been published. The present study can fill this gap in the literature. Trust in provider may play a significant role in the prevention of delayed or absent help-seeking behavior for depression and could be implemented in primary care proactive strategies to prevent severe functional impairments and even suicide related to untreated depression. This study can potentially help guide future mental healthcare initiatives and best practices in relation to the patient-provider relationship in the primary care setting.

## **Chapter 3: Methodology**

### **Introduction**

The primary objective of this study is to investigate the role of trust in one's PCP and depression self-stigma in predicting willingness to seek help for depression symptoms from a primary care provider (PCP). More specifically, the study aimed to evaluate if higher trust in a PCP moderates the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP. The primary concepts of interest in this study include, depression self-stigma, trust in primary care provider, and willingness to seek help for depression symptoms from a PCP. The concepts of interest were measured with valid and reliable instruments, and a single-item author-created survey question assessing willingness to seek help for depression symptoms from a PCP. Following this introduction, this chapter is organized into seven sections: (a) research design, (b) aims and hypotheses (c) population, sampling procedure and data collection, (d) instrumentation (e) data analysis plan, (f) statistical analysis, and (g) conclusion.

### **Research Design**

This study utilized a non-experimental correlational cross-sectional descriptive survey design. Data were collected after distribution of study flyers throughout the community advertising the online survey using the Qualtrics (Qualtrics, Provo, UT) survey platform, available through Marquette University. This study design was chosen to examine the nature of relationships between depression self-stigma, trust in PCP, and willingness to seek help for depression symptoms from a PCP. The potential moderating

role of trust in PCP on willingness to seek help for depression symptoms from a PCP is theory-driven and requires testing to establish pathways of relationship.

### **Aims and Hypotheses**

**Aim 1:** To examine the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as socioeconomic status (SES), race, age, and depression symptom severity.

**Hypothesis 1:** Individuals reporting lower depression self-stigma will be more likely to seek help for depression symptoms from a PCP.

**Aim 2:** To examine the relationship between trust in PCP and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as SES, race, age, and depression symptom severity.

**Hypothesis 2:** Individuals reporting higher trust in their PCP will be more likely to have greater willingness to seek help for depression symptoms from a PCP.

**Aim 3:** To examine if trust in PCP moderates the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as SES, race, age, and depression symptom severity.

**Hypothesis 3:** Individuals reporting lower depression self-stigma and higher trust in their PCP are predicted to have greater willingness to seek help for depression symptoms from their PCP.

**Hypothesis 4:** Increased trust in PCP will moderate the effects of depression self-stigma on willingness to seek help for depression from a PCP

## **Population, Sampling Procedure, and Data Collection**

Participants were recruited via a non-probability convenience sample through an Institutional Review Board (IRB) approved public Facebook advertisement and an IRB approved research flyer posted throughout targeted locations within the community that included a Quick Response (QR) code to link to the confidential Qualtrics survey, as well as researcher contact information. Interested participants were able to use their phone to scan the QR code on the flyer to enter the survey or follow the link to the survey from the Facebook advertisement. Efforts were made to target an ethnically/racially and socioeconomically diverse sample by using targeted Facebook advertising and reaching out to organizations and community liaisons in the Southeastern Wisconsin community for dissemination or posting of the study flyer. See Appendix A for Facebook advertisement and community disseminated research flyer.

### **Sample Size**

An a priori power analysis using G\*power calculated a needed sample size of 263 participants. Upon further evaluation, it was found this power analysis did not include the maximum number of parameters that would be built into the largest regression model, and was calculated as detecting a small effect, versus medium effect. Prior to running regressions, a second power analysis was run using the software program G\*Power (Faul et al., 2009). For a multiple regression analysis detecting a medium effect size ( $f^2=0.15$ ), with an alpha set at .05 (Type 1 error rate), and a beta value set at .20 (Type 2 error rate) for a power of 80, a sample size of at least 118 participants is needed. According to Cohen (1988) the  $f^2$  effect size distinctions are: small ( $f^2 = 0.02$ ), medium ( $f^2 = 0.15$ ), and large ( $f^2 = 0.35$ ). See Appendix B for power analysis details.



### **Inclusion and Exclusion Criteria**

Participants were eligible to participate in the study if they were over 18 years old, had been a patient of their PCP for a year or more, and were able to read and write in English. Age criteria was selected in order to narrow the sample to a legal, consenting adult population. Length of time with PCP was determined by the concept of collaborative trust, which involves the development of trust over time (Bova et al., 2006). While there is not a definitive length of time at which the development of trust occurs, Bova et al. (2012) found a small but statistically significant relationship between increased length of time with provider and increased trust scores. In their study, Bova et al. (2012) found a mean length of 96 months, or approximately 8 years, participants reported being with their PCP, with a range of 1 month to 720 months. A period of one year was selected to capture at least one year of the development of collaborative trust and to allow for participants who are developing trust in the early phases of the patient-provider relationship. Due to the written English delivery of the survey, it was necessary for participants to be able to read and respond in English.

Exclusion criteria included a screening Patient Health Questionnaire -2 (PHQ2) score below 2, current treatment for depression by any healthcare provider, and a diagnosis of a psychotic disorder, such as schizophrenia. The PHQ2 is a two-question survey with scores ranging from 0-6, with higher scores indicating depression is likely. While a score of 3 or higher has been recommended as the cutoff point when screening for depression (Kroenke et al., 2003) in the past, more recent literature supports the inclusion of a PHQ2 score of 2 or above in screening for depression symptoms (Arroll et al., 2010). This cutoff score helps to eliminate respondents who likely do not have

depression but might be experiencing transient feelings of sadness. See Table 1 for a summary of inclusion and exclusion criteria.

It was anticipated that excluding participants who are currently being treated for depression by any provider would help reach a population of individuals who are experiencing depression symptoms without treatment, and would therefore allow for more targeted investigation if reported trust in PCP influences a future decision to seek help from PCP. Lastly, a diagnosis of a psychotic disorder was an exclusion criterion because this diagnosis might impact responses that aim to measure the specificity of depression self-stigma constructs as opposed to other mental illness stigmas. The nature of self-stigma associated with various other forms of mental illness, such as psychotic disorders, differ from the experiences of depression self-stigma (Yang et al., 2013). It is likely that the sometimes lack of concealability of psychotic disorder symptoms leads to different conceptualizations of self-stigma. This decision is guided by Jones et al. (1984) six-dimensional framework underscoring the role of concealability in the formation of stigma.

Upon starting the study, participants were first directed to an information and consent sheet to learn more about the study, including the possibility that after answering the first few questions it may be determined that they do not meet the required criteria to participate in the study. Participants consented by selecting “yes” they agree to participate on the initial information and consent page of the Qualtrics survey. See Appendix C for Study Information Sheet and consent. See Appendix D for initial screening questions that determined eligibility to participate in the study.

**Table 1***Participation Criteria*

Inclusion Criteria	Exclusion Criteria
Age 18 and older	Currently being treated for depression by any healthcare provider
Able to read and write in English	Current diagnosis of psychotic disorder
With PCP 1 year or more	PHQ-2 score below 2

There is a mounting body of evidence supporting Facebook as a useful tool for recruiting research participants (Whitaker et al., 2017). Compared with other historically traditional methods, using Facebook can reduce costs, shorten recruitment time, and allow for attainment of more difficult to reach demographics, such as those stigmatized by depression (Whitaker et al., 2017). For instance, using advertisements within Facebook that featured links to an external survey, Batterham (2014) was able to recruit 1,283 participants to complete two mental health surveys. A subsequent survey was used with advertisements linking to a Facebook page that featured links to the external survey, resulting in 610 participants completing the mental health surveys (Batterham, 2014). While using Facebook to recruit research participants has shown to increase access to a difficult to reach demographic, a commonly found limitation is overrepresentation of young white women and those with internet access (Whitaker, 2018). To control for this, a covariate balance statistical analysis will be conducted.

In this study, participant reach through the Facebook platform was estimated by number of clicks (conversion) to the outside survey divided by the number of people that saw the study advertisement. Based on a synthesis of previous studies using Facebook advertisement for study participation over a median 3-month recruitment period, with a

median of 3.3 million impressions, and a conversion rate of 4%, 264 participants can be recruited (Whitaker, 2018). This equals an approximate 22% response rate. The Facebook advertisement in the present study ran from March 08, 2021 to September 24<sup>th</sup>, 2021.

### **Incentivization**

Participants were incentivized by choosing to accept the opportunity to be entered into a drawing to win one of fifty \$25 digital gift cards to Amazon, contingent upon completing the entire survey process in Qualtrics, to thank them for their time. The number of available gift cards was later increased to seventy due to the availability of funding for this study. The first page of the online survey contained information about the study, including an explanation that based on the initial responses to questions, it may be determined that respondents do not meet the desired inclusion criteria. Before progressing into the survey, respondents consented to participating by selecting “yes” they agree to continue onto the survey. A skip logic was used for respondents who did not meet inclusion criteria based on the initial screening questions, thus disqualifying them from proceeding further into the survey process. Respondents who did not wish to participate after reading more about the study were directed out of the survey site by clicking “no” and thank for their time and interest. Survey completion and dissemination of the gift card occurred anonymously through a second Qualtrics survey. Completed survey information remained deidentified. All survey responses were exported from Qualtrics and coded into a .csv data set and stored on an encrypted and password protected external drive. For contingency, the dataset was also securely uploaded to an encrypted, password protected cloud-based storage service.

Dissemination of the digital Amazon gift card occurred through a separate incentives survey through the Qualtrics platform that collected only email addresses. This second incentives survey asked for the respondent's email address in order to digitally deliver the Amazon gift card; however, the Qualtrics survey was designed to not include any personal identifying information, IP addresses, and did not link responses from the first survey to the second incentive survey. Therefore, the researcher could not link or associate an email address to any participant. Random dissemination of the digital gift card occurred to the extent of reasonable anonymity associated with email addresses. The two surveys remained separate, did not collect personal information, or IP addresses. To prevent respondents from merely completing the second incentives survey, access to the incentive survey was designed to only redirect respondents who completed the main survey by use of an HTTP Referrer Verification URL (Kent State University Libraries, 2020).

### **Ethical Considerations**

This study involved administering voluntary and anonymous surveys via the internet to competent, consenting adults and therefore posed the same risks to unintentional identification that a person would encounter with everyday use of the internet. A link to Substance Abuse and Mental Health Services Administration (SAMHSA) National Help Line was provided in the survey in the event respondents found the experience of answering the survey questions distressful. This help line is also known as the Treatment Referral Routing Service and connects callers to local mental health organizations and local resources based on their given location (SAMHSA, 2020).

Additionally, participants who were deemed ineligible to participate in the study based on the screening responses were also be provided the SAMHSA link.

Privacy and confidentiality were maintained through the deidentified design capabilities of the Qualtrics platform. Qualtrics is a confidential, secure, platform for hosting and transmitting surveys protected by Transport Layer Security (TLS) encryption (Qualtrics, Provo, UT). It was found that the average length of time to complete the full survey was around 12 minutes. One of the instruments, The Self-stigma of Depression Scale (SSDS) involved reading short vignettes in order to answer the questions, and therefore, based on the participant's reading speed, could have potentially added several minutes to the total time it took to complete the entire survey process. It is possible that this caused some participant burden and therefore attrition from the complete survey process; however, a meta-analysis found overall weak support for an association between questionnaire length and participant burden (Rolstad et al., 2011). It is likely that participant burden is attributable to a number of conditions, including length in pages as opposed to items, and the complexity of questions (Rolstad et al., 2011).

This study included human subjects research and was approved by the Marquette University Institutional Review Board (IRB) with exempt status due to the likelihood of harm or discomfort beyond that encountered in everyday situations was of minimal risk. Of important note, the approved IRB protocol contained a different title than that of this dissertation study. This decision was made because the title of the study that is on the IRB protocol must match the title of the study on the information sheet provided to participants. To avoid inadvertent bias from respondents in selecting and answering

survey questions, a more ambiguous title was chosen. See Appendix E for IRB exemption status.

## **Instrumentation**

### **Sociodemographic Questionnaire**

Participants were asked a series of sociodemographic characteristic questions, housed at the end of the survey. See Appendix F for a summary of demographic questions.

### **Patient Health Questionnaire-2 (PHQ-2)**

Initial depression symptom screening occurred through the completion of the Patient Health Questionnaire-2 (PHQ-2) (Kroenke et al., 2003). This tool is a brief version of the longer Patient Health Questionnaire-9 (PHQ-9) (Kroenke et al., 2001). The PHQ2 consists of the first 2 items of the PHQ-9 and asks about the degree to which an individual has experienced depressed mood and anhedonia over the past two weeks based on the DSM-IV (Kroenke et al., 2003). Each item is scored as 0 (not at all) to 3 (nearly every day), with total score ranging from 0-6 (Kroenke et al., 2003). See Appendix G for visual of the PHQ-2 instrument. A score of 3 or higher indicates major depressive disorder is likely (Kroenke et al., 2003). The authors suggest a score of 3 as the optimal cutoff point when using the PHQ-2 to initially screen for depression (Kroenke et al., 2003). In clinical practice, patients who score 3 or higher on the PHQ-2 should be further evaluated with the longer Patient Health Questionnaire-9 (PHQ-9) or other diagnostic instrument to reach a diagnosis and treatment plan for depression (Kroenke et al., 2003). In this study, participants that scored 3 or higher on the PHQ-2 received a notification at the end of the survey indicating they may be experiencing

depression and were recommend to see their provider. Links to local and national mental health resources were provided at the end of the survey through the SAMHSA resource. See Appendix G for PHQ-2 instrument.

### **Center for Epidemiologic Studies Depression Scale (CES-D)**

Depression symptom severity was be measured using the 20 item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). This instrument assesses perceived mood and level of functioning during the past week and is used as a screening tool to identify those at risk for clinical depression (Radloff, 1977). Items follow a 4-point Likert scale ranging from 0 (rarely or none of the time; <1 day) to 3 (most or all of the time; 5-7 days). The scale is unidimensional and scored by taking the total score of the items. Total scores can range from 0 to 60, with higher scores indicating higher levels of depressive symptoms. Items worded with positive attributes, items 4, 8, 12, and 16, are reverse scored. The use of the CES-D in this study is for assessing depression symptom severity only and is not intended to diagnose depression. The tool shows high internal consistency, with a Cronbach's alpha 0.85 to 0.90 in the general and psychiatric population, respectively (Radloff, 1977). In the development of the tool, test-retest reliability fell between the moderate range of 0.45 to 0.70 (Radloff, 1977). The CES-D is widely used in the literature as an accepted measure of depression symptoms (Smarr & Keefer, 2011), including in the general population or primary care settings (Vilagut et al., 2016). The tool shows consistent content validity and correlates with other valid self-report scales measuring depression, showing good concurrent validity (Smarr & Keefer, 2011). A score above 16 indicates the respondent is at risk for clinical depression with moderate depressive symptomatology. In this study, respondents scoring



a 16 or above on this measure received a notification before proceeding further in the survey signaling that they may be experiencing depression and were recommend to see their provider. Links to local and national mental health resources through the SMAHSA website were also included on this notification. See Appendix G for the CESD instrument information.

### **Health Care Relationship Trust (HCRT) Scale**

Trust in PCP was measured using the Health Care Relationship Trust (HCRT) Scale (Bova et al., 2006). Through the qualitative work that underpinned the development of the HCRT Scale came the concept of Collaborative Trust. This is a unidimensional self-report instrument consisting of 15 items on a 5-point Likert scale ranging from 0 (none of the time) to 4 (all of the time). Due to the negative language view of PCP, items 1, 11, and 14 are reverse scored. A total score is calculated with a possible range of 0 – 60, with higher scores suggesting more collaborative trust. A Cronbach's alpha of .92, and a test-retest reliability coefficient of .59 were reported in the study (Bova et al., 2006). The test-retest reached a Cronbach's alpha of .95, indicating good test-retest reliability (Bova et al., 2006). The HCRT Scale shows good internal consistency, test-retest reliability, and content validity. The authors also compared the instrument to a short version of the Marlowe-Crowne Social Desirability Scale to assess for social desirability bias (Strahan & Gerbasi, 1972), and a short form Rapid Estimate of Adult Literacy in Medicine (REALM) Health Literacy Test to look for potential issues with health literacy in participant responses (Davis et al., 1993). Both tests did not show a significant relationship, with a correlation coefficient lower than .30, suggesting that the HCRT measure does not carry a social desirability bias and can be used in populations

with lower levels of health literacy (Bova et al., 2006). Furthermore, the scale was developed and validated in an HIV-positive population with a history of mental illness and substance use. While the scale has been revised in primary care population with a Cronbach's alpha of 0.96 (Bova et al., 2012), and is used more widely in the literature, the use of the original scale was deemed more appropriate for this study. The reasoning that guided this choice stood that the original scale was developed and validated in an HIV-positive population with a history of mental illness and substance use. Similarities in the stigma associated with mental illness and a diagnosis of HIV are found within the literature. While there are numerous existing scales that measure a patient's trust in physician (Anderson & Dedrick, 1990; Dugan et al., 2005; Leisen & Hyman, 2001; Thom et al., 1999), few were developed to measure trust in providers other than physicians (Bova et al., 2006; Bova et al., 2012; Hall et al., 2002). Although the Wake Forest Physician Trust Scale (Hall et al., 2002), was designed to measure trust in physicians and non-physician providers such as Nurse Practitioners and Physician Assistants, the construct of trust being measured in this instrument is interpersonal trust, which differs from collaborative trust. See Appendix G for the HCRT instrument.

### **Self-Stigma of Depression Scale (SSDS)**

Depression self-stigma was measured by the Self-Stigma of Depression Scale (SSDS) (Barney et al., 2010). While there are numerous scales measuring mental illness and depression stigma, this scale is unique in that it measures depression stigma with a focus on self-stigma (Barney et al., 2010). The scale consists of 16 item Likert-scale items constituting four constructs of self-stigma: shame, self-blame, help-seeking

inhibition, and social inadequacy. Items evaluating self-stigma derived from focus group discussions, which were quantitatively tested and refined across three studies (Barney et al., 2010). Possible range of scores for the total composite measure is 16-80, with higher scores indicating higher self-stigma. Due to the positive attribute language, question 9 is reverse scored. In its development and psychometric testing, the scale demonstrated adequate internal consistency with a Cronbach alpha of 0.87 for the total SSDS (Barney et al., 2010). Cronbach alphas for each subscale are reported as follows: 0.83 for shame, 0.78 for self-blame, 0.79 for help-seeking inhibition; and 0.79 for social inadequacy (Barney et al., 2010). Aside from social inadequacy, the test and retest mean scores did not show significant difference (Barney et al., 2010). On retest, social inadequacy was significantly lower than initial testing; however, the effect size was small (Cohen's  $d = 0.17$ ) (Barney et al., 2010). Furthermore, the authors report intraclass correlations between the original and retest scores as moderate, with items demonstrating consistency over the three studies (Barney et al., 2010). See Appendix G for the SSDS Instrument.

According to Corrigan and Rao (2012), self-stigma occurs as a result of one internalizing the public's stigmatizing attitudes onto themselves. The SSDS is an appropriate measure of depression self-stigma for this study because it distinguishes self-stigma from perceived and public stigma. Furthermore, with the exception of the factor self-blame, the authors found greater perceived social distance being associated with greater self-stigma (Barney et al., 2010). This is in line with the literature describing the cascading effects of perceived social distance and internalizing public stigmas, thus resulting in self-stigma.

### **Dependent Variable**

The dependent variable willingness to seek help for depression symptoms from a PCP will be measured by a single 11-point Likert scale question created by the author. A single item question was developed due to a lack of measurement that exclusively measures willingness to seek help for depression symptoms from a PCP in the extant literature. An 11-point scale was selected to curtail categorization effects, decrease measurement error, and increase reliability of the data by reducing chances for random error (Scherpenzeel, 2002). It is assumed that attitudes are organized along a latent continuum ranging from positive to negative (Scherpenzeel, 2002). By increasing the number of options across a Likert scale there is better representation of the underlying variation to the continuum of attitudes, thus reducing the categorization effects of too few options (Scherpenzeel, 2002). Given only the choice to anchor an attitude to sentiments such as “very,” “good,” or “bad” does not capture the ranging subjectivity of these terms (Scherpenzeel, 2002). For instance, some respondents might attribute “good” as an extreme while others identify it as a mid-point (Scherpenzeel, 2002). Scales with less variation in response options can contribute to loss of variation and increased random error due to respondents being forced to categorize an attitude versus fitting it along the continuum (Scherpenzeel, 2002). See Appendix H for details of the dependent variable single item question.

Furthermore, previous research shows that use of a single item scale to measure a specific construct is robust. Wanous et al. (1997) found single-item reliability measuring job satisfaction was often within the acceptable limits for reliability (Cronbach’s  $\alpha \pm .70$ ) when compared to similar scales. More recently, Williams and Smith (2016)

concluded that single-item measures showed strong correlations with respective multi-item scales measuring workplace wellbeing. As well, Cook & Perri (2004) found high correlations between single item and multiple item measures assessing readiness to change.

### **Additional Survey Questions**

Additional survey questions were asked based on other theoretical framework study concepts. See Appendix H for a list of author-created questions.

### **Data Analysis Plan**

All data screening and analyses occurred in IBM SPSS Statistics for Windows, Version 27.0 and SAS software version 9.4. The secured excel data set housed in Qualtrics was downloaded onto an encrypted and password protected external hard drive and secure cloud-based service for storage, and then imported to IBM SPSS Statistics for Windows, Version 27.0 and SAS software version 9.4 for analysis. Descriptive statistics were run to describe the sample. Missing data was analyzed to determine if data was Missing Completely at Random (MCAR), Missing at Random (MAR), or Missing Not at Random (MNAR). Tests of the assumptions of regression as well as internal consistency reliability using Cronbach's alpha of the instruments used in this sample were conducted.

### **Variables of interest**

The independent variables of interest included depression self-stigma, as measured by the Self Stigma of Depression Scale (SSDS) (Barney et al., 2010), Trust in Primary Care Provider (PCP), as measured by the Healthcare Relationship Trust (HCRT) Tool (Bova et al., 2006), depression symptom severity as measured by the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), and demographic

characteristics. The dependent variable was measured by a single 11-point Likert scale question created by the author. See Table 2 for a summary of variables used.

While there is some controversy surrounding the use of parametric tests for non-parametric data, there is a developing body of work providing evidence for the use of parametric tests for non-parametric data (Mircioiu & Atkinson, 2017, Norman, 2010). The variables of interest measured by Likert-scale instrumentation in this study were treated as interval data as opposed to ordinal data. Traditionally, parametric tests such as regression can only be applied to interval or continuous data, not ordinal data; however, through rigorous comparison of parametric and non-parametric tests, Norman (2010) found that parametric tests run on Likert-scale data, yield unbiased approximations to “the truth” even when certain statistical assumptions such as the normal distribution of the data are violated (Norman, 2010). Additionally, through similar comparison of tests Mircioiu & Atkinson (2017) found similar or the same statistical conclusions in terms of statistical significance between parametric tests and non-parametric tests applied to Likert-scale data.

The demographic variables income, education, and race were coded as indicator, or “dummy” coding, due to having more than two levels of classification within the categorical variable. When there are more than two levels of classification within a categorical variable, one of the dummy coded levels serves as the reference group. With this coding schema, all other levels of the variable are compared to the baseline or reference variable (Gelman et al., 2020).

Prior to running regression analyses an a priori decision was made to select the level with the highest level of frequency as the reference level for each categorical

variable. While many researchers conventionally use dominant groups to represent their reference level of a categorical predictor, Johfre et al. (2021) offer an epistemic critique of this common practice. Continuing this practice can inadvertently reinforce social difference and inequality by supporting dominant groups as the “normal” baseline, and other groups as deviations (Johfre et al., 2021). Mathematically speaking, the selection of reference category does not alter the statistical results, and is mathematically arbitrary; however, Johfre and colleagues (2021) argue that such a statistically arbitrary procedure does not inevitably imply neutral cognitions when interpreting the data. Johfre et al. (2021) recommend making theoretically sound decisions when assigning reference categories. For the category of race, the majority of respondents in this study’s sample identified as white. While this is considered a dominant group, the decision to make this the reference category was driven by the review of the literature and theoretical underpinnings of this study. The current state of the literature highlights the different experiences of trust and stigma for people of color as opposed to their white counterparts. For the purpose of this study, it made conceptual sense to compare other levels of race with the white respondents.

Similarly, the other two sociodemographic categorical variables, income and education, which are a function of measuring SES in this study, were assigned reference levels based on the levels of most frequency in the sample. Johfre et al. (2021) suggest for “class” to use the lowest level of category for the reference. In this study, education and income were both functions of measuring SES. While “class” might be operationally defined differently across studies, SES can reasonably serve as an appropriate surrogate term for “class.” In this study’s sample, the lowest level of education was incidentally the

level with most frequency. After careful consideration, it was decided to assign the most frequent level of income as the reference category for consistency of interpretation. As well, this would allow for contrasts between both very low income and highest income.

**Table 2**

*Summary of Variables used in Analyses*

Variable of Interest	Type of Variable	Instrument	Data type	Description
Willingness to seek help for depression symptoms from PCP	Dependent	Author created question	Interval	Single item
Depression Self-stigma	Independent	SSDS	Interval	16 item – Total scores and subscales
Trust in PCP	Independent	HCRT	Interval	15 item - Total score
Depression Symptom Severity	Independent	CESD	Interval	20 items – Total score
Education	Independent	Survey	Categorical	1 - High School, some college* 2 - Bachelor's degree 3 - Graduate degree
Income	Independent	Survey	Categorical	1 - \$20,000 or below 2 - \$21,000 – \$40,000 3 - \$41,000 - \$100, 000* 4 - \$100,000 or above
Race	Independent	Survey	Categorical	1 – White* 2 - Black 3 – Other/Mix
Age	Independent	Survey	Continuous	Age in years

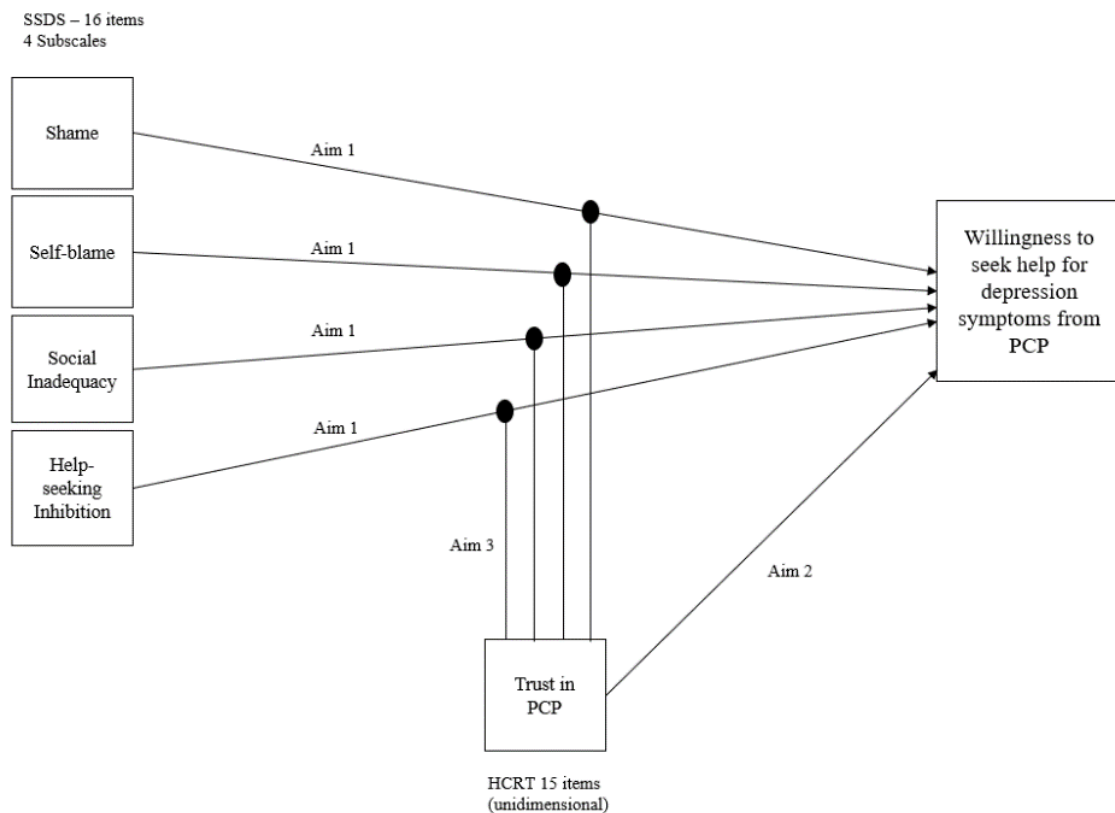
*Note. \*=Reference level*



Pearson correlation, multiple regression, and hierarchical regression were used to address study aims and hypotheses. See Figure 4 for this study's statistical conceptual model. See Table 3 for a summary of the analysis plan by aim and hypothesis and statistical tests. In this study, income and education were measured as a function of socio-economic status (SES).

**Figure 4**

*Statistical Conceptual Model*



**Table 3***Summary of the Data Analysis Plan*

Aim	Hypothesis	Instrumentation	Analysis
<b>Aim 1:</b> Relationship between depression self-stigma and willingness to seek help	<b>Hypothesis 1:</b> Individuals reporting lower depression self-stigma will be more likely to seek help for depression symptoms from their PCP.	Self-stigma Depression Scale (SSDS)	Pearson Correlation
		SSDS Subscales: Shame Self-blame Social Inadequacy Help-seeking Inhibition  One-question dependent variable	Multiple Regression
<b>Aim 2:</b> Relationship between trust in PCP and willingness to seek help	<b>Hypothesis 2:</b> Individuals reporting higher trust in their PCP will be more likely to have greater willingness to seek help for depression symptoms from a PCP.	Healthcare Relationship Trust Tool (HCRT).	Pearson Correlation
		One-question dependent variable	Multiple Regression
<b>Aim 3:</b> Examine if trust in PCP moderates the relationship between depression self-stigma and willingness to seek help	<b>Hypothesis 3:</b> Individuals reporting lower depression self-stigma and higher trust in their PCP are predicted to have greater willingness to seek help for depression symptoms from their PCP.	Self-stigma Depression Scale (SSDS)	Multiple Regression
		SSDS Subscales: Shame Self-blame Social Inadequacy Help-seeking Inhibition  Healthcare Relationship Trust Tool (HCRT).	

**Hypothesis 4:**  
Increased trust  
in PCP will  
moderate the  
effects of  
depression self-  
stigma on  
willingness to  
seek help for  
depression from  
a PCP

One-question  
dependent variable

Hierarchical  
regression with  
mean-centered  
interaction term\*

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*Note. \* = Baron & Kenny (1986) test for moderation.*

## Data Analysis

**Aim 1:** Examine the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as SES (income, education), race, age, and depression symptom severity.

To address Aim 1 a Pearson correlation was run to look at the relationship between the SSDS total scores and subscale scores and willingness to seek help for depression symptoms from a PCP.

**Hypothesis 1:** Individuals reporting lower depression self-stigma will be more likely to seek help for Depression symptoms from their PCP.

To test hypothesis 1, multiple linear regression was conducted to determine if there is a linear relationship between the independent variable depression self-stigma and the dependent variable willingness to seek help from a PCP for depression symptoms. Next, a multiple regression was run to determine if lower scores on the SSDS subscales predicted willingness to seek help for depression symptoms from a PCP, while

controlling for patient factors SES (income, education), race, age, and depression symptom severity.

**Aim 2:** Examine the relationship between trust in PCP and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as SES, race, age, and depression symptom severity.

To address Aim 2 a Pearson correlation was run to look at the relationship between the HCRT scores and willingness to seek help for depression symptoms from a PCP.

**Hypothesis 2:** Individuals reporting higher trust in their PCP will be more likely to have greater willingness to seek help for depression symptoms from a PCP.

To test Hypothesis 2 a multiple regression was run to determine if higher scores on the HCRT predicted willingness to seek help for depression symptoms from a PCP, while controlling for patient factors SES (income, education), race, age, and depression symptom severity.

**Aim 3:** Examine if trust in PCP moderates the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors SES, race, age, and depression symptom severity.

**Hypothesis 3:** Individuals reporting lower depression self-stigma and higher trust in their PCP are predicted to have greater willingness to seek help for depression symptoms from their PCP.

To test Aim 3 and Hypothesis 3 a multiple regression was run to determine if higher scores on the HCRT and lower scores on the total SSDS and SSDS subscale scores predicted willingness to seek help for depression symptoms from a PCP, while

controlling for patient factors SES (income, education), race, age, and depression symptom severity.

**Hypothesis 4:** Increased trust in PCP will moderate the effects of depression self-stigma on willingness to seek help for depression from a PCP

To test hypothesis 4 a hierarchical linear regression was conducted to look for interaction effects between the HCRT and SSDS total score, while controlling for SES (income, education), race, age, and depression symptom severity. To test for a moderation effect of the HCRT on the SSDS, an interaction term was created by mean centering the scores on the HCRT and SSDS, and then multiplying each measure (Baron & Kenny, 1986). Tests of moderation of the HCRT on the SSDS subscales were also run with no statistically significant findings.

## **Conclusion**

The purpose of this study was to examine the relationship between depression self-stigma and trust in primary care provider (PCP) in predicting willingness to seek help for depression symptoms from a PCP. More specifically, the study aimed to evaluate if higher trust in a PCP moderates the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP. The validated and reliable instruments listed in this chapter were be used to measure the variables of interest, aside from the dependent variable, for which an author created single-item measure was used. Relationships between variables of interest were assessed through Pearson correlation and multiple regression to determine to what extent the independent variables depression self-stigma, as measured by the SSDS, and trust in PCP, as measured by the HCRT, predict willingness to seek help for depression symptoms from a PCP, while controlling

for the patient factors SES (income, education), race, age, and depression symptom severity, as measured by the CESD.

Trust in PCP as a moderator variable was also assessed. In this cross sectional study the regression analysis examines relationships among variables, but does not predict causal relationships (Tabachnick & Fidell, 2018). Strong relationships between variables could be due to other latent factors, such as unmeasured variables, or the influence of variables on each other (Tabachnick & Fidell, 2018). The literature shows trust in provider contributes to good health outcomes and treatment adherence. It was therefore hypothesized that higher reported trust in one's PCP will predict increased willingness to seek help for depression symptoms from a PCP. As well, it was hypothesized that individuals reporting lower depression self-stigma will be more likely to seek help for depression symptoms from their PCP. Finally, it was hypothesized that trust in provider will moderate the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP. The following chapter 4 reports the results of each study aim and hypothesis.

## **Chapter 4: Results**

### **Introduction**

The purpose of this cross-sectional descriptive study was to investigate the role of trust in one's PCP and depression self-stigma in predicting willingness to seek help for depression symptoms from a PCP. More specifically, the study aimed to evaluate if higher trust in a PCP moderates the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP. There were three aims and four research hypotheses in this study. Chapter 4 of this dissertation is organized into 5 sections: (a) Findings, including sample demographics, (b) preliminary data screening, (c) descriptive analysis of measurement variables, (d) data analysis organized by aim and hypothesis, and (e) conclusion.

### **Findings**

#### **Sample Demographics**

The Facebook advertisement reached 84,187 people with 3,021 link clicks for a conversion rate 3.58%. The community disseminated flyer remained posted through the remaining days of the month of September 2021. A .csv data file was exported and downloaded from the Qualtrics platform. Between the Facebook advertisement and flyer dissemination, 621 respondents proceeded into the survey; however, 334 participants screened out of the survey based on the eligibility criteria questions. Of the 334 respondents that screened out of the survey, 38 were identified as bots. The term "bots," derived from the word "robot," are programmed agents that function on an internet platform that can perform repetitive tasks (Gorwa & Guilbeault, 2020). This is a problem for online research because a bot can complete questionnaires under the guise of a

human. Fortunately, bot attacks are easily identified because they can complete a survey in under a minute, or complete many surveys simultaneously, which is not typical of human performance. The Qualtrics platform date, timestamps, and records length of time for each response, making identification, even without IP address information, straightforward. A total of 287 participants, passed the eligibility required screening questions to proceed further into the survey; however, toward the last few days of the running Facebook advertisement, a total of 67 bots were identified that completed the survey. These responses were carefully examined and removed. Additionally, 78 respondents did not proceed through the survey to at least 88% progress. Responses that did not reach at least 88% progress were removed. A marker of 88% progress through the survey was chosen as the cutoff to include in the quantitative analysis because questions measuring the variables of interest trust in PCP, depression self-stigma, and the measure for depression symptom severity were completed. Lastly, 5 completed surveys were not included in the analysis due to questionable authenticity. After data evaluation and removal, a total of 136 completed surveys were included for analysis. Of the 136 completed surveys, 133 were complete to the end of the survey, with 3 being at least 88% complete. Surveys completed to 88% did not have any demographic data completed. Participants appear to have opted out of this section. Demographic questions were created as optional and housed at the end of the survey. Furthermore, it was found that not all participants who proceeded to the end of the survey (100%) completed every single question in the demographic section. These surveys (n=17) were not read into the regression analyses by SPSS or SAS, resulting in 119 observations being used for the regression analyses.



Demographic data collected included: age, gender, marital status, income, education, ethnicity, and race. Demographic entry was optional, therefore the sample for each category varies. Table 4 shows the breakdown of the sample demographics. Age was captured by respondent individual field entry, not as a selectable category. Participants were allowed to select more than one race and further specify within the selected race category their preferred racial/ethnic identities. For instance, respondents who selected “Black,” could further define within that category if they identified as African American Black, Jamaican Black, Haitian Black, etc. Furthermore, respondents who selected more than one race or “other” are categorized as “Mix/Other.” Additionally, due to the comparably smaller portion of respondents that selected “Asian/Asian Indian” (n=9), these responses were collapsed into the “Mix/Other” category for statistical parsimony. Ethnicity and race were captured separately, and therefore a mix of identities were reported this way as well. It was found that out of the 18 respondents who identified their ethnicity as Hispanic/Latinx, seven of these respondents identified their race as Black. It is important to note that these participants are identified as “Black” in the race category and not “Mixed/Other.” Additionally, of the 22 respondents that identified as mix or other, six included “Black” in their multiple racial identities. See Table 4 for a summary of sample sociodemographic characteristics.

**Table 4**

*Sample Sociodemographic Characteristics (N=136)*

Characteristic	n	%	Mean	SD	Min-Max
Age (in years)			41.81	18.44	18-81
Gender					
Male	35	26.12			
Female	88	66.42			

Genderqueer/Gender	5	3.73
nonconforming	1	0.75
Trans male	1	0.75
Trans female	3	2.24
A different identity		
Marital Status		
Married	37	27.61
Single	59	44.03
Divorced	13	9.7
Separated	3	2.24
Never married	10	7.46
Widowed	12	8.96
Education		
High School, some college	57	42.85
Bachelor's degree	52	39.1
Graduate degree	24	18.05
Income		
\$20, 000 or below	25	19.08
\$21,000 - \$40,000	22	16.79
\$41,000 - \$100,000	62	47.33
\$100,000 and above	22	16.79
Veteran status	11	7.9
Ethnicity		
Hispanic, Latino or Spanish origin	18	13.44
Non-Hispanic	116	86.56
Race		
White	69	55.2
Black	25	20
Mix/Other	31	24.8

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*Note. Providing demographic data was optional, not all categories add to N=136.*

### **Preliminary Data Screening**

Prior to correlation and regression analyses, data was analyzed for missing values. Missing values for the 15-item Healthcare Relationship Trust Tool (HCRT), 16-item Self Stigma of Depression Scale (SSDS), and the one-item dependent variable measure were found to be below 5%. The 20-item Center for Epidemiologic Studies Depression Scale (CESD) measure was found to have missing data not at random (MNAR) for the last item. A mean substitution method was used by calculating the mean

scores of the measure and using this value in place of the missing values (Tabachnick & Fidell, 2018). All other missing data was isolated to the demographics, was found to be missing completely at random (MCAR), and below 10% of the total data. Missing data was found to be below 5%, except for race, which was found to have 8% missing responses, and age, which was found to be 9%. Missing data below 5% is generally considered inconsequential and statistical handling for this missing data is not considered necessary (Tabachnick & Fidell, 2018). Imputing for missing data for race and age was not deemed practical or necessary.

With missing data handled, tests for normality were conducted. Skewness and Kurtosis along with normality tests were evaluated. The Shapiro-Wilk tests for normality were run for the continuous independent variables age, the SSDS total score and subscales, the HCRT, the CESD, and the single item measure for the dependent variable willingness to seek help for depression symptoms. The Shapiro-Wilk test for the SSDS total measure yielded significance over 0.05, indicating a normal distribution (Mishra et al., 2019). Histogram, box plot, and Q-Q plot for the SSDS were also evaluated. The histogram showed a normal distribution. As well, the Q-Q plot showed datapoints largely following the trendline. The box plot did not reveal any extreme outliers, though two outlier points were identified. One of these outliers was present in the boxplot for the SSDS subscale social inadequacy as well. Upon review of these individual responses, nothing was identified to suggest these values were not legitimately answered or did not belong to the distribution of interest; therefore, removal or transformation was not deemed necessary (Leys et al., 2019).

The Shapiro-Wilk test for all other measures and age were significant,  $p < .05$  indicating non-normality (Mishra et al., 2019). Next, histograms, skewness and kurtosis, and Q-Q plots were evaluated for normality. Skewness and Kurtosis values for age, the HCRT, SSDS total and subscales, and single item measure willingness to seek help for depression symptoms from a PCP were found to be within the tolerable limits of -1 and 1 (Mishra et al., 2019). However, in sample sizes less than 300, this is a less robust guideline because there is no adjustment for standard error (Mirshra et al., 2019). To account for this, z-values for skewness and kurtosis were calculated by dividing each skewness and kurtosis value by its standard error. For a sample size above 50 but below 300, a z-value  $\pm 3.29$  is adequate to conclude normal distribution of the data (Mirshra et al., 2019). The calculated z-values for all measures were within the  $\pm 3.29$  limits, except for the z-value for the skewness in the SSDS subscale shame ( $z = -3.33$ ). While the value -3.33 does not fall within the tolerable limits of assuming normality, it was decided to proceed with planned regressions for this subscale. Histograms for all the measures, followed an approximate normal distribution despite slight negative or positive skewedness, with data points largely following the trendline in the Q-Q Plots. See Table 5 for a summary of normality statistics.

**Table 5**

*Normality Statistics for Continuous Variables*

Variable	Skewness			Kurtosis			Shapiro-Wilk Test	p-value
	Value	SE	Z	Value	SE	Z		
Age	.391	.213	1.83	-1.20	.423	-2.84	.915	<.001
SSDS	-.468	.208	-2.25	.044	.413	0.10	.981	.057
Shame	-.693	.208	-3.33	-.226	.413	-0.54	.933	<.001
Self-blame	-.233	.208	-1.12	-.435	.413	1.05	.973	.008

Social Inadequacy	-.606	.208	-2.91	.132	.413	0.31	.960	<.001
Help-seeking Inhibition	-.161	.208	-0.77	-.601	.413	-1.45	.979	.033
HCRT	-.267	.208	-1.28	-.688	.413	-1.65	.961	<.001
CESD	-.295	.208	-1.41	-.355	.413	-0.85	.980	.040
Willingness to seek Help	-.274	.208	-1.31	-.907	.413	-2.19	.945	<.001

*Note.* Age ( $N = 129$ ); All other variables ( $N=136$ )

After examination of normality, the planned regressions were performed since the skewness and kurtosis values were within the tolerable limits to assume approximate normality for all measures, aside from one SSDS subscale. As well, it has been established that non-normal data can be used for parametric tests if the sample size is greater than 30, especially greater than 50 (Stevens, 2016), and not considered a major concern for a sample size greater than 100 (Mishra et al., 2019).

Next, linearity, independence of errors, and homoscedasticity were evaluated for violation of assumptions. The Durbin-Watson test for all variables fell within the tolerable range of 1.5 – 2.5 (Azami et al., 2020). Examination of P-P plots and homoscedasticity scatterplots showed assumptions of normality and homoscedasticity were met.

Multicollinearity of the independent variables was evaluated using the Variation Inflation Factor (VIF). A VIF below a value of 10 is commonly considered an indicator of little concern for multicollinearity, with a value below 3 being the more commonly and conservative value, indicating little to no issues with multicollinearity (Thompson et al., 2017). All independent variables were found to have a VIF below a value of 3 indicating the independent variables are not highly correlated with each other (Thompson et al., 2017).

### **Descriptive Analysis of Measurement Variables**

Descriptive statistics were run for all measurement data. The total score mean for the SSDS measure was 56.54 (SD = 10.88) with scores between 22 and 79 on a scale of 16-80. Higher scores on this measure indicate higher stigma. Mean scores for the subscales were as follows: shame  $M = 13.85$  (SD = 4.04), self-blame  $M = 14.7$  (SD = 3.05), social inadequacy  $M = 14.89$  (SD = 3.12), help-seeking inhibition  $M = 13.24$  (SD = 3.60). Possible range of scores on the subscales is 4 to 20. The total mean score for the HCRT was 41.42 (SD = 12.55), with scores between 7 and 60, on a scale of 0-60, with higher scores indicating higher rated trust in provider. The total mean score for the CESD was 35.55 (SD = 10.69), with scores ranging from 8.42 to 54.74, on a scale of 0 to 60, with higher scores indicating more severe depression symptoms severity. The one-item measure of the dependent variable willingness to seek help for depression symptoms from a PCP was treated as interval data and showed a mean score of 5.85 (SD = 2.9) on a scale of 0-10. Frequency statistics were also assessed for this unique variable. There were multiple modes in this sample, 8 ( $n = 20$ ) and 10 ( $n = 20$ ). Higher numerical value on this measure indicates increased willingness to seek help for depression symptoms from a PCP. See Table 6 for a summary of the descriptive statistics for measurement variables.

Cronbach's alpha analysis was also performed for the SSDS, SSDS subscales, HCRT, and CESD measures to determine internal consistency reliability between items on each questionnaire in this sample. All the measures showed adequate internal consistency reliability in this sample with Cronbach's alpha  $> .70$ . The dependent variable willingness to seek help for depression symptoms from a PCP is a single item

question and therefore reliability testing was not performed. See Table 6 for a summary of Cronbach's Alpha Analyses.

**Table 6**

*Descriptive Analysis for Measurement Variables*

Variable	Number of items	Sample Min-Max	Possible Min-Max	Mean	SD	Cronbach's $\alpha$
SSDS (total score)	16	22-79	16-80	56.54	10.88	.85
Shame	4	4-20	4-20	13.85	4.07	.86
Self-blame	4	7-20	4-20	14.57	3.05	.70
Social Inadequacy	4	5-20	4-20	14.89	3.12	.72
Help-seeking Inhibition	4	4-20	4-20	13.24	3.60	.75
HCRT	15	7-60	0-60	41.42	12.55	.93
CESD	20	8.42-54.74	0-60	35.55	10.69	.89
Willingness to seek help from PCP	1	0-10	0-10	5.85	2.9	

*Note.*  $N=136$ . Measures with missing data were not run by SPSS Cronbach's alpha computation; (SSDS  $N=131$ ); HCRT ( $N=133$ ); CESD ( $N=132$ ).

## Data Analysis

**Aim 1.** To examine the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as SES, race, age, and depression symptom severity. In this study, income and education are measured as functions of socioeconomic status (SES).

To address Aim 1 a Pearson correlation coefficient was computed to ascertain the degree and direction of linear relationship between SSDS total scores and subscale scores and willingness to seek help for depression symptoms from a PCP. Total SSDS scores and willingness to seek help showed a weak association and were negatively correlated  $r(134) = -.20, p < .05$ . The SSDS subscale score shame and willingness to seek help showed a weak association and were negatively correlated  $r(134) = -.19, p < .05$ . The SSDS subscale self-blame and willingness to seek help showed a weak association and

were negatively correlated  $r(134) = -.10, p > .05$ ; however, the relationships were not statistically significant. The SSDS subscale social inadequacy and willingness to seek help showed a weak association and were negatively correlated  $r(134) = -.08, p > .05$ ; however, the relationship was not statistically significant. The SSDS subscale help-seeking inhibition and willingness to seek help showed a weak association and were negatively correlated  $r(134) = -.24, p < .01$ . See Table 7 for Pearson correlation matrix.

**Hypothesis 1.** Individuals reporting lower depression self-stigma will be more likely to seek help for depression symptoms from a PCP.

To test Hypothesis 1 a multiple regression was run to determine if lower scores on the total score SSDS predicted willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as SES (income, education), race, age, and depression symptom severity. Reference Table 4 for demographic variables with the largest  $n$  among each category used for the dummy-coded contrast variable.

In regression 1 the overall model was statistically significant ( $F(10, 108) = 1.95, p < .05$ ). Total SSDS scores and graduate education were significant predictors in the model. While controlling for all other variables, for every one unit increase in SSDS scores, willingness to seek help for depression symptoms from a PCP decreased by .058 units ( $B = -.058, SE = .027, p < .05$ ). While controlling for all other variables, respondents with a graduate degree showed decreased willingness to seek help for depression symptoms from a PCP ( $B = -1.79, SE = .81, p < .05$ ), when compared to the reference group (high school, some college). The coefficient of determination ( $R^2$ ) for the model was 0.15, with an adjusted  $R^2$  of 0.07. The model explained 15% of the variance in the dependent variable willingness to seek help for depression symptoms from a PCP. Age,



income, race, and CESD scores were not significant predictors in this model. See Table 8 for a summary of regression analyses. In order to determine magnitude of effect of the significant predictors in the model, eta squared ( $\eta^2$ ) was calculated. Eta squared explains the amount of variance in the dependent variable uniquely explained by the independent variable (Darlington & Hayes, 2017). The SSDS explained 3.6 % ( $\eta^2 = .036$ ) of the variance in willingness to seek help for depression symptoms from a PCP. While education is a multi-level categorical predictor, with the level of graduate degree being a significant predictor in the model when compared to the reference group, the entire category education is explaining 4.7% ( $\eta^2 = .047$ ) of the variance in willingness to seek help for depression symptoms from a PCP. See Figure 5 for a model of relationships for regression 1. See Table 8 for a summary of regression analyses.

### Figure 5

#### *Model of Relationships: Model 1*



*Note.*  $N = 119$ ; Unstandardized Beta; Demographic variables and CESD not shown: \*  
=  $p < .05$

Further regressions were planned for each SSDS subscale; however, only regressions were run on the subscales with significant relationships to the dependent variable willingness to seek help; shame and help-seeking inhibition. A multiple regression was run to determine if lower scores on the SSDS subscale shame predicted

willingness to seek help for depression symptoms from a PCP, while controlling for patient factors SES (income, education), race, age, and depression symptom severity. In regression 2, the overall model was not significant ( $F(10, 108) = 1.75, p > .05$ ). The SSDS subscale shame was not a significant predictor ( $B = -.127, SE = 1.57, p > .05$ ); however, education at the graduate level was a significant predictor ( $B = -1.70, SE = .820, p < .03$ ). While controlling for all other variables, respondents with graduate education showed decreased willingness to seek help for depression symptoms from a PCP, as compared to those with high school or some college education. The coefficient of determination ( $R^2$ ) for the model was 0.13, with an adjusted  $R^2$  of .059. The model explained 13% of the variance in the dependent variable willingness to seek help for depression symptoms from a PCP. To determine magnitude of effect of the significant predictor education, eta squared was calculated. Education explained 4.5% ( $\eta^2 = .045$ ) of the variance in willingness to seek help for depression symptoms from a PCP. While the SSDS subscale shame was not a significant predictor, it explained 2.2% ( $\eta^2 = .022$ ) of the variation in willingness to seek help. Age, income, race, and CESD scores were not significant predictors in this model. See Figure 6 for a model of relationships for regression 2. See Table 8 for a summary of regression analyses.

### Figure 6

#### *Model of Relationships: Model 2*



*Note. N = 119; Unstandardized Beta; Non-significant model*

Next, a multiple regression was run to determine if lower scores on the SSDS help-seeking inhibition predicted willingness to seek help for depression symptoms from a PCP, while controlling for patient factors SES (income, education), race, age, and depression symptom severity. In regression 3, the overall model was significant ( $F(10, 108) = 2.45, p < .05$ ). The SSDS subscale help-seeking inhibition was a significant predictor ( $B = -.228, SE = .07, p < .05$ ). While controlling for all other variables, for every one unit increase in the subscale help-seeking inhibition, willingness to seek help for depression symptoms from a PCP decreased by .22 units. Additionally, education at the bachelor's degree and graduate degree level were significant predictors in the model. While controlling for all other variables, as education increased to the bachelor's degree level, willingness to seek help for depression symptoms from a PCP decreased, as compared to those with a high school or some college education ( $B = -1.36, SE = .59, p < .05$ ). Similarly, as education increased to the graduate degree level willingness to seek help for depression symptoms from a PCP decreased, as compared to those with a high school or some college education ( $B = -1.86, SE = .79, p < .05$ ). The coefficient of determination ( $R^2$ ) for the model was 0.18, with an adjusted  $R^2$  of .10. The model explained 18% of the variance in the dependent variable willingness to seek help for depression symptoms from a PCP. In terms of magnitude of effect for the significant predictors in the model, the subscale help-seeking inhibition explained 6.8% ( $\eta^2 = .068$ ) of the variance in willingness to seek help for depression symptoms from a PCP, while education as a whole category explained 5.6% ( $\eta^2 = .056$ ) of the variance in willingness to seek help for depression symptoms from a PCP. See Figure 7 for a model of relationships for regression 3. See Table 8 for a summary of regression analyses.

**Figure 7***Model of Relationships: Model 3*

*Note.*  $N = 119$ ; Unstandardized Beta; Demographic variables and CESD not shown; \* =  $p < .05$

**Aim 2.** To examine the relationship between trust in PCP and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors such as SES, race, age, and depression symptom severity.

To address Aim 2 a Pearson correlation coefficient was computed to ascertain the degree and direction of linear relationship between the HCRT scores and willingness to seek help for depression symptoms from a PCP. HCRT scores and willingness to seek help showed a medium association and were positively correlated  $r(134) = .35, p < .001$ . See Table 7 for Pearson correlation matrix.

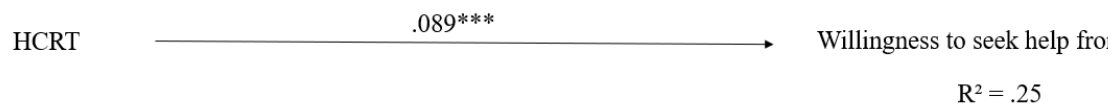
**Hypothesis 2.** Individuals reporting higher trust in their PCP will be more likely to have greater willingness to seek help for depression symptoms from a PCP.

To test Hypothesis 2 a multiple regression was run to determine if higher scores on the HCRT predicted willingness to seek help for depression symptoms from a PCP, while controlling for patient factors SES (income, education), race, age, and depression symptom severity. In regression 4, the overall model was significant ( $F(10, 108) = 3.64, p < .001$ ). The HCRT was a significant predictor in the model ( $B = .089, SE = .02, p < .001$ ). While controlling for all other variables, for every one-unit increase in the HCRT,

willingness to seek help for depression symptoms from a PCP increased by .089 units. Education at the graduate degree level was also a significant predictor in this model. While controlling for all other variables, respondents with a graduate degree showed decreased willingness to seek help for depression symptoms from a PCP, as compared to those with a high school, some college education ( $B = -2.18$ ,  $SE = .77$ ,  $p < .05$ ). The coefficient of determination ( $R^2$ ) for the model was 0.25, with an adjusted  $R^2$  of 0.18. The model explained 25% of the variance in the dependent variable willingness to seek help for depression symptoms from a PCP. To determine magnitude of effect for the significant predictors in the model eta squared was calculated. The HCRT explained 13.5% ( $\eta^2 = .135$ ) of the variance in willingness to seek help for depression symptoms from a PCP, while education explained 5.7% ( $\eta^2 = .057$ ) of the variance in willingness to seek help for depression symptoms from a PCP. Age, income, race, and CESD scores were not significant predictors in this model. See Figure 8 for a model of relationships for regression 4. See Table 8 for a summary of regression analyses.

### Figure 8

#### *Model of Relationships: Model 4*



*Note.*  $N = 119$ ; Unstandardized Beta; Demographic variables and CESD not shown;  
 $*** = p < .001$

**Aim 3.** To examine if trust in PCP moderates the relationship between depression self-stigma and willingness to seek help for depression symptoms from a PCP, while controlling for patient factors SES, race, age, and depression symptom severity.

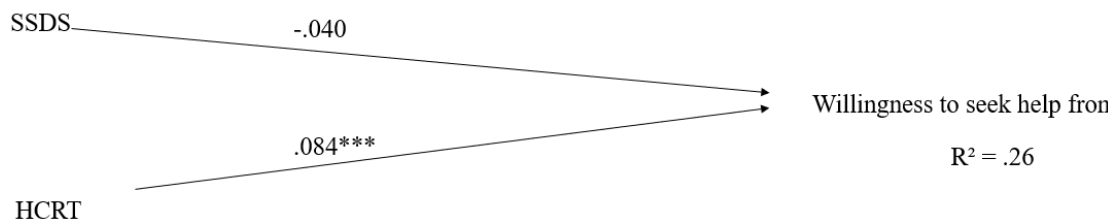
**Hypothesis 3.** Individuals reporting lower depression self-stigma and higher trust in their PCP are predicted to have greater willingness to seek help for depression symptoms from their PCP.

To address Aim 3 and test Hypothesis 3 a multiple regression was run to determine if higher scores on the HCRT and lower scores on the total SSDS predicted willingness to seek help for depression symptoms from a PCP, while controlling for patient factors SES (income, education), race, age, and depression symptom severity. In regression 5, the overall model was significant ( $F(11, 107) = 3.58, p < .001$ ). The HCRT was a significant predictor in the model ( $B = .084, SE = .020, p < .001$ ); however, the SSDS total scores were not a significant predictor in this model ( $B = -.04, SE = .025, p > .05$ ). While controlling for all other variables, for every one-unit increase on the HCRT, willingness to seek help for depression symptoms from a PCP increased by .084 units. Education at the graduate degree level was also a significant predictor in this model. While controlling for all other variables, respondents with a graduate degree showed decreased willingness to seek help for depression symptoms from a PCP, as compared to those with high school or some college education ( $B = -2.17, SE = .76, p < .05$ ). The coefficient of determination ( $R^2$ ) for the model was 0.26, with an adjusted  $R^2$  of 0.19. The model explained 26% of the variance in the dependent variable willingness to seek help for depression symptoms from a PCP. To better understand magnitude of effect for the significant predictors in this model eta squared was calculated. The HCRT explained

11.6% ( $\eta^2 = .116$ ) of the variance in willingness to seek help for depression symptoms from a PCP and education explained 5.7% ( $\eta^2 = .057$ ) of the variance in willingness to seek help for depression symptoms from a PCP. While the SSDS was not a significant predictor in the model, it explained 1.6% ( $\eta^2 = .016$ ) of the variance in willingness to seek help. Age, income, race, and CESD scores were not significant predictors in this model. See Figure 9 for a model of relationships for regression 5. See Table 8 for a summary of regression analyses.

### Figure 9

#### *Model of Relationships: Model 5*



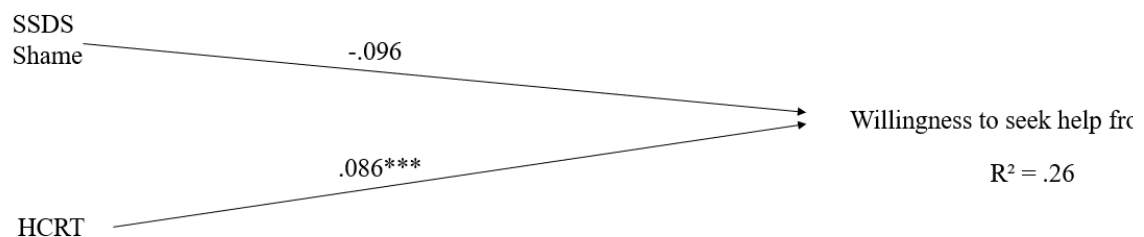
*Note.*  $N = 119$ ; Unstandardized Betas; Demographic variables and CESD not shown;  
 \*\*\* =  $p < .05$

Next a multiple regression was run to determine if higher scores on the HCRT and lower scores on the SSDS subscale shame predicted greater willingness to seek help for depression symptoms from a PCP, while controlling for SES (income, education), race, age, and depression symptom severity. In regression 6, the overall model was significant ( $F(11, 107) = 3.51, p < .001$ ). The HCRT was a significant predictor in the model ( $B = .080, SE .020, p < .001$ ). While controlling for all other variables, for every one unit increase in the HCRT, willingness to seek help for depression symptoms from a PCP

increased by .080 units. The SSDS subscale shame was not significant predictor in the model ( $B = -.096$ ,  $SE = .070$ ,  $p > .05$ ); however, education at the graduate degree level was a significant predictor in this model ( $B = -2.17$ ,  $SE = .76$ ,  $p < .05$ ). While controlling for all other variables, respondents with a graduate degree showed decreased willingness to seek help for depression symptoms from a PCP, as compared to those in high school or some college. The coefficient of determination ( $R^2$ ) for the model was 0.26, with an adjusted  $R^2$  of 0.18. The model explained 26% of the variance in the dependent variable willingness to seek help for depression symptoms from a PCP. In terms of magnitude of effect for the significant predictors, the HCRT explained 12.5 % ( $\eta^2 = .125$ ) of the variance in willingness to seek help for depression symptoms from a PCP and education explained 5.5% ( $\eta^2 = .055$ ) of the variance in willingness to seek help for depression symptoms from a PCP. While the SSDS subscale shame was not a significant predictor, it explained 1.2% ( $\eta^2 = .012$ ) of the variance in willingness to seek help. Age, race, income, and CESD scores were not significant predictors in this model. See Figure 10 for a model of relationships for regression 6. See Table 8 for a summary of regression analyses.

**Figure 10**

*Model of Relationships: Model 6*



*Note.*  $N = 119$ ; Unstandardized Betas; Demographic variables and CESD not shown;  
 \*\*\* =  $p < .001$

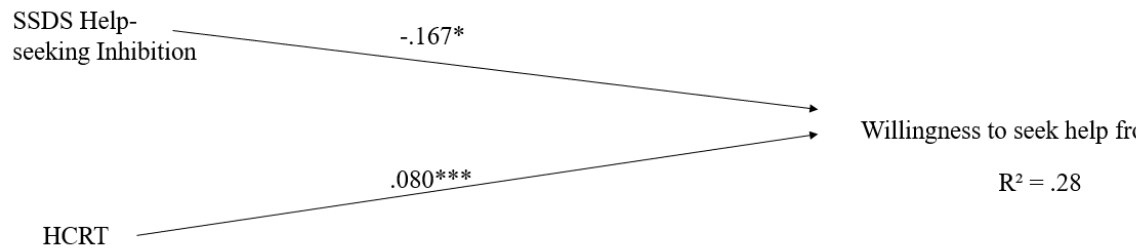


Subsequently, a multiple regression was run to determine if higher scores on the HCRT and lower scores on the SSDS subscale help-seeking inhibition predicted greater willingness to seek help for depression symptoms from a PCP, while controlling for SES (income, education), race, age, and depression symptom severity. In regression 7, the overall model was significant ( $F(11, 107) = 3.92, p < .0001$ ). The HCRT was a significant predictor in the model ( $B = .080, SE .020, p < .001$ ). While controlling for all other variables, for every one unit increase in the HCRT, willingness to seek help for depression symptoms from a PCP increased by .080 units. The SSDS subscale help-seeking inhibition was a significant predictor in the model ( $B = -.167, SE = .072, p < .05$ ). While controlling for all other variables, for every one unit increase in the SSDS subscale help-seeking inhibition, there was a .167 decrease in willingness to seek help for depression symptoms from a PCP. Education at the graduate degree level was also a significant predictor in the model ( $B = -2.21, SE = .755, p < .05$ ). While controlling for all other variables, respondents with a graduate degree showed decreased willingness to seek help for depression symptoms from a PCP, as compared to those in high school or some college. The coefficient of determination ( $R^2$ ) for the model was 0.28, with an adjusted  $R^2$  of 0.21. The model explained 28% of the variance in the dependent variable willingness to seek help for depression symptoms from a PCP. In terms of magnitude of effect for the significant predictors, the HCRT explained 10.2 % ( $\eta^2 = .102$ ) of the variance in willingness to seek help for depression symptoms from a PCP. The SSDS subscale help-seeking inhibition explained 3.5 % of the variance in willingness to seek help ( $\eta^2 = .035$ ), and education explained 6.2% ( $\eta^2 = .062$ ) of the variance in willingness to seek help for depression symptoms from a PCP. Age, race, income, and CESD scores

were not significant predictors in this model. See Figure 11 for a model of relationships for regression 7. See Table 8 for a summary of regression analyses.

**Figure 11**

*Model of Relationships: Model 7*



*Note.*  $N = 119$ ; Unstandardized Betas; Demographic variables and CESD not shown;  
 $* = p < .05$ ,  $*** = p < .001$

**Hypothesis 4.** Increased trust in PCP will moderate the effects of depression self-stigma on willingness to seek help for depression from a PCP

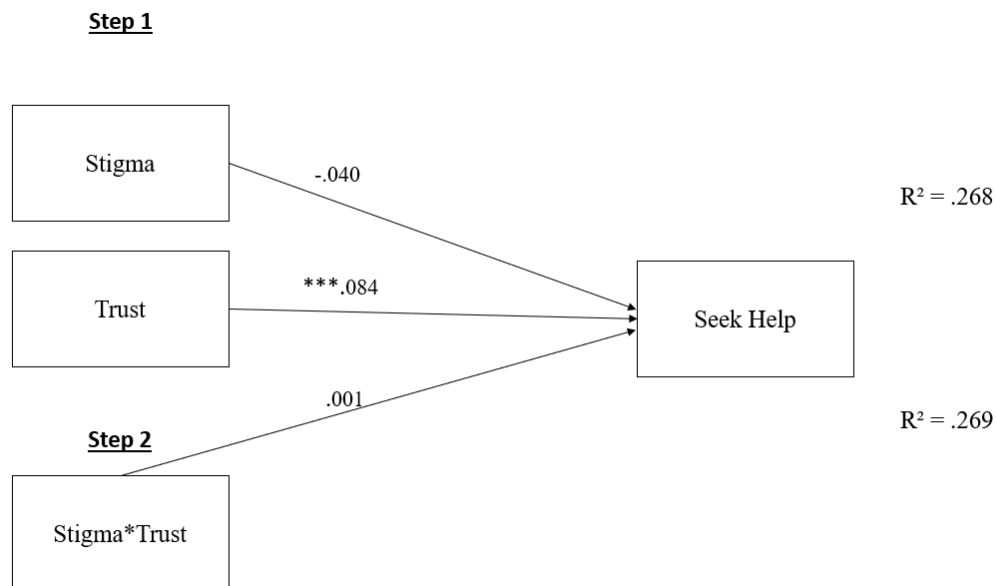
To test hypothesis 4 a hierarchical linear regression was conducted to look for interaction effects between the HCRT and SSDS total score, while controlling for SES (income, education), race, age, and depression symptom severity. To test for a moderation effect of the HCRT on the SSDS, an interaction term was created by mean centering the scores on the HCRT and SSDS, and then multiplying each measure (Baron & Kenny, 1986). In the first step of the regression, the mean centered HCRT and total SSDS variables were entered together, along with patient factors SES (income, education), race, age, and depression symptom severity. In the second step the interaction term HCRT\*SSDS was entered into the model. In the first step, the overall model was significant ( $F(11, 107) = 3.58, p < .001$ ) and accounted for 26.8% of the variance in the

dependent variable willingness to seek help for depression symptoms from a PCP. The interaction term entered in step two produced a significant model ( $F(12, 106) = 3.26, p < .05$ ); however, the interaction term was not a significant predictor in the model and did not contribute to the variance in the dependent variable willingness to seek help for depression symptoms from a PCP ( $B = .001, SE = .002, R^2 = 0.269, p > .05$ ). Therefore, while controlling for all other variables, trust in PCP as measured by the HCRT did not moderate the effects of depression self-stigma, as measured by the SSDS, on willingness to seek help for depression symptoms from a PCP. See Figure 12 for model of relationships. See Table 9 for test of moderation.

Tests of moderation of the HCRT on the SSDS subscales were also run, with no significant interaction effects produced.

**Figure 12**

*Model of Relationships: Test for Moderation*



*Note.*  $N = 119$ ; Unstandardized Betas; Demographic variables and CESD not shown;  
 $*** = p < .001$

**Table 7***Correlation Matrix for Continuous Measurement Variables of Interest (N = 136)*

	1	2	3	4	5	6	7
1. Willingness	1						
2. SSDS	-.204*	1					
3. SSDS_Shame	-1.92*	.860**	1				
4. SSDS_Self-blame	-.101	.709**	.455**	1			
5. SSDS_Social Inadequacy	-.084	.713**	.506**	.359**	1		
6. SSDS_Help-seeking Inhibition	-.241**	.827**	.649**	.480**	.411**	1	
7. HCRT	.356***	-.240**	-.165	-.174*	-.140	-.269**	1

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Table 8***Regression Analyses (N=119)*

Variable	<i>B</i>	<i>S.E</i>	$\beta$	<i>t</i>	<i>p</i>	95% CI
SSDS Total Measure (Model 1)						
Constant	10.80	1.83		5.87	<.001	[7.16, 14.45]
SSDS	-.058	.027	-.218	-2.18	.034	[-.111, -.004]
Income						
\$20,000 or below	-.793	.708	-.109	-1.11	.266	[-2.19, .611]
\$21,000 – \$40,000	-1.21	.761	-.153	-1.54	.113	[-2.72, .293]
\$41,000 - \$100, 000*	-	-	-	-	-	-
\$100,000 or above	-.757	.766	-.097	-.988	.325	[-2.27, .761]
Education						
HS, some college*	-	-	-	-	-	-
Bachelor's	-1.16	.607	-.195	-1.92	.058	[-2.37, .038]
Graduate	-1.79	.814	-.239	-2.20	.030	[-3.40, -.177]
Race						
White*	-	-	-	-	-	-
AA/Black	1.12	.782	.150	1.43	.154	[-.42, 2.67]
Mix/Other	-.134	.709	-.019	-1.89	.850	[-1.54, 1.27]

Age	.007	.017	.045	.414	.680	[-.027, .041]
CESD	-.023	.027	-.087	-.866	.389	[-.076, .030]
SSDS Subscale Shame (Model 2)						
Constant	9.45	1.57		6.00	<.001	[6.33, 12.5]
SSDS_Shame	-.127	.075	-.173	-1.68	.095	[-.278, .022]
Income						
\$20,000 or below	-.763	.718	-.105	-1.06	.290	[-2.18, .661]
\$21,000 – \$40,000	-1.28	.766	-.163	-1.68	.095	[-2.80, .230]
\$41,000 - \$100, 000*	-	-	-	-	-	-
\$100,000 or above	-.656	.775	-.084	-.085	.399	[-2.19, .881]
Education						
HS, some college*	-	-	-	-	-	-
Bachelor's	-1.19	.612	-.199	-1.95	.054	[-2.40, .022]
Graduate	-1.70	.820	-.228	-2.08	.039	[-3.33, -.080]
Race						
White*	-	-	-	-	-	-
AA/Black	1.17	.797	.158	1.48	.141	[-.400, 2.75]
Mix/Other	-.153	.714	-.022	-.21	.830	[-1.57, 1.26]
Age	.007	.017	.048	.044	.662	[-.020, .042]
CESD	-.028	.026	-.106	-1.05	.296	[-.081, .025]
SSDS Subscale Help-seeking Inhibition (Model 3)						
Constant	10.62	1.65		6.79	<.001	[7.51, 13.72]
SSDS_Help-seeking Inhibition	-.228	.075	-.287	-3.01	.003	[-.378, .078]
Income						
\$20,000 or below	-.841	.690	-.116	-1.22	.225	[-2.20, .526]
\$21,000 – \$40,000	-1.15	.746	-.146	-1.55	.123	[-2.63, .321]
\$41,000 - \$100, 000*	-	-	-	-	-	-
\$100,000 or above	-1.11	.759	-.144	-1.47	.143	[-2.62, .385]
Education						
HS, some college*	-	-	-	-	-	-
Bachelor's	-1.36	.598	-.228	-2.28	.024	[-2.55, -.175]
Graduate	-1.86	.798	-.250	-2.34	.021	[-3.44, -.283]
Race						
White*	-	-	-	-	-	-
AA/Black	1.20	.767	.161	1.57	.118	[-.313, 2.72]
Mix/Other	-.128	.694	-.019	-1.80	.854	[-1.50, 1.25]
Age	.010	.016	.067	.630	.531	[-.022, .043]
CESD	-.024	.025	-.092	-.970	.334	[-.074, .025]
HCRT (Model 4)						
Constant	4.04	1.58		2.56	.011	[.918, 7.16]
HCRT	.089	.020	.403	4.42	<.001	[.049, .130]
Income						
\$20,000 or below	.306	.652	-.042	-0.47	0.64	[-1.59, .099]

\$21,000 – \$40,000	-1.07	.716	-.134	-1.49	0.14	[-2.49, 0.35]
\$41,000 - \$100, 000*	-	-	-	-	-	-
\$100,000 or above	-1.19	.725	-.154	-1.65	0.10	[-2.63, 0.24]
Education						
HS, some college*	-	-	-	-	-	-
Bachelor's	-0.96	.572	-.160	-1.68	.096	[-2.09, 0.17]
Graduate	-2.18	0.77	-.292	-2.83	.005	[-3.70, -.654]
Race						
White*	-	-	-	-	-	-
AA/Black	.575	.734	.077	0.78	.454	[-0.88, 2.03]
Mix/Other	-.070	.665	-.010	-0.11	.916	[-1.39, 1.25]
Age	.005	.016	.032	0.32	0.75	[-.027, .037]
CESD	-.023	.023	-.100	-1.13	.261	[-.073, .020]

## SSDS Total Measure and HCRT (Model 5)

Constant	6.12	2.06		2.98	.004	[2.05, 10.2]
SSDS	-.040	.025	-.150	-1.56	.120	[-.090, .011]
HCRT	.084	.020	.379	4.12	<.0001	[.043, .124]
Income						
\$20,000 or below	-.533	.666	-.073	-0.8	.423	[-1.85, .782]
\$21,000 – \$40,000	-1.04	.711	-.132	-1.47	.145	[-2.45, .366]
\$41,000 - \$100, 000*	-	-	-	-	-	-
\$100,000 or above	-1.15	.721	-.148	-1.62	.113	[-2.58, .277]
Education						
HS, some college*	-	-	-	-	-	-
Bachelor's	-.967	.568	-.161	-1.7	.092	[-2.09, .160]
Graduate	-2.17	.765	-.291	-2.84	.005	[-3.69, -.659]
Race						
White*	-	-	-	-	-	-
AA/Black	.731	.735	.098	0.99	.322	[-.727, 2.19]
Mix/Other	-.015	.66	-.002	-0.02	.981	[-1.32, 1.29]
Age	.002	.016	.014	.014	.887	[-.029, .034]
CESD	-.012	.025	-.045	-0.48	.584	[-.061, .037]

## SSDS Subscale Shame and HCRT (Model 6)

Constant	5.16	1.77		2.92	.004	[1.65, 8.68]
SSDS_Shame	-.096	.070	-.131	-1.37	.174	[-.237, .043]
HCRT	.086	.020	.391	4.28	<.0001	[.046, .126]
Income						
\$20,000 or below	-.528	.669	-.073	-.790	.431	[-1.85, .799]
\$21,000 – \$40,000	-1.09	.713	-.137	-1.53	.129	[-2.50, .324]
\$41,000 - \$100, 000*	-	-	-	-	-	-
\$100,000 or above	-1.08	.727	-.140	-1.49	.138	[-2.52, .355]
Education						
HS, some college*	-	-	-	-	-	-
Bachelor's	-1.15	.570	-.164	-1.72	.088	[-2.11, .151]

Graduate	-2.17	.768	-.285	-2.77	.006	[-3.65, -.605]
Race						
White*	-	-	-	-	-	-
AA/Black	.979	.745	.104	1.04	.299	[-.070, 2.25]
Mix/Other	-2.12	.664	-.002	-.030	.976	[-1.33, 1.29]
Age	.002	.016	.013	.130	.895	[-.030, .034]
CESD	-.013	.025	-.051	-.540	.588	[-.063, .036]

SSDS Subscale Help-seeking Inhibition and HCRT (Model 7)						
Constant	6.31	1.83		3.44	<.001	[2.67, 9.95]
SSDS_Help-seeking Inhibition	-.167	.072	-.210	-2.30	.023	[-.312, -.022]
HCRT	.080	.020	.358	3.92	<.001	[.039, .119]
Income						
\$20,000 or below	-.591	.651	-.081	-0.91	.366	[-1.88, .700]
\$21,000 – \$40,000	-1.00	.702	-.127	-1.44	.153	[-2.40, .383]
\$41,000 - \$100, 000*	-	-	-	-	-	-
\$100,000 or above	-1.39	.716	-.180	-1.95	.054	[-2.81, .024]
Education						
HS, some college*	-	-	-	-	-	-
Bachelor's	-1.12	.566	-.187	-1.98	.050	[-2.24, .000]
Graduate	-2.21	.755	-.296	-2.93	.004	[-3.71, -.714]
Race						
White*	-	-	-	-	-	-
AA/Black	.819	.727	.109	1.13	.262	[-.623, 2.26]
Mix/Other	-.015	.653	-.002	-.020	.981	[-1.31, 1.28]
Age	.004	.015	.031	.031	.756	[-.026, .036]
CESD	-.013	.023	-.048	-.540	.589	[-.060, .034]

*Note.* AA= African American; HS = High School; \* = Reference Level

**Table 9**

*Tests for Moderation (N=119)*

Variable	B	95% CI	SE B	R <sup>2</sup>	R <sup>2</sup> Δ
Step 1				.268	
Constant	6.13	[2.05, 10.20]	2.05		
SSDS	-.040	[-.090, .010]	.025		
HCRT	***.084	[.043, .12]	.020		

Income			
\$20,000 or below	-.533	[-1.85, .782]	.661
\$21, 000 - \$40,000	-1.04	[-2.45, .366]	.711
\$41,000 - \$100,000 (reference)	-	-	-
\$100,000 or above	-1.15	[-2.58, .277]	.721
Education			
HS, some college (reference)	-	-	-
Bachelor's	-.967	[-2.09, .160]	.568
Graduate	*-2.17	[-3.69, -.659]	.765
Race			
White (reference)	-	-	-
AA/Black	.731	[-7.27, 2.19]	.735
Mix/Other	-.015	[-1.32, 1.29]	.664
Age	.002	[-.029, .037]	.016
CESD	-.012	[-.062, .037]	.025
Step 2			.269 .001
Constant	7.77	[-2.24, 17.78]	5.05
SSDS	-.069	[-.239, .101]	.085
HCRT	.047	[-0.23, 0.10]	.103
HCRT*SSDS	.001	[-.002, .004]	.001
Income			
\$20,000 or below	-.540	[-1.86, 0.78]	.667
\$21, 000 - \$40,000	-1.07	[-2.50, .035]	.719
\$41,000 - \$100,000 (reference)	-	-	-
\$100,000 or above	-1.15	[-2.58, 0.28]	.724
Education			
HS, some college (reference)	-	-	-
Bachelor's	-.964	[-2.09, 0.16]	.571
Graduate	-2.19*	[-3.71, -0.66]	.769
Race			
White (reference)	-	-	-
AA/Black	.698	[-0.77, 2.17]	.744
Mix/Other	-.050	[-1.38, 1.28]	.672
Age	.002	[-0.02, 0.03]	.016
CESD	-.010	[-0.06, 0.03]	.025

*Note.* AA = African American, HS = High School; \* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

## Conclusion

This chapter presented the results of the addressed study aims and hypotheses.

This study used a correlational analysis followed by multiple regression to address the first three aims and hypotheses. Hierarchical regression was also carried out to test for



moderation effects for hypothesis 4. Results of aim one lead to rejection of the null hypothesis that there is zero effect on depression self-stigma and willingness to seek help. Regression analysis revealed that increased depression self-stigma predicted decreased willingness to seek help for depression symptoms from a PCP. Results from aim two leads to rejection of the null hypothesis that there is zero effect on trust in provider and willingness to seek help for depression symptoms from a PCP. Regression analysis results showed that increased trust in provider predicted increased willingness to seek help for depression symptoms from a PCP. Results from the regressions performed to test aim three and hypotheses three and four do not lead to rejection of the null hypothesis. We accept the null hypothesis of these slopes are equal to zero. When self-stigma and trust in provider are built into the same model, only trust in provider is a statistically significant predictor. Finally, there was no moderation effect of trust in provider on depression self-stigma on willingness to seek help for depression symptoms from a PCP.

## **Chapter 5: Conclusions, Discussion & Future considerations**

### **Introduction**

Chapter 5 will deliver a summary and discussion of the results of the aims of this study. This study had three aims and four hypotheses. Results for each study aim and hypothesis will be examined and discussed separately along with conclusions gleaned from each aim and hypothesis. Next, the study results' value to nursing, limitations, and suggestions for future research will be discussed. The chapter will end with concluding statements.

### **Summary of Findings and Conclusions**

**Aim 1.** The first aim of the study had one research hypothesis. For aim 1 and hypothesis testing, there was increased depression self-stigma, as measured by the SSDS, which predicted decreased willingness to seek help for depression symptoms from a PCP. These results are consistent with the results of Vogel et al. (2017) that found higher levels of public stigma are associated with higher levels of self-stigma. However, the stronger associations with negative attitudes toward seeking psychological help were found to be through higher levels of self-stigma.

Also, the results of the present study are similar, in part, to the study conducted by Arnaez et al. (2020) that investigated the effects of perceived stigma and internalized stigma on help-seeking barrier endorsement in a sample of undergraduate students. Authors of that study determined that internalized stigma was a stronger predictor for barrier endorsement than perceived stigma for help-seeking in general with depression symptoms (Arnaez et al., 2020).

Interesting findings in the present study also include respondents with a graduate degree showed decreased willingness to seek help for depression symptoms from a PCP,

when compared to those with a high school education or some college (reference level). As well, in model 3, respondents with a bachelor's degree and respondents with a graduate degree were less willing to seek help for depression symptoms from a PCP. There is limited research evaluating the role of increased education on help-seeking for any mental health symptom. One study found that for young adult Black participants, as education increased the likelihood of receiving mental health services decreased (Broman, 2012). This is an underexplored area of research and warrants future investigation. Recent research supports young and older adults with increased education experience better mental wellness (Belo, et al., 2020; McFarland & Wagner, 2015), it is therefore possible that respondents in this study with a graduate degree did not feel their depression symptoms were severe enough to seek help. This ambiguous relationship warrants further investigation in a future study. Another intriguing result was that all other sociodemographic variables and depression symptom severity as measured by the CESD were not significant predictors in this model on willingness to seek help for depression symptoms from a PCP. Depression is a mood disorder that can affect any adult across ethnic-racial identities regardless of age (NIMH, 2021), which could explain these results. As well, following the Theory of Care Seeking Behavior (Lauver, 1992a), sociodemographic variables typically assert an indirect effect on care seeking behavior. As well, in a study of care-seeking behavior in Caucasian and African American women, Lauver (1994) found clinical and sociodemographic variables, such as race, did not explain care-seeking. Still, further investigation into the complexities of medical mistrust and help-seeking among racial-ethnic minority identities should be conducted. Qualitative investigation could lend valuable information to important constructs that

might be missed with current available quantitative measurement. Furthermore, Arnaez et al. (2020) did not find an interaction effect when accounting for depression severity, as measured by the Patient Health Questionnaire – 9 (PHQ-9) (Kroenke et al., 2001) in their study examining effects of internalized versus perceived stigma on barriers to treatment. Associations between depression symptom severity and help-seeking intention requires further investigation.

**Aim 2.** The second aim of the study had one research hypothesis. The results of Aim 2 and hypothesis testing showed increased trust in provider, as measured by the HCRT, predicted increased willingness to seek help for depression symptoms from a PCP. The results of this aim are congruent with the existing literature demonstrating trust in provider leading to more positive patient outcomes (Abel & Efird, 2013; AlRuthia et al., 2019; AlRuthia et al., 2020; Birkhäuser et al., 2017). As well, results from this analysis are closely related to the previous and current research describing a lack of trust in provider leading to reduced engagement with healthcare overall, notably among racial/ethnic minority populations and socioeconomically disadvantaged patients (Arnett et al., 2016; Benkert et al., 2019; Cuevas et al., 2019; Powell et al., 2019). However, the role of trust as a facilitator or barrier to seeking help for depression is understudied. One qualitative study described a lack of trust in provider as a barrier to seeking help for depressive symptoms in pregnant women (Jesse et al., 2008). The present study is the first study known to the author to look at the relationship between trust in PCP and seeking help for depression symptoms from a PCP. Like the results in Aim 1, education at the graduate level was associated with reduced willingness to seek help for depression symptoms from a PCP. The speculation is likely the case in this model as well. Future

research should look more closely at depression symptom severity and other sociodemographic variables and its relationship to help-seeking intention and behaviors.

**Aim 3.** The third aim of this study had two research hypotheses. Results for this aim and hypothesis 3 were surprising. The HCRT remained a significant predictor, but the SSDS total scores were not a significant predictors on willingness to seek help for depression symptoms from a PCP when the HCRT scores were added to the model. As well, the SSDS subscale shame was not a significant predictors when the HCRT was added to model 6. However, the SSDS subscale help-seeking inhibition was a significant predictor when added to model 7 with the HCRT. While the relationships between depression self-stigma constructs and trust in provider remain underexplored, the construct help-seeking inhibition predicting decreased willingness to seek help which makes intuitive sense and aligns with previous research and the theoretical underpinnings of this study. Another curious finding was education at the graduate degree level was also a significant predictor in this model. Similar to previously mentioned conclusions regarding this finding, it is likely that those with higher attained education experience less severe depression symptoms and might not feel the need to seek help. This is however conjecture; future research should investigate the role of education on help-seeking attitudes and behaviors.

Results for the fourth hypothesis were intriguing. Trust in PCP, as measured by the HCRT, did not moderate the effects of depression self-stigma on willingness to seek help for depression symptoms from a PCP. As well, none of the SSDS subscales were moderated by the HCRT. While trust in provider did not moderate the relationship between depression self-stigma and willingness to seek help for depression symptoms

from a PCP, trust in provider consistently proved to be a significant predictor in the regression models. This is consistent with the recent Colligan et al. (2020) qualitative study where participants expressed trusting relationships with providers is a facilitator to seeking help for depression symptoms.

## **Discussion**

To date, this is the only study known to examine the potential moderating effects of collaborative trust in PCP on depression self-stigma and willingness to seek help for depression symptoms from a PCP. While a moderation effect for trust in provider was not found, results from hypotheses 1 and 2 lead to rejection of the null hypotheses of the effect of trust in provider and depression-self stigma being zero. In regression one increased depression self-stigma predicted decreased willingness to seek help for depression symptoms from a PCP. Furthermore, in regression model three and seven increased scores on the SSDS subscale help-seeking inhibition predicted decreased willingness to seek help for depression symptoms from a PCP. These findings align with current literature associating increased depression self-stigma with decreased help-seeking for depression (Brown et al., 2010; Clement et al., 2015; Corrigan et al., 2014; Menke & Flynn, 2009; Schnyder et al., 2017). While the results of this study are in line with the extant literature examining depression self-stigma on help-seeking from mental healthcare providers, this study adds a unique finding in that willingness to seek help specifically from one's Primary Care Provider is also predicted by depression-self stigma.

In regression four increased trust in PCP predicted increased willingness to seek help for depression symptoms from a PCP. Interestingly, results from regression 5 revealed that total SSDS scores were not a significant predictor in willingness to seek

help when the HCRT was added to the model. For hypothesis three we fail to reject the null hypothesis of the effect of depression self-stigma being zero when added to the model along with the HCRT. However, for the SSDS subscale help-seeking inhibition we reject the null hypothesis of the effect of the help-seeking inhibition construct of depression self-stigma being zero. For hypothesis 4, there was not a moderation effect, thus we fail to reject the null hypothesis of the moderator effect of trust in provider being zero.

This study had several intriguing findings. First, aside from education, all other sociodemographic variables were not significant predictors of willingness to seek help for depression symptoms from a PCP. While depression can affect any adult across any age and racial-ethnic identity, this is a curious finding in this study. Previous research demonstrates that experiences of depression stigma and trust in provider differ across races, with racial/ethnic minorities showing increased stigma and decreased trust in providers and the healthcare system as a whole. In this study socioeconomic status (SES) was measured by income and education. Interestingly, of these two variables education at the bachelor's and/or graduate level were significant predictor in all the regressions. Researchers have consistently reported that the income and education are key social determinants of health (Alegría et al., 2018; Braveman, & Gottlieb, 2014), so this finding is consistent with the current state of the science. The relationship between SES, especially as it relates to income, and willingness to seek help for depression symptoms remains unclear. Future research should aim to explore these nuanced relationships and its role in help-seeking attitudes and behavior further.

## **Nursing Implications**

Results from this study offer relevant implications for advanced practice nurses, such as Nurse Practitioners. Trust in one's PCP was consistently a statistically significant predictor in willingness to seek help for depression symptoms from a PCP.

Approximately two thirds of currently practicing Nurse Practitioners are employed in primary care settings (Park et al., 2019), and continue to be the most rapidly growing area of primary care (Auerbach et al., 2020). Nurses are repeatedly found to be the most honest and ethical profession in the United States (Gallup Organization, 2021). Nurses are uniquely trained to provide holistic care and communicate therapeutically with their patients. Many of the tenants to building trusting relationships with patients are already rooted in formal nursing training (American Association of Colleges of Nursing [AACN], 2021). As primary care continues to integrate more behavioral and mental healthcare into this setting, it makes sense that Nurse Practitioners can provide a unique quality in the delivery of care and continue to build on their training to develop more trusting relationships with their clients.

Trust in this study was conceptualized as collaborative trust, which is operationally defined as the patient's belief, developed over time through a partnership centered on mutual respect and goal sharing, that their PCP is able and willing to act truthfully and in the patient's best interests (Bova et al., 2006). The concept of collaborative trust is rooted in nursing theory and is conceptualized as an interworking of three domains: (1) interpersonal connection, (2) respectful communication, and (3) professional partnering (Bova et al., 2006). Compassion and empathy are deeply embedded into the philosophy of nursing care and praxis (American Nurses Association,



2021), therefore advanced practice nurses, including Nurse Practitioners serving as PCPs are already equipped with the philosophical knowledge and experience to build an interpersonal connection with their patients by showing compassion and empathy. As well, Nurse Practitioners serving as PCPs can continue to enrich their communication skills by respectfully treating patients as individuals worthy of their time. Nurse Practitioners can establish professional partnering by acknowledging and accepting their patient's knowledge and preferences, and uniting in decision-making about treatment (Bova et al., 2006). This process of developing and maintaining collaborative trust between provider and patient is likely to contribute to an increase in care-seeking behavior for depression symptoms, and possibly other mental health concerns.

### **Limitations**

This study had limitations. While the sample demographics across race/ethnicity are closely representative of the national population (US Census Bureau, 2021), the sample was predominantly white and female. This is a mentioned limitation to recruitment through Facebook (Whitaker, 2018); however, Facebook research ads are improving with the help of audience targeting. Audience targeting was used in this study and appeared to increase diversity of the sample. As well, targeted dissemination of the study flyer in the urban midwestern community supported increased diverse recruitment. Additionally, reliance on digital, online completion of surveys only offered in the English language possibly led to an important demographic being missed; those who cannot afford a Smartphone or computer and internet service, and those who exclusively speak and read other languages. The unforeseen circumstances of the Covid-19 pandemic made more intentional in-person recruitment difficult. Additionally, it is a possibility that

participant reports of depression symptom severity and willingness to seek help could have been influenced by the state of the global pandemic. Recent research has found worsening anxiety and depression in young adults during the pandemic (Stephenson, 2021); however, routine visits to primary care decreased (Alexander et al., 2020). It was noted that the mean CESD scores in this sample were high. The CESD is a widely used screening measure for depression symptom severity and scores are likely to vary across studies; however, a score above 16 indicates the respondent is at risk for clinical depression with moderate depressive symptomatology, while a score above 23 indicates the respondent is at risk for clinical depression with severe depressive symptomatology (Radloff, 1977). The mean score in this sample is above this threshold, indicating this sample's average score is indicative of severe depressive symptomatology (Radloff, 1977). It is possible that depressive symptomatology is high in this sample due to the data being collected during the midst of the Covid-19 pandemic when most people were still adhering to shelter at home orders.

It is also likely that respondents in general engaged with healthcare less frequently due to the pandemic. While telehealth is emerging and becoming used more frequently, it is still a new modality of healthcare delivery and respondents might not have used this as an alternative. Respondents in this study might have been less likely to visit their PCP for other health concerns as well due to fear of catching the Covid-19 virus in the healthcare setting. It also might have been difficult for individuals to see their PCP in a timely manner due to the influx of Covid-19 patients presenting to the healthcare system, leading to avoidance overall. These nuances might have skewed responses to the question ascertaining willingness to seek help for depression symptoms from a PCP. The

pandemic was an unforeseen circumstance at the beginning stages of designing this study.

Lastly, willingness to seek help for depression symptoms from a PCP in this study was anonymously self-reported with no means to measure true activation of help-seeking behavior. Moreover, the non-experimental, correlational cross-sectional design, with non-probability convenience sampling does not allow for causal conclusions or generalization to the general population. The results of this study do however lead to identified pathways worth future examination.

### **Suggestions for Future Research**

Results of the study showed that increased trust in provider predicted increased willingness to seek help for depression symptoms from a PCP. The theoretical conceptual model that underpinned this study lends opportunity to explore other constructs as potential predictors. For instance, the Theory of Care Seeking Behavior (CSB) consists of other psychosocial variables that can exert a direct influence on care seeking behavior (Lauver, 1992a). These include the constructs utility (beliefs, values) and habit. Future research should look at the influence of beliefs and value in the perceived benefit of seeking help for depression symptoms, as well as habit, or previous care-seeking behavior for other healthcare needs. Future studies can look more exclusively at the role of SES, and education specifically, on willingness to seek help for depression symptoms. Future investigation can glean meaningful knowledge by exploring relationships between trust in provider and other demographic variables. For instance, investigating the relationships of racial/ethnic concordance between patient and provider on patient trust. Furthermore, future studies can look more closely at relationships between race and

ethnicity, especially with Hispanic/Latinx populations and regional subsections of origin identities. Future research aims include investigating the effects of depression self-stigma on other diverse populations, such as gender and non-binary identity and sexual orientation. As well, the role of gender identity on reporting and help-seeking for depression symptoms should be explored. Additionally, other mental health stigmas and the role of trust in provider should be explored. Finally, future study design should aim to recruit a more diverse sample through more intentional recruitment and community participatory efforts.

## **Conclusion**

This study aimed to examine the role of trust in one's PCP and depression self-stigma in predicting willingness to seek help for depression symptoms from a PCP. Of particular interest was the potential moderating effects trust in a PCP on depression self-stigma and willingness to seek help for depression symptoms from a PCP. While a moderation effect was not present, results from this study consistently showed that trust in PCP predicted increased willingness to seek help for depression symptoms from a PCP. The Theory of Care Seeking Behavior was a useful framework for this study. While Trust in PCP was not a moderator, it was a facilitator. As well, depression self-stigma, especially the construct help-seeking inhibition predicted reduced willingness to seek help for depression symptoms from a PCP. Results of this study are consistent with other studies demonstrating stigma as a barrier to seeking help. While trust in provider is associated with better health outcomes, this is the first study known to the author to show that increased trust in PCP is associated with increased willingness to seek help for depression symptoms from a PCP. Results of this study also revealed unclear

relationships between education and willingness to seek help for depression symptoms from a PCP that provide a preliminary basis for future exploration. Other sociodemographic factors were not significant in this study, lending to the opportunity to explore these relationships more directly.

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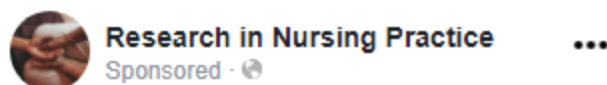
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## Appendix A

## Facebook Advertisement and Community Flyer



Do you want to be in a research study?

Help Marquette University nursing researchers better understand your experiences with depression symptoms.

Link to survey and responses are anonymous.

Must be at least 18 years old, not currently being treated for depression or a psychotic disorder, and have been with your primary care healthcare provider for at least one year.

Click the "Learn More" button below to learn more and participate in this study.

Participants will be entered into a drawing to win 1 of 50 \$25 digital Amazon gift cards.



## Do you want to be in a research study?

Help Marquette University nursing researchers better understand your experiences with depression symptoms.

Link to survey and responses are anonymous.

Must be at least 18 years old, not currently being treated for depression or a psychotic disorder, and have been with your primary care healthcare provider for at least one year.

Scan the QR code below to learn more and participate in this study.

Participants will be entered into a drawing to win 1 of 50 \$25 digital Amazon gift cards.

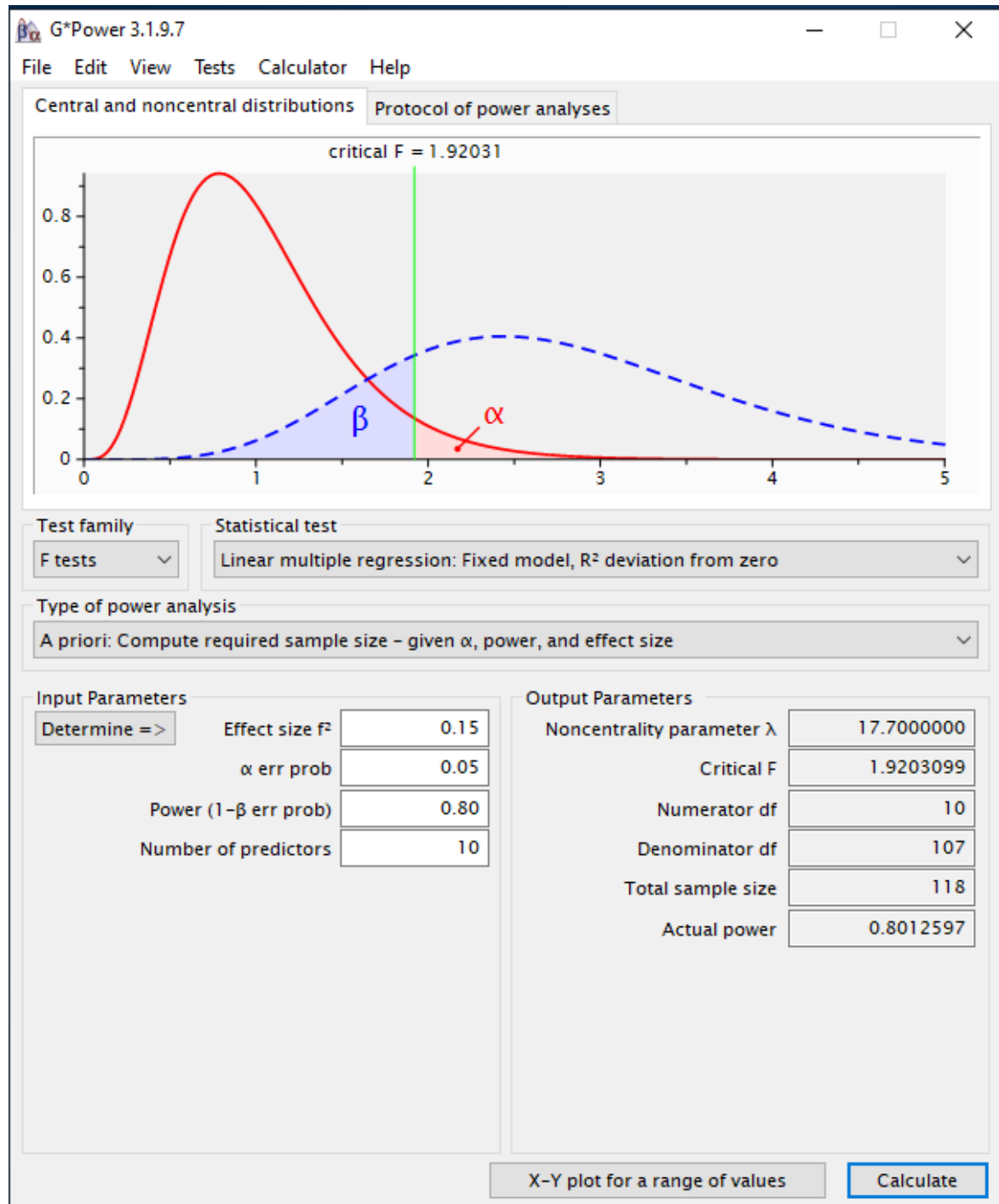
Please contact the Primary Investigator at [tana.karenke@marquette.edu](mailto:tana.karenke@marquette.edu) or the Marquette University Office of Research Compliance at (414) 288-7570 with any questions related to this study.





## Appendix B

### G\*Power, Power Analysis



(Faul et al., 2009)

## Appendix C

## Study Information Sheet and Consent Form

## MARQUETTE UNIVERSITY RESEARCH INFORMATION SHEET

*Exploring Experiences with Depression Symptoms*

Tana Karenke, BSN, PhD Candidate

Nursing

You have been asked to participate in a research study. You must be age 18 or older to participate. The purpose of this study is to better understand experiences with depression symptoms. The study involves online survey questions and will take about 20-30 minutes to complete. You will be asked to answer questions about depression symptoms, how you feel about having depression symptoms, and how you feel about your Primary Healthcare Provider. You will also be asked some questions about your education, income, race/ethnicity, marital status, age, and gender. Your name and other identifying information, including IP address, will not be collected. Your responses will be anonymous. The risks associated with this project are minimal and there are no direct benefits to you. Collection of data and survey responses using the internet involves the same risks that a person would encounter in everyday use of the internet, such as hacking or information unintentionally being seen by others. Your participation is completely voluntary and you may withdraw from the study at any time. You can skip any questions you do not wish to answer. Your decision to participate will not impact your relationship with Marquette University. A second survey will need to be completed in order to receive your electronic Amazon gift card. This survey will collect only your email address. The two surveys remain separate and information is stored separately. While your name is not being collected on the main survey there is a small chance that the two surveys could be linked.


If you have any questions about this study, you can contact Tana Karenke at [tana.karenke@marquette.edu](mailto:tana.karenke@marquette.edu). If you have questions or concerns about your rights as a research participant, you can contact Marquette University's Office of Research Compliance at (414) 288-7570.

Thank you for your participation.

Please access this link if you would like assistance finding mental health resources in your area:

[Substance Abuse and Mental Health Services Administration \(SAMHSA\) National Help Line](#)

**SAMHSA Help Line: 1-800-662-4357**

▼  Skip to

End of Survey if No Is Selected

I agree to participate in this study

☐ Yes

☐ No

## Appendix D

### Preliminary Screening Questions

The following 5 questions serve as questions to help ensure eligibility to participate in this study. Please note that these 5 questions will require a response. You will not be allowed to skip any of these questions. If you meet eligibility criteria you will be able to proceed into the main survey. You may skip questions in the main survey if you do not wish to answer, though the more questions that are answered the more helpful it is to researchers to understand your experiences with depression symptoms. If you do not meet eligibility criteria you will be directed to the end of the survey. If you find that you did not meet eligibility to participate in our survey we thank you for your time and would like to again direct you to the following resource should you find that you would like to access mental health resources in your area:

[Substance Abuse and Mental Health Services Administration \(SAMHSA\) National Help Line](#)

**SAMHSA Help Line: 1-800-662-4357**

1. Are you 18 years or older?
  - ☐ Yes
  - ☐ No
2. How long have you been with your current Primary Healthcare Provider (PCP)?
  - ☐ Less than 1 year
  - ☐ 1-2 years
  - ☐ 2-3 years
  - ☐ 3-4 years
  - ☐ 5+ years
3. Has a healthcare provider told you that you have a psychotic disorder, such as Bipolar Disorder or Schizophrenia?
4. Has a healthcare provider told you that you have a psychotic disorder, such as Bipolar Disorder or Schizophrenia?
  - ☐ Yes
  - ☐ No
5. Are you currently being treated for Depression from any type of healthcare provider?
6. PHQ2 Questionnaire

## Appendix E

### IRB Exemption Status



Office of Research Compliance

Schroeder Complex, 102  
P.O. Box 1881  
Milwaukee, Wisconsin 53201-1881

P 414.288.7570  
F 414.288.6261  
W [marquette.edu/researchcompliance](http://marquette.edu/researchcompliance)

Date: 01/08/2021

HR-3747

Principal Investigator: Dr. Norah Johnson

Student Principal Investigator: Tana Karenke

Department: Nursing

Study Title: Exploring Experiences with Depression Symptoms

#### New Study Approval

- ☒ This protocol has been determined to be Exempt under category # 2as governed by 45 CFR 46.104(d) on 01/08/2021.
- ☐ This protocol has been approved as minimal risk under Expedited category # as governed by 45 CFR 46.110 on [DATE].
- ☐ This protocol has been reviewed by the Institutional Review Board on [date] and approved as:
- ☐ Minimal risk
- ☐ Greater than minimal risk

Please note that in-person research cannot be initiated until in-person research resumes and must follow the MU research ramp-up plan.

#### Consent

- ☒ Please use the final version of the exempt information sheet or consent form submitted with this protocol in Kual. Contact the IRB office if you have questions about which document you should be using.
- ☐ The IRB approved informed consent form can be found in the approved Kual protocol. Make sure to download and use the stamped copies of this form when enrolling research participants. Each research participant should receive a copy of the consent form.
- ☐ This study has been approved for waiver of documentation of consent under 45 CFR 46.117(c)(1) or (2) of (3). Please use the approved consent information sheet with your participants.
- ☐ This study has been approved for alteration or waiving of consent under 45 CFR 46.116(d).

#### Study specific notifications

- ☐ The IRB approved recruitment materials can be found in the approved Kual protocol. Use stamped copies of these documents for recruitment purposes.
- ☐ This study involves students collecting data through surveys- please review the MU Questionnaire/Survey Procedures: [http://www.marquette.edu/osd/policies/survey\\_procedure.shtml](http://www.marquette.edu/osd/policies/survey_procedure.shtml)
- ☐ This study involves recruitment emails for online surveys to be sent to 100 or more Marquette students, faculty or staff. Please review the website of the Online Survey Review Group: <http://www.marquette.edu/online-surveys/>



Office of Research Compliance

 Schroder Complex, 102  
 P.O. Box 1881  
 Milwaukee, Wisconsin 53201-1881

 P 414.288.7570  
 F 414.288.6261  
 W [marquette.edu/researchcompliance](http://marquette.edu/researchcompliance)
**HIPAA**
☐

This study involves accessing PHI from a HIPAA covered entity. The IRB has granted approval to access the following protected health information for the purpose of this study:

• X

☐

A HIPAA Authorization form has been approved and should be used to with study subjects.

☐

A waiver of authorization has been approved for this study.

All changes to this protocol must be reviewed and approved by the IRB before being initiated, except when necessary to eliminate apparent immediate hazards to the human subjects. Please submit all amendment requests using the Kuali system.

If there are any adverse events or deviations from the approved protocol, please notify the Marquette University IRB immediately.

 If this study is a federally funded clinical trial, the PI is responsible for registering this study on [clinicaltrials.gov](http://clinicaltrials.gov) and submitting a final copy of the consent form and all required documentation during the life of the study.

A Request to Close must be submitted once this research project is complete. The form should be submitted in a timely fashion, and must be received no later than the protocol expiration date.

The principal investigator is responsible for ensuring that all study staff receive appropriate training in the ethical guidelines of conducting human subjects research and documenting that this requirement has been met.

Unless a separate reliance agreement is in place, please note that approval of a study with non-Marquette investigators does not indicate that Marquette University is assuming oversight for the research activities occurring outside of Marquette's purview.

Please contact the Office of Research Compliance with any further questions. Thank you for your cooperation and best wishes for a successful project.

 Jessica Rice, MPH, CIP  
 IRB Manager  
 Office of Research Compliance

## Appendix F

## Sociodemographic Questions

How would you describe yourself?

- ☐ Male
- ☐ Female
- ☐ Genderqueer/Gender nonconforming
- ☐ Trans male
- ☐ Trans female
- ☐ A different identity

What is your age? \_\_\_\_\_

What is your marital status?

- ☐ Married
- ☐ Single
- ☐ Divorced
- ☐ Separated
- ☐ Never married
- ☐ Widowed

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

- ☐ None
- ☐ Kindergarten- 8th grade
- ☐ 9th grade – 11th grade
- ☐ High school/GED
- ☐ Some college, no degree
- ☐ Associate degree
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctorate degree

Are you of Hispanic, Latino or Spanish origin?

- ☐ No, not of Hispanic, Latino or Spanish origin
- ☐ Yes, Mexican, Mexican American, Chicano
- ☐ Yes, Puerto Rican
- ☐ Yes, Cuban, Salvadoran, Dominican, Colombian
- ☐ Yes, other Hispanic, Latino or Spanish origin. Please specify:

How would you describe yourself? (Check all that apply)

- ☐ **Black. You may also select which best describes you below:**
- ☐ African American
- ☐ Jamaican
- ☐ Haitian
- ☐ Nigerian
- ☐ Ethiopian
- ☐ Somalian
- ☐ Other. Please specify:
- ☐ **Asian. You may also select which best describes you below:**
- ☐ Chinese
- ☐ Filipino

- Asian Indian,
- Vietnamese
- Korean
- Japanese
- Other. Please specify:
- **American Indian or Alaska Native. You may also select which best describes you below:**
- Navajo nation
- Blackfeet tribe
- Mayan
- Aztec
- Native Village or Barrow Inupiat Traditional Government
- Nome Eskimo Community
- Other. Please Specify:
- **Middle Eastern or North African. You may also select which best describes you below:**
- Lebanese
- Iranian
- Egyptian
- Syrian
- Moroccan
- Algerian
- Other. Please specify:
- **Native Hawaiian or Other Pacific Islander. You may also select which best describes you below:**
- Native Hawaiian
- Samoan
- Chamorro
- Tongan
- Fijian
- Other. Please specify:
- **White. You may also select which best describes you below:**
- German
- Irish
- English
- Italian
- Polish
- French
- Other. Please specify:
- **Some other race, ethnicity or origin. Please specify:**

What was your total family income last year?

- \$20,000 or below
- \$21,000 - \$40,000
- \$41,000 - \$60,000
- \$61,000 - \$80,000



- \$81,000 - \$100,000
- \$100,000 and above

Are you a veteran?

- Yes
- No

## Appendix G

## Instruments used for Measured Variables of Interest

**NIDA Clinical Trials Network**  
**Patient Health Questionnaire-2 (PHQ-2)**

**Instructions:**

Please respond to each question.

**Over the last 2 weeks, how often have you been bothered by any of the following problems?**

Give answers as 0 to 3, using this scale:

0=Not at all; 1=Several days; 2=More than half the days; 3=Nearly every day

**1. Little interest or pleasure in doing things**

☐ 0

☐ 1

☐ 2

☐ 3

**2. Feeling down, depressed, or hopeless**

☐ 0

☐ 1

☐ 2

☐ 3
**Instructions**

Clinic personnel will follow standard scoring to calculate score based on responses.

**Total score:**

--

**Standard Scoring:**

A PHQ-2 score ranges from 0-6. The authors identified a score of 3 as the optimal cut point when using the PHQ-2 to screen for depression.

If the score is 3 or greater, major depressive disorder is likely.

Patients who screen positive should be further evaluated with the [PHQ-9](#), other diagnostic instruments, or direct interview to determine whether they meet criteria for a depressive disorder.

Developed by Drs. R.L. Spitzer, J.B.W. Williams, K. Kroenke and colleagues, with an educational grant from Pfizer, Inc. No permission required to reproduce, translate, display or distribute.

**Center for Epidemiologic Studies Depression Scale (CES-D), NIMH**

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

	During the Past			
	Week			
	Rarely or none of the time (less than 1 day )	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I did not feel like eating; my appetite was poor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I felt that I could not shake off the blues even with help from my family or friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I felt I was just as good as other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I had trouble keeping my mind on what I was doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I felt depressed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I felt that everything I did was an effort.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I felt hopeful about the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I thought my life had been a failure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I felt fearful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. My sleep was restless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I was happy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I talked less than usual.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I felt lonely.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. People were unfriendly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I enjoyed life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I had crying spells.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I felt sad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I felt that people dislike me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I could not get "going."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SCORING:** zero for answers in the first column, 1 for answers in the second column, 2 for answers in the third column, 3 for answers in the fourth column. The scoring of positive items is reversed. Possible range of scores is zero to 60, with the higher scores indicating the presence of more symptomatology.

(Radloff, 1977)

### Healthcare Relationship (HCR) Trust Scale

Directions: Listed below are a number of statements about patient and Health Care Provider (HCP) trust.

Read each item and decide which of the following response best describes how you feel about your HCP (the doctor, nurse practitioner, physician assistant, or other primary care provider that manages the majority of your health care).

Response Options:

- 0 = none of the time
- 1 = some or a little of the time
- 2 = occasionally or a moderate amount of the time
- 3 = most of the time
- 4 = all of the time

How often does your HCP:

- (1) Talk over your head?
- (2) Discuss options and choices with you before health care decisions are made?

My HCP is:

- (3) Committed to providing the best care possible.
- (4) Sincerely interested in me as a person.
- (5) An excellent listener.

My HCP:

- (6) Accepts me for who I am.
- (7) Tells me the complete truth about my health-related problems.
- (8) Treats me as an individual.
- (9) Makes me feel that I am worthy of his/her time and effort.
- (10) Takes the time to listen to me during each appointment.

I feel:

- (11) That other patients get better care from their HCPs.
- (12) Comfortable talking to my HCP about my personal issues.
- (13) Better after seeing my HCP.

How often:

- (14) Do you think about changing to a new HCP?
- (15) Does your HCP consider your need for privacy?

SCORING: Higher scores equal greater collaborative trust. Therefore, items 1, 11, and 14 must be reverse coded and then a total score calculated (possible range of scores = 0–60). (Bova et al., 2006)

## Self-Stigma of Depression Scale (SSDS)

### Vignette 1

John is 30 years old. He has been feeling unusually sad and miserable for the last few weeks and doesn't enjoy the things he used to like doing. Even though John is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't concentrate on things and puts off making decisions. John feels that everything is a great effort, and even day-to-day tasks seem too much for him. He feels worthless a lot of the time. John went to see his doctor who says there are no physical causes for his problems and that John is suffering from depression.

### Vignette 2

John is 30 years old. He has been feeling sad and miserable for a long time, and doesn't enjoy the things he used to like doing. Even though John is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't concentrate on things and puts off making decisions. John feels that everything is a great effort, and even day-to-day tasks seem too much for him. He feels worthless a lot of the time. John went to see his doctor who says there are no physical causes for his problems and confirms John's belief that he is suffering from depression. John has been so desperate that he has been thinking of ways to end his life, and he is worried that he will need to be hospitalized again.

After reading the vignettes, take a minute to imagine you were depressed. Think about how **you might feel about yourself**, then indicate how strongly you agree or disagree with each statement.

1. I would feel embarrassed
  - ☐ 1 Strongly disagree
  - ☐ 2 Disagree
  - ☐ 3 Neither agree nor disagree
  - ☐ 4 Agree
  - ☐ 5 Strongly agree
2. I would feel ashamed
  - ☐ 1 Strongly disagree
  - ☐ 2 Disagree
  - ☐ 3 Neither agree nor disagree
  - ☐ 4 Agree
  - ☐ 5 Strongly agree
3. I would feel disappointed in myself
  - ☐ 1 Strongly disagree
  - ☐ 2 Disagree
  - ☐ 3 Neither agree nor disagree
  - ☐ 4 Agree
  - ☐ 5 Strongly agree

4. I would feel inferior to other people
  - 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
5. I would think I should be able to 'pull myself together'
  - 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
6. I would think I should be able to cope with things
  - 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
7. I would think I should be stronger
  - 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
8. I would think I only had myself to blame
  - 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
9. I would feel like I was good company
  - 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
10. I would feel like a burden to other people
  - 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
11. I would feel inadequate around other people
  - 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree

- 4 Agree
  - 5 Strongly agree
12. I would feel I couldn't contribute much socially
- 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
13. I wouldn't want people to know that I wasn't coping
- 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
14. I would see myself as weak if I took antidepressants
- 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
15. I would feel embarrassed about seeking professional help for depression
- 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree
16. I would feel embarrassed if others knew I was seeking professional help for depression
- 1 Strongly disagree
  - 2 Disagree
  - 3 Neither agree nor disagree
  - 4 Agree
  - 5 Strongly agree

### **Scoring Guide:**

#### **Total scale:**

SSDS Total (16 items); possible range of scores 16-80

#### **Sub-scales:**

SSDS Shame (4 items: Q1, Q2, Q3, Q4); possible range 4-20

SSDS Self-Blame (4 items: Q5, Q6, Q7, Q8); possible range of scores 4-20

SSDS Social Inadequacy (4 items: Q9\*, Q10, Q11, Q12); possible range 4-20; \*

Reversed item SSDS Help-Seeking Inhibition (4 items: Q13, Q14, Q15, Q16); possible range 4-20

High scores = high stigma

(Barney et al., 2010)

## Appendix H

## Author Developed Single-item Measures

1. Have you sought care for Depression symptoms in the past from a healthcare provider?

- ☐ Yes
- ☐ No

2. Have you sought care for Depression symptoms in the past from a healthcare provider?

- ☐ Yes
- ☐ No

**\*3 How willing are you to see your primary healthcare provider, either in person, or a virtual appointment, to seek help for your Depression symptoms?**

**0 - Not at all willing 1 2 3 4 5 - Neither willing, nor unwilling 6 7 8 9 10 - Extremely willing**

4. How likely are you to see your primary healthcare provider, either in person, or a virtual appointment, if you notice a change in your health?

0 - Not at all likely 1 2 3 4 5 - Neither likely, nor unlikely 6 7 8 9 10 - Extremely likely

5. Please provide us with the main reason why you have not yet talked with your primary care provider about your Depression symptoms?

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6. Do you trust your Primary Healthcare Provider?

- ☐ Yes
- ☐ No

7. If you have Depression symptoms, how important is it to you to seek treatment to improve symptoms?

0 - Not at all important 1 2 3 4 5 - Neither important, nor unimportant 6 7 8 9 10 - Extremely important

8. To what extent do you believe seeking help from your Primary Healthcare Provider can improve Depression symptoms?

0 - Not at all believable 1 2 3 4 5 - Neither believable, nor unbelievable 6 7 8 9 10 - Extremely believable



9. Has the presence of Covid-19 influenced your normal healthcare seeking habits? If yes, please briefly describe.

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10. What credential does your Primary Healthcare Provider hold? (Please check one)

- ☐ Medical Doctor (MD)
- ☐ Doctor of Osteopathy (DO)
- ☐ Nurse Practitioner (NP, APNP, APRN)
- ☐ Physician Assistant (PA)
- ☐ Unsure

\*= Dependent Variable