IOWA STATE UNIVERSITY
Digital Repository

Graduate Theses and Dissertations | Graduate College

2009

Personality as a potential moderator of the relationship between stigma and help-seeking

Phillip James Miller
Iowa State University

Follow this and additional works at: http://lib.dr.iastate.edu/etd

 Part of the Psychology Commons

Recommended Citation
Miller, Phillip James, "Personality as a potential moderator of the relationship between stigma and help-seeking" (2009). *Graduate Theses and Dissertations*. 10712.
http://lib.dr.iastate.edu/etd/10712

This Dissertation is brought to you for free and open access by the Graduate College at Iowa State University Digital Repository. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

www.manaraa.com

Personality as a potential moderator of the relationship between stigma and help-seeking

by

Phillip J. Miller

A dissertation submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Psychology (Counseling Psychology)

Program of Study Committee:
Norman A. Scott, Major Professor
Meg Gerrard
David Vogel
Nathaniel Wade
Carl Roberts

Iowa State University

Ames, Iowa

2008

Copyright © Phillip J. Miller, 2009. All rights reserved.

www.manaraa.com

This dissertation is dedicated to:

My grandfather, whose spirit, love, and wisdom have always been an inspiration, and whose love of learning and never ending curiosity about the world around him has always been a wonder to me and an example that I hope to continue to pass on to generations that follow. Thank you for everything you have done for me and our family.

My father, whose steadfast spirit, encouragement, and love, have kept me afloat and moving forward. You have always been a great example of what it takes to be a Christian man. Thank you. Also, your encyclopedic knowledge of everything useless has always spurned me to seek my own knowledge base, even if mine might be useless at times too!

My family and friends, thank you for all of your support and encouragement. Without you, I am relatively sure I would not have survived this experience!

And of course to my mentor, Dr. Norman Scott. Without your patient and caring guidance I surely would not be where I am today. Thank you for all that you have done with and for me.

Lastly, to my mother. Though you are no longer with us, your strength and encouragement has endured within me. I love you.

www.manaraa.com

Table of Contents

www.manaraa.com

www.manaraa.com

www.manaraa.com

List of Tables

www.manaraa.com

List of Figures

www.manaraa.com

Abstract

Many persons who could potentially benefit from psychological services do not seek help or follow through with treatment. While there are a variety of reasons why an individual might not pursue psychological treatment, the stigma associated with seeking help has been identified as a significant obstacle. Stigma, the perception that one is flawed, is based upon a real or imagined personal characteristic that is deemed socially unacceptable. Two types of stigma (i.e., public stigma and self-stigma) are involved in the help-seeking process and serve to decrease positive attitudes toward help- seeking and one's willingness to seek counseling. Researchers have recognized that dimensions of one's personality (e.g., the Big Five), a pervasive aspect of human behavior, are likely to influence one's experience of stigma and the role that stigma plays in one's decision to seek help. The purpose of this dissertation is to investigate the role of personality in the relationship between stigma and one's attitudes towards seeking professional assistance from a mental healthcare provider. The general hypothesis is that personality will play a moderating role in the relationship between the public stigma of seeking help and the self-stigma of seeking help, as well as the relationship between self-stigma and attitudes towards counseling. Based upon the general hypothesis, four specific hypotheses were formulated: 1) Neuroticism will amplify the statistically positive relationship between public stigma and self-stigma. 2) Neuroticism will amplify the statistically negative relationship between self-stigma and attitudes towards counseling. 3) Extraversion will moderate the relationship between public stigma and self-stigma and act as a "buffer," so that persons with high reported Extraversion will have lower levels of self-stigma compared to individuals with low reported Extraversion. 4) Extraversion will moderate the relationship between self-stigma and attitudes towards counseling and act to

www.manaraa.com

enhance the relationship. University student participants (N = 784) completed an online survey with a response rate of 89.4%. The survey consisted of six parts: the IPIP NEO, SSOSH, SSRPH, ATSPPH-S, HSCL-21, and a six item demographics questionnaire. The results indicated that Neuroticism moderates the relationship between public stigma and self-stigma, but not the relationship between self-stigma and attitudes towards counseling. Even after controlling for gender, prior treatment, and psychological distress the relationships remained. It was found that as public stigma increased, those high on Neuroticism reported less self-stigma than those low on Neuroticism. Additionally, the results showed that Extraversion moderated the relationship between public stigma and self-stigma, but not the relationship between self-stigma and attitudes towards counseling, even after controlling for gender, prior treatment, and psychological distress. Those high on Extraversion reported less self-stigma at low levels of public stigma, however at high levels of public stigma those high on Extraversion reported feeling more self-stigma than those low in Extraversion. It was also found that prior exposure to treatment lessened the amount of self-stigma. Possible explanations for the findings are discussed, including the implications of the results for counseling psychology, theoretical implications, and the strengths and limitations of the study.

www.manaraa.com

Introduction

The purpose of counseling and therapy services is to help people deal with interpersonal and psychological difficulties including their reluctance to seek services when they are in need. In fact, the help-seeking process – the decision-making process an individual works through when they recognize they have a problem and decide to seek help from a professional – is currently being studied. Understanding how the help-seeking process works is crucial to maximizing the benefit the general public will receive from the efforts of professional psychology. Research has shown that the stigma associated with mental illness and with seeking help represents a significant barrier, and is one of the deterrents to seeking counseling, for people possibly in need of mental health services (Corrigan, 2004; Satcher, 1999; Vogel, Wester, & Larson, 2007).

The role of stigma in the help-seeking process has been researched well (Watson & River, 2005), however many aspects of the effects of stigma on one's attitudes and willingness to seek help have yet to be explored. This project has identified an area of the help-seeking process that has not been investigated up to this point, the effects that personality may have on the help-seeking process and in particular personality's effects on perceptions of stigma. In the following pages, the reader will find an overview of the project, followed by an in-depth discussion of the major concepts, the purpose and hypotheses of the project, the methods and procedures that were used to investigate personality's role in the help-seeking process, the results of the investigation, followed up by a discussion of the results.

www.manaraa.com

Overview

There are a large number of persons who experience psychological and interpersonal difficulties who never seek treatment or fail to fully follow prescribed treatment regimens once they do seek treatment (Corrigan, 2004; Kessler et al., 1994, 2005; Shapiro et al., 1984; Wang et al., 2005). The results of several large epidemiologic studies show that there are large percentages of persons meeting criteria for a disorder (e.g., such as in the Epidemiologic Catchment Area (ECA) Program) or who have been diagnosed with a disorder (e.g., such as in the National Co-morbidity Study; NCS) that are not seeking treatment or prematurely discontinuing treatment (Bourdon, Rae, Locke, Narrow, & Regier, 1992; Wang et al., 2005). These results are troubling given the resources supporting the effectiveness of psychotherapy (Wampold, 2001), the many media campaigns designed to raise awareness of mental illness, and the effectiveness of treatment, as well as the advent of specific treatments that have enough empirical evidence to support their use in the treatment of specific disorders (Corrigan, 2004; APA, 1997, 2000).

Research results from the ECA show that 18.2% of those who met criteria for a disorder actually sought out help of some form, including general mental health care, general medical care, and in-patient hospitalization (Bourdon et al., 1992). Other reports from the ECA Study estimate the rate of those seeking treatment at less than 30% (Corrigan, 2004; Regier et al., 1993). However, it seems that the rate is improving.

According to more recent research from the replication of the NCS, some of the earlier data pertinent to help-seeking seem to be obsolete as currently more persons are seeking treatment, likely due to the advent of new treatments, the increased availability and promotion of pharmacological treatments, community programs aimed at increasing

www.manaraa.com

awareness (e.g., National Depression Screening Day; Jacobs, 1995), and new policies and legislation designed to reduce barriers to treatment (Wang et al., 2005). According to Wang et al. (2005), 17.9% of their total sample (including those who had no disorder) sought out treatment, while 41.1% of those who were diagnosed with any disorder actually sought out some sort of treatment (e.g., psychiatrist, mental health counselor, general practitioner, other lay forms of healing or support), representing an increase from earlier studies. Of those who sought out treatment, 16% chose to seek help from a therapist, while 12.3% saw a psychiatrist, and 22.8% sought out a medical doctor (Wang et al., 2005). It should be noted, that there are still 58.9% of those who could benefit from treatment who choose not to pursue and seek help of any kind, a rather large proportion of the population. As a result, there are unanswered questions. What factors are involved in the process? Why are such large numbers of people with diagnosable disorders not seeking treatment or failing to fully adhere to the treatment plan, despite the previously mentioned advances?

Barriers to Seeking Treatment

The reluctance to seek treatment is not a new phenomenon, nor is it unfamiliar to researchers (Corrigan, 2004). There are several barriers to seeking treatment for a mental disorder that have been cited. A desire to avoid talking about distressing or personal information can be a potent barrier (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Vogel & Wester, 2003; Vogel, Wade, & Haake, 2006), as well as wanting to avoid feeling psychological pain or experiencing troubling feelings (Komiya, Good, & Sherrod, 2000). In addition there are other barriers such as treatment fears, reluctance to self-disclose, concerns about the anticipated usefulness of counseling, variations from social norms, and a desire to not detract from feelings of self-esteem (Vogel, Wester, & Larson, 2007).

www.manaraa.com

Physical barriers such as geography, lack of transportation, and lack of locally available services (APAORH, 2001; Arons, 2000) can also present a significant obstacle to those who might potentially seek out help. It seems that there is one particular factor that presents as a most significant obstacle (Corrigan, 2004). The stigma associated with seeking help and for being diagnosed with a psychiatric disorder seems to have a particularly high relevancy, and is widely cited as a leading cause of people not seeking treatment (Cooper, Corrigan, & Watson, 2003; Corrigan, 2004; Corrigan & Kleinlein, 2005; Link & Phelan, 2001; Satcher, 1999; Vogel et al., 2006). It then becomes necessary to understand how stigma operates as a barrier to persons seeking help and is the major focus of this study.

Stigma as a Barrier

Stigma is the perception that one is flawed based on a real or imagined personal or physical characteristic that a person possesses and is deemed socially unacceptable (Blaine, 2000). For example, the stigma associated with seeking mental health services, is the perception that someone who seeks psychological help is flawed in some way (Vogel et al., 2006). There are two types of stigma pertinent to this situation. Public stigma is the stigma placed on a person or group by society or the public at large that is perceived to have some sort of flaw or undesired characteristic (Corrigan, 2004). For example, society may view a person with a disorder as being dangerous or incompetent, whether that perception is accurate or not, and act upon that perception in such a way as to discriminate against them or withhold economic opportunities (Corrigan, 2004). The other is self-stigma, which is what one does to their self internally if they accept the public stigma (Corrigan, 2004; Vogel et al., 2006). For example, if an individual's social group believes that asking for help is a sign of

www.manaraa.com

weakness and is shameful, then the individual is likely to internalize this belief and not ask for help when they are in need so as not to appear weak.

Effects of Stigma on Help-Seeking

There have been several studies that have revealed the connection between the negative effects of stigma to a person's attitudes and willingness towards seeking help (e.g., Cepeda-Benito & Short, 1998; Vogel et al., 2006; Vogel, Wade, & Hackler, 2007; Vogel, Wade, Wester, Larson & Hackler, 2007; Rüsch, Leib, Bohus, & Corrigan, 2006). Controlled social laboratory studies have produced results showing that there is an inverse relationship between public stigma and help-seeking (Corrigan, 2004; Cooper, Corrigan, & Watson, 2003; Sirey et al., 2001). Those who held stigmatizing attitudes about mental disorders and seeking help were less likely to seek out treatment for themselves. With the recent construction of a self-stigma measure (i.e., Self-Stigma of Seeking Help Scale; SSOSH; Vogel et al., 2006), we can now measure both public and self-stigma, potentially providing a fuller understanding of the relationship between stigma and help-seeking. Using the SSOSH, Vogel, Wade, and Hackler (2007), found that self-stigma and one's attitudes towards counseling play a mediating role in the relationship between public stigma and one's willingness to seek psychological help. In fact, Vogel, Wade, and Hackler reported that perceptions of public-stigma of seeking help predicted the self-stigma associated with seeking counseling, which then predicted attitudes about counseling and then lastly a person's willingness to actually seek counseling. In effect, a person's willingness to seek counseling and their attitudes about counseling can be directly attributed to how much self-stigma they are feeling, which is a result of the stigma the public associates with mental illness and with seeking counseling. Notably, Vogel, Wade, and Hackler point out that there

www.manaraa.com

is a positive relationship between perceived public-stigma and self-stigma, and a negative relationship between self-stigma and attitudes towards counseling. An individual's attitude towards counseling is then positively related to their willingness to actually seek out counseling for intra-psychic or inter-personal concerns.

Reasoned Actions and the Help-Seeking Process

These results build upon Vogel and Wester's (2003) previous work of applying Ajzen & Fishbein's (1980) Theory of Reasoned Action (TRA) to the help-seeking process. According to the TRA, intentions are directly related to one's attitude toward the behavior. These attitudes are then in turn influenced by one's expectations regarding the outcome of the behavior (e.g., "If I go to counseling then that means that I am weak-minded and others will think I am crazy."; Ajzen & Fishbein, 1980). Vogel and Wester applied the TRA to the help-seeking process, and were able to demonstrate that one of the primary predictors of one's willingness and intention to seek help is their attitude towards counseling. Further, one's attitudes toward counseling are strongly related to how much public and self-stigma one perceives and feels (Vogel, Wade, & Hackler, 2007).

According to Ajzen & Fishbein's (1980) Theory of Reasoned Action, a person's personality provides a possible explanation for the relationships between expected outcomes, attitudes, and intentions. Personality seems to influence how one evaluates outcomes, what beliefs they hold about the expected outcomes, beliefs about what others think, and their motivation (Allik & McCrae, 2002; Barbaranelli, Caprara, Vecchione, & Fraley, 2007; Caspi, Roberts, & Shiner, 2005; Côté & Moskowitz, 1998; Goldberg, 1992b, 1993; Harkness, 2007; McCrae & John, 1992; McCrae & Costa, 1999; Roberts, Wood, & Smith, 2005; Saucier & Goldberg, 1996; Triandis & Suh, 2002; Winter & Barenbaum, 1999). In the

www.manaraa.com

realm of the stigma – help-seeking relationship, it seems that personality may play a role. According to McCrae & Costa, (1999) personality traits influence our attitudes and perceptions, what they call "Characteristic Adaptations" as they are a result of our genetic traits. It seems logical then that personality traits would play a role in the influence that stigma exerts on attitudes towards counseling, however, personality's effect on help-seeking and attitudes towards help seeking has yet to be fully investigated.

Concepts of Personality

In view of the potentially important influence of personality on the effects of stigma and attitudes towards counseling, a brief overview of the concepts of personality is provided. One's personality is thought to determine how one perceives and reacts to their environment and has been found to be stable over time (Allik & McCrae, 2002; Caspi et al., 2005; Donnellan, Conger, & Burzette, 2007; McCrae & Costa, 1999). It can be thought of as an individual's unique and relatively enduring pattern of thoughts, attitudes, feelings, motives, and behaviors which are the result of our personality traits (Goldberg, 1993; McCrae & Costa, 1999; Saucier & Goldberg, 1996; Winter & Barenbaum, 1999). It seems likely then that persons who possess certain personality characteristics are likely to react to a stimulus in their environment in a manner unlike those who possess different personality characteristics. A person who is outgoing and draws energy from groups is more likely to enjoy social gatherings and possibly speaking engagements than someone who is aloof and regenerates while spending time alone (Caspi et al., 2005; John & Srivastava, 1999; McCrae & Costa, 1999; Winter & Barenbaum, 1999). So then, it is logical to think that personality might play a role in the stigma-help seeking relationship.

www.manaraa.com

Since one's personality is likely to play a large role in how one perceives environmental stimuli, and everyone has a distinct pattern of interacting with and interpreting their environment – called "Characteristic Adaptations" (Allik & McCrae, 2002; McCrae & Costa, 1999) – it is reasonable to assert that public stigma is likely to be perceived and experienced dissimilarly by different people depending upon their personality traits. Further, self-stigma, and its highly personal nature, is likely to be experienced differently, and at possibly different levels depending upon one's personality. Especially considering that self-stigma is self-inflicted based upon how one perceives the environment and the amount of public stigma, it seems likely that someone who is prone to self-defeating thoughts may be more susceptible to self-stigma's effects (Rüsch et al., 2006). It then seems that personality may predispose persons to feel and perceive the effects of stigma differently.

Dimensions of Personality

Over time, empirical personality researchers, searching to identify the most salient components of personality, have consistently determined that there are five main personality factors (Winter & Barenbaum, 1999; John & Srivastava, 1999; McCrae & Costa, 1999; Goldberg, 1981). These five factors are generally thought to be extraversion or surgency, agreeableness, conscientiousness, emotional stability versus neuroticism, and intellect or openness, and are known as the "Big Five" (Caspi et al., 2005; Goldberg, 1981; John & Srivastava, 1999; McCrae & Costa, 1999). The "Big Five" dimensions are thought to represent personality at the broadest level of abstraction while still holding meaning, with each dimension being made up of large numbers of specific personality characteristics (Caspi, et al., 2005; John & Srivastava, 1999; McCrae & John, 1992). It was not intended to imply that personality differences can be reduced to just five factors. If one were to look at

www.manaraa.com

different configurations or patterns of these five dimensions of personality, it may be that elevations of certain Big Five dimensions may leave one more susceptible to the effects of stigma and leave them less willing to seek help. It may also be that elevations on certain Big Five dimensions may actually shield them from the effects of public stigma, meaning they might experience or perceive lower levels of stigma, or not pay much attention to public stigma thus lowering the chances that they will self-stigmatize.

Purpose of Project

The purpose of this dissertation is to investigate the role of personality in the relationship between stigma and one's attitudes towards seeking professional assistance from a mental healthcare provider. Given the pervasive nature of personality traits on one's experiences, how one forms attitudes, and perceives the environment, it is likely that personality will play a moderating role in the relationship between public stigma, self-stigma, and attitudes towards counseling. Specifically, it is thought that one's personality will effect how individuals perceive public stigma, thus effecting how they internalize public stigma, and therefore the level of self-stigma they are likely to place upon themselves.

In the following sections, the reader will find a literature search detailing and defining all of the involved concepts and constructs relevant to this study, followed by a statement of purpose containing the hypotheses that guided the study. The procedures, participants, and instruments for the project are detailed in the Methods section. In the Results section the data analysis is disclosed and interpreted in the Discussion section.

www.manaraa.com

Literature Review

Help-Seeking

Help-seeking can be simply defined as what a person does when they seek out the services of a professional counselor or therapist for a problem that they cannot resolve on their own. This help can come from a number of sources, such as clergy, friends, family, teachers, physician, or even a therapist. For this project, a narrower definition of help-seeking is needed as the variable of interest is seeking out professional psychological help. With that in mind, help-seeking will be defined as a person purposefully seeking the services of a mental health professional for an interpersonal or psychological problem. For our purposes, a mental health professional is anyone at a M.S. or doctoral level who renders psychotherapeutic services. The most common examples of a mental health professional would be a counseling psychologist, clinical psychologist, master's level therapist, counselor, social worker who renders therapy, and possibly a psychiatrist.

Given the proven effectiveness of therapy to successfully treat psychological and interpersonal difficulties (Wampold, 2001), it is interesting that many people who might benefit from professional psychological services do not actually seek these services out (Bourdon, Rae, Locke, Narrow, & Regier, 1992; Corrigan, 2004; Wang, et. al., 2005). Despite the large body of evidence supporting the effectiveness of psychotherapy, and even the advent of empirically supported treatments, researchers have noticed two trends regarding the use of treatment (Corrigan, 2004). First, unfortunately, many people who do have psychological or interpersonal difficulties, including diagnosable disorders, never actually seek services from a mental health professional, nor do most seek help of any kind. Secondly,

www.manaraa.com

while others do not seek treatment, others that do seek out and begin treatment, often do not remain in treatment or fail to fully adhere to prescribed treatments (Corrigan, 2004).

Utilization of Mental Health Services

Epidemiological studies have repeatedly shown that lower than 20% to 41% of people who have a diagnosable disorder actually seek out treatment (e.g., Findlay & Sheehan, 2004; Wang, et. al., 2005). In the early 1980's the National Institutes of Mental Health (NIMH) conducted the Epidemiologic Catchment Area program (ECA) to gather incidence, prevalence, and service use data for mental disorders classified by the DSM-III (Regier, et al. 1984). According to Bourdon et al., (1992) the ECA found that during any six-month period 19.5 percent of the U.S. adult population has a diagnosable mental disorder. In several reports, the ECA found that fewer than 20 percent of those identifying as having a diagnosable mental disorder within the past six months, actually sought out help for their disorder (Bourdon, et al., 1992; Shapiro, et al., 1984).

The National Comorbidity Study (NCS), mandated by Congress and conducted during the early 1990's, gathered further prevalence and service use data along with comorbidity rates of psychiatric disorders and risk factors in a national sample (Kessler, et al., 1994). According to an early report from the NCS, results were similar for those who utilized mental health services. Kessler et al. (1994) found that 48 percent of respondents in their study reported a lifetime history of at least one diagnosable mental disorder, and that 29.5 percent of their respondents reported symptoms of at least one diagnosable mental disorder within the past 12-months. Of these people, Kessler et al., found that less than 40 percent of those with a lifetime disorder and less than 20 percent of those with a recent disorder ever sought help.

www.manaraa.com

A recent replication of the NCS has seemingly provided more favorable trends. While the lifetime prevalence rate for any diagnosable mental disorder has not seemingly changed much – Kessler, et al., (2005) reported the rate to be 46.4 – Wang et al. (2005) reports that 41.1 percent of those who can be diagnosed with a DSM-IV disorder actually sought out treatment. According to Wang et al., 17.9 percent of their total sample sought out treatment of some sort, with about 10 percent of those seeking treatment not having a disorder of any kind. It should be noted that the reported 41.1 percent includes treatments of several varieties, including seeing a psychiatrist, mental health counselor, general practitioner, and other lay forms of healing or support. Of those who sought out treatment, 16 percent chose to seek help from a mental health counselor, 12.3 went to a psychiatrist, and 22.8 were treated by a physician (Wang et al., 2005).

While these findings might be encouraging, it should be noted that there is still a large proportion of the population (more than 58 percent) who could benefit from mental health services but do not seek them out. The question is then, why are the majority of persons with at least one diagnosable disorder – those who could surely benefit from receiving mental health treatment – failing to seek a treatment that is likely to help them? According to several researchers, the stigma regarding mental illness and the poor social image of those who are mentally ill is a major barrier, and one of the most often cited barriers (Corrigan, 2004; Vogel, Wade, & Haake, 2006) for people to overcome in seeking help for a mental disorder.

Stigma

Definition of Stigma Construct

Stigma can be simply defined as a mark of disgrace or flaw from a physical or personal characteristic that is viewed as socially unacceptable and carries with it some sort of

www.manaraa.com

social cost such as discrimination (Blaine, 2000; Corrigan, 2004; Link & Phelan, 2001; Rüsch, Angermeyer, & Corrigan, 2005; Vogel, Wade, & Hackler, 2007). The stigma associated with mental illness and seeking mental health services is the perception that a person is flawed, undesirable, or socially unacceptable if they receive psychological services (Corrigan, 2004; Rüsch, Angermeyer, & Corrigan, 2005; Vogel et al., 2006). However, according to Link & Phelan (2001) a standard "dictionary" definition is not sufficient for research due to the variation of stigma's definition in the literature. In light of this variation, Link & Phelan recommend that investigators clearly and specifically define what is meant by stigma.

A Social Cognitive Model of Stigma

There are two major conceptualizations of stigma that come from Link and Phelan (2001) and Corrigan (2000; 2004; Rüsch et al., 2005). Following Rüsch et al. (2005), this paper uses the integrated definition of the two models, entitled the social-cognitive model of stigma. Stigma can be framed and thought of as four distinct social-cognitive processes: cues, stereotypes, prejudice, and discrimination (Corrigan, 2004).

Social cues and labeling. Public stigma is made up of the general public's reaction to a stigmatized group (Rüsch et al., 2005). People commonly use labels and distinguishing characteristics as cues to categorize people into groups. Most of the differences between humans are largely ignored and socially irrelevant, and therefore do not lead to stigma (Link & Phelan, 2001). For example, the size of one's hands or the color of one's shirt does not matter to most people in most circumstances. However, certain characteristics are highly salient and relevant to one's social appearance in Western society, such as sexual orientation, gender, skin-color, or income (Link & Phelan, 2001; Rüsch et al., 2005). Distinguishing

www.manaraa.com

between groups is often taken for granted and people are then labeled based on society's selection of key human differences (Link & Phelan, 2001). Society's tendency to label people and groups based on key human differences shows how people seem to infer mental illness (Corrigan, 2004; Link & Phelan, 2001; Rüsch et al., 2005). The general public infers mental illness based on four cues: psychiatric symptoms, social skills deficits, physical appearance, and labels (Corrigan, 2000; Corrigan, 2004; Penn & Martin, 1998).

Many symptoms of severe mental illness, such as inappropriate affect and bizarre behavior, are observable and serve as a cue to the general public (Corrigan, 2004; Link, Cullen, Frank, & Wozniak, 1987; Penn, et al., 1994; Socall & Holtgraves, 1992). Social-skills deficits, a product of some mental illnesses, may result in being labeled as mentally ill and lead to stigmatizing responses from others (Bellack, Mueser, Morrison, Tierney, & Podell, 1990; Corrigan, 2004; Mueser, Bellack, Douglas, & Morrison, 1991). Physical appearance also serves as a cue to the general public. For example, the unkempt person walking through the park, or certain physical characteristics associated with different disorders (e.g., fetal alcohol syndrome, down's syndrome, etc.), may lead people to be certain that they are mentally ill (Corrigan, 2004; Eagly, Ashmore, Makhijani, & Longo, 1991; Penn, Mueser, & Doonan, 1997).

Labels are another cue that people use to infer mental illness. Several studies (Jones, et al., 1984; Link, 1987; Scheff, 1974) have shown that labels can lead to stigma. Labels can be obtained in two ways. One may obtain a label from others, such as when a person is diagnosed with a psychiatric disorder by a psychologist or medical doctor (Link, 1987; Link, Cullen, Frank, & Wozniak, 1987; Link, Cullen, Struening, Shrout, & Dohrenwend, 1989; Link & Phelan, 2001). Labels can also be obtained by association, which may happen if

www.manaraa.com

someone is seen leaving a mental health clinic or psychologist's office leading others to assume they are mentally ill (Corrigan, 2004).

Stereotypes. Psychology has been able to distinguish and identify three cognitive, emotional, and behavioral components of stigma. The predominant social beliefs regarding the labeled person then link them to a stereotype (Corrigan, 2004; Link & Phelan, 2001; Rüsch et al., 2005). A stereotype represents an oversimplified and generalistic knowledge structure that the general public may hold about a social group (Augoustinos, Ahrens, & Innes, 1994; Corrigan, 2004; Esses, Haddock, & Zanna, 1994; Hilton, & von Hippel, 1996; Judd & Park, 1993; Krueger, 1996; Mullen, Rozell, & Johnson, 1996). It is thought that stereotypes are often relatively "automatic" and are an "efficient" means of cognitive categorization of social groups (Corrigan, 2004; Link & Phelan, 2001). Stereotypes are social because they represent a notion about a group of people that is agreed upon or is commonly held by society (Corrigan, 2004). They are efficient because they allow one to quickly categorize someone and generate expectations and impressions based on their perceived membership to the stereotyped group (Corrigan, 2004; Hamilton & Sherman, 1994). Stereotypes often happen automatically because, as studies of implicit association have shown (Banaji & Greenwald, 1994; Greenwald & Banaji, 1995), stereotypes often exist subconsciously and operate without our knowledge (Banaji & Greenwald, 1994; Greenwald & Banaji, 1995; Link & Phelan, 2001). Common stereotypes of mentally ill people tend to be that they are dangerous or violent, incompetent (cannot live independently or work), and weak willed. Another particularly destructive stereotype is that they are somehow responsible for their mental illness and that they could somehow have prevented the onset and are just dragging it out due to their weak character (Corrigan, 2004).

www.manaraa.com

Prejudice. Just because someone is aware of a stereotype, or has knowledge of a stereotype does not mean that they necessarily endorse that stereotype (Corrigan, 2004; Devine, 1989; Jussim, Nelson, Manis, & Soffin, 1995; Rüsch et al., 2005). Many people may have knowledge of ethnic stereotypes but do not consider them valid. On the other hand, prejudiced people endorse and believe negative stereotypes and generate negative emotional reactions as a result (Devine, 1988, 1989, 1995; Hilton & von Hippel, 1996; Krueger, 1996). In the case of mental illness, people who are prejudiced against mental illness endorse and believe negative stereotypes ("That's right, they are all violent!") and generate emotional responses that are negative as a result ("I am afraid of all of them."; Corrigan, 2004; Rüsch et al., 2005). Prejudice is different from stereotypes in that stereotypes are beliefs, while prejudice is an attitude that has an evaluative component that is most likely negative (Allport, 1954/1979; Eagley & Chaiken, 1993) and is fundamentally an affective and cognitive response (Corrigan, 2004; Rüsch et al., 2005). Prejudice then is likely to lead to discrimination in the form of hostile acts towards the mentally ill, such as refusing to rent an apartment to someone identified as having a psychiatric disorder (Rüsch, 2005). Prejudice is the cognitive and affective response, while discrimination is the behavioral manifestation of prejudice (Corrigan, 2004; Crocker, Major, & Steele, 1998; Link & Phelan, 2001).

Discrimination. When someone accepts a stereotype about a given group, and becomes prejudiced regarding that group, they may begin to discriminate against that group (Crocker, Major, & Steele, 1998; Link & Phelan, 2001). This behavior will manifest as a negative action against the out-group or exclusively positive action for the in-group. Discrimination may appear as people simply avoiding the out-group (Corrigan, 2004). In the case of mental illness, it may be that employers simply do not hire them, thus avoiding

www.manaraa.com

having to work with them, or landlords do not rent to those that are believed to be mentally ill wishing to protect their current tenants (Corrigan, 2004; Rüsch et al., 2005). It is important to realize a caveat to discriminatory behavior. It is necessary that social, economic, and/or political power are used in order for one to be stigmatized (Rüsch et al., 2005). Stigmatization by the in-group is entirely contingent on it having access to social, economic, and political power that allows identification and the ability to put people into categories and then with the full execution of disapproval, rejection, exclusion, and discrimination (Link & Phelan, 2001). In other words, in order for stigma to exist, differences must be noticed. Those differences must be labeled and categorized and regarded as relevant for any stigma to occur (Link & Phelan, 2001).

Corrigan (2004) went beyond social-cognitive processes by proposing that there are two ways to distinguish stigma. *Public stigma* is what happens when a naïve public endorses the prejudice associated with a group and then consequently stigmatizes that group. *Self-stigma* occurs when the individual of a stigmatized group internalizes the public stigma and believes the prejudice associated with their group consequently leading them to stigmatize themselves (Corrigan, 2004). Public and self-stigma can be described using the social-cognitive model of stigma (Corrigan, 2004; Rüsch et al, 2005).

Public Stigma. Stereotypes in public stigma include the public's negative beliefs about a certain group (Corrigan, 2004). In the case of mental illness, common stereotypes held by the public may be that the person with a mental illness is incompetent, has a character weakness, or is dangerous (Rüsch et al., 2005). With public stigma, prejudice operates as previously described. The public agrees with the negative stereotype and has a negative emotional reaction such as fear or hatred (Corrigan, 2004). For example, the public

www.manaraa.com

may endorse the stereotype that a person with a mental illness is potentially dangerous and is to be feared (Rüsch et al., 2005). Prejudice leads to behavior in the form of discrimination (Corrigan, 2004; Link & Phelan, 2001; Rüsch et al., 2005). Public stigma may also operate in the form of avoidance, such that a person with a mental illness is simply not hired for a job so that one does not have to face their fear of working with them (Corrigan, 2004).

According to Corrigan (2004), public stigma has a tremendously negative impact on a person with a mental illness. This can be seen in the inability of those with a mental illness to find desirable employment (Corrigan, 2004; Link, 1982, 1987; Wahl, 1999) and obtain safe homes (Corrigan, 2004; Wahl, 1999). Public stigma is also present in our criminal justice system, as individuals with a mental illness are more likely to be arrested and to spend more time in jail (Corrigan, 2004). Even the health care system seems prone to public stigma as it seems that having a mental illness can be a barrier to receiving proper health care. Studies have shown that those with a mental illness receive fewer medical services than those without a mental illness (Corrigan, 2004; Desai, Rosenheck, Druss, & Perlin, 2002; Druss & Rosenheck, 1997). Druss, Bradford, Rosenheck, Radford, and Krumholz (2000) was able to show that people with a comorbid psychiatric disorder were less likely to undergo coronary angioplasty than was the remainder of the sample.

Self-Stigma. According to Corrigan (2004) the social-cognitive model helps frame the concept of self-stigma, which is when a person of the stigmatized group turns the commonly held stigmatizing attitudes on themselves (Rüsch et al., 2005). Stereotypes become a negative belief about the self based on the stereotypes propagated by the public (Rüsch et al, 2005). A person with mental illness may accept the previously mentioned stereotypes (incompetence, dangerous, etc.) and begin to believe that they are incompetent and internalize their self-

www.manaraa.com

prejudice, leading to negative emotional reactions. These negative emotional reactions may result in a lowering of self-esteem and self-efficacy (Rüsch et al, 2005). Self-prejudice leads to a behavioral response in the form of self-discrimination, which may manifest itself as a failure to pursue employment or secure adequate housing (Corrigan, 2004; Rüsch et al, 2005).

Interestingly, intrapersonal responses to stigma vary. Public stigma may result in the stigmatized suffering from a diminished self-esteem and self-efficacy if the individual acknowledges group membership (Rüsch et al., 2005; Watson & River, 2005). However, if the individual self-identifies as a member of the stigmatized group, they may instead react with righteous anger and empowerment, the antithesis of diminished self-esteem and self-efficacy (Watson & River, 2005). If the individual does not particularly identify or perceive themselves as being members of the stigmatized group, they may react with relative indifference depending upon the situation (Watson & River, 2005). This finding is unlike some long standing theories (Allport, 1954/1979; Erickson, 1956; Jones et al., 1984) which assumed that the automatic response to being a member of a stigmatized group was to become demoralized and self-stigmatize (Corrigan & Kleinlein, 2005; Watson & River, 2005).

Development of Stigma Concepts

Social science has long been concerned with the causes of stigma and the concepts of stereotyping, prejudice, and discrimination, though it has only been recently that the focus has broadened to also include the effects of stigma on psychological processes (Major & O'Brien, 2005). The contemporary conceptualization of stigma can be traced to the sociologist Erving Goffman and his book, *Stigma: Notes on the Management of a Spoiled*

www.manaraa.com

Identity, written in 1963. Beginning in the 1980's, the situational nature of stigma and the role of self in response to stigma was frequently investigated, especially stigma associated with mental illness (Link & Phelan, 2001; Major & O'Brien, 2005). At the time, there were two main models of stigma towards mental illness. Labeling theory maintains that the label of "deviant or mentally ill" itself causes society to treat the labeled person as a deviant (Corrigan & Kleinlein, 2005). Because of the label, people naturally avoid contact with that person and may actively discriminate against them, exposing the person with mental illness to many negative reactions, causing them to continue to act deviantly, thus fitting the label and perpetuating the mental illness (Corrigan & Kleinlein, 2005). The medical model maintains that it is not the label, but the deviant behavior that is the source of the public's stigma, while any relapse of mental illness is simply due to the reoccurrence of the mental disorder, not the effects of the label. The label of mentally ill simply does not elicit public stigma, it is the behavior (Corrigan & Kleinlein, 2005).

In response to the debate between the medical model and the labeling models of mental illness stigma, Link et al. (1989), introduced the modified labeling theory (Corrigan & Kleinlein, 2005). The modified labeling theory maintained that deviant or aberrant behavior causes negative reactions from society, which causes society (and the self) to label mental illness negatively, which can lead to the exacerbation of the disorder (Corrigan & Kleinlein, 2005; Link, 1987; Link & Phelan, 2001). Undoubtedly, the concept of stigma is an extremely complex phenomenon that can be understood at many different levels and in many different contexts (e.g., racial stigma, religious stigma, gender based stigma, mental illness stigma, physical disfigurement, etc.; Corrigan & Kleinlein, 2005; Link & Phelan, 2001; Major & O'Brien, 2005; Watson & River, 2005).

www.manaraa.com

The barrier of stigma. As has been previously mentioned, there are many studies indicating that there are a significant number of people who are not seeking treatment that could benefit from psychological counseling (Bourdon et al, 1992; Kessler et al., 1994; Kessler et al., 2005; Wang et al., 2005). Patrick Corrigan, a leading stigma researcher from the University of Chicago, and his colleagues have reported several times that stigma is one of the most widely cited reasons why people do not seek mental health treatment (Corrigan, 2004; Corrigan & Kleinlein, 2005; Rüsch et al., 2005). In 2007, Vogel, Wade, and Hackler reached the same conclusion.

The 1999 Surgeon General's report on mental health (Satcher, 1999) declared that the "most formidable obstacle" facing those who might be potential candidates to seek treatment is the stigma associated with mental illness and specifically with seeking counseling. Further, the Surgeon General stated the fear of stigmatization has allowed society to raise barriers to make it more difficult to seek treatment, such as the disparity in the availability of treatment and the public's reluctance to pay for mental health treatment (Satcher, 1999). The stigma of mental illness interferes in the help seeking process from the beginning to the end, as an individual must recognize that their symptoms are unusual and severe enough to warrant treatment; decipher if their symptoms indicate a "mental" or "physical" problem; decide to actually seek help and from whom; and then decide whether to remain in treatment (Satcher, 1999). The fear of stigmatization keeps people from acknowledging their very real problems, much less actually seeking help, thus creating unnecessary suffering on the part of the individual (Satcher, 1999).

Stigma and help-seeking. Given the nature of mental illness, it is possible for people to hide less severe mental illnesses that do not usually involve abnormal behavior (ex.,

www.manaraa.com

depression, anxiety). Indeed, there are varying levels of stigma associated with mental illness, usually depending upon diagnosis (Corrigan, 2004; Corrigan & Kleinlein, 2005; Rüsch et al., 2005), with more severe forms of mental illness usually being the most stigmatized (Corrigan, 2005; Corrigan & Kleinlein, 2005). However, just being a client of a counselor is more stigmatizing than "normal" (Sibicky & Dovidio, 1986). Those seeking mental health treatment are seen as more emotionally unstable, less interesting, and less confident than those who sought help for back pain, and than those not seeking any help (Ben-Porath, 2002).

Awareness of the stigma associated with seeking counseling has been connected to people avoiding and not seeking out treatment as well as prematurely discontinuing treatment – even in the face of significant psychological problems (Corrigan, 2004; Corrigan & Kleinlein, 2005; Satcher, 1999; Vogel, Wade, & Hackler, 2007). Several different studies have determined that many people do not seek out mental health treatment for issues viewed negatively by others (Overbeck, 1977) and avoid mental health treatment if they personally hold negative stereotypes and beliefs about treatment (Cooper, Corrigan, & Watson, 2003; Corrigan, 2004; Corrigan & Kleinlein, 2005; Watson & River, 2005). Furthermore, stigma has been shown to influence a person's attitudes towards mental health counseling as well as their willingness to go to counseling (Corrigan, 2000, 2004; Corrigan & Kleinlein, 2005; Rüsch et al., 2005; Vogel, Wade, & Hackler, 2007; Watson & River, 2005). The stigma associated with mental illness and counseling is also connected to early withdrawal from treatment (Sirey et al., 2001). These findings illustrate that not only is mental illness stigmatized by society, as are individuals with mental illness, but that the act of seeking out mental health services is stigmatized and degraded by society.

www.manaraa.com

Role of public stigma. The role of public stigma as a barrier to seeking help for mental illness is well established (Watson & River, 2005). Public stigma serves as an impedance to care seeking as those with a mental illness may be reluctant to acknowledge the meaning of their symptoms and deny that they have a problem. They may also deny that they are even a member of the stigmatized group to avoid being labeled and stigmatized so that they do not have to endure the accompanying deleterious consequences (Corrigan & Kleinlein, 2005; Rüsch et al., 2006; Watson & River, 2005). As previously stated, research has demonstrated that people will avoid seeking treatment if they themselves endorse the stigma of mental illness (Rüsch et al., 2006; Watson & River, 2005).

Role of self-stigma. Unlike public stigma, the role of self-stigma as an impedance to seeking care has only recently begun to be addressed (Watson & River, 2005). According to Watson and River, research has demonstrated the devastating effects of self-stigma related to being mentally ill. However, relatively few studies have investigated self-stigma's impact on the help-seeking process (Watson & River, 2005). Due to self-stigma's destructive effects on one's self-esteem and sense of self it is thought that people avoid seeking help to escape being labeled as mentally ill thereby allowing them to escape blows to their self-image (Corrigan, 2004; Rüsch et al., 2005; Watson & River, 2005).

In 2006, Vogel et al., investigated self-stigma's ability to predict attitudes about mental health help-seeking and willingness to attend therapy. They were able to demonstrate that self-stigma is conceptually distinct from other related constructs like public stigma and self-esteem (Vogel et al., 2006). In the 2006 paper, Vogel et al., designed and validated the first measure of self-stigma and were able to show that self-stigma uniquely predicted help-seeking attitudes and willingness to seek counseling. Furthermore, they discovered that self-

www.manaraa.com

stigma reduced public stigma's effects on help-seeking attitudes and one's willingness to seek counseling. In 2007, Vogel, Wade, and Hackler went on to confirm that public stigma predicts self-stigma and that self-stigma negatively predicts help-seeking attitudes, which positively predict one's willingness to go to counseling.

Sexes perceive stigma differently. Women are generally more open to seeking treatment for emotional issues (Good, Dell, & Mintz, 1989) and have more positive attitudes towards counseling than men (Fischer & Farina, 1995). This may be due in part to the finding that men experience greater self-stigma associated with seeking help (Vogel et al., 2006). This self-stigma may be due to a number of different reasons including attitudes about traditional male gender roles such as concern about revealing emotions, and expressing affection towards other men (Good, Dell, & Mintz). Each of these attitudes has been linked with negative attitudes towards seeking professional help (Good, Dell, & Mintz), and they may lead men to think that they will be stigmatized if they were to seek counseling (Vogel, Wade, & Hackler, 2007). In light of these findings, it is important for any future research projects to take note of the sex of the participant in order to account for sex's influence.

Model of Help-Seeking

Vogel and Wester (2003) posed a model of help-seeking based on Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA). This research was undertaken in response to suggestions and attempts by other researchers (Bayer & Peay, 1997; Codd & Cohen, 2003) to conceptualize help-seeking using the TRA to gain a better understanding of the process (Vogel, Wester, Wei, & Boysen, 2005). The TRA assumes that behavior is rational and that individuals analyze the situation at hand with available information upon which the behavior is based (Ajzen & Fishbein, 1980; Cummings & Corney, 1987). Behavior

www.manaraa.com

is the result of a process that includes three distinct components: behavioral intentions, attitudes toward the behavior, and outcome expectations (Ajzen & Fishbein, 1980). Behavioral intentions, a decision to perform a certain action, are the most proximal cause of the behavior itself. Behavioral intentions are influenced by a person's attitudes towards the behavior (i.e., both positive and negative feelings about the behavior; Ajzen & Fishbein, 1980). According to the TRA, intentions are distinct from attitudes, with attitudes towards a certain behavior acting as the forerunner to intentions to engage in said behavior (Ajzen & Fishbein, 1980). One's evaluation of the expected outcome of the behavior predicts one's attitudes towards the action (Ajzen & Fishbein, 1980). Ajzen & Fishbein (1980) also recognize that attitudes are not the only determinants of behavior as subjective norms, beliefs about what significant others would think of the behavior, exert their own influence on individual's intentions (Eagly & Chaiken, 1993; see Figure 1, on page 26). However, in Vogel & Wester's (2003) model of help-seeking, subjective norms are not included as attitudes towards help-seeking are the best predictor of a person's intention to seek help (Bayer & Peay; Vogel et al, 2005; Vogel & Wester, 2003).

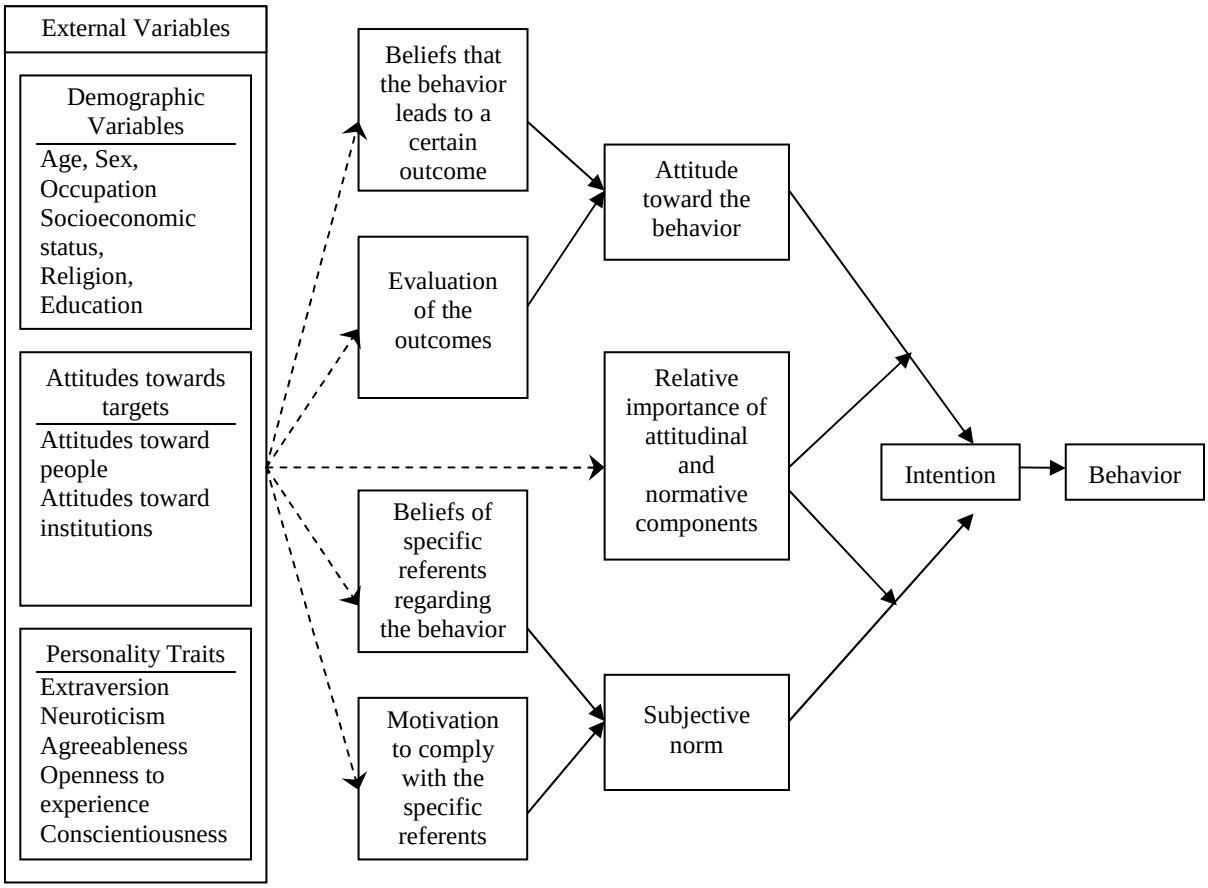
According to the help-seeking model proposed by Vogel and Wester (2003, see Figure 2 on page 27), intentions or willingness to seek counseling, the most proximal determinant of the actual behavior of seeking help, is directly predicted by one's attitudes towards the counseling process. Attitudes toward the counseling process are formed by one's evaluation of what will happen if they seek counseling, or the expectations of engaging in the counseling process (Vogel, Wade, & Hackler, 2007). According to Vogel, Wade, & Hackler (2007), perceptions of stigma would then influence one's attitudes towards the counseling process, thereby influencing one's intentions to engage in counseling. Stigma then becomes a

www.manaraa.com

primary determinant of one's attitudes toward counseling (Vogel, Wade, & Hackler, 2007; Vogel et al., 2006).

Figure 1

Model of Ajzen & Fishbein's Theory of Reasoned Action



*From Ajzen & Fishbein, 1980 pg 84

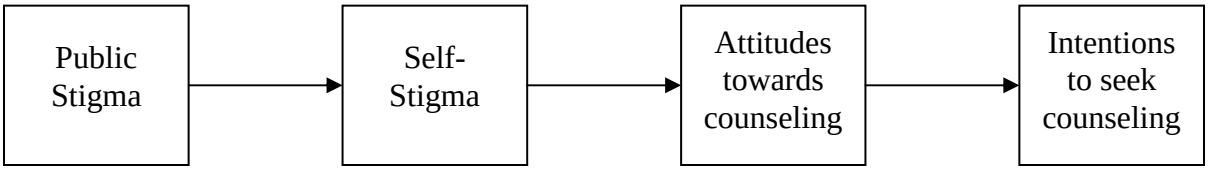
Both public and self-stigma are included in this model (Vogel, Wade, & Hackler, 2007) as Corrigan (2004) theorized that public stigma determines self-stigma. Indeed, Vogel, Wade, and Hackler (2007) demonstrated that perceptions of public stigma of mental illness positively predicted self-stigma of seeking counseling. Further, Vogel, Wade, and Hackler were able to demonstrate that self-stigma associated with seeking counseling negatively

www.manaraa.com

predicts one's attitudes towards the counseling process, and that attitudes were positively predictive of one's willingness to seek counseling. In this model, self-stigma fully mediated the relationship between public stigma associated with mental illness and attitudes towards counseling (Vogel, Wade, & Hackler, 2007). They conceptualized this as self-stigma being the internalized negative perceptions of oneself when they seek counseling, while attitudes are positive or negative beliefs regarding the counseling process.

Figure 2

Relationships of variables in model of help-seeking



*From Vogel, Wade, and Hackler, 2007

According to Ajzen and Fishbein (1980), in the TRA, a person's personality likely influences the relationships between expected outcomes, attitudes, and intentions. According to TRA, it seems that personality may influence how one evaluates outcomes, what beliefs they hold about the expected outcomes, beliefs about what others think, and their motivation (Ajzen, 1988). It seems natural then to think that one's personality is likely to play a role in the relationships between stigma associated with mental illness, self-stigma associated with seeking help, attitudes toward counseling, and one's willingness to seek counseling in Vogel and Wester's (2003) help-seeking model.

Personality

Defining personality is difficult, and providing a concise definition of the construct is even more difficult as personality is a broad construct. McCrae and Costa (1999) defined it as

www.manaraa.com

an individual's unique, relatively enduring pattern of thoughts, feelings, motives, and behaviors. It seems that personality determines how we perceive and react to the environment (McCrae & Costa, 1999). At the core of personality lie traits, which have long been in the lexicon of personality research (Winter & Barenbaum, 1999). However, the concept of a trait seems to be an ethereal one, with a diversity of definitions present in the literature (Goldberg, 1993; Harkness, 2007; McCrae & Costa, 1999; McCrae & John, 1992; Winter & Barenbaum, 1999).

Early on, Gordon Allport behavioristically defined traits, saying traits are "systems of habit" in 1922 (Winter & Barenbaum, 1999). Eventually, Allport's research led him to place an emphasis on traits as the fundamental unit of study, and he became a proponent of traits as the unit of study for personality researchers (Winter & Barenbaum, 1999). In 1937, Allport theorized that there are neuropsychic structures with dynamic or motivational properties underlying traits, placing traits as the root cause of behavior (Winter & Barenbaum, 1999).

Raymond B. Cattell reinforced the notion that traits are the fundamental unit of study for personality researchers (Winter & Barenbaum, 1999). Cattell distinguished between motivational or "dynamic traits" also called ergic traits, from stylistic or "temperament traits" as well as "ability traits" (Winter & Barenbaum, 1999). According to Cattell, each type of trait had its own influence and pattern of behavior (Winter & Barenbaum, 1999). Today, most personality psychologists would agree that traits are the major element of personality (Goldberg, 1993; John & Srivastava, 1999; McCrae & Costa, 1999; McCrae & John, 1992; Saucier & Goldberg, 1996), and many have said that traits are the only unit of study (e.g., Buss, 1989; Winter & Barenbaum, 1999). That statement does not go without controversy, as many researchers argue that motivations are also a fundamental and distinct aspect of

www.manaraa.com

personality (Winter & Barenbaum, 1999). However the main unit of interest for this study is personality traits, as they speak more to the innate, stable aspects of an individual.

In 1988, Tellegen defined traits as a "psychological (therefore, organismic) structure underlying a relatively enduring behavioral disposition, i.e., a tendency to respond in certain ways under certain circumstances. In the case of a personality trait, some of the behaviors expressing the disposition have substantial adaptational implications" (p. 622; from Harkness, 2007). Quite simply, traits are not observable behavior. They are dispositions arising from stable characteristics of underlying systems, namely genes, and traits influence behavior through dynamic processes (Harkness, 2007). Traits impact psychological structures such as attitudes, self-concept, etc. (Harkness, 2007). These psychological structures are called characteristic adaptations (McCrae & Costa, 1999) while traits can be thought of as basic tendencies (McCrae & Costa, 1999). A person with traits that yield a readiness for social enjoyment and positive emotion will have attitudes that reflect those traits ("I like people, people are fun") and will possess a self-concept that again, reflect those positive traits ("I am friendly"; Harkness, 2007).

There has been some controversy in the near recent literature over what type or level (i.e., phenotypic or genotypic) of trait to study and what level personality psychologists have actually been studying (McCrae & Costa, 1999; Saucier & Goldberg, 1996). According to Saucier and Goldberg (1996), the language of personality only refers to the phenotypic level, or only those characteristics that can be observed. This idea comes from the lexical perspective, in which traits are measured using lists of descriptive adjectives of different personality traits. According to the lexical perspective, we can only describe personality and not explain it, and it is not necessary to postulate relative temporal stability (Saucier &

www.manaraa.com

Goldberg, 1996). However, Saucier and Goldberg concede that the phenotypic characteristics that are the focus of lexical study are really better described as attributes and not traits, which also imply a genotypic level of explanation.

The genotypic level of personality refers to the biological basis of traits (McCrae & Costa, 1999; Saucier & Goldberg, 1996). At the genotype level, traits arise from the interaction of genes, and complex traits may arise from the interaction of several genes (Harkness, 2007; McCrae & Costa, 1999). According to McCrae & Costa (1999), traits are not patterns of behavior, nor are they plans, skills, and desires that lead to patterns of behavior. Traits cannot be observed or introspected. Traits must be inferred from behavior and experience (McCrae & Costa, 1999). Traits have a biological basis, neuropsychic structures (traits are heritable), and according to McCrae & Costa (1999), temporal stability. Even interpersonal behavior can be understood as at least partly coming from traits located within the individual (Côté & Moskowitz, 1998).

Personality itself, and specifically personality traits, are thought to be relatively enduring and upon reaching maturity relatively resistant to change (Harkness, 2007; McCrae & Costa, 1999; McCrae & John, 1992; Winter & Barenbaum, 1999). Traits, the fundamental building block of personality, are by definition temporally stable (Hampson & Goldberg, 2006; Saucier & Goldberg, 1996; Harkness, 2007; McCrae & Costa, 1999). Indeed studies have shown that when a person matures their personality seems to stabilize and does not undergo radical change (Caspi, Roberts, & Shiner, 2002; Donnellan, Conger, & Burzette, 2007; Roberts & Del Vecchio, 2001). The temporal stability of traits came under attack, particularly during the 1970's as studies that reportedly documented personality change brought the temporal stability of personality traits into doubt (Winter & Barenbaum, 1999).

www.manaraa.com

However, temporal stability is well documented and recent studies continue to lend support (Donnellan et al., 2007; Morizot & Le Blanc, 2003; Roberts, Caspi, & Moffitt, 2001; Robins, Fraley, Roberts, & Trzesniewski, 2001; Vaidya, Gray, Haig, & Watson, 2002) and it has been found that traits are generally stable over the life span (McCrae & Costa, 1999).

The Big Five Domains

Factor analysis has been the most popular method of studying traits and their relationships (Goldberg, 1990, 1993; McCrae & Costa, 1999; McCrae & John, 1992; Winter & Barenbaum, 1999). Using exploratory factor analysis to examine dimensions of personality, researchers have consistently found five orthogonal factors (Goldberg, 1990, 1993; Harkness, 2007; John & Srivastava 1999; McCrae & John, 1992; McCrae & Costa, 1999; Saucier & Goldberg, 1996; Winter & Barenbaum, 1999). In the lexical tradition, the typical research method involved using a large pool of trait terms from the English language (i.e., n = 1431, Goldberg 1990), which were factor analyzed after having people rate themselves on each trait term (Goldberg, 1990, 1993; Winter & Barenbaum, 1999). This led to researchers attempting to seek smaller pools of markers, or trait terms (Goldberg, 1993). The five orthogonal factors represent a hierarchical structure of traits brought together by correlation or covariation (Goldberg, 1993; Harkness, 2007; Saucier & Goldberg, 1996).

Tupes & Christal (1961/1992) were the first to document the finding of five factors that re-occurred over eight samples (Goldberg, 1992a, 1993; McCrae & John 1992), though others before them found the same five factors as well (Fiske, 1949; Thurstone, 1934; from Goldberg 1993), Tupes & Christal were the first to actually follow-up and analyze several sets of trait terms (Goldberg, 1993). In 1981, Goldberg was the first to designate these five factors by what we now know them as, the Big-Five. These factors are classified by several

www.manaraa.com

systems and have many different but similar labels (Caspi et al., 2005; Goldberg, 1981, 1993; John & Srivastava, 1999; McCrae & Costa, 1999; McCrae & John 1992).

The Big Five are known by Roman Numerals, with each factor denoted I through V (Goldberg, 1981, 1990, 1992a, 1993; John & Srivastava, 1999; McCrae & Costa, 1999), however, each factor has also been labeled with somewhat different names (John & Srivastava, 1999). McCrae & John (1992) also denoted each factor with letters, following in the footsteps of Hans J. Eysenck. Each letter refers to the first letter of common labels for each factor (McCrae & John, 1992). Factor I is commonly known as Extraversion or Surgency (John & Srivastava, 1999; McCrae & Costa, 1999; McCrae & John, 1992) and is also labeled E by McCrae & John. Factor II is typically labeled Agreeableness (John & Srivastava, 1999) and McCrae & John also refer to it as A. Factor III is also widely known as Conscientiousness (John & Srivastava, 1999), with McCrae & John referring to it as C. Factor IV is known as Emotional Stability (Goldberg, 1993; John & Srivastava, 1999) as well as Neuroticism (McCrae & Costa, 1999) and can be known as N. While there is a fifth factor, what it consists of is still under debate (John & Srivastava, 1999), however, it does seem that two similar ideas have emerged for Factor V, with Goldberg (1993) referring to it as Intellect and McCrae & John (1992) labeling it Openness to Experience (O).

Precise conceptualizations of each factor have yet to be agreed upon, (John & Srivastava, 1999; McCrae & John, 1992; McCrae & Costa, 1999), however it seems that there is widespread agreement in the literature that the Big Five is the highest level of abstraction that is still able to describe behavior (Goldberg, 1993). Psychology's difficulty in agreeing upon precise definitions of each domain seems to be a result of each domain's

www.manaraa.com

extremely broad nature and the fact that they each encompass hundreds, perhaps thousands of traits (Goldberg, 1993; John & Srivastava, 1999).

Srivastava and John noted that natural categories tend to have boundaries that cannot be well defined while each category is likely to have prototype exemplars that define each category well. Thus, each dimension of the Big Five can be generally described with a consensus being more difficult to reach with precise definitions (John & Srivastava, 1999). Additionally, the Big Five's traditional labels also can lead to confusion as to what each dimension encompasses (John & Srivastava, 1999). Thus, short general descriptions of each category are warranted.

Descriptions of the Big Five domains. Extraversion (i.e., I; E) refers to a person's energetic way of existing (John & Srivastava, 1999) as they tend to be vigorous, active, and social (Caspi et al., 2005). They have a positive emotionality, meaning they tend to frequently experience positive moods, and tend to be very friendly and seek out social situations (Caspi et al., 2005). Agreeableness (i.e., II; A) can be thought of as contrasting a congenial, prosocial, and communal approach to life compared to an antagonistic or antisocial outlook (Caspi et al., 2005; John & Srivastava, 1999). Agreeable people tend to be more willing to accommodate others (Caspi et al., 2005) as can be described as altruistic, compassionate, considerate, generous, polite and kind (Caspi et al., 2005; John & Srivastava, 1999). Conscientiousness (i.e., III; C) refers to one's capacity for behavioral and cognitive control (Caspi et al., 2005) or impulse control (John & Srivastava, 1999). These individuals are described as being responsible, careful, attentive, goal-directed, following norms and obeying rules, organized, orderly, and being able to delay gratification (Caspi et al., 2005; John & Srivastava, 1999). Emotional Stability versus Neuroticism (i.e., IV; N) is best thought

www.manaraa.com

of as one's susceptibility to negative emotionality versus being generally emotionally stable (Caspi et al., 2005; John & Srivastava, 1999). This domain describes people who tend to see the world as distressing (Caspi et al., 2005). Descriptive adjectives include feeling anxious, sad, and nervous, being vulnerable to stress, guilt prone, insecure in relationships, and lack confidence (Caspi et al., 2005; John & Srivastava, 1999). Intellect or Openness to Experience (i.e., V; O) is the least understood dimension of the Big Five and therefore the most debated. However, it can generally be described as the "breadth, depth, originality, and complexity of an individual's mental and experiential life" (John & Srivastava, 1999; pp. 121). This factor includes several important traits such as being imaginative, creative, intelligent, clever, and have the ability to learn quickly (Caspi et al., 2005).

The Development of the Five Factor Model

The discovery of the Big Five by Tupes and Christal (1961/1992) led to the Five Factor Model described by several researchers (Goldberg, 1993; John & Srivastava, 1999; McCrae & Costa, 1999; McCrae & John, 1992; Trapnell & Wiggins, 1990). The Five Factor Model is a product of two aspects of personality theory, the Lexical hypothesis and the tradition of personality questionnaires (Goldberg, 1993; McCrae & John, 1992).

The lexical hypothesis. The lexical hypothesis maintains that all or most important individual differences in human interactions will be noted by speakers of any natural language at some point in the language's evolution and will be given single word terms or trait terms (Goldberg, 1993; Goldberg & Saucier, 1996; McCrae & John, 1992). Therefore, it becomes possible to decode these terms and find the basic structure of personality (McCrae & John, 1992). Goldberg (1993) credits Sir Francis Galton with the first attempt to examine a dictionary and cull out all the terms that were descriptive of personality and note the

www.manaraa.com

concordance with personality trait terms. Allport and Odbert (1936; from McCrae & John, 1992) followed Galton by focusing the list of trait terms found in English, specifically by examining the second edition of Webster's Unabridged Dictionary. Cattell (1946) then formed the list of 4,500 terms into synonym clusters and developed a set of 35 bipolar variables composed of groups of adjectives and phrases. Tupes and Christal (1961/1992) were the first to factor analyze these 35 scales and discover the Big Five, though Goldberg (1981) was the first to give them that label.

There are several reasons why the search for personality dimensions began in the natural language (McCrae & John, 1992). Laypersons explain differences between people using trait terms in their natural language (Goldberg, 1993; Goldberg & Saucier, 1996). Terms like friendly, mean, punctual, and bossy are what people use to define personality (McCrae & John, 1992). A complete theory of personality needs to explain the phenomena to which these terms refer to and how they are used (Goldberg, 1993; Goldberg & Saucier, 1996; McCrae & John, 1992). Since personality researchers have so far relied on self-report and peer ratings, they must use the language of their participants (McCrae & John, 1992). Allport and Odbert's (1936) analysis of the English language yielded a finding of 4,500 traits, which lends credence to the social importance of personality traits (McCrae & John, 1992). If personality traits are so important to interpersonal behavior, then surely trait terms will be present in any natural language (McCrae & John, 1992).

The lexical hypothesis points to a universal personality structure that should be able to be found in any natural language (Goldberg, 1993; Goldberg & Saucier, 1996; McCrae & John, 1992). Indeed studies have been able to extract the same basic five factors from other natural languages and across cultures (McCrae & John, 1992; Rolland, 2002; Triandis & Suh,

www.manaraa.com

2002). McCrae & John (1992) argue that the Big Five have emerged in studies done in German (Borkenau & Ostendorf, 1990), Chinese (Yang & Bond, 1990), and Japanese (Bond, Nakazato, & Shiraishi, 1975). Rolland (2002) offers a review of the cross-cultural findings on the Big-Five factor structure and notes studies conducted in many diverse languages (e.g., English, German, Hungarian, Italian, Chinese, Dutch, Turkish, etc). It should be noted that one should take caution not to oversimplify the cross-cultural generalizability of the Big Five as there is within cultural differences that need to be accounted for (Triandis & Suh, 2002).

The tradition of personality assessment. The lexical hypothesis and the associated findings are but one path that has led psychology to the Five Factor Model (Goldberg, 1993; McCrae & John, 1992). The tradition of personality assessment through the use of questionnaires has yielded a wide variety of scales, each designed to measure a specific aspect of personality (McCrae & John, 1992). Despite the diversity present in theories of personality, the scales associated with these theories are quite redundant and are remarkably similar in what they measure (McCrae & John, 1992). For example, the experience of chronic negative mood is measured by many different scales. Eysenck noticed that there were two dimensions of personality in the types of scales that were being produced and developed two useful measures of N and E (H. J. Eysenck & S. B. G. Eysenck, 1964, 1975). Psychology, accepting the notion that these two central aspects of personality were to be found in many different instruments then began to propose additional new factors to help explain the full range of personality (McCrae & John, 1992). Researchers looked for commonalities in the unexplained aspects of personality in an attempt to fully capture all of the dimensions of personality (Goldberg, 1993; McCrae & John, 1992). The lexical

www.manaraa.com

hypothesis and the questionnaire tradition merged to give us the Five Factor Model (McCrae & John, 1992).

Development of Models of Personality

There are many different theories of personality that have been advanced in the past. Psychoanalytic theory, as advanced by Freud, had a major impact on psychology and is noted particularly for its concepts of the id and superego (Friedman & Schustack, 1999; Winter & Barenbaum, 1999). Behaviorists such as B. F. Skinner focused on the observable aspects of personality contending that behavior is the only worthwhile aspect of personality that one can study (Friedman & Schustack, 1999). Cognitive theories of personality, such as Bandura's Social-Cognitive Theory were able to bring back the rational and active nature of human thought (Friedman & Schustack, 1999). An empirical system that has emerged for studying personality is the factorial or trait approach (Friedman & Schustack, 1999; Winter & Barenbaum, 1999). It seems that this tradition has emerged due to an extraordinary emphasis on measurement and psychometrics (Winter & Barenbaum, 1999).

The trait approach. Describing someone by ascribing traits to them is nothing new to humanity (Friedman & Schustack, 1999). In fact, most of us think nothing of describing a person as shy or reserved. Systematically analyzing traits actually dates back to Ancient Greece when Hippocrates described human temperament in terms of his bodily humors – sanguine (blood); melancholic (black bile); choleric (yellow bile); and phlegmatic (phlegm) – when one of the bodily humors was dominant it was said that it determined a typical reaction pattern (Friedman & Schustack, 1999). Along with humors describing temperaments, character descriptions arose from Ancient Greece. Character sketches were meant to describe a type of person that is recognizable regardless of time or place – such as the cheapskate,

www.manaraa.com

miser, or buffoon (Allport, 1961; Friedman & Schustack, 1999). The idea was to reliably and validly capture personality, such as trait approaches do today in a scientific manner (Friedman & Schustack, 1999). In the nineteenth century, Darwin's theory of evolution made individual differences a central topic of study as spiritual explanations for psychological phenomena were replaced with scientific ones (Friedman & Schustack, 1999; Winter & Barenbaum, 1999).

While psychoanalysts like Jung were studying basic tendencies that motivate personality, others, such as C. Spearman, L. L. Thurstone, and E. L. Thorndike began to become interested in the quantitative aspects of psychology (Friedman & Schustack, 1999; Winter & Barenbaum, 1999). These psychologists set about to develop and use statistics in such a way as to simplify and objectify personality's configuration (Friedman & Schustack, 1999). Raymond B. Cattell was an early proponent of utilizing factor analysis and was the first to factor analyze Allport and Odbert's list of personality adjectives (Goldberg, 1993; Goldberg & Saucier, 1996; Friedman & Schustack, 1999; McCrae & John, 1992; Winter & Barenbaum, 1999). Cattell grouped, rated and factor analyzed all 4,500 trait terms, from which he derived 16 bi-polar, oblique factors or aspects of personality, which are assessed by using the Sixteen Personality Factors Questionnaire (Goldberg, 1993; Goldberg & Saucier, 1996; Friedman & Schustack, 1999; Winter & Barenbaum, 1999). Factor analysis, as a reduction technique, is particularly helpful when studying traits due to the sheer number of trait terms (Friedman & Schustack, 1999). Cattell was also one of the first to argue that there are hierarchies of traits, such that there are certain traits that are more fundamental and serve as the impetus for other traits (Friedman & Schustack, 1999).

www.manaraa.com

Cattell's use and discussion of factor analysis as a way to study personality and traits sparked a whole approach to personality (Winter & Barenbaum, 1999). This naturally set the stage for controversy, especially regarding methods and assumptions. While Cattell favored oblique rotations, Eysenck argued for the use of orthogonal rotations and argued that his three "superfactors" (Extraversion, Neuroticism, and Psychoticism) were equivalent to and encompassed Cattell's 16 oblique factors (Winter & Barenbaum, 1999). Tupes and Christal (1958, 1961) reanalyzed Cattell's data and discovered five replicable factors instead of 16. Later, Warren Norman again confirmed the existence of five replicable factors with a selected set of Cattell's data (Goldberg, 1993; Norman, 1963), although he went on to institute a research program to replace that five-factor model (Goldberg, 1993). It seems he was erroneously convinced that Cattell's variables left much to be desired due to the technical and computational limitations of the time when Cattell derived his variables (Goldberg, 1993). This led him to believe that there were indeed more than five factors (Goldberg, 1993). However, subsequent studies testing his conjecture that an analysis of a more comprehensive pool of English trait terms would yield more factors proved Norman to be wrong (e.g., Goldberg, 1991).

The role of factor analysis in the development of models. It was not until the early 1980's that work began again in earnest on utilizing factor analysis when researchers such as Lewis Goldberg began to assert the five factor model and its explanatory power (Goldberg, 1993). In 1981, Goldberg published a book chapter explicating and arguing for the use of the lexical hypothesis and the empirical position of the "big five" (Goldberg, 1981). This chapter convinced other prominent personality researchers (e.g., McCrae & Costa from Goldberg, 1993) that five factors were needed to sufficiently account for phenotypic personality

www.manaraa.com

differences (Goldberg, 1993). Indeed, McCrae & Costa adapted their NEO Personality inventory to include Agreeableness and Conscientiousness, as in its original configuration it only measured Neuroticism, Extraversion, and Openness to Experience (Goldberg, 1993; McCrae & Costa, 1985).

In the mid-1990's, Goldberg saw that personality research was progressing slowly due to test publishers being unwilling to let researchers use their instruments in partial segments, use their inventories on the web, have access to scoring keys in some situations, and there seems to be no test improvement due to test publishers focusing on developing a loyal set of users instead of actually trying to develop better tests through true comparative-validity studies (Goldberg et al., 2006). In response he began to develop a set of personality items for placement in the public domain (Goldberg, 1999). The idea was that a set of personality items that could be used by anyone free of charge would free personality researchers from the constraints of copyrighted personality inventories (Goldberg et al., 2006). Thus the International Personality Item Pool (IPIP) was created and placed on the internet (http://ipip.ori.org/). The IPIP's items are freely available to researchers to use as they see fit and it has already seemingly begun to accelerate research, though Goldberg does warn that it is too soon to conclude if that is actually the case (Goldberg et al., 2006). Along with offering personality items, IPIP offers sets of items that approximate commercially available personality inventories such as the NEO-PI-R (McCrae & Costa, 1992), California Psychological Inventory (CPI: Gough & Bradley, 1996), and the Multidimensional Personality Questionnaire (MPQ; Tellegen, in press).

McCrae and Costa's five-factor theory of personality (FFT). Within the last decade McCrae & Costa (1999) formulated a theory based on the five factor model. The Five Factor

www.manaraa.com

Theory of Personality (FFT) conceptualizes the whole personality system placing traits at the center of human behavior. McCrae & Costa characterize the personality system as the "dynamic psychological organization that coordinates experience and action" (pp. 142). The FFT represents an attempt to conceptualize the role of traits in personality development and the system's operation (Allik & McCrae, 2002). The FFT takes care to distinguish between Characteristic Adaptations and Basic Tendencies (Allik & McCrae, 2002; McCrae & Costa, 1999). Traits are conceptualized and identified as abstract Basic Tendencies that are rooted in genetics and can only be inferred from behavior (Allik & McCrae, 2002), while Characteristic Adaptations (i.e., habits, values, attitudes, skills, schemas, relationships) directly guide our behavior but are shaped by traits or our Basic Tendencies (Allik & McCrae, 2002; McCrae & Costa, 1999). The most controversial assertion by the FFT is that traits are completely endogenous and change only in response to biological inputs or intrinsic maturation (Allik & McCrae, 2002; Roberts, Wood, & Smith, 2005).

While McCrae & Costa (1999) grant that they do not really suppose that traits are endogenous, completely immune to the effects of the environment, they do assert that it represents the most parsimonious path to the truth of the development of the personality system. They cite the theory's ability to account for the relative stability of personality in adulthood, the similarity of personality development across cultures, the limited role of parent's influence in personality development (Allik & McCrae, 2002; Rowe, 1994) and even human-like personality traits that seem to be present in animals (Allik & McCrae, 2002; Gosling, 2001). Roberts et al., (2005) claim that the available evidence does not support the notion that traits are completely endogenous and immune to environmental influences. They assert that cross-cultural comparison studies that have shown that personality seems to

www.manaraa.com

develop in similar ways across cultures do not provide definitive evidence for the FFT, as these findings also support the influence of environmental effects (Roberts et al., 2005). According to Roberts et al., the genetic evidence seems to contradict the claims of the FFT, as the expression of genes seems to change over the life course and there is no reliable overwhelming evidence from heritability studies that shows that personality accounts for differences better than the environment.

The utility of the FFT should not be overlooked as its postulates are very helpful in organizing and formulating hypotheses (Allik & McCrae, 2002). McCrae & Costa even allow that their fundamental postulate may in fact be wrong, however they argue that its fundamental utility as a guiding force should lead us to a better understanding of traits. For our purposes, the basic principles involved in FFT's personality system are not controversial (Allik & McCrae, 2002). One would likely not argue that people develop value systems that guide our behavior in given situations, or that attitudes play a significant role in guiding our behavior (Allik & McCrae, 2002; McCrae & Costa, 1999). The interesting piece of this theory is the idea that our Basic Tendencies (i.e., personality traits) directly influence our Characteristic Adaptations (e.g., attitudes and outcome expectations).

Applying the FFT to the Help-Seeking Model

If we apply this principle to Vogel and Wester's (2003) help-seeking model, it can be seen that according to the FFT, traits will influence outcome expectations and attitudes, and in turn influence behaviors (Allik & McCrae, 2002; Côté & Moskowitz, 1998; McCrae & Costa, 1999). Going back to Ajzen and Fishbein's (1980) TRA, personality is seen as a moderator (*see footnote page 43) of the relationships between the variables in the model, meaning it will help better explain the relationship between the variables. When personality

www.manaraa.com

traits conceptualized as the Big Five are introduced as a variable in Vogel and Wester's model of help-seeking, we would expect the Big Five to play a moderating role in the relationship between public stigma and self-stigma. Concurrently, the Big Five should also moderate the relationship between self-stigma and one's attitudes towards seeking counseling. This is also consistent with McCrae and Costa's FFT, as attitudes and self-stigma can be thought of as Characteristic Adaptations, which explain how individuals "react to their environment by evolving patterns of thoughts, feelings, and behaviors that are consistent with their personality traits and earlier adaptations" (McCrae & Costa, 1999, pp. 144). Characteristic Adaptations then reflect the enduring core of an individual, which is to say they reflect one's traits (McCrae & Costa, 1999). If this is the case, then it seems necessary to study the role of the Big Five in how one goes about deciding to seek help.

*Footnote: Ajzen and Fishbein (1980) seem to have incorrectly applied the term *mediator* to the role of personality in their Theory of Reasoned Action. According to Barron and Kenny (1986) the definition of a mediator is "[a variable that functions] to the extent that it accounts for the relation between the predictor and the criterion" (pp 1176), while the definition of a moderator is "a qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (pp. 1174). It seems according to the explanation Ajzen and Fishbein give of the relationship between personality variables and attitudes and behavior, personality is indeed a moderating variable and not a mediating one when Barron and Kenny's definition is applied, as personality is seen as external to the TRA model.

www.manaraa.com

Statement of Purpose

It was previously stated that personality is thought to determine how one perceives and reacts to their environment, and has been found to be relatively stable over time. Though this statement is not without controversy (Donnellan, Conger, & Burzette, 2007; McCrae & Costa, 1999; Neyer & Lehnart, 2007; Roberts, Wood, & Smith, 2005; Saucier & Goldberg, 1996), it is widely accepted and assumed on slightly varying levels by leading personality theorists and researchers (Donnellan et al., 2007; McCrae & Costa, 1999; McCrae & John 1992; Roberts & Del Vecchio, 2000). Those with certain personality characteristics or traits are likely to react to a stimulus in their environment in a different manner than someone who possesses dissimilar personality traits (Allik & McCrae, 2002; Caspi, Roberts, & Shiner, 2005; McCrae & Costa, 1999; McCrae & John, 1992). According to a preponderance of personality research, there are five main, somewhat abstract, personality dimensions that have consistently emerged from factor analysis conducted in empirical research (Allik & McCrae, 2002; Caspi et al., 2005; Costa & McCrae, 1988; Goldberg, 1981, 1990, 1992, 1993, 1999; John & Srivastava, 1999; McCrae & Costa, 1999; McCrae & John, 1992, Saucier, 1997; Tupes & Christal, 1961/1992). These five main dimensions are commonly known as the Big Five and have been given varying labels by different researchers, but regardless of label, they are generally thought to represent very similar dimensions of personality. According to McCrae and Costa (1999), the Big Five summarizes much of what we know about personality and form the context for specific behavior and individual lives.

Given the pervasive and somewhat stable nature of personality (Donnellan et al., 2007; McCrae & Costa, 1999; McCrae & John 1992; Roberts & Del Vecchio, 2000), it seems that one's personality would likely play a role in the relationship of stigma – both public and

www.manaraa.com

self – and one's attitudes towards counseling, which leads to willingness and intention to seek help from a professional mental health worker. Self-stigma is highly personal, and placed upon one self based upon how one perceives their environment and the messages it relays, as well as the amount of public stigma they in turn perceive (Corrigan, 2004; Rüsch, Angermeyer, & Corrigan, 2005). Since it is thought that personality traits influence how one perceives their environment, it is probable that personality plays a key role in how much self-stigma one feels. In the context of the Big Five personality dimensions, it is likely that certain personality dimensions are associated with how much self-stigma one will report feeling. Also, it is likely that personality traits affect how much public-stigma one perceives and will report feeling. Since the amount of self-stigma one perceives and feels is a direct result of the amount of public stigma that one perceives (Vogel, Wade, & Hackler, 2007), it may be that personality intervenes in multiple instances in the way that one is influenced by stigma.

Personality traits may predispose one to feel and perceive the effects of stigma negatively, and the opposite may be true as well, in that certain personality traits may help guard against the damaging effects of stigma. Based on dimensions of personality, it may be that elevations or depressions of certain Big Five dimensions, or combinations of different highs and lows may leave one more prone to the ill effects of stigma or it may serve as a protection against stigma's effect, thereby leading to more positive attitudes about seeking help, and increasing one's intention to seek counseling. It is important to clarify that it may not be the case that one is not actually stigmatized, but that one's personality may allow the individual to ignore or resist other's negative perceptions of them.

www.manaraa.com

Specific Purpose of this Project

The purpose of this project is to investigate the role of personality traits in the relationship between stigma and one's attitudes towards seeking professional assistance from a mental healthcare provider. Specifically, given the pervasive nature of personality traits on one's experiences, attitudes, and perceptions of the environment, this project intends to investigate the impact the Big Five personality factors have on the amount of stigma, both public and self- stigma, one perceives and internalizes, and the Big Five's role in the relationship between stigma and one's attitudes towards counseling. It is logical to think that personality traits would have an effect on one's intentions to seek help as Goldberg (1999) has found that the Big Five can predict specific behaviors.

Moreover, this project is an extension of the work done by Vogel, Wade, Wester and colleagues in investigating the role of stigma's influence in people's willingness and intention to seek psychological help. Further, it is an attempt to provide a more complete understanding of the help seeking process and the probable vital role that personality traits play in this process. The study may aid our understanding of why people are not seeking help when they might benefit from available psychological services.

Using Vogel and Wester's (2003) model of help seeking based on Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA), it is possible to begin to conceptualize the relationships between personality traits, stigma, and attitudes towards seeking counseling. According to the theory of reasoned action, personality traits are external variables that are likely to *moderate* the effects that attitude has on a person's intention to engage in a certain behavior (Ajzen & Fishbein, 1980; Baron & Kenny, 1986; Eagly & Chaiken, 1993). It seems likely that in Vogel and Wester's (2003) model of help seeking, personality will play a

www.manaraa.com

similar role, in that it will moderate the relationship between public and self-stigma, as well as moderate the relationship between stigma and people's attitudes towards counseling. More specifically, it seems that elevations or depressions of certain Big Five dimensions will have more strength in their moderation of these relationships, while other Big Five dimensions are likely to have less of an effect. Due to the Big Five's orthogonal relationships with each other, seeking to explore the effects of combinations of factors may be beyond the scope of this project. Thus this project will conceptualize the Big Five dimensions as five separate sources of variation.

In order to effectively and thoroughly explore and test the moderating effects that personality might have on the relationships between the public stigma and self-stigma of help-seeking and attitudes towards counseling, two dimensions of the Big Five will be selected. Using all five dimensions would prove to be unwieldy for this dissertation considering that this project is largely exploratory, and no other researchers have previously investigated personality's effects on the prior mentioned relationships. Since the literature suggests that each dimension of the Big Five is theoretically independent from the others, the proposed model would have to be tested separately for each personality dimension. Additionally, it is possible that one or two dimensions will moderate the public stigma/self-stigma and the self-stigma/attitudes towards counseling relationships to a greater degree than the others. For the sake of brevity and to allow for a more thorough examination of the complex relationships associated with the variables included in this study, the researchers decided to focus on two dimensions of the Big Five. The two dimensions selected for examination were based on the descriptions of the dimensions found in the literature, which are derived from empirical studies that relate these dimensions to behavioral and emotional

www.manaraa.com

traits. Additionally, for the sake of simplicity and brevity the full model of help-seeking was not tested as testing each of the three moderations between public stigma, self-stigma, attitudes towards counseling, and intentions to seek counseling would prove to be unwieldy. It was decided that testing personality's interaction with public stigma as it relates to self-stigma and personality's interaction with self-stigma as it relates to attitudes towards counseling would provide a sufficient test of the moderating effects of personality on the model of help-seeking. This conclusion was reached with the knowledge of the well-established notion that attitudes lead directly to intentions (Ajzen & Fishbein, 1980; Ajzen, 1988; Vogel, Wade, & Hackler, 2007).

Prevailing Research Questions and Related Hypotheses

Neuroticism. Based on a review of the literature, and descriptions found in McCrae and Costa (2003), it seems that Neuroticism would likely produce the greatest interaction in the relationship between the public stigma of seeking help and the self-stigma of seeking help, in that it would likely amplify public stigma's effects. Individuals who score high on Neuroticism have a propensity to feel negative emotions and are submissive emotionally and behaviorally (Côté & Moskowitz, 1998; McCrae & Costa, 2003). The facets of Neuroticism include self-consciousness, as they are more prone to the emotions of shame and embarrassment. They are also prone to negative emotionality, which is likely to interfere with the neurotic individual's ability to cope with their problems. Additionally, high Neuroticism scorers worry about others' opinions of them and are defensive and thin-skinned (McCrae & Costa, 2003). It seems that all of these predispositions would make an individual more vulnerable and susceptible to the damaging effects of public stigma. Thus, these

www.manaraa.com

predispositions would have them internalize the public stigma, resulting in a higher reported level of self-stigma.

Similarly, it seems likely that Neuroticism is likely to amplify the effects of self-stigma on one's attitudes towards seeking counseling. As stated previously, individuals who score high on Neuroticism seem to experience unpleasant affect, shame and embarrassment. The propensity towards having an overall more negative disposition makes it more likely that high scorers are likely to endorse negative attitudes towards counseling at a greater rate than lower scorers. Additionally, since high scorers should report higher levels of self-stigma, it seems likely then that this higher level of self-stigma brought on by their propensity towards self-consciousness would make them more likely to hold negative attitudes towards counseling.

Extraversion. Just as Neuroticism is likely to amplify the effects of public stigma, it seems that Extraversion is likely to be the dimension that might best act as a buffer or insulate an individual from the effects of public stigma. Individuals who score high on Extraversion tend to experience positive emotions and are gregarious and assertive. This assertiveness leads extraverts to be more natural leaders, as they will easily take charge and are much more willing to make up their own mind and they will readily express their own thoughts and feelings (McCrae & Costa, 2003). It is thought that this willingness to be expressive and independent will act as a buffer, and allow the person to resist the effects of public stigma.

Extraverts tend to have more positive attitudes and experience more positive affect (Côté & Moskowitz, 1998) and just as Extraversion may act like a buffer in the public stigma/self-stigma relationship, Extraversion may lead a person to report more favorable

www.manaraa.com

attitudes towards counseling. This propensity towards having an overall more positive disposition makes it more likely that high scorers are likely to endorse positive attitudes towards counseling more so than lower scorers. Additionally, since high scorers should report lower levels of self-stigma, it seems likely then that this lower level of self-stigma brought on by their propensity towards positive emotionality and attitudes would make them more likely to hold positive attitudes towards counseling.

Primary Hypotheses

The main hypothesis of this study is that personality will play a moderating role in the relationship between the public stigma of seeking help and the self-stigma of seeking help, as well as the relationship between self-stigma and attitudes towards counseling. This hypothesis is based upon Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA), from which the Model of Help-Seeking (Vogel & Wester, 2003) was drawn. In the TRA, personality plays a moderating role in the relationships between expected outcomes and attitudes.

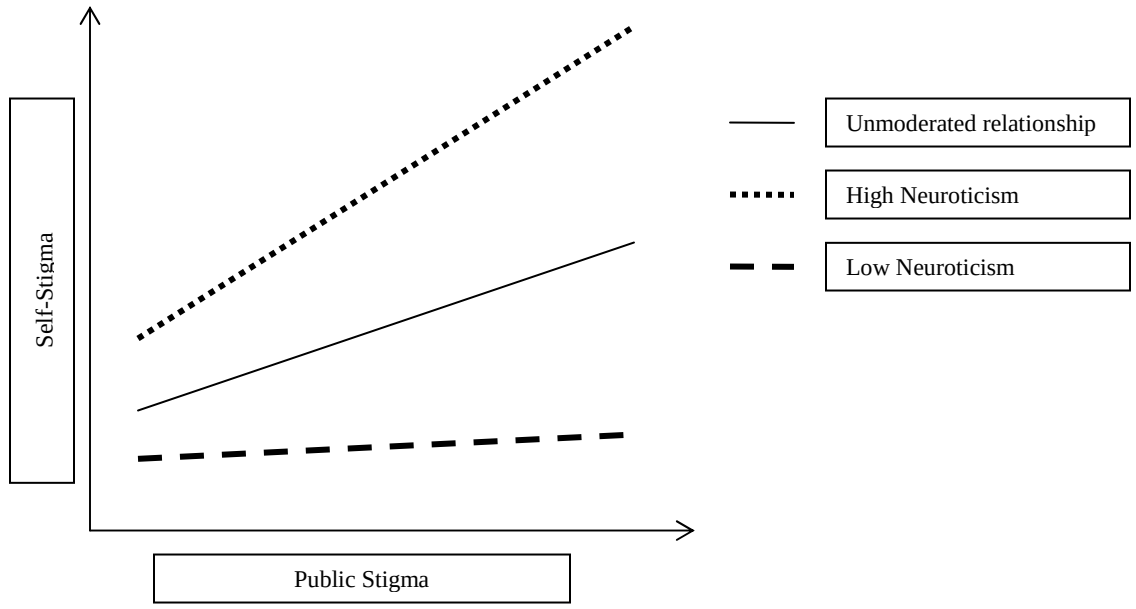
Each personality dimension can be thought of as a continuum with two poles, where there is a high and low pole. Those who are high on Neuroticism tend to be thin-skinned, are prone to negative emotions and guilt, irritable, and basically anxious, while those who are low on Neuroticism tend to be well-adjusted, kind, prone to feel positive emotions, easy going, and are not self-conscious. Those who are high on Extraversion tend to be talkative, gregarious, assertive, cheerful, and socially poised while Introverts (low on Extraversion) tend to be cold (but not hostile), loners, emotionally bland, avoidant of close relationships and not particularly cheerful.

www.manaraa.com

Hypothesis One. Keeping the previous discussion in mind, it can be hypothesized that Neuroticism is likely to moderate the relationship between public stigma and self-stigma in such a way as to amplify or increase the statistically positive relationship between public stigma and self-stigma. Those who score high on Neuroticism will internalize public stigma to a greater degree, in the form of higher levels of self-stigma. Whereas, individuals with lower scores on Neuroticism are less self-conscious and susceptible to what people think of them. This will result in internalizing less public stigma, in the form of lower levels of self-stigma for those low on Neuroticism (see Figure 3 for a graphical depiction of the hypothesized relationships).

Figure 3

Hypothesis 1: Proposed moderating effect of Neuroticism in the relationship between public stigma and self-stigma



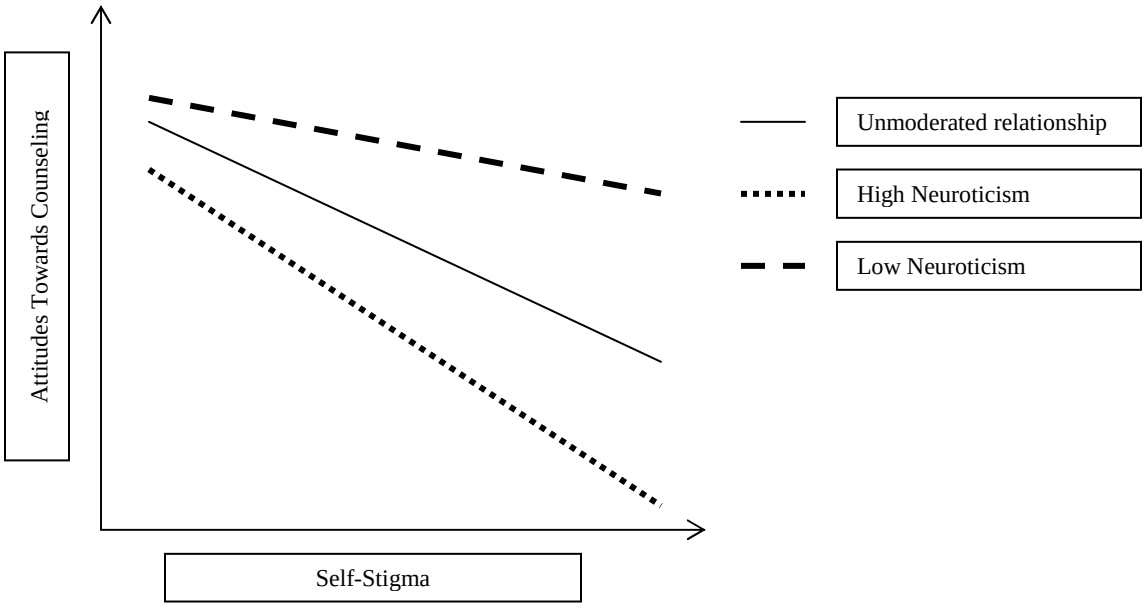
Hypothesis Two. Likewise, the presence of self-stigma towards seeking help has been shown to be directly linked to one's attitudes towards counseling (Vogel, Wade, & Hackler,

www.manaraa.com

2007). It can be hypothesized that Neuroticism may play a moderating role between self-stigma and attitudes towards counseling in such a way as to amplify or increase the statistically negative relationship. High scorers on Neuroticism will have a higher level of internalized self-stigma, found in the form of unfavorable attitudes towards counseling. Whereas, individuals with lower scores on Neuroticism will have lower levels of self-stigma found in the form of more favorable attitudes towards counseling (see Figure 4).

Figure 4

Hypothesis 2: Proposed moderating effect of Neuroticism in the relationship between self-stigma and attitudes towards counseling



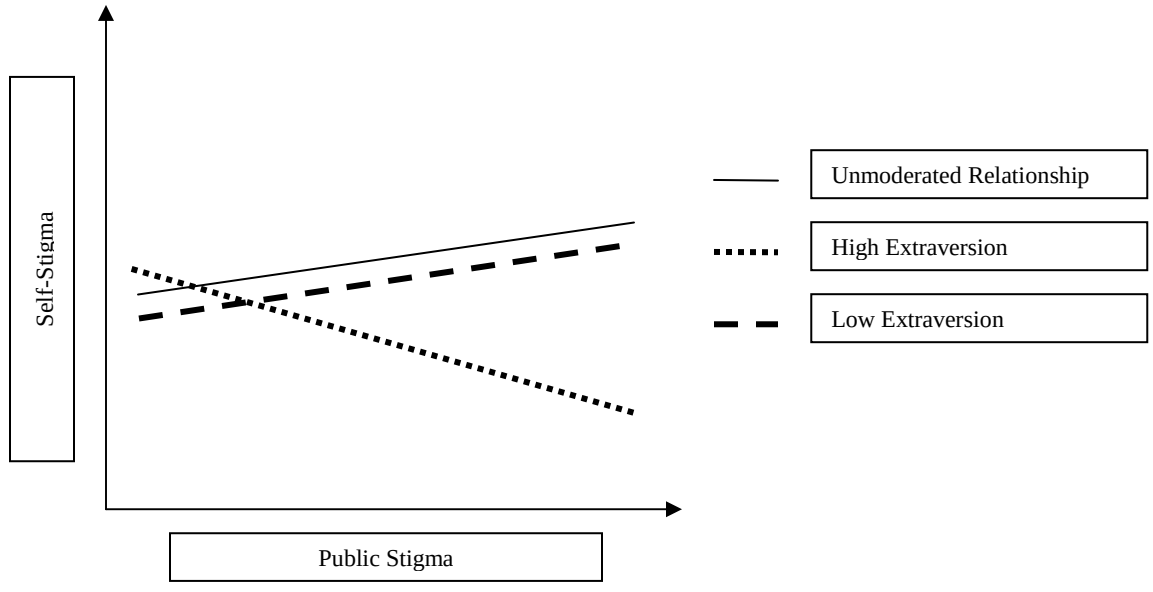
Hypothesis Three. Additionally, it can be hypothesized that high scores on Extraversion will moderate the relationship between public stigma and self-stigma in such a way as to possibly act like a "buffer." Meaning those high on Extraversion will report lower levels of self-stigma compared to those low on Extraversion, despite perceiving similar levels

www.manaraa.com

of public stigma. The relationship is such that they are likely to perceive and report similar levels of public stigma, however their assertiveness, propensity to lead, willingness to share their thoughts and feelings, and tendency to feel positive emotions will allow them to effectively resist internalizing any public stigma which should result in reports of lower levels of perceived self-stigma. Whereas, low scores on Extraversion should not be particularly associated with any "buffering" effect. It might be postulated that their submissive traits would leave them vulnerable to internalizing public stigma and thus report greater self-stigma; however it is likely that this would be effectively counteracted by their emotional blandness as they are less sensitive to emotions, or the internalization of public stigma, of any kind and thus likely to not feel high levels of self-stigma (see Figure 5).

Figure 5

Hypothesis 3: Proposed moderating effect of Extraversion in the relationship between public stigma and self-stigma

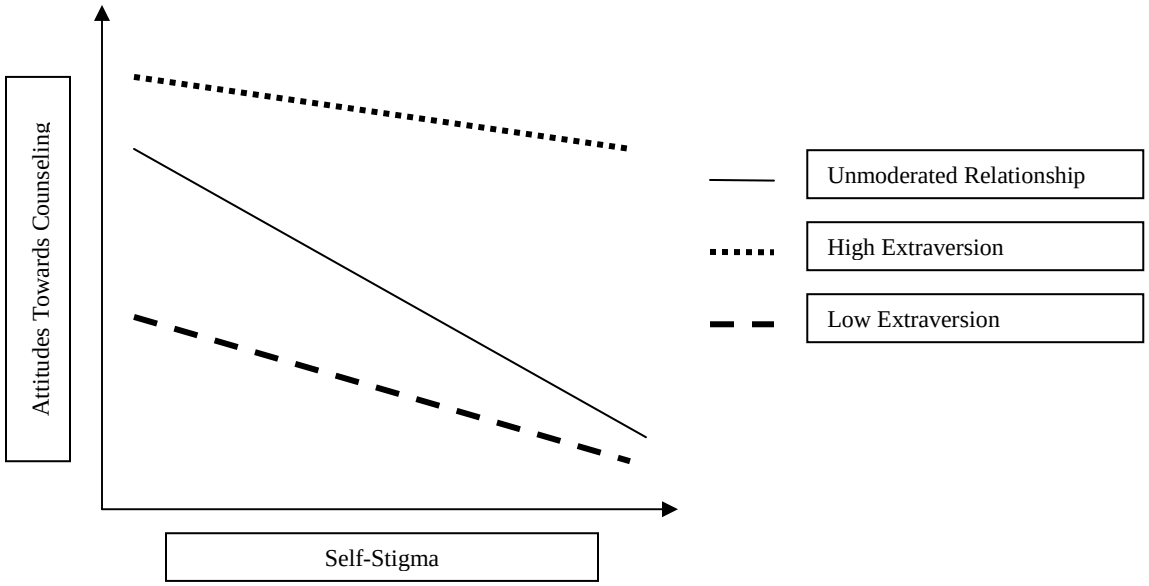


www.manaraa.com

Hypothesis Four. Furthermore, it can be hypothesized that high scores on Extraversion will moderate the relationship between self-stigma and attitudes towards counseling in such a way as to act like a "booster." Those who score high on Extraversion are more likely to report more positive attitudes, and therefore will be more likely to report more positive attitudes towards counseling. Additionally, their propensity to lead, assertiveness, and openness have already reduced the effects of public stigma leading to lowered self-stigma. Thus high scoring Extraverts should report more positive attitudes towards counseling. Just as low scorers on Extraversion should not be particularly associated with any "buffering" effect in the public stigma/self-stigma relationship, low scores should not be associated with reports of positive attitudes towards counseling (see Figure 6).

Figure 6

Hypothesis 4: Proposed moderating effect of Extraversion in the relationship between self-stigma and attitudes towards counseling



www.manaraa.com

Methods

Participants

Participants for this study were 874 undergraduate students enrolled in introductory psychology classes at a large Midwestern University and were recruited from the Psychology Research Pool. The participants were told that the purpose of the research was "to explore the effect personality may have on the relationship between self-stigma and public stigma, as well as attitudes towards counseling." Data editing procedures identified respondents with blank responses, those with excessive missing data responses (i.e., more than 4.8 percent of their responses were omitted), and duplicate responses (i.e., students who participated more than one time, which were immediately identified by their name and student identification number before that information was separated from the data set). When these persons were removed from the data (n = 40), 784 participants remained. This procedure resulted in a response rate of 89.7%. The remaining sample consists of 481 female participants (61.4%) and 302 male participants (38.5%). The participants mean age was 19.55 years (SD = 2.11, range = 18 – 36 yrs.). First year students were the largest group of participants (56.4%); of the remaining participants, 24.4% were second-year students, 8.04% were third-year students, 6.6% were fourth-year students, 3.3% were fifth-year students, and 0.7% were sixth-year students. Ethnic identification was predominantly White Caucasian (86.6%), followed by Asian or Pacific Islander (3.57), Black or African American (2.3%), Hispanic-Latino (2.2%), Native American (0.3%), Alaskan Native or Inuit (0.1%), and others (5.0%), which is representative of the region and the university. About a third of the participants (29.2%) indicated that they had at one point in the past sought counseling or psychological

www.manaraa.com

services; while only 4% shared that they are currently seeking counseling or psychological services.

Measures

Personality. The Big Five personality traits of Neuroticism and Extraversion were measured using the proxy scales of Costa and McCrae's NEO-PI-R from the International Personality Item Pool (IPIP NEO; Goldberg, 1999; Johnson, 2005; see Appendix A; note: data was collected for each of the Big Five domains). The total scale is comprised of 100 items, with each personality domain scale being made up of 20 items with 10 items being positively keyed and 10 items negatively keyed for each domain scale. Participants are asked to rate each item on a 5-point Likert type scale where 1 is *very inaccurate* and 5 is *very accurate,* to the degree to which they believe statements describe them. An example of an item is "*am filled with doubts about things."* Scores for the IPIP NEO were obtained for each personality dimension, with higher scores representing a stronger presence of that particular personality trait, however only Neuroticism and Extraversion were used for this particular study (see Appendix B for results regarding the other three domains).

Internal consistency estimates available on IPIP's website (http://ipip.ori.org) were .91 for both the Neuroticism and Extraversion scales. For the present study, the coefficient alpha was .93 for the Neuroticism scale and .93 for the Extraversion scale. The mean correlation of the IPIP NEO to the original NEO-PI-R is .73, and is .93 when the correlations are corrected for scale reliability. Using hierarchical regression, Goldberg (1999) demonstrated that the IPIP NEO was more predictive of risk avoidance and health related practices than the original NEO scale sets. Buchanan, Johnson, and Goldberg (2005) demonstrated the IPIP NEO's ability to correlate with certain behaviors, such as having a

www.manaraa.com

traffic accident, starting a conversation with a stranger, or letting work pile up, is in the expected direction and similar in magnitude to the original NEO. Further discussion of the IPIP NEO scale development can be found in Goldberg, 1999.

Self-stigma. Self-stigma was measured using the Self-Stigma of Seeking Help Scale (SSOSH; Vogel, et al., 2006; see Appendix A). The SSOSH consists of 10-items, with five items being positively worded and five items being negatively worded, and thus reverse-keyed. Each item is rated 1 (*strongly disagree*) to 5 (*strongly agree*). An example of a reverse-keyed item is "*my self-confidence would NOT be threatened if I sought professional help*," while a positively worded item example is "*if I went to a therapist, I would be less satisfied with myself.*" For the SSOSH, higher scores are intended to reflect a greater level of self-stigma, while presumably lower scores reflect less self-stigma. According to Vogel, et al. (2006), estimates of internal consistency range from .86 to .90, and Vogel, Wade, and Hackler (2007) report an internal consistency of .89. The internal consistency of the scores for the current sample was .91. The two-week test-retest reliability was .72 in college student samples (Vogel, et al., 2006). According to Vogel, et al. (2006), the SSOSH was initially found to be unidimensional based upon principle axis factor analysis. The investigators then proceeded to replicate this finding using confirmatory factor analysis. Evidence for validity is provided by the SSOSH's correlations with attitudes towards seeking professional help (r's = -.53 to -.63) and intentions to seek counseling (r's = -.32 to -.38).

Perceived public stigma. Perceived public stigma was measured with the Stigma Scale for Receiving Psychological Help (SSRPH; Komiya, Good, & Sherrod, 2000; see Appendix A). The SSRPH was developed to measure how stigmatizing it is for individuals to receive psychological help (Komiya et al., 2000). The SSRPH is a five item measure with a

www.manaraa.com

four-point Likert scale (0 = *Strongly Disagree* to 3 = *Strongly Agree*), with higher scores indicating a greater perception of stigma associated with receiving psychological help. A sample item from the SSRPH is "*People tend to like less those who are receiving professional psychological help*." Komiya, et al. (2000) indicated the SSRPH has an acceptable level of internal consistency with a coefficient alpha of .72, whereas the current sample's internal consistency was .75. The SSRPH's negative correlation with the ATSPPH-S ($r = -0.40$, $p < .0001$; Fischer & Farina, 1995; Komiya et al., 2000) provides some evidence for its construct validity. The negative correlation is desirable as higher scores on the SSRPH indicate a higher degree of perceived stigma while higher scores on the ATSPPH-S indicate a lesser degree of perceived stigma associated with seeking psychological services (Komiya, et al, 2000).

Attitudes towards seeking professional psychological help. The Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (ATSPPH-S; Fischer & Farina, 1995; see Appendix A) was employed to measure participants' attitudes regarding seeking professional psychological help. The ATSPPH-S is intended to measure subject's explicit attitudes toward seeking mental health services, with potential consumers of mental health services being the intended respondents (Fischer & Farina, 1995). The ATSPPH-S scale consists of 10 items with four-point Likert type rating scales (1 = strongly disagree, 4 = strongly agree). Five of the items are stated in a positive manner, and the other five items are stated in a negative manner. The negatively stated items are then reversed scored so that when the points are summed up, a higher score indicates a more positive attitude toward seeking mental health services. Theoretically, one could have a total score from 10 (a negative attitude) to 40 (a positive attitude; Fischer & Farina, 1995). Fischer and Farina

www.manaraa.com

(1995) proposed that the ATSPPH-S consisted of one factor. The total scale internal reliability coefficient of the ATSPPH-S, as reported by Fischer and Farina, is .84 using Cronbach's alpha, while test-retest reliability estimates of the ATSPPH-S for a testing interval of one month was .80. Good, Dell, and Mintz (1989) reported the internal consistency of the ATSPPH-S using Cronbach's alpha as .84. The internal consistency of the scores of the current sample was .84.

Psychological distress. The HSCL-21 consists of 21 items rated on a four point scale ranging from 1 (*not at all*) to 4 (*extremely*). Psychological distress was measured with the Hopkins Symptoms Checklist-21 (HSCL-21; Green, Walkey, McCormick, & Taylor, 1988; see Appendix A). The HSCL-21 is a widely used measure of psychological distress and is an abbreviated version of the Hopkins Symptom Checklist (Derogatis, Lipman, Richels, Uhlenhuth, & Covi, 1974). The HSCL-21 is a 21 item measure in which the respondent is asked to rate with a four-point Likert scale (1 = *not at all* to 4 = *extremely*) how they have felt over the past seven days, with higher scores indicating a greater sense of psychological distress. A sample item from the HSCL-21 is "*feeling blue*." The HSCL-21 has been shown to have a replicable three-factor structure (i.e., somatic, general, and performance distress), however it is used mostly as a single-factor scale to reflect 'total distress.' According to Deane, Leathem, & Spicer (1992), the HSCL-21 has been shown to be related to counseling outcome measures and can detect changes across therapy. Green et al. (1988), indicated the full scale HSCL-21 has a high level of internal consistency with a split-half reliability coefficient of .91 and an internal consistency alpha of .90. The current sample's internal consistency coefficient alpha was .92. See Table 1 for a listing of measures used in this study.

www.manaraa.com

Table 1

Scoring of measures used

Concept/Construct	Variable	Measure	Scoring
Personality	Big Five personality traits	IPIP NEO, 100 items (Goldberg, 1999)	Summed, with 50 items reverse scored
Stigma	Public Stigma	SRPPH, 5 items (Komiya, Good, & Sherrod, 2000)	Summed to reach a total score
	Self-Stigma	SSOSH, 10 items (Vogel, Wade, & Haake, 2006)	Summed to reach a total score, 5 items reverse scored
Attitude	Attitudes towards counseling	ATSPPH-S, 10 items (Fischer & Farina, 1995)	Summed to reach a total score, 5 items reversed scored
Distress	Psychological Distress	HSCL-21, 21 items (Green, Walkey, McCormick, & Taylor, 1988)	Summed to reach a total score

*Footnote: Full names of scales are: IPIP NEO, *International Personality Item Pool NEO*; SRPPH, *Stigma Scale for Receiving Psychological Help*; SSOSH, *Self-Stigma of Seeking Help Scale*; ATSPPH-S, *Attitudes Towards Seeking Professional Psychological Help, Short Form*; HSCL-21, Hopkins Symptom Checklist - 21.

Procedure

Given that the effect sizes for interactions are usually small in magnitude, an a priori power analysis was carried out to determine the appropriate sample size needed to detect small effects. The program G*Power (Faul, Erdfelder, Lang, & Buchner, 2006 & 2007) was used to calculate the power analysis. The parameters of the test were set at an effect size of $f^2 = .05$, α error probability = .01, and a power $(1 - \beta) = .95$. With these parameters the power analysis indicated that a sample size of n = 523 was needed in order to detect small effect sizes commonly found in interactions.

Before data collection commenced, human subjects review and approval from Iowa State University's Institutional Review Board was sought and granted (IRB ID 07-619, approved December 10, 2007) in accordance with all institutional, as well as applicable APA Ethical Standards and guidelines. Volunteer participants were recruited from the Psychology

www.manaraa.com

Department's research subject pool, and the sample was comprised of students in introductory level psychology classes. Participants became aware of the study and volunteered using the SONA system, a computerized information management system used by the Psychology Department. The SONA system quickly and efficiently provides information about research participation opportunities to its students. The system also accords participants extra credit in their respective classes for participation. Before completing any questions, participants who volunteered were given an informed consent document assuring them that participation is completely voluntary, private, and confidential. Any identifying information attached to the subject's data was immediately removed and separated from the complete data set after duplicate responses were identified and deleted. After completing the informed consent and indicating that they were voluntarily participating, participants proceeded to answer the questions. Data were collected online via Survey Monkey (www.surveymonkey.com), a secure online survey hosting service, with the student accessing the study through SONA. After the completion of all questions each participant was debriefed and given their class research credit. Consistent with department and IRB guidelines, participants had the option of ceasing participation at any time and were still given credit for their effort.

www.manaraa.com

Results

Means, standard deviations, and intercorrelations among the examined variables are presented in Table 2. Descriptive statistics, internal consistency estimates, and inter-item correlations for each scale are presented in Appendix B. A critical assumption underlying the maximum likelihood procedure is that the data is distributed normally. Univariate normality was indicated for the measured variables as there was a normalized distribution pattern for all scales, additionally each scale had minimal skewness and kurtosis indicators (see Table 2), and all scales are highly reliable (α's range from .75 to .93). The zero-order correlations among the variables indicated that Neuroticism and Extraversion were both weakly related to public stigma, self-stigma, and attitudes towards counseling. However, most of the relationships were highly significant. Correlations among the primary help-seeking model variables (i.e., public stigma, self-stigma, and attitudes towards counseling) were all in the expected direction as well as magnitude (see Table 2).

Table 2

Summary Statistics and Intercorrelations among primary variables

	Variable	2	3	4	5	M	SD	α	Skewness	Kurtosis
1.	Neuroticism	-0.48***	0.12***	-0.02^{ns}	0.17***	53.01	13.60	0.93	0.25	-0.04
2.	Extraversion		-0.18***	-0.11**	0.04^{ns}	68.89	12.12	0.93	-0.49	0.08
3.	SSRPH			0.53***	-0.38***	11.38	2.55	0.75	0.03	0.69
4.	SSOSH				-0.66***	26.5	7.77	0.91	0.26	-0.14
5.	ATSPPH				-	26.04	4.68	0.84	-0.12	1.05

** p < .01. *** p < .001; N = 784

To test the main hypothesis that personality moderates the relation between public stigma and self-stigma as well as the relation between self-stigma and attitudes, Barron and Kenny's (1986) recommendation to use hierarchical multiple regression to test moderating

www.manaraa.com

effects was followed. As discussed previously, due to the conceptual orthogonal nature of the Big Five (McCrae & Costa, 2003), two separate, yet identical analyses were conducted, one for each dimension of personality tested (i.e., Neuroticism and Extraversion). Following Aiken and West's (1991) recommendation for using centered variables (i.e., standardized so that their means are zero and their standard deviations are one), each predictor and moderator variable was centered to reduce multicollinearity between the interaction term and the main effects when testing for moderation. In each of these analyses, the main effects (e.g., public stigma and Neuroticism) were entered in Step 1 and the interaction term, calculated using the centered variables (e.g., public stigma x Neuroticism), was entered in Step 2 of a hierarchical multiple regression. A statistically significant change in R^2 for the interaction term indicates a statistically significant moderator effect. Additionally, descriptive statistics were obtained for each regression equation to verify that the standardized variables had a mean of 0 and a standard deviation of 1. Further, correlations among all of the variables in the equation were also obtained to ensure that as a result of standardizing the continuous variables, the interaction terms and its components were not highly correlated as multicollinearity can cause both interpretational and computational difficulties.

Neuroticism Regression Analysis

Results of the two simple two-way interaction regressions with Neuroticism as a moderator are presented on page 65 in Table 3. The interaction between public stigma and Neuroticism was significant while the interaction between self-stigma and Neuroticism was not statistically significant. Indicating that Neuroticism moderates the relationship between public stigma (measured by the SSRPH) and self-stigma (measured by the SSOSH) in the help-seeking model, while Neuroticism does not seem to moderate the relationship between

www.manaraa.com

Table 3

Testing the moderating effect of Neuroticism on the help seeking model using hierarchical multiple regression

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	Adj. R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
Neuroticism	-0.76	-0.10	0.20	-3.78***	0.29	0.29	0.29	146.68***	2, 728
SSRPH	4.15	0.54	0.20	20.84***					
Step 2									
Neuroticism x SSRPH	-0.42	-0.06	0.20	-2.04*	0.29	0.29	0.004	4.17*	1, 727
Attitudes									
Step 1									
Neuroticism	0.77	0.16	0.67	1.15***	0.47	0.47	0.47	317.05***	2, 724
SSOSH	-3.14	-0.66	0.67	-4.68***					
Step 2									
Neuroticism x SSOSH	-0.14	-0.03	0.11	-1.21^{ns}	0.47	0.47	0.00	1.46^{ns}	1, 723

* p < .05. ** p < .01. *** p < .001.
Note: SE's obtained in step 1 have been adjusted to make use of the mean square errors (MSE) obtained in the interaction

self-stigma and attitudes towards counseling (measured by the ATSPPH). In the first regression, with self-stigma as the criterion, the unstandardized regression coefficient (*B*) for Neuroticism was -0.76 (p < .001), meaning those who indicated higher Neuroticism reported less self-stigma. As the perception of public stigma increased, self-stigma increased as well (*B*= 4.15, p < .001). The unstandardized regression coefficient (*B*) is -0.42 (p < .05) for the interaction term, meaning as public stigma increases those with high Neuroticism reported less self-stigma compared to those with low Neuroticism. The R^2 change associated with the interaction term was .004, meaning it accounted for an additional 0.4% of the variance in self-stigma scores over and above the 29% explained by the first order effects of Neuroticism and public stigma.

In the attitudes towards counseling regression equation, the unstandardized regression coefficient (*B*) for Neuroticism was 0.77 (p < .001), meaning those who indicated higher

www.manaraa.com

Neuroticism reported favorable attitudes towards counseling. For self-stigma (SSOSH), B = -3.14 ($p < .001$), meaning those who felt more self-stigma reported unfavorable attitudes towards counseling, and B = -0.14 ($p = .228$) for the interaction term, meaning there was no significant effect of the interaction between self-stigma and Neuroticism on attitudes towards counseling.

Control Variable Analyses

Controlling for Gender. Several variables were analyzed as control variables. First, as gender has been known to play a role in ratings of stigma associated with seeking help (Vogel, Wade, & Haake, 2006; Addis & Mahalik, 2003), t-tests of the mean differences in the public stigma and self-stigma measures were conducted to check for gender differences. These tests indicated that men reported more public stigma associated with seeking psychological services (M = 11.76, SD = 2.50) than did women (M = 11.15, SD = 2.55), $t(769) = -3.25$, $p < .001$. Additionally, men reported more self-stigma associated with seeking psychological services (M = 27.95, SD = 7.99) than did women (M = 25.57, SD = 7.50), $t(758) = -4.15$, $p < .001$. Consequently, it was necessary to account for possible gender effects, which were controlled for in two follow-up hierarchical regression equations, the results of which are presented in Appendix B in Table B10. Following the recommendation of Frazier, Tix, and Barron (2004), gender, as a control variable, was entered into Step 1 of the subsequent hierarchical regressions, while the main effects were entered into Step 2, the moderation represented by the interaction term of the main effects was entered into Step 3, and, as emphasized by Cohen, Cohen, West, & Aiken (2003), Step 4 included the interactions between the covariates and other variables in the regression model to determine if the covariates are acting consistently across levels of the other variables. The omnibus F

www.manaraa.com

test for the fourth step was not significant for either the self-stigma or attitudes towards counseling regressions. While gender does have a significant effect on self-stigma (B = -1.17, $p < .001$) and attitudes towards counseling (B = 1.04, $p < .001$) initially, once it is controlled for, Neuroticism's moderating effects in the help-seeking model are still present.

Controlling for Prior Treatment. Additionally, it was thought that it would be likely that the subject having ever participated in psychological treatment could have an effect on the help-seeking model and would need to be controlled for. Therefore, t-tests of the mean differences in the public stigma and self-stigma measures were conducted to check for any differences having ever received psychological services might create. These tests indicated that those who report having never received psychological services reported more public stigma associated with seeking psychological services (M = 11.59, SD = 2.50) than did those who report ever having received psychological services (M = 10.88, SD = 2.59), $t(770) = -3.54$, $p < .001$. Additionally, those who have never participated in psychological treatment reported more self-stigma associated with seeking psychological services (M = 27.87, SD = 7.32) than did those who have (M = 23.33, SD = 7.32), $t(759) = -7.49$, $p < .001$. Accordingly, those who have ever sought treatment also reported more favorable attitudes towards counseling (M = 27.96, SD = 4.91) than those who have not participated in treatment (M = 25.26, SD = 4.36). Those who reported being in treatment reported higher levels of Neuroticism (M = 57.99, SD = 13.28) than those who have not been in treatment (M = 50.96, SD = 13.21), $t(758) = 6.66$, $p < .001$. Consequently, it was necessary to account for possible treatment effects, which were controlled for in two follow-up hierarchical regression equations, the results of which are presented in Appendix B in Table B11. The same procedures used to control for gender was used to control for ever having been in

www.manaraa.com

psychological treatment. The omnibus F test for the fourth step was not significant for the regression of self-stigma. While having been in mental health services does have a significant effect on self-stigma (B = -2.182, p < .001) initially, once it is controlled for, Neuroticism's moderating effects are still present.

In the regression of attitudes towards counseling, the omnibus F test for the fourth step is significant. Following Frazier, Tix, and Barron's (2004) recommendations, the t-tests related to the specific interactions were inspected. It was found that the significant t-test (*B* = -0.27, p < 0.05) is a three-way interaction between self-stigma, Neuroticism and having ever sought counseling indicating that there may there may be possible moderating effects that can be investigated further in future research (Frazier et al., 2004). Just as was previously found, there was no significant interaction between self-stigma and Neuroticism.

Controlling for Distress. The last variable controlled for was the participant's current level of distress, measured by the Hopkins Symptom Checklist - 21. A participant's current level of distress has been identified as a possible predictor (Vogel et al., 2006) and thus the same procedures used to control for gender and those who had previously sought help were used to control for distress. The results of the regression of self-stigma are presented in Appendix B in Table B12. As can be seen, the omnibus F test for the fourth step is significant (*p* = .05), indicating that possible additional variance is accounted for. However, examination of the individual interactions indicates that none of these account for a significant amount of variance in self-stigma. The omnibus F test for the fourth step was not significant for the regression of attitudes towards counseling. While distress does have a significant effect on attitudes towards counseling (B = .73, p < .001) initially, once it is controlled for, Neuroticism's moderating effects are still present.

www.manaraa.com

Gender, psychological distress, and a history of counseling were placed in the first step of a hierarchical regression of self-stigma onto public stigma with Neuroticism as a moderator to control for their effects. The second step consists of the main effects of Neuroticism and public stigma, while the interaction between the two was entered into the last step (see table 4). As can be seen from the table, after the effects of gender, psychological distress, and a history of counseling are controlled for, the interaction of Neuroticism and public stigma remains significant, $F(1, 702) = 4.86$, $p < .05$, $R^2 = .34$, adjusted $R^2 = .34$ and accounts for additional variance R^2 change = .01.

Table 4

Moderating effect of neuroticism while controlling for gender effects, psychological distress, and a history of counseling

	B	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Public Stigma									
Step 1									
Gender	-1.03	-0.13	0.29	-3.59***	0.09	0.08	0.09	21.84***	3, 705
Previous Treatment (PT)	-2.11	-0.25	0.31	-6.77***					
HSCL-21	-0.05	-0.01	0.28	-0.17 ^{ns}					
Step 2									
Neuroticism	0.02	0.003	0.31	0.08 ^{ns}	0.34	0.33	0.25	133.01***	2, 703
SSRPH	3.95	0.51	0.25	16.12***					
Step 3									
Neuroticism x SSRPH	-0.44	-0.07	0.20	-2.20*	0.34	0.34	0.01	4.86*	1, 702

* p < .05. ** p < .01. *** p < .001.
Note: SE's obtained in step 1 have been adjusted to make use of the mean square errors (MSE) obtained in the interaction

Plotting the interaction

To understand the form of the interaction, it was necessary to explore it further. In order to plot the interaction, a common practice recommended by Cohen, et al., 2003, Aiken and West (1991), and Frazier et al. (2004) was used. In this procedure, high and low values of public stigma were calculated when Neuroticism was set to high (one standard deviation above the mean) and low (one standard deviation below the mean) levels. The resulting

www.manaraa.com

regression lines were plotted (see Figure 7 and 8 for a plot of Neuroticism's moderating effects). Predicted values were obtained for high and low values of public stigma by multiplying the respective unstandardized regression coefficients for each variable by the appropriate value (e.g., -1 and 1 as the variables are centered with a mean of 0 and a standard deviation of 1) for each variable in the equation. For ease of use, an Excel macro file created by Jeremy Dawson (Dawson, 2006; Dawson & Richter, 2006) was downloaded from the internet, and used to calculate and plot the predicted values. As a check of the accuracy of the macro file, I hand calculated an equation of the interaction and the resulting values were identical.

The process used to obtain the predicted score for those who are high on the Neuroticism scale (i.e., 1 SD above the mean) who are experiencing high levels of public stigma (i.e., 1 SD above the mean for public stigma) was one in which I multiplied the unstandardized coefficient for Neuroticism (B = -0.76) by 1, multiplied the unstandardized coefficient for public stigma (B = 4.15) by 1, multiplied the unstandardized coefficient for the interaction term (B = -.42) by the product of the public stigma and Neuroticism codes (i.e., 1 x 1 = 1) and added the constant (B = 26.43) to obtain a predicted value on the self-stigma measure of 29.4. This procedure was repeated for high and low levels of public stigma and Neuroticism respectively resulting in the plot found in Figure 7, and it was repeated for high and low levels of self-stigma and Neuroticism resulting in the plot found in Figure 8. The lowest levels of self-stigma were found when Neuroticism was high and public stigma was low (Y = 21.94), which was lower than when Neuroticism was low and public stigma was low (Y = 22.62). The highest levels of self-stigma were found when Neuroticism was low and public stigma was high (Y = 31.76), which was higher than when Neuroticism

www.manaraa.com

Figure 7

Neuroticism's moderation of the association between public stigma and self-stigma

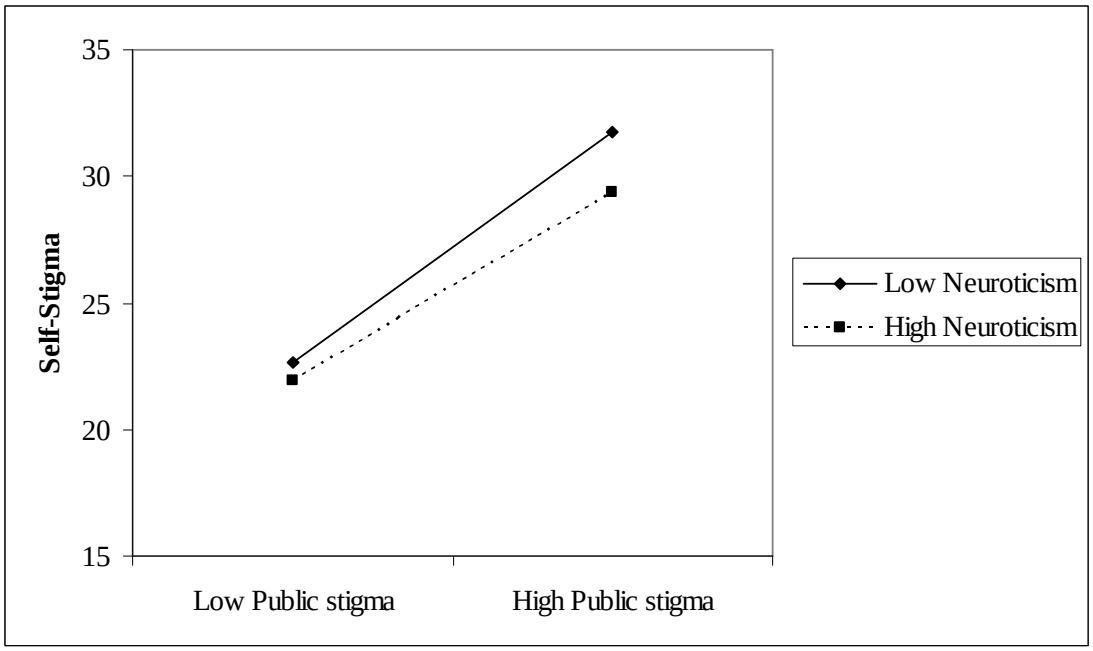
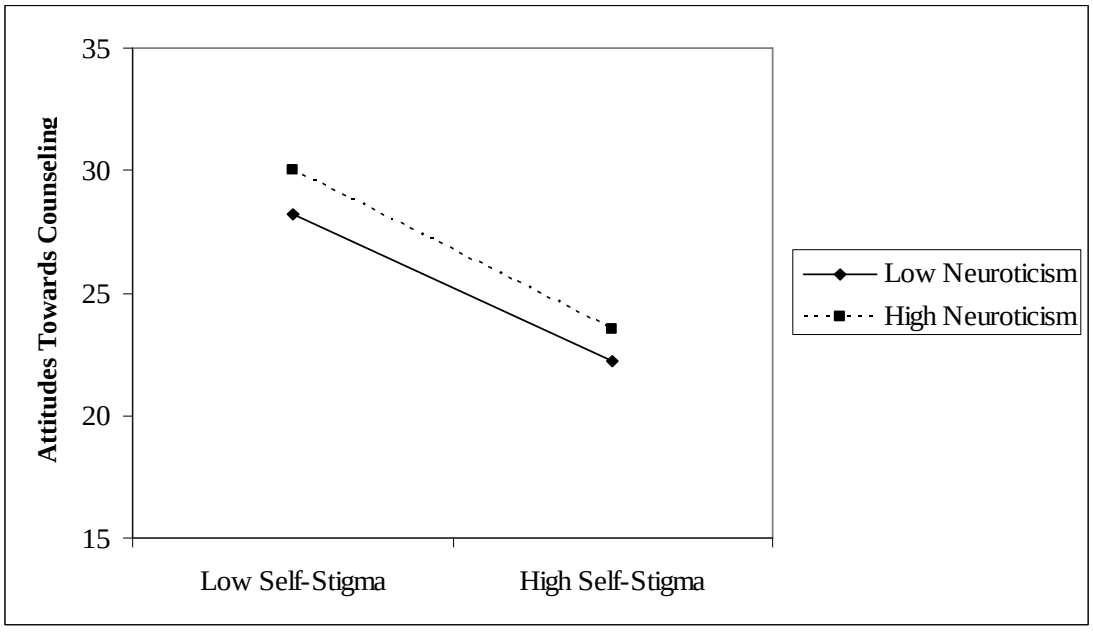


Figure 8

Neuroticism's nonsignificant moderation of the association between self-stigma and attitudes towards counseling



www.manaraa.com

was high and public stigma was high (Y = 29.40). The highest levels of attitudes towards counseling were found when Neuroticism was high and self-stigma was low (Y = 30.05), which was higher than when Neuroticism was low and self-stigma was low (Y = 28.23). The lowest levels of attitudes towards counseling were found when Neuroticism was low and self-stigma was high (Y = 22.23), which was lower than when Neuroticism was high and self-stigma was high (Y = 23.49).

Simple Slope Analysis

To further explore patterns underlying the significant interaction effects, I tested the slope of the simple regression lines at high and low levels of Neuroticism (i.e., 1 SD above and below the mean of Neuroticism) to determine if they were significantly different from 0. To determine this, a simple regression analysis outlined by Aiken and West (1991) and Frazier et al. (2004) was conducted. The significant interaction term obtained in the first hierarchical regression analysis tells us that the slopes differ from each other; however it does not indicate whether the slope differs from zero.

To test whether the simple slopes differ from zero, two additional simple regression analyses were conducted as outlined by Aiken and West (1991). In this procedure the criterion variable (i.e., self-stigma) is regressed on the predictor (i.e., public stigma), the moderator at a conditional value (e.g., high or low values of Neuroticism), and the interaction of the predictor and moderator (i.e., public stigma x Neuroticism). The t test for the regression coefficient of the predictor variable (i.e., public stigma) in this equation reflects the significance of the simple slope (i.e., whether the slope is significantly different from zero). The results of the simple slope regression analysis are presented in Table 5. As indicated in the Table, both simple slopes for high and low values of Neuroticism were

www.manaraa.com

Table 5

Simple slope regression analysis of public stigma predicting self-stigma at low and high levels of Neuroticism and Extraversion

Variable	*B*	*β*	*B SE*	*t*	*sig.*	*df*
Link between public stigma and self-stigma at high levels of Neuroticism						
SSRPH: Public Stigma	3.77	0.30	0.49	12.38	0.00	3, 727
Neuroticism	-0.71	0.24	-0.09	-2.88	0.00	
Neuroticism x Public Stigma	-0.42	0.20	-0.08	-2.04	0.04	
Link between public stigma and self-stigma at low levels of Neuroticism						
SSRPH: Public Stigma	4.60	0.33	0.60	13.99	0.00	3, 727
Neuroticism	-0.71	0.24	-0.09	-2.88	0.00	
Neuroticism x Public Stigma	-0.42	0.20	-0.09	-2.04	0.04	
Link between public stigma and self-stigma at high levels of Extraversion						
SSRPH: Public Stigma	4.64	0.34	0.60	13.72	0.00	3, 717
Extraversion	-0.20	0.25	-0.03	-0.80	0.42	
Extraversion x Public Stigma	0.60	0.23	0.11	2.58	0.01	
Link between public stigma and self-stigma at low levels of Extraversion						
SSRPH: Public Stigma	3.44	0.34	0.44	10.07	0.00	3, 717
Extraversion	-0.20	0.25	-0.03	-0.80	0.42	
Extraversion x Public Stigma	0.60	0.23	0.11	2.58	0.01	

Note: B, β, and *t* reflect values from the final regression equation

www.manaraa.com

significantly different from zero and positive. The difference was also significant as shown by the significant interaction term.

Extraversion Regression Analysis

As discussed, the analysis of Extraversion's role in the help-seeking model is identical to the previous analysis. Results of the two simple two-way interaction regressions with Extraversion as a moderator are presented on page 75 in Table 6. The interaction between public stigma (measured by the SSRPH) and Extraversion was significant while the interaction between self-stigma (measured by the SSOSH) and Extraversion was not statistically significant. This result indicates that Extraversion does moderate the relationship between public stigma and self-stigma in the help-seeking model, however, Extraversion does not seem to moderate the relationship between self-stigma and attitudes towards counseling.

In the first regression, with self-stigma set as the criterion, the unstandardized regression coefficient (*B*) for Extraversion was -0.13 ($p = .595$), meaning those who indicated higher Extraversion reported less self-stigma, though the relationship was not statistically significant. Those who are higher on Extraversion reported more public stigma ($B = 4.05$, $p < .001$). The unstandardized regression coefficient (*B*) is 0.60 ($p < .01$) for the interaction term, meaning as public stigma increases those with high Extraversion begin to report more self-stigma compared to those with low Extraversion. The R^2 change associated with the interaction term was .01, meaning it accounted for an additional 1% of the variance in self-stigma scores over and above the 28% explained by the first order effects of Extraversion and public stigma.

www.manaraa.com

In the attitudes towards counseling regression equation, the unstandardized regression coefficient (*B*) for Extraversion was -0.13 (p = .324), indicating there was no statistically significant relationship. For self-stigma (SSOSH), *B* = -3.14 (p < .001), meaning those who felt more self-stigma reported unfavorable attitudes towards counseling, and *B* = -0.04 (p = .767) for the interaction term, meaning there was no significant effect of the interaction between self-stigma and Extraversion on attitudes towards counseling.

Table 6

Testing the moderating effect of Extraversion on the help seeking model using hierarchical multiple regression

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
Extraversion	-0.13	0.02	0.21	-0.64^{ns}	0.28	0.28	0.28	137.36***	2, 718
SSRPH	4.05	0.52	0.21	19.57***					
Step 2									
Extraversion x SSRPH	0.60	0.08	0.23	2.59**	0.28	0.28	0.01	6.68**	1, 717
Attitudes									
Step 1									
Extraversion	-0.13	-0.03	0.11	-1.21^{ns}	0.44	0.44	0.44	282.71***	2, 716
SSOSH	-3.14	-0.67	0.11	-28.82***					
Step 2									
Extraversion x SSOSH	-0.04	-0.01	0.13	-0.30^{ns}	0.44	0.44	0.00	0.09^{ns}	1, 715

* p < .05. ** p < .01. *** p < .001.

Note: SE's obtained in step 1 have been adjusted to make use of the mean square errors (MSE) obtained in the interaction

Control Variable Analyses

Controlling for gender. Just as in the previous analysis of neuroticism's moderating effect, three variables were controlled for. All three control variables were accounted for by using identical procedures previously described in the Neuroticism regression analysis. First, possible gender effects were controlled for in two follow-up hierarchical regression equations, the results of which are presented in Appendix B, Table B13. The omnibus F test for the fourth step was not significant for either the self-stigma or attitudes towards

www.manaraa.com

counseling regressions. As was noted in the prior analysis of neuroticism, gender has a significant effect on self-stigma (*B* = -1.18, p < .001) and attitudes towards counseling (B = 1.08, p < .001) Initially, it does not appear to affect the interaction between Extraversion and public stigma as it relates to self-stigma or attitudes towards counseling.

Controlling for Prior Treatment. Possible treatment effects were controlled for in two hierarchical regression equations, the results of which are presented in Appendix B, Table B14. The omnibus F test for the fourth step was not significant for either the regression of self-stigma or attitudes towards counseling. While having been in mental health services does have a significant effect on self-stigma (B = -2.23, p < .001) initially, once it is controlled for, neuroticism's moderating effects are still present, and the complete model accounts for 5% more variance (R^2 = .32). Accordingly, having received treatment has a significant effect on attitudes towards counseling (B = 1.368, p < .001). However, when it is controlled for, just as was previously found, there was no significant interaction between self-stigma and neuroticism.

Controlling for distress. The last control variable is the participant's reported current level of distress, measured by the Hopkins Symptom Checklist -21. Possible effects of current distress were controlled for in two follow-up hierarchical regression equations, the results of which are presented in Appendix B in Table B15. The omnibus F test for the fourth step was not significant for either the regression of self-stigma or attitudes towards counseling. As can be seen in Table B15, distress did not significantly effect social stigma, and once it was controlled for, the model accounted for two percent more variance than the original model. While distress does have a significant effect on attitudes towards counseling

www.manaraa.com

(B = .72, p < .001) initially, once it is controlled for, just as was previously found, there was no significant interaction between self-stigma and neuroticism.

Just as before, gender, psychological distress, and a history of counseling did not significantly interact with the help-seeking model in a meaningful manner. Thus they were all placed in the first step of a hierarchical regression of self-stigma onto public stigma with Extraversion as a moderator to control for their effects. The second step consists of the main effects of Extraversion and public stigma, while the interaction between the two was entered into the last step (see table 7). As can be seen from the table, after the effects of gender, psychological distress, and a history of counseling are controlled for, the interaction of Extraversion and public stigma remains significant, $F(1, 692) = 5.55$, $p < .05$, $R^2 = .34$, adjusted $R^2 = .34$ and accounts for additional variance, R^2 change = .01.

Table 7

Moderating effect of Extraversion while controlling for gender effects, psychological distress, and a history of counseling

	B	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Public Stigma									
Step 1									
Gender	-1.07	-0.13	0.29	-3.67***	0.09	0.08	0.09	21.96***	3, 695
Previous Treatment (PT)	0.05	0.01	0.29	0.18 ^{ns}					
HSCL-21	-2.13	-0.25	0.31	-6.81***					
Step 2									
Extraversion	-0.37	-0.05	0.26	-1.46 ^{ns}	0.34	0.33	0.25	129.45***	2, 693
SSRPH	3.90	0.50	0.25	15.60***					
Step 3									
Extraversion x SSRPH	0.54	0.07	0.23	2.36*	0.34	0.34	0.01	5.55*	1, 692

* p < .05. ** p < .01. *** p < .001.
Note: SE's obtained in step 1 have been adjusted to make use of the mean square errors (MSE) obtained in the interaction

Plotting the Interaction

To understand the form of the significant interactions, and to explore them further, plots of the interactions were generated. The procedures and process used to plot the

www.manaraa.com

interactions are identical to that previously outlined in the analysis of neuroticism's effects. This procedure was repeated for high and low levels of public stigma and Extraversion respectively as well as high and low levels of self-stigma and Extraversion resulting in the plots found in Figures 9 and 10 on page 78. The lowest levels of self-stigma were found when Extraversion was high and public stigma was low (Y = 21.60), which was lower than when Extraversion was low and public stigma was low (Y = 23.06). The highest levels of self-stigma were found when Extraversion was high and public stigma was high (Y = 30.903), which was higher than when Extraversion was low and public stigma was high (Y = 29.96). The highest levels of attitudes towards counseling were found when Extraversion was low and self-stigma was low (Y = 29.25), which was higher than when Extraversion was high and self-stigma was low (Y = 29.07). The lowest levels of attitudes towards counseling were found when Extraversion was high and self-stigma was high (Y = 22.71), which was lower than when Extraversion was low and self-stigma was high (Y = 23.05).

Simple Slope Analysis

To further explore patterns underlying the significant interaction effects, the slopes of the simple regression lines at high and low levels of Extraversion (i.e., 1 SD above and below the mean of Extraversion) were tested to determine if they were significantly different from 0. To test the simple slopes, two additional simple regression analyses were conducted as outlined by Aiken and West (1991). The results of the simple slope regression analysis are presented in Table 5 on page 73. As indicated in the table, both simple slopes for high and low values of Extraversion were significantly different from zero and positive. The difference was also significant as shown by the significant interaction term. Appendix B includes a full analysis of all five dimensions of personality (see Tables B16 – B18).

www.manaraa.com

Figure 9

Extraversion's moderation of the association between public stigma and self-stigma

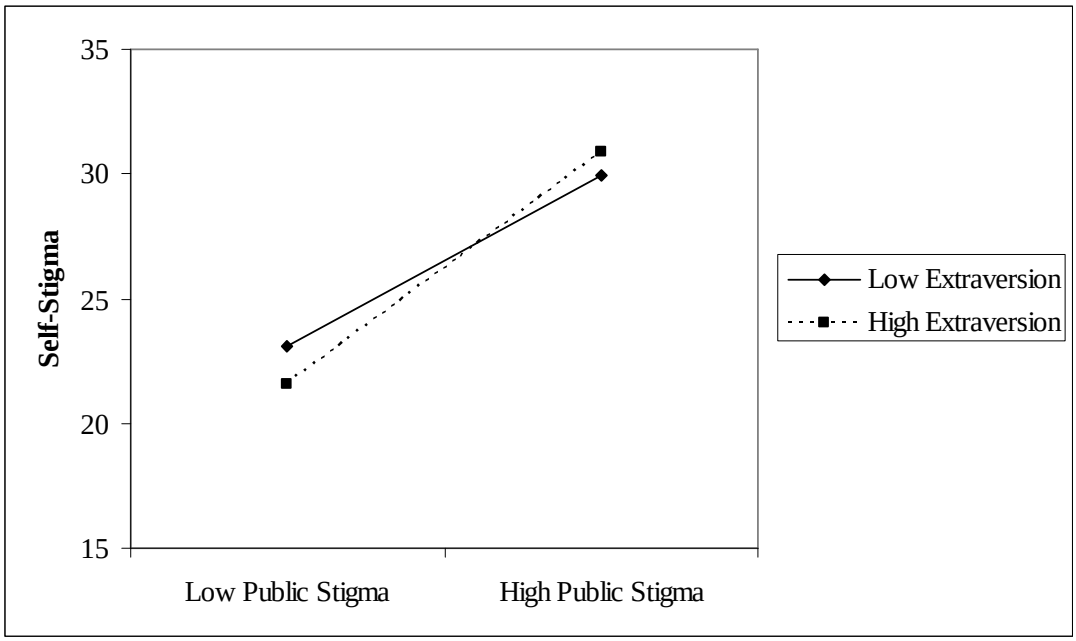
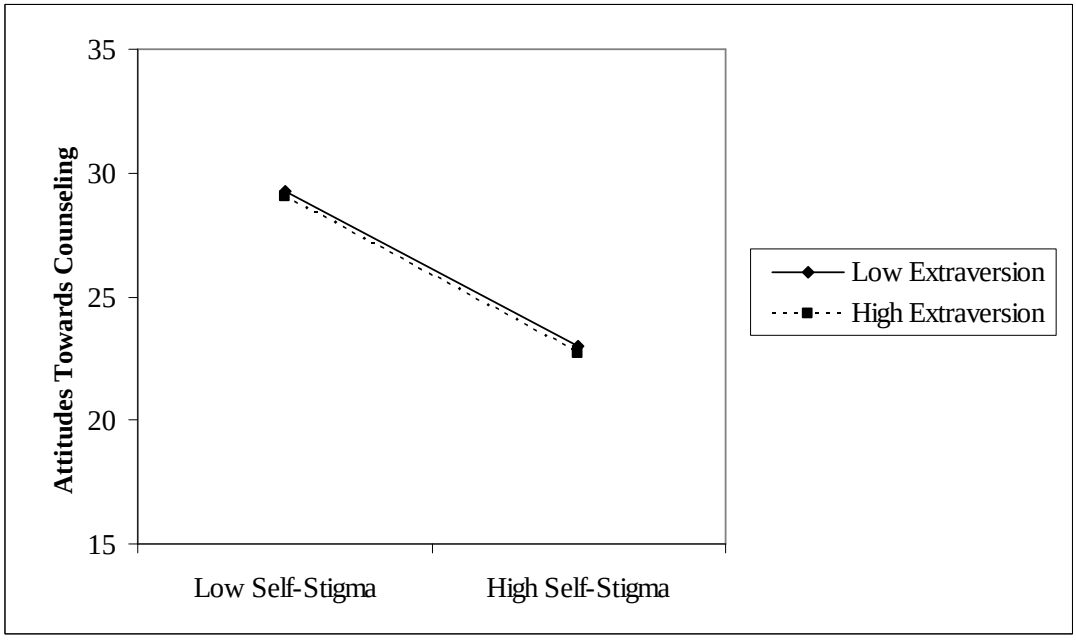


Figure 10

Extraversion's non-significant moderation of the association between self-stigma and attitudes towards counseling



www.manaraa.com

Discussion

There are many people who could benefit from psychological services, yet do not receive them as many do not seek services (Corrigan, 2004; Kessler et al., 1994, 2005; Shapiro et al., 1984; Wang et al., 2005). The stigma associated with seeking psychological help has been shown to be a significant barrier to people who are seeking those needed services (Cooper, Corrigan, & Watson, 2003; Corrigan, 2004; Corrigan & Kleinlein, 2005; Link & Phelan, 2001; Satcher, 1999; Vogel, Wade, & Haake, 2006).The help-seeking model proposed by Vogel and Wester (2003), and based on Ajzen and Fishbein's (1980) Theory of Reasoned Action, sought to explain this relationship by proposing that stigma negatively affects attitudes towards counseling which in turn directly influences willingness to seek psychological help. Vogel, Wade, and Hackler (2007) were able to demonstrate that self-stigma is a result of public stigma and directly mediates the relationship between public stigma and attitudes towards counseling. Despite strong relationships found in the help-seeking model (see Table 2, page 63; Vogel, Wade, & Hackler, 2007; Vogel, Wade, Wester, Larson, & Hackler, 2007), there is still variance in the model that is yet to be explained. It is likely that one's personality – a relatively stable pattern of how one perceives and reacts to their environment – will influence how one perceives and feels stigma and the resultant attitudes. Thus, when measured well, and properly conceptualized as Ajzen and Fishbein call for in the Theory of Reasoned Action, personality should help explain more variance in the help-seeking model.

In this study, personality as a construct was operationalized as the Big Five, which proposes that there are five main dimensions of personality, with each being made up of smaller facets and traits (e.g., McCrae & Costa, 1999). As noted in the Statement of Purpose,

www.manaraa.com

two factors of the five-factor model, Neuroticism and Extraversion, and two relationships found in the model of help-seeking were selected for focus and were used in the analyses for this project. The selective focus on Neuroticism and Extraversion was predicated on the need for brevity in this research project, and also in their proposed greater likelihood to moderate the relationships found in the model of help-seeking. Focusing on the associations between public stigma and self-stigma and self-stigma and attitudes towards counseling found in the help-seeking model was based on the knowledge that attitudes lead directly to intentions (Ajzen & Fishbein, 1980; Ajzen, 1988; Vogel, Wade, & Hackler, 2007), as well as the need for brevity.

As indicated in the Methods section, the obtained sample (N = 784), 302 male participants and 481 female participants, included a sufficient number to justify the type of regression analyses conducted in this investigation. Moreover, as noted by the descriptive statistics results, all of the measures used in the current study were normally distributed with minimal skewness and kurtosis indicators. Additionally, each scale proved to be highly reliable. This investigation was undertaken to examine four general exploratory hypotheses. Each of these hypotheses will be discussed in the order in which they were explored.

Hypothesis One

To test the general exploratory hypothesis that personality will moderate the relationships found in the help-seeking model, four specific and testable exploratory hypotheses were generated and tested. Hypothesis one explored the proposed moderation of the Big Five dimension of Neuroticism on the relationship between public stigma and self-stigma. The exploratory hypothesis indicated that the interaction may amplify the public stigma – self-stigma relationship such that high levels of Neuroticism would be associated

www.manaraa.com

with higher levels of self-stigma and lower levels of Neuroticism would be associated with lower levels of self-stigma (the reader is referred back to Figure 3, page52).

While the results from the hierarchical regression showed that Neuroticism does moderate the public stigma – self-stigma relationship, they indicated that the moderation was in the opposite direction as proposed. When self-stigma and public stigma were at lower levels, there was not much difference between high and low levels of Neuroticism. However, when one's perception of public stigma increased, those who reported higher levels of Neuroticism indicated they self-stigmatized less than those who reported lower levels of Neuroticism (see Figure 7, page 71). This result indicates that having more Neurotic personality traits may actually buffer an individual from the effects of public stigma.

One possible explanation for this finding may be that neuroticism is associated with reports of psychological distress (Huebner, Nemeroff, & Davis, 2005), leading these individuals to seek treatment as our results indicate, which in turn seems to lessen the stigma one feels when they seek help. However, the resulting pattern held up after gender, having been in treatment, and psychological distress was controlled for, indicating that this finding is rather robust.

Another possible explanation may be that person's who are high on Neuroticism may in fact accurately perceive the public stigma associated with seeking help, and even identify as a member of the stigmatized group, however instead of becoming degraded and demoralized by internalizing the stigma, they react with righteous anger and empowerment (Watson & River, 2005). In 2005, Watson and River noted that though persons may be aware of the stigmatizing stereotypes, they do not necessarily agree with these stereotypes (Hayward & Bright, 1997), and developed a social-cognitive model describing how this

www.manaraa.com

process works. According to this model, when one is aware of a public stigma against them, when they feel they have been unjustly stigmatized they may react with righteous anger instead of a loss of self-esteem and self-degradation (Watson & River, 2005). Those high on Neuroticism, may not necessarily agree with the public stigma associated with seeking help, and thus not internalize it, thereby avoiding the self-stigma attached to help-seeking. Unfortunately, the parameters of this project did not allow for an analysis of this phenomenon.

Hypothesis Two

The second exploratory hypothesis, proposed that Neuroticism will moderate the relationship between self-stigma and attitudes towards counseling. The hypothesis indicated that Neuroticism would amplify the negative relationship between self-stigma and attitudes towards counseling in such a way that high levels of Neuroticism would be associated with negative attitudes towards counseling, while low levels of Neuroticism would be associated with more positive attitudes towards counseling (the reader is referred back to Figure 4, page 53). The hierarchical regression results indicated that, while more self-stigma is associated with less favorable attitudes towards counseling, neuroticism does not appear to play a moderating role. Even after controlling for the participant's gender, previous treatment, and current psychological distress levels the moderation was non-significant.

Hypothesis three

The third exploratory hypothesis, proposed that Extraversion will moderate the relationship between public stigma and self-stigma in such a way as to act like a "buffer" so higher levels of Extraversion will be associated with lower levels of self-stigma and lower levels of Extraversion will not be particularly associated with any "buffering" effect (the

www.manaraa.com

reader is referred to Figure 5, page 54). The results of the hierarchical regression indicated that at low public stigma, high levels of Extraversion acted as a "buffer" as high levels are associated with less self-stigma than low levels of Extraversion. However, at higher levels of public stigma, the relationship changed such that high levels of Extraversion are associated with more self-stigma than low levels of Extraversion (see Figure 9, page 78). This relationship was still present even after controlling for the effects of gender, current psychological distress, and previous treatment, indicating that the effect is rather robust.

One possible interpretation of this result is that Extraverts are thought to be socially aware and socially sensitive individuals (McCrae & Costa, 2003). This social sensitivity leads them to be more attune to the public's stigma against help-seeking. When there are low levels of public stigma they are aware of this and internalize less stigma. However, when high levels of public stigma against help-seeking are present, high Extraverts probably sense this and internalize the stigma at higher levels than those who are low on Extraversion.

Hypothesis Four

The fourth and last hypothesis proposed that Extraversion will moderate the negative relationship between self-stigma and attitudes towards counseling in that high Extraversion should act like a "booster" and be associated with more positive attitudes towards counseling. However, the results from the hierarchical regression indicated that Extraversion did not significantly moderate the relationship between self-stigma and attitudes towards counseling. At this time it is unclear why personality did not play a role in this relationship.

The general pattern of the results showed that the relationships of the variables in the help-seeking model were in the expected directions. The relationship between self-stigma and public stigma remained positive, while the association between self-stigma and attitudes

www.manaraa.com

towards counseling was negative. Overall, though the results were not in the expected directions, it is indicated that personality moderates the association between public stigma and self-stigma. These results imply that personality plays a role in how people not only perceive public stigma, but how they internalize it when one self-stigmatizes. The statistically significant findings are tempered by the relatively small effect sizes, and at this time, drawing firm conclusions based on these results would not be prudent. However, they are encouraging and indicate that further in-depth investigation is warranted.

Effect of Seeking Counseling

In the course of the data analysis, several other interesting results were noted. Independent samples t-tests indicated that those who had ever sought psychological treatment tended to be less extraverted, more neurotic, perceive less public stigma, internalize less self-stigma, possessed more positive attitudes towards counseling, and had higher levels of psychological distress than those who had never sought psychological treatment.

One of the more exciting findings is that exposure to treatment seems to lessen the amount of stigma a person internalizes. Interestingly, participants who had sought treatment perceived a slightly lesser amount (less than 1/3 of a standard deviation) of public stigma related to help seeking than those who have never sought treatment. Furthermore, exposure to treatment seems to have an even more dramatic effect on how much self-stigma a person reports, which is much less (2/3 of a standard deviation less) than one who has never been exposed to psychological treatment. Once one has physically overcome the barrier of the stigma associated with seeking help to seek psychological counseling, they seem to be less susceptible to stigma's effects.

www.manaraa.com

Additionally, one might postulate that one reason why those who are high on Neuroticism internalize less stigma is because those who have been in treatment tend to have higher levels of Neuroticism. However, despite the mean difference that having previously been in treatment has on key variables, personality – both Neuroticism and Extraversion - still moderates the association between public stigma and self-stigma. This finding strengthens the suggestion that personality indeed plays an important role in how one perceives and internalizes the stigma associated with help-seeking.

Gender Differences

Accordingly, gender differences were also found in key variables. Slightly higher percentages of women tended to have previously been in psychological treatment than men (a ratio of 157 out of 481 women 33% to 72 out of 302 men 24%), women reported higher levels of Neuroticism, perceived less public stigma, internalized less self-stigma, possessed better attitudes towards counseling, and reported more psychological distress. Interestingly, women and men reported similar levels of the personality dimension of Extraversion. These current findings agree with the previous reports of women perceiving less public stigma and accordingly feeling less self-stigma (Vogel et al., 2006; Vogel, Wade, & Hackler, 2007). The argument that personality plays an important role is strengthen as it still moderates the relationship between public stigma and self-stigma in the help-seeking model after gender has been controlled for.

Implications of the Results for Counseling

There is much to consider in the present findings. As has previously been stated, there are many individuals who could benefit from counseling, yet do not seek treatment. For these individuals, the stigma associated with seeking help presents a significant barrier (Cooper,

www.manaraa.com

Corrigan, & Watson, 2003; Corrigan, 2004; Corrigan & Kleinlein, 2005; Link & Phelan, 2001; Satcher, 1999; Vogel et al., 2006). Vogel and Wester's (2003) help-seeking model, and the discovery of the role that self-stigma plays in that process (e.g., Vogel, Wade, & Hackler, 2007; Vogel, Wade, Wester et al., 2007) led to an understanding of how stigma presents as an obstacle that an individual faces when they make the decision to seek help. The idea that personality might influence the variables in this model is logical, as personality is thought to be a relatively pervasive and stable pattern of how one perceives and reacts to their environment (McCrae & Costa, 2003).

The finding that personality moderates the association between public stigma and self-stigma in the help-seeking model and not the association between self-stigma and attitudes towards counseling is an interesting result, and can be a useful finding to those who seek to overcome the barrier that stigma presents. Currently, there are interventions aimed at reducing the stigma associated with mental illness. For example, there are national media campaigns aimed at reducing the stigma of mental illness, such as various public service announcements on television and radio and the Substance Abuse and Mental Health Services Administration's (SAMHSA) "Campaign for Mental Health Recovery" (SAMHSA, 2008), that has produced the "What a difference a friend makes" initiative (SAMHSA, 2008). In the United Kingdom, researchers have discovered that using the performing arts to lower the stigma associated with mental illness positively influences college student's attitudes, knowledge, and empathy around mental illness (Twardzicki, 2008). The help-seeking model supports the notion that interventions might also be targeted at decreasing the stigma associated with seeking psychological help. Following the recommendation of Link and Phelan (2001), efforts to reduce the stigma associated with mental illness and help-seeking

www.manaraa.com

should be multifaceted and target policy and legal changes as well as social and individual perceptions. Understanding personality, how it works, and how it influences perceptions of stigma may indeed be a crucial tool in combating the stigma associated with mental illness and help-seeking, and help lead to a variety of interventions.

While we do not yet know what specific facets of these personality dimensions are most influential on the stigmatization process; specific interventions aimed at influencing people who may, for example, be high on Neuroticism – those who are already most likely to need help as they are prone to psychological distress – could be designed to reduce either the public stigma or the self-stigma (or both) associated with help-seeking. With the present findings, we know that personality does play a role in the way that a person perceives and reacts to this stigma. In 2006, Tipper, Mountain, Lorimer, and McIntosh pointed out that it has previously been shown that contact with mental illness reduces stigma, and in particular in their own study they demonstrated that when health support workers spend time with people with schizophrenia, their perceptions of dangerousness decreases. This finding could be particularly applicable to those who are high on the personality dimension of Extraversion, as they tend to be socially sensitive and gregarious and would likely be influenced by this type of intervention.

Other possible hypothesized intervention examples might be an intervention designed to take advantage of the finding that those who possess high levels of Extraversion and who tend to experience higher levels of self-stigma when they perceive higher levels of public stigma could take the shape of one-on-one "marketing," or within social groups. Professionals trained in prevention work may be able to work with natural social groups to

www.manaraa.com

decrease the stigma associated with help-seeking in that group, thereby taking advantage of the Extravert's tendency to feel even less self-stigma.

Theoretical Implications of Findings

The present study confirms the structure of Vogel and Wester's (2003) original model of help-seeking. Indeed, the correlational associations between the variables of public stigma, self-stigma, and attitudes towards counseling were strong and in the expected direction (see Table 2, page 63). In the regression models, the help-seeking variables (e.g., public stigma) maintained strong relationships and helped explain sizable amounts of variance in the criterion (e.g., self-stigma).

As was detailed earlier, Vogel and Wester (2003) based their model of help-seeking on Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA). The TRA posits the rationality of behavior and that subjective norms and attitudes towards the behavior lead to an intention, the direct antecedent to an actual behavior. In the TRA, attitudes are a product of our beliefs that the behavior leads to a certain outcome, and our evaluation of the outcome (Ajzen & Fishbein, 1980; Cullen & Sackett, 2003). In the model of help-seeking, public and self-stigma are our outcome expectations and our evaluations of the outcome (Vogel, Wade, & Hackler, 2007). According to the TRA, personality is thought to influence our beliefs that the behavior leads to a certain outcome and our evaluation of the expected outcomes.

Accordingly, personality is not necessarily thought to directly moderate the relationship between beliefs and attitudes (Ajzen & Fishbein, 1980; Ajzen, 1988; Cullen & Sackett, 2003). This may be explained by the notion that while both attitudes and personality traits are relatively dispositional in nature, attitudes are evaluative and directed at a target, while traits are not necessarily evaluative, but response tendencies in a given domain and are

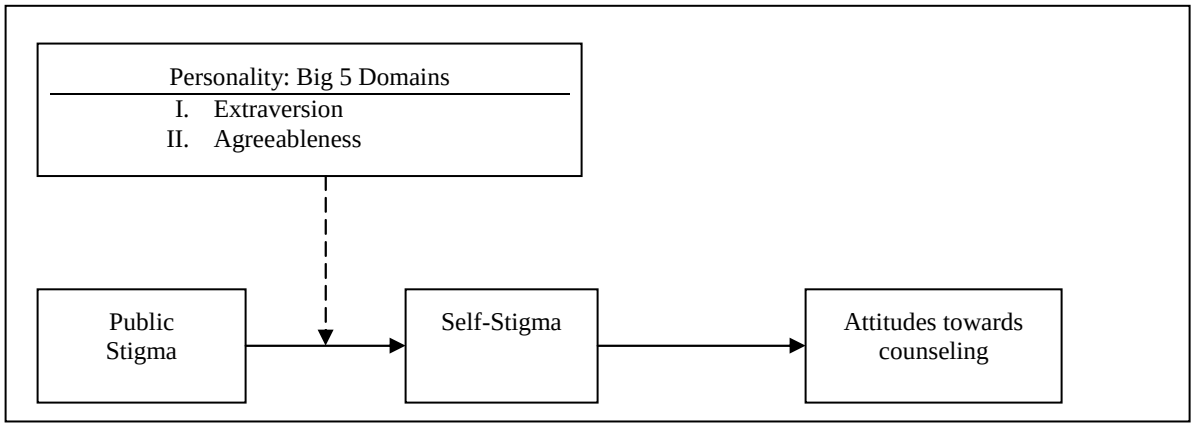
www.manaraa.com

not directed at a specific target (Ajzen, 1988). Perhaps this explains personality's failure to moderate the relationship between self-stigma and attitudes towards counseling in this study, as in the model of help-seeking, self-stigma is the evaluation of the expected outcome (Vogel, et al., 2005; see Figure 11).

The results of this study suggest that there may be certain facets of personality that moderate the association between public stigma and self-stigma. Specifically, the results suggest that the Big Five personality dimensions of Neuroticism and Extraversion most likely contain facets, such as self-consciousness, that will significantly moderate the association between public stigma and self-stigma. Just as McCrae and Costa's (1999) Five Factor Theory of Personality postulates that Basic Tendencies (personality) directly influence Characteristic Adaptations (self-stigma and attitudes), personality in the model of help-seeking influences self-stigma associated with seeking-help, which then leads to the formation of attitudes towards counseling.

Figure 11

Model of help-seeking as suggested by findings



www.manaraa.com

Strengths and Unique Features of This Study

The present study utilized a large sample, which is beneficial when studying moderating variables, particularly in studies such as this, with multiple moderated relationships, as relatively large samples help boost statistical power. According to Frazier, Tix, & Barron (2004), power becomes an issue when attempting to detect interactions, as their effect sizes tend to be relatively small (i.e., in multiple regression small R^2 values correspond to a values around .02). Accordingly, another strength of this study is that it used measures with known and sound psychometric properties. This becomes especially important in studies of moderation, as measurement error in individual variables (either predictor or moderator) dramatically reduces the reliability of the interaction terms constructed from them (Aiken & West, 1991; Frazier et al., 2004).

A third strength involves the methodology of this particular study. The online mode of data collection using a survey hosting website is straightforward and familiar to college students and potentially fostered a sense of safety as it was also anonymous. Additionally, it allowed the researchers to compile a relatively large data set in a manner of months, and produced a large retention rate. The design of the study was such that it allowed the researcher to compose a questionnaire with many questions, covering several different constructs, while still allowing the respondent to complete it in a reasonable amount of time. Online surveying is also advantageous in that it allowed the researchers to easily monitor the progress of the data collection and helped them ensure that the scales were behaving as expected through preliminary analysis. Once data collection ceased, the data was carefully cleaned and examined for completeness and duplicate responding. The data that was

www.manaraa.com

analyzed excluded those that were duplicate responses, incomplete, or indicated inattentive responding.

Limitations of the Study

It has been noted that the effect sizes of the interaction associated with the personality's moderation of the association between self-stigma and public stigma were relatively small, even for interactions. However, the number of participants in this study was sufficient to permit adequate power to detect any interaction effects. One reason why the effect sizes may have been smaller than expected is that the Big Five personality dimensions assessed may have been too broad and encompassed a domain that was too diverse (McCrae & Costa, 2003). The Big Five, of which Neuroticism and Extraversion are apart, are theorized and accepted by most personality psychologists as the minimum number of factors that can adequately sum up a person's personality. Facets of personality are theorized to be smaller dimensions of each of the Big Five, and are thus more focused by nature.

With the help-seeking model, a specific concept, personality indeed plays a role in how an individual perceives and reacts to stigma. However, with the current findings, it appears that role may not be a relatively significant one. This may not necessarily be the case as a Big Five dimension may have been too large and abstract to adequately capture the effects of personality due to the fluctuations of personality at specific instances. Indicating that using finer and less abstract facets and traits of personality to test the interactions with stigma may produce better results. Thus, finer concepts of personality, or facets of personality dimensions, such as a person's self-consciousness which is a facet of Neuroticism, should be researched. Also, using these narrower conceptualizations of

www.manaraa.com

personality, such as Gregariousness, would likely improve the construct validity because they are more specific and focused.

A second limitation of this study is that the responses collected represent a cross sectional view of personality and help-seeking based on self-report. Personality is thought to be a relatively stable pattern of how an individual perceives and reacts to their environment. Despite personality's stable nature over time, there are still going to be fluctuations in how an individual perceives and responds to a specific stimulus at a certain point in time. Perhaps, future study of the impact of personality on the relationship of stigma and help-seeking attitudes will require a longitudinal design that also includes observational or behavioral measures to fully understand the phenomenon. Additionally, measures of social desirability and validity checks were not included in this particular study, leaving researchers unable to account for these effects. However, this study's findings remain susceptible to any self-report bias, such that if the respondent wished to present themselves in a certain fashion, no questions to detect inaccurate responding were included. It was hoped that the private and anonymous nature of the survey would encourage truthful and accurate responses.

While personality, as measured by McCrae and Costa's (2003) dimensions of Neuroticism and Extraversion, interacted with self-stigma and public stigma, they proved to not interact with self-stigma in its association with attitudes towards counseling. Beyond theoretical reasons, another possible reason for this null finding is that the measures used may have been too coarse, meaning they may not have possessed enough response options. Accordingly, the outcome measures (i.e., SSOSH and ATSPPH) may not have been sensitive enough to adequately capture the interaction, as the SSOSH has five response options per question and the ATSPPH includes four. According to Frazier et al. (2004), the outcome

www.manaraa.com

measure in an interaction needs to have a sufficient number of response options to reflect the interaction. If there is not (i.e., the measure is too coarse) then there will be a loss in power, which may lead to a Type II error, or a false negative. Furthermore, Frazier et al. (2004) contends that a good outcome measure will have as many response options as the product of the response options of the predictor and moderator variables. For this study, it was not possible to select well constructed outcome measures that met this criterion. Several measures were used both as outcome measures and as predictor variables in separate analyses (i.e., SSOSH). Indeed Frazier et al. recognizes that scale coarseness may be difficult to avoid, especially if researchers prefer to use measures with established reliability and validity estimates.

Conclusion

Despite methodological and statistical issues, there is still much to learn and consider in the present findings. For now, these findings have led to a deeper and fuller understanding of the help-seeking model. It was shown that personality plays a role in how an individual perceives the public stigma of seeking help and how they in turn react to that public stigma by how much self-stigma they feel. Interestingly, personality was not shown to play a role in how an individual uses their sense of self-stigma associated with help-seeking to form their attitudes towards counseling. It may be that the Big Five personality dimensions were too abstract for this instance of how a person perceives their environment and reacts to it. It is also likely that since the model of help-seeking (Vogel & Wester, 2003) is based on the Theory of Reasoned Action (TRA; Ajzen & Fishbein, 1980), it may be that personality does not moderate the relationship between self-stigma and attitudes towards counseling in the model of help-seeking, as it theoretically does not in the TRA. Accordingly, future study of

www.manaraa.com

the role of personality in the help-seeking model should focus on smaller facets of the Big Five.

Studying how smaller, less abstract facets of personality operate in the help-seeking model could have great benefits in advancing our understanding of the help-seeking process and the barrier that stigma presents. If we can better understand how individuals perceive and react to stigma associated with help-seeking, we can design better interventions aimed at reducing the perception of stigma. The model shows that if we can reduce the perception of stigma, then we will likely effect a positive increase in an individual's attitude towards counseling, which will make one more likely to seek counseling if needed.

www.manaraa.com

References

Aiken, L. S. & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications.

Allik, J. & McCrae, R. R. (2002). A five factor theory perspective. In R. R. McCrae & J. Allik (Eds.), *The five factor model of personality across cultures.* Kluwer Academic/Plenum Publishers: New York.

Allport, G. W. (1937). *Personality: A psychological interpretation.* New York: Henry Holt.

Allport, G. W. (1961). *Pattern and growth in personality.* New York: Holt, Rinehart and Winston.

Allport, G. W. (1979). *The nature of prejudice.* New York: Doubleday. (Original work published 1954)

Allport, G. W., & Odbert, H. S. (1936). Trait-names: A psycho-lexical study. *Psychological Monographs, 47*(1, Whole No. 211), 1-171.

American Psychiatric Association. (1997). Practice guideline for the treatment of people with schizophrenia. *American Journal of Psychiatry, 154*(Suppl.).

American Psychiatric Association. (2000). Practice guideline for the treatment of patients with major depressive disorder. *American Journal of Psychiatry, 157*(Suppl.).

American Psychological Association Office of Rural Health. (2001). *Caring for the rural community: 2000 – 2001 report*. Retrieved February 8, 2005, from http://www.apa.org/rural/APAforWeb72.pdf

Arons, B. (2000). Mental health services in rural America: Improvements in mental health care. *Vital Speeches Of The Day, 66*(12), 369 – 371.

Ajzen, I. (1988). *Attitudes, personality, and behavior.* Chicago: The Dorsey Press.

www.manaraa.com

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.

Augoustinos, M., Ahrens, C., & Innes, J. (1994). Stereotypes and prejudice: The Australian experience. *British Journal of Social Psychology, 33,* 125-141.

Banaji, M. R. & Greenwald, A. G. (1994). Implicit stereotyping and prejudice. In M. P. Zanna & J. M. Olson (Eds.), The psychology of prejudice: The Ontario Symposium (Volume 7, pp. 55-76). Hillsdale, NJ: Erlbaum.

Barbaranelli, C. Caprara, G. V., Vecchione, M., & Fraley, C. R. (2007). Voter's personality traits in presidential elections. *Personality and Individual Differences, 42*, 1199-1208.

Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

Bayer, J. K., & Peay, M. Y. (1997). Predicting intentions to seek help from professional mental health services. *Australian and New Zealand Journal of Psychiatry, 31,* 504-513.

Bellack, A. S., Mueser, K. T., Morrison, R. L., Tierney, A., & Podell, K. (1990). Remediation of cognitive deficits in schizophrenia. *American Journal of Psychiatry, 147,* 650-655.

Ben-Porath, D. D. (2002). Stigmatization of individuals who receive psychotherapy: An interaction between help-seeking behavior and the presence of depression. *Journal of Social & Clinical Psychology, 21,* 400-413.

Blaine, B. E. (2000). *The psychology of diversity: perceiving and experiencing social difference*. Mountain View, CA: Mayfield Publishing.

www.manaraa.com

Bond, M. H., Nakazato, H., & Shiraishi, D. (1975). Universality and distinctiveness in dimensions of Japanese person perception. *Journal of Cross-Cultural Psychology, 6,* 346-357.

Borkenau, P., & Ostendorf, F. (1990). Comparing exploratory and confirmatory factor analysis: A study on the 5-factor model of personality. *Personality and Individual Differences, 11,* 515-524.

Bourdon, K. H., Rae, D. S., Locke, B. Z., Narrow, W. E., & Regier, D. A. (1992). Estimating the prevalence of mental disorders in U.S. adults from the Epidemiologic Catchment Area Survey. *Public Health Reports, 107*(6), 663-667.

Buchanan, T., Johnson, J. A., & Goldberg, L. A. (2005). Implementing a five-factor personality inventory for use on the internet. *European Journal of Psychological Assessment, 21*(2), 115-127.

Buss, A. H. (1989). Personality as traits. *American Psychologist, 44,* 1378-1388.

Cash, T. F., Begley, P. J., McCown, D. A., & Weise, B. C. (1975). When counselors are heard but not seen: Initial impact of physical attractiveness. *Journal of Counseling Psychology, 22,* 273-279.

Caspi, A., Roberts, B. W., & Shiner, R. L. (2005). Personality development: Stability and change. *Annual Review of Psychology, 56,* 453-484.

Cepeda-Benito, A., & Short, P. (1998). Self-concealment, avoidance of psychological services, and perceived likelihood of seeking professional help. *Journal of Counseling Psychology, 45,* 58-64.

Codd, T. T., III, & Cohen, B. N. (2003). Predicting college student intention to seek help for alcohol abuse. *Journal of Social & Clinical Psychology, 22,* 168-191.

www.manaraa.com

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/ correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.

Cooper, A., Corrigan, P.W., & Watson, A. C. (2003). Mental illness stigma and care seeking. *Journal of Nervous and Mental Disease, 191,* 339-341.

Corrigan, P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology: Science & Practice, 7*

Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist, 59*(7), 614-625.

Corrigan, P. W. & Kleinlein, P. (2005). The impact of mental illness stigma. In P. W. Corrigan (ed.), *On the stigma of mental illness: Practical strategies for research and social change (pp. 11-44).* Washington, D. C.: American Psychological Association.

Côté, S., & Moskowitz. D. S. (1998). On the dynamic covariation between interpersonal behavior and affect: Prediction from neuroticism, extraversion, and agreeableness. *Journal of Personality and Social Psychology, 75*(4), 1032-1046

Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In D. T. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 2, 4th ed., pp. 504-553). New York: McGraw-Hill.

Cullen, M. S., & Sackett, P. R. (2003). Personality and counterproductive workplace behaviors. In M. R. Barrick & A. M. Ryan (Eds.), Personality and work: reconsidering the role of personality in organizations. San Francisco: Jossey-Bass.

Cummings, W. T., & Corney, W. (1987). A conceptual model of gambling behavior: Fishbein's Theory of Reasoned Action. *Journal of Gambling Studies, 3*(3), 190-201.

www.manaraa.com

Dawson, J. F. (2006). *Interpreting interaction effects* [Computer software]. Retrieved August 25, 2008, from http://www.jeremydawson.co.uk/slopes.htm.

Dawson, J. F., & Richter, A. W. (2006). Probing three-way interactions in moderated multiple regression: Development and application of a slope difference test. *Journal of Applied Psychology, 91*, 917-926.

Deane, F. P., Leathem, J., & Spicer, J. (1992). Clinical norms, reliability and validity for the Hopkins Symptom Checklist-21. *Australian Journal of Psychology, 44*, 21-25.

Derogatis, L. R., Lipman, R. S., Richels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science, 18, 1-15.*

Desai, M. M., Rosenheck, R. A., Druss, B. G., & Perlin, J. B. (2002). Mental disorders and quality of care among postacute myocardial infarction outpatients. *Journal of Nervous and Mental Disease, 190*, 51-53.

Devine, P. G. (1988). *Stereotype assessment: Theoretical and methodological issues.* Madison: University of Wisconsin.

Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology, 56*, 5-18.

Devine, P. G. (1995). Prejudice and out-group perception. In A. Tessor (Ed.), *Advanced social psychology* (pp. 467-524). New York: McGraw-Hill.

Donnellan, M. B., Conger, R. D., & Burzette, R. G. (2007). Personality development from late adolescence to young adulthood: Differential stability, normative maturity, and evidence for the maturity-stability hypothesis. *Journal of Personality, 75*(2), 237-263.

www.manaraa.com

Druss, B. G., Bradford, D. W., Rosenheck, R. A., Radford, M. J., & Krumholz, H. M. (2000). Mental disorders and use of cardiovascular procedures after myocardial infarction. *JAMA: Journal of the American Medical Association, 283,* 506-511.

Druss, B. G., & Rosenheck, R. (1997). Use of medical services by veterans with mental disorders. *Psychosomatics, 38,* 451-458.

Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but…: A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin, 110,* 109-128.

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. New York: Harcort, Brace & Javanovich.

Erikson, E. (1956). The problem of ego identity. *Journal of the American Psychoanalytic Association, 4,* 56-121.

Esses, V. M., Haddock, G., & Zanna, M. P. (1994). The role of mood in the expression of intergroup stereotypes. In M. P. Zanna & J. M. Olson (Eds.), *The psychology of prejudice: Ontario symposium on personality* (Vol. 7, pp. 77-101). Hillsdale, NJ: Erlbaum.

Eysenck, H. J., & Eysenck, S. B. G. (1964). *Manual of the Eysenck Personality Inventory.* London: University Press.

Eysenck, H. J., & Eysenck, S. B. G. (1975). *Manual of the Eysenck Personality Questionnaire.* San Diego: EdITS.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2006). G*Power (Version 3.0.8) [Computer software]. Retrieved from www.psycho.uni-duesseldorf.de/abteilungen/aap/gpower3/.

www.manaraa.com

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39,* 175-191.

Findlay, R. A., & Sheehan, M. C. (2004). Utilization of mental health services in rural and remote communities. *Journal of Rural Community Psychology, E7,*(1).

Fischer, E. H., & Farina, A. (1995). Attitudes toward seeking professional psychological help: A shortened form and considerations for research. *Journal of College Student Development, 36*(4), 368-373.

Fiske, D. W. (1949). Consistency of the factorial structures of personality ratings from different sources. *Journal of Abnormal and Social Psychology, 44,* 329-344.

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51*(1), 115-134.

Friedman, H. S., & Schustack. (1999). *Personality: Classic theories and modern research.* Allyn and Bacon: Boston.

Goffman, E. (1963). *Stigma: Notes on the management of a spoiled identity.* Englewood Cliffs, NJ: Prentice-Hall.

Goldberg, L. R. (1981). Language and individual differences: The search for universals in personality lexicons. In L. Wheeler (Ed.), *Review of personality and social psychology,* (Vol. 2, pp. 141-165). Beverly Hills, CA: Sage.

Goldberg, L. R. (1990). An alternative "description of personality": The big-five structure. *Journal of Personality and Social Psychology, 59*(6), 1216-1229.

Goldberg, L. R. (1992a). The development of markers for the Big-Five factor structure. *Psychological Assessment, 4*(1), 26-42.

www.manaraa.com

Goldberg, L. R. (1992b). The social psychology of personality. *Psychological Inquiry, 3*, 89-94

Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist, 48*(1), 26-34.

Goldberg, L. R. (1999). A broad-bandwidth, public-domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. Deary, F. De Fruyt, & F. Ostendorf (Eds.), *Personality psychology in Europe*, Vol. 7 (pp. 7-28). Tilburg, The Netherlands: Tilburg University Press.

Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M.C., Cloninger, C. R., et al., (2006). The international personality item pool and the future of public-domain personality measures. *Journal of Research in Personality, 40*(1), 84-96.

Good, G. E., Dell, D. M., & Mintz, L. B. (1989). Male role and gender role conflict: Relations to help seeking in men. *Journal of Counseling Psychology, 36*(3), 295-300.

Gosling, S. D. (2001). From mice to men: What can we learn about personality from animal research? *Psychological Bulletin, 127,* 45-86.

Gough, H. G., & Bradley, P. (1996). *CPI manual* (third ed.). Palo Alto, CA: Consulting Psychologists Press.

Green, D. E., Walkey, F. H., McCormick, I. A., & Taylor, A. J. (1988). Development and evaluation of a 21-item version of the Hopkins Symptom Checklist with New Zealand and United States respondents. *Australian Journal of Psychology, 40,* 61-70.

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review, 102*(1), 4-27.

www.manaraa.com

Hamilton, D. L., & Sherman, J. W. (1994). Stereotypes. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition (2nd ed., pp. 1-68).* Hillsdale, NJ: Erlbaum.

Hampson, S. E., & Goldberg, L. R. (2006). A first large cohort study of personality trait stability over the 40 years between elementary school and midlife. *Journal of Personality and Social Psychology, 91*(4), 763-779.

Harkness, A. R. (2007). Personality traits are essential for a complete clinical science. In S. O. Lilienfeld & W. T. O'Donohue (Eds.), *The Great Ideas of Clinical Science: 17 Principles that Every Mental Health Professional Should Understand.* New York: Routledge.

Hayward, P., & Bright, J. A. (1997). Stigma and mental illness: A review and critique. *Journal of Mental Health, 6,* 345-354.

Hilton, J. L., & von Hippel, W. (1996). Stereotypes. *Annual Review of Psychology, 47,* 237-271.

International Personality Item Pool: A Scientific Collaboratory for the Development of Advanced Measures of Personality Traits and Other Individual Differences. Retrieved August 18, 2007, from http://ipip.ori.org/. Internet Web Site

Jacobs, D. G. (1995). National depression screening day: educating the public, reaching those in need of treatment and broadening professional understanding. *Harvard Review of Psychiatry, 3,* 156-159.

John, O. P. & Srivastava, S. (1999). The big five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality* (2nd ed., pp. 102-138). New York: The Guilford Press.

www.manaraa.com

Johnson, J. A. (2005). Ascertaining the validity of individual protocols from web-based personality inventories. *Journal of Research in Personality, 39,* 103-129.

Jones, E. E., Farina, A., Hastorf, A. H., Markus, H., Miller, D. T., & Scott, R. A. (1984). *Social stigma: The psychology of marked relationships.* New York: Freeman.

Judd, C. M., & Park, B. (1993). Definition and assessment of accuracy in social stereotypes. *Psychological Review, 100,* 109-128.

Jussim, L., Nelson, T. E., Manis, M., & Soffin, S. (1995). Prejudice, stereotypes, and labeling effects: Sources of bias in person perception. *Journal of Personality and Social Psychology, 68,* 228-246.

Kelly, A. E., & Achter, J. A. (1995). Self-concealment and attitudes toward counseling in university students. *Journal of Counseling Psychology, 45,* 40-46.

Kessler, R.C., Berglund, P., Demler, O., Jin, R., Merikangas, K.R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of *DSM-IV d*isorders in the national comorbidity survey replication. *Archives of General Psychiatry, 62,* 593-602.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., et al., (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the national comorbidity study. *Archives of General Psychiatry, 51,* 8-19.

Komiya, N., Good, G. E., & Sherrod, N. B. (2000). Emotional openness as a predictor of college students' attitudes towards seeking psychological help. *Journal of Counseling Psychology, 47,* 138-143.

Krueger, J. (1996). Personal beliefs and cultural stereotypes about racial characteristics. *Journal of Personality and Social Psychology, 71,* 536-548.

www.manaraa.com

Link, B. G. (1982). Mental patient status, work and income: An examination of the effects of a psychiatric label. *American Sociological Review, 47,* 202-215.

Link, B. G. (1987). Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review, 52,* 96-112.

Link, B. G., Cullen, F. T., Frank, J., & Wozniak, J. F. (1987). The social rejection of former mental patients: Understanding why labels matter. *American Journal of Sociology, 92,* 1461-1500.

Link, B. G., Cullen, F. T., Struening, E., Shrout, P., & Dohrenwend, B. (1989). A modified labeling theory approach to mental disorders: An empirical assessment. *American Sociological Review, 54*(3), 400-423.

Link, B. G., & Phelan, J. C. (2001). Conceptualizing Stigma. *Annual Review of Sociology, 27,* 363-385.

Link, B. G., Struening, E., Neese-Todd, S., Asmussen, S., & Phelan, J. (2001). Stigma as a barrier to recovery: The consequences of stigma for the self-esteem of people with mental illnesses. *Psychiatric Services, 52,* 1621-1626.

Lopez, F. G., Melendez, M. C., Sauer, E. M., Berger, E., & Wyssmann, J. (1998). Internal working models, self-reported problems, and help-seeking attitudes among college students. *Journal of Counseling Psychology, 45,* 79-83.

Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology, 56,* 393-421.

www.manaraa.com

McCrae, R. R., & Costa, P. T. (1985). Updating Norman's "adequate taxonomy": Intelligence and personality dimensions in natural language and in questionnaires. *Journal of Personality and Social Psychology, 49,* 710-721.

McCrae, R. R., & Costa, P. T. (1999). A five-factor theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality* (2nd ed., pp. 139-153). New York: The Guilford Press.

McCrae, R. R., & Costa, P. T. (2003). *Personality in adulthood: A five-factor theory perspective*. (2nd ed.). New York: Guilford Press.

McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality, 60,* 175-215.

Morizot, J., & Le Blanc, M. (2003). Continuity and change in personality traits from adolescence to midlife: A 25-year longitudinal study comparing representative and adjudicated men. *Journal of Personality, 71,* 705-755.

Mueser, K. T., Bellack, A. S., Douglas, M. S., & Morrison, R. L. (1991). Prevalence and stability of social skill deficits in schizophrenia. *Schizophrenia Research, 5,* 167-176.

Mullen, B., Rozell, D., & Johnson, C. (1996). The phenomenology of being in a group: Complexity approaches to operationalizing cognitive representation. In J. L. Nye & A. M. Brower (Eds.), *What's social about social cognition? Research on socially shared cognition in small groups* (pp. 205-229). Thousand Oaks, CA: Sage.

Neyer, F. J., & Lehnart, J. (2007). Relationships matter in personality development: Evidence from an 8-year longitudinal study across young adulthood. *Journal of Personality, 75*(3), 535-568.

www.manaraa.com

Norman, W. T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. *Journal of Abnormal and Social Psychology, 66,* 574-583.

Overbeck, A. L. (1977). Life stress antecedents to application for help at a mental health center: A clinical study of adaptation. *Smith College Studies in Social Work, 47,* 192-233.

Penn, D. L., Guynan, K., Daily, T., Spaulding, W. D., Garbin, C., & Sullivan, M. (1994). Dispelling the stigma of schizophrenia: What sort of information is best? *Schizophrenia Bulletin, 20,* 567-578.

Penn, D. L., & Martin, J. (1998). The stigma of severe mental illness: Some potential solutions for a recalcitrant problem. *Psychiatric Quarterly, 69,* 235-247.

Penn, D. L., Mueser, K. T., & Doonan, R. (1997). Physical attractiveness in schizophrenia: The mediating role of social skill. *Behavior Modification, 21,* 78-85.

Regier, D. A., Myers, J. K., Kramer, M., Robins, L. N., Blazer, D. G., Hough, R. L., et al. (1984). The NIMH epidemiologic catchment area program: Historical context, major objectives, and study population characteristics. *Archives of General Psychiatry, 41,* 934-941.

Regier, D. A., Narrow, W. E., Rae, D. S., Mandersheid, R. W., Locke, B. Z., & Goodwin, F. K. (1993). The de facto U. S. mental and addictive disorders service system: Epidemiologic Catchment Area prospective 1-year prevalence rates of disorders and services. *Archives of General Psychiatry, 50,* 85-94.

www.manaraa.com

Roberts, B. W., Caspi, A., & Moffitt, T. E. (2001). The kids are alright: Growth and stability in personality development from adolescence to adulthood. *Journal of Personality and Social Psychology, 81,* 670-683.

Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality from childhood to old age: A quantitative review of longitudinal studies. *Psychological Bulletin, 126,* 3-25.

Roberts, B. W., Wood, D., & Smith, J. L. (2005). Evaluating five factor theory and social investment perspective on personality trait development. *Journal of Research in Personality, 39,* 166-184.

Robins, R. W., Fraley, R. C., Roberts, B. W., & Trzesniewski, K. H. (2001). A longitudinal study of personality change in young adulthood. *Journal of Personality, 69,* 617-640.

Rolland, J-P. (2002). Cross-cultural generalizability of the Five-Factor Model of personality. In R. R. McCrae & J. Allik (Eds.), *The Five-Factor Model of personality across cultures* (pp. 7-28). New York: Kluwer Academic/Plenum Publishers.

Rosenberg, M. (1989). *Society and the adolescent self-image*. *Revised edition*. Middletown, CT: Wesleyan University Press.

Rowe, D. C. (1994). *The limits of family influence: Genes, experience and behavior*. New York: Guilford.

Rüsch, N., Angermeyer, M. C., & Corrigan, P. W. (2005). Mental illness stigma: Concepts, consequences, and initiatives to reduce stigma. *European Psychiatry, 20,* 529-539.

Rüsch, N., Lieb, K., Bohus, M., & Corrigan, P. W. (2006). Self-stigma, empowerment, and perceived legitimacy of discrimination among women with mental illness. *Psychiatric Services, 57*(3), 399-402.

www.manaraa.com

The Substance Abuse and Mental Health Services Administration. (2008). *What a difference a friend makes.* Retrieved November 11, 2008, from http://www.whatadifference.samhsa.gov.

Satcher, D. (1999). *Mental health: A report of the surgeon general.* Retrieved September 14, 2007, from http://www.surgeongeneral.gov/library/mentalhealth/home.html.

Saucier, G. (1997). Effects of variable selection on the factor structure of person descriptors. *Journal of Personality and Social Psychology, 73,* 1296-1312.

Saucier, G., & Goldberg, L. R. (1996). The language of personality: Lexical perspectives on the five-factor model. In J. S. Wiggins (Ed.), *The five-factor model of personality: Theoretical perspectives* (pp. 21-50). New York: Guilford Press.

Scheff, T. (1974). The labeling theory of mental illness. *American Sociological Review, 39,* 444-452.

Shapiro, S., Skinner, E. A., Kessler, L. G., Von Korff, M., German, P. S., Tischler, G. L., et al. (1984). Utilization of health and mental health services: Three epidemiologic catchment area sites. *Archives of General Psychiatry, 41,* 971-978.

Sibicky, M. & Dovidio, J. F. (1986). Stigma of psychological therapy: Stereotypes, interpersonal reactions, and the self-fulfilling prophecy. *Journal of Counseling Psychology, 33*(2), 148-154.

Sirey, J. A., Bruce, M. L., Alexopoulos, G. S., Perlick, D. A., Raue, P., Friedman, S. J., et al. (2001). Perceived stigma as a predictor of treatment discontinuation in young and older outpatients with depression. *American Journal of Psychiatry, 158*(3), 479-481.

Socall, D. W., & Holtgraves, T. (1992). Attitudes toward the mentally ill: The effects of label and beliefs. *Sociological Quarterly, 33,* 435-445.

www.manaraa.com

Solberg, V. S., Ritsma, S., Davis, B. J., Tata, S. P., & Jolly, A. (1994). Asian-American students' severity or problems and willingness to seek help from university counseling centers: Role of previous counseling experience, gender, and ethnicity. *Journal of Counseling Psychology, 41,* 275-279.

Tellegen, A. (in press). *MPQ (Multidimensional Personality Questionnaire): Manual for administration, scoring, and interpretation.* Minneapolis, MN: University of Minnesota Press.

Thurstone, L. L. (1934). The vectors of mind. *Psychological Review, 41,* 1-32.

Tipper, R., Mountain, D., Lorimer, S., & McIntosh, A. (2006). Support workers' attitudes to mental illness: Implications for reducing stigma. *Psychiatric Bulletin, 30,* 179-181.

Trapnell, P. D., & Wiggins, J. S. (1990). Extension of the Interpersonal Adjective Scales to include the Big Five dimensions of personality. *Journal of Personality and Social Psychology, 59,* 781-790.

Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. *Annual Review of Psychology, 53,* 133-160.

Tupes, E. C., & Christal, R. E. (1958). Stability of personality trait rating factors obtained under diverse conditions (USAF WADC Tech. Note No. 58-61). Lackland Air Force Base, TX: U.S. Air Force.

Tupes, E. C., & Christal, R. E. (1992). Recurrent personality factors based on trait ratings. *Journal of Personality, 60,* 225-251. (Original work published in 1961).

Vaidya, J. G., Gray, E. K., Haig, J., & Watson, D. (2002). On the temporal stability of personality: Evidence for differential stability and the role of life experiences. *Journal of Personality and Social Psychology, 83,* 1469-1484.

www.manaraa.com

Vogel, D. L., Wade, N. G., & Haake, S. (2006). Measuring the self-stigma associated with seeking psychological help. *Journal of Counseling Psychology, 53*, 325-337.

Vogel, D. L., Wade, N. G., & Hackler, A. H. (2007a). Perceived public stigma and the willingness to seek counseling: The mediating roles of self-stigma and attitudes towards counseling. *Journal of Counseling Psychology, 54*(1), 40-50.

Vogel, D. L., Wade, N. G., Wester, S. R., Larson, L. M., & Hackler, A. H. (2007b). Seeking help from a mental health professional: The influence of one's social network. *Journal of Clinical Psychology, 63*(3), 233-245.

Vogel, D. L., & Wester, S. R. (2003). To seek help or not to seek help: The risks of self-disclosure. *Journal of Counseling Psychology, 50*, 351-361.

Vogel, D. L., Wester, S. R., & Larson, L. M. (2007). Avoidance of counseling: Psychological factors that inhibit seeking help. *Journal of Counseling & Development, 85*, 410-422.

Vogel, D. L., Wester, S. R., Wei, M., & Boysen, G. A. (2005). The role of outcome expectations and attitudes on decisions to seek professional help. *Journal of Counseling Psychology, 52*(4), 459-470.

Wahl, O. F. (1999). Mental health consumers' experience of stigma. *Schizophrenia Bulletin, 25*, 467-478.

Wampold, B. E. (2001). *The Great Psychotherapy Debate: Models, Methods, and Findings*. Lawrence Erlbaum Associates: Mahwah, NJ.

Wang, P.S., Lane, M., Olfson, M., Pincus, H.A., Wells, K. B., & Kessler, R. C. (2005). Twelve-month use of mental health services in the United States: Results from the National Comorbidity Survey replication. *Archives of General Psychiatry, 62*(6), 629-640.

www.manaraa.com

Watson, A. C., & River, L. P. (2005). A social-cognitive model of personal responses to stigma. In P. W. Corrigan (Ed.), *On the stigma of mental illness: Practical strategies for research and social change*. Washington, DC: American Psychological Association.

Winter, D. G. & Barenbaum, N. B. (1999). History of modern personality theory and research. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality* (2nd ed., pp. 3-27). New York: The Guilford Press.

Wylie, R. C. (1989). *Measures of self-concept.* Lincoln, NE: University of Nebraska Press.

Yang, K., & Bond, M. H. (1990). Exploring implicit personality theories with indigenous or imported constructs: The Chinese case. *Journal of Personality and Social Psychology, 58*, 1087-1095.

www.manaraa.com

Appendix A: Measures

IPIP NEO-PI-R (Goldberg, 1999)

On the following pages, there are phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes ***you***. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then fill in the bubble that corresponds to the number on the scale.

Response Options

1: Very Inaccurate
2: Moderately Inaccurate
3: Neither Inaccurate nor Accurate
4: Moderately Accurate
5: Very Accurate

1.	N+	Often feel blue.	1	2	3	4	5
2.	E-	Have little to say.	1	2	3	4	5
3.	O+	Believe in the importance of art.	1	2	3	4	5
4.	A-	Have a sharp tongue.	1	2	3	4	5
5.	C+	Am always prepared	1	2	3	4	5
6.	N-	Seldom feel blue	1	2	3	4	5
7.	E+	Feel comfortable around people.	1	2	3	4	5
8.	O-	Am not interested in abstract ideas.	1	2	3	4	5
9.	A+	Have a good word for everyone.	1	2	3	4	5
10.	C-	Waste my time.	1	2	3	4	5
11.	N+	Dislike myself.	1	2	3	4	5
12.	E-	Keep in the background.	1	2	3	4	5

www.manaraa.com

13. O+	Have a vivid imagination.	1	2	3	4	5
14. A-	Cut others to pieces.	1	2	3	4	5
15. C+	Pay attention to details.	1	2	3	4	5
16. N-	Feel comfortable with myself.	1	2	3	4	5
17. E+	Make friends easily.	1	2	3	4	5
18. O-	Do not like art.	1	2	3	4	5
19. A+	Believe that others have good intentions.	1	2	3	4	5
20. C-	Find it difficult to get down to work.	1	2	3	4	5
21. N+	Am often down in the dumps.	1	2	3	4	5
22. E-	Would describe my experiences as somewhat dull.	1	2	3	4	5
23. O+	Tend to vote for liberal political candidates.	1	2	3	4	5
24. A-	Suspect hidden motives in others.	1	2	3	4	5
25. C+	Get chores done right away.	1	2	3	4	5
26. N-	Rarely get irritated	1	2	3	4	5
27. E+	Am skilled in handling social situations.	1	2	3	4	5
28. O-	Avoid philosophical discussions.	1	2	3	4	5
29. A+	Respect others.	1	2	3	4	5
30. C-	Do just enough work to get by.	1	2	3	4	5
31. N+	Have frequent mood swings.	1	2	3	4	5
32. E-	Don't like to draw attention to myself.	1	2	3	4	5
33. O+	Carry the conversation to a higher level.	1	2	3	4	5
34. A-	Get back at others.	1	2	3	4	5
35. C+	Carry out my plans.	1	2	3	4	5
36. N-	Am not easily bothered by things.	1	2	3	4	5
37. E+	Am the life of the party.	1	2	3	4	5
38. O-	Do not enjoy going to art museums.	1	2	3	4	5
39. A+	Accept people as they are.	1	2	3	4	5
40. C-	Don't see things through.	1	2	3	4	5
41. N+	Panic easily.	1	2	3	4	5
42. E-	Don't talk a lot.	1	2	3	4	5

المنارة للاستشارات
www.manaraa.com

43. O+	Enjoy hearing new ideas.	1	2	3	4	5
44. A-	Insult people.	1	2	3	4	5
45. C+	Make plans and stick to them.	1	2	3	4	5
46. N-	Am very pleased with myself.	1	2	3	4	5
47. E+	Know how to captivate people.	1	2	3	4	5
48. O-	Tend to vote for conservative political candidates.	1	2	3	4	5
49. A+	Make people feel at ease.	1	2	3	4	5
50. C-	Shirk my duties.	1	2	3	4	5
51. N+	Am filled with doubts about things.	1	2	3	4	5
52. E-	Avoid contact with others.	1	2	3	4	5
53. O+	Enjoying thinking about things.	1	2	3	4	5
54. A-	Believe that I am better than others.	1	2	3	4	5
55. C+	Complete tasks successfully.	1	2	3	4	5
56. N-	Am relaxed most of the time.	1	2	3	4	5
57. E+	Start conversations.	1	2	3	4	5
58. O-	Do not like poetry.	1	2	3	4	5
59. A+	Am concerned about others.	1	2	3	4	5
60. C-	Mess things up.	1	2	3	4	5
61. N+	Feel threatened easily	1	2	3	4	5
62. E-	Am hard to get to know.	1	2	3	4	5
63. O+	Can say things beautifully.	1	2	3	4	5
64. A-	Contradict others.	1	2	3	4	5
65. C+	Do things according to a plan.	1	2	3	4	5
66. N-	Seldom get mad.	1	2	3	4	5
67. E+	Warm up quickly to others.	1	2	3	4	5
68. O-	Rarely look for a deeper meaning in things.	1	2	3	4	5
69. A+	Trust what people say.	1	2	3	4	5
70. C-	Leave things unfinished.	1	2	3	4	5
71. N+	Get stressed out easily.	1	2	3	4	5
72. E-	Retreat from others.	1	2	3	4	5

المنارة للاستشارات
www.manaraa.com

73. O+	Enjoy wild flights of fantasy.	1	2	3	4	5
74. A-	Make demands on others.	1	2	3	4	5
75. C+	Am exacting in my work.	1	2	3	4	5
76. N-	Am not easily frustrated.	1	2	3	4	5
77. E+	Talk to a lot of different people at parties.	1	2	3	4	5
78. O-	Believe that too much tax money goes to support artists.	1	2	3	4	5
79. A+	Sympathize with others' feelings.	1	2	3	4	5
80. C-	Don't put my mind on the task at hand.	1	2	3	4	5
81. N+	Fear for the worst.	1	2	3	4	5
82. E-	Find it difficult to approach others.	1	2	3	4	5
83. O+	Get excited by new ideas.	1	2	3	4	5
84. A-	Hold a grudge.	1	2	3	4	5
85. C+	Finish what I start.	1	2	3	4	5
86. N-	Remain calm under pressure.	1	2	3	4	5
87. E+	Don't mind being the center of attention.	1	2	3	4	5
88. O-	Am not interested in theoretical discussions.	1	2	3	4	5
89. A+	Am easy to satisfy.	1	2	3	4	5
90. C-	Make a mess of things.	1	2	3	4	5
91. N+	Worry about things.	1	2	3	4	5
92. E-	Keep others at a distance.	1	2	3	4	5
93. O+	Have a rich vocabulary.	1	2	3	4	5
94. A-	Am out for my own personal gain.	1	2	3	4	5
95. C+	Follow through with my plans.	1	2	3	4	5
96. N-	Rarely lose my composure.	1	2	3	4	5
97. E+	Cheer people up.	1	2	3	4	5
98. O-	Have difficulty understanding abstract ideas.	1	2	3	4	5
99. A+	Treat all people equally.	1	2	3	4	5
100. C-	Need a push to get started.	1	2	3	4	5

www.manaraa.com

SSOSH (Vogel, Wade, & Haake, 2006)

Self-Stigma of Seeking Help Scale

People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean. Please use the 5-point scale to rate the degree to which each item describes how you might react in this situation.

1 = Strongly Disagree 2 = Disagree 3 = Agree & Disagree Equally 4 = Agree 5 = Strongly Agree

1. I would feel inadequate if I went to a therapist for psychological help.
2. My self-confidence would NOT be threatened if I sought professional help.
3. Seeking psychological help would make me feel less intelligent.
4. My self-esteem would increase if I talked to a therapist.
5. My view of myself would not change just because I made the choice to see a therapist.
6. It would make me feel inferior to ask a therapist for help.
7. I would feel okay about myself if I made the choice to seek professional help.
8. If I went to a therapist, I would be less satisfied with myself.
9. My self-confidence would remain the same if I sought professional help for a problem I could not solve.
10. I would feel worse about myself if I could not solve my own problems.

Items 2, 4, 5, 7, and 9 are reverse scored.

www.manaraa.com

SSRPH (Komiya, Good, & Sherrod, 2000)

Stigma Scale for Receiving Psychological Help

Please answer the following from (1) Strongly Disagree to (4) Strongly Agree

1. Seeing a psychologist for emotional or interpersonal problems carries social stigma.	1	2	3	4
2. It is a sign of personal weakness or inadequacy to see a psychologist for emotional or interpersonal problems.	1	2	3	4
3. People will see a person in a less favorable way if they come to know that he/she has seen a psychologist.	1	2	3	4
4. It is advisable for a person to hide from people that he/she has seen a psychologist.	1	2	3	4
5. People tend to like less those who are receiving professional psychological help.	1	2	3	4

Scoring: add the items, higher scores reflect a greater perception of stigma.

www.manaraa.com

ATSPPH-S (Fischer & Farina, 1995)

Attitudes Towards Seeking Professional Psychological Help, Short Form

1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention
2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional problems
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears *without* resorting to professional help.
5. I would want to get psychological help if I were worried or upset for a long period of time.
6. I might want to have psychological counseling in the future.
7. A person with an emotional problem is not likely to solve it alone; he or she *is* likely to solve it with professional help.
8. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.
9. A person should work out his or her own problems; getting psychological counseling would be a last resort.
10. Personal and emotional troubles, like many things, tend to work out by themselves.

Items 2, 4, 8, 9, and 10 are reversed scored. Items are summed to gain a total score from 10 to 40.

www.manaraa.com

HSCL – 21 (Green, Walkey, McCormick, & Taylor 1988)

Hopkins Symptom Checklist - 21

How have you felt during the past seven days including today? Use the following scale to describe how distressing you have found these things over this time.

1 = Not at all

2 = A little

3 = Quite a bit

4 = Extremely

1. Difficulty in speaking when you are excited
2. Trouble remembering things
3. Worried about sloppiness or carelessness
4. Blaming yourself for things
5. Pains in the lower part of your back
6. Feeling lonely
7. Feeling blue
8. Your feelings being easily hurt
9. Feeling others do not understand you or are unsympathetic
10. Feeling that people are unfriendly or dislike you
11. Having to do things very slowly in order to be sure you are doing them right
12. Feeling inferior to others
13. Soreness of your muscles
14. Having to check and double-check what you do
15. Hot or cold spells
16. Your mind going blank
17. Numbness or tingling in parts of your body
18. A lump in your throat
19. Trouble concentrating
20. Weakness in parts of your body
21. Heavy feelings in your arms and legs

Scoring: Sum the scores, higher sums indicate more psychological distress.

www.manaraa.com

Demographic Questionnaire

Sex: Male; Female; Other

Age: _____

Year in School: First; Second; Third; Fourth; Fifth; Sixth and Beyond

Identified Ethnicity:

Black/African American: ____

Asian/Pacific Islander: ____

Non-Caucasian Latino/a: ____

Native American/Inuit: ____

White/Caucasian: ____

Other: ____

Are you currently involved in counseling or receiving psychological services? Yes or No

Have you ever previously sought counseling or received psychological services? Yes or No

www.manaraa.com

Table B1

SSRPH Descriptive Statistics and Inter-Item Correlations

	SSRPH Items								Range	
Item	2	3	4	5	Total	M	Mdn	SD	Min.	Max.
1	0.31	0.43	0.21	0.26	0.62	2.70	3	0.68	1	4
2		0.40	0.38	0.36	0.70	2.04	2	0.76	1	4
3			0.41	0.57	0.80	2.39	2	0.75	1	4
4				0.46	0.69	2.07	2	0.71	1	4
5					0.74	2.18	2	0.69	1	4
Total						11.38	11	2.55	5	20

Note: α = .75; N = 772

Table B2

SSOSH Descriptive Statistics and Inter-Item Correlations

	SSOSH Items													Range	
Item	2	3	4	5	6	7	8	9	10	Total	M	Mdn	SD	Min.	Max.
1	0.58	0.66	0.42	0.44	0.68	0.63	0.66	0.38	0.57	0.81	2.56	2	1.13	1	5
2		0.57	0.43	0.49	0.62	0.60	0.63	0.44	0.52	0.79	2.73	3	1.09	1	5
3			0.40	0.39	0.64	0.63	0.67	0.38	0.54	0.80	2.37	2	1.03	1	5
4				0.23	0.43	0.47	0.48	0.20	0.36	0.58	2.89	3	0.94	1	5
5					0.46	0.42	0.43	0.50	0.38	0.63	2.84	3	1.03	1	5
6						0.65	0.73	0.44	0.59	0.84	2.53	2	1.08	1	5
7							0.70	0.44	0.53	0.81	2.40	2	0.94	1	5
8								0.40	0.61	0.85	2.45	2	1.00	1	5
9									0.37	0.62	2.85	3	0.98	1	5
10										0.74	2.91	3	1.12	1	5
Total											26.50	26	7.77	10	50

Note: α = .91; N = 761

www.manaraa.com

Table B3

ATSPPH Descriptive Statistics and Inter-Item Correlations

	ATSPPH Items													Range	
Item	2	3	4	5	6	7	8	9	10	Total	M	Mdn	SD	Min.	Max.
1	0.39	0.47	0.20	0.37	0.29	0.34	0.35	0.27	0.22	0.62	2.36	2	0.77	1	4
2		0.55	0.22	0.44	0.33	0.32	0.45	0.49	0.34	0.71	2.97	3	0.69	1	4
3			0.13	0.54	0.41	0.37	0.40	0.36	0.25	0.70	2.72	3	0.72	1	4
4				0.12	0.14	0.17	0.25	0.35	0.26	0.44	2.40	2	0.71	1	4
5					0.41	0.33	0.36	0.35	0.24	0.65	2.88	3	0.71	1	4
6						0.39	0.36	0.37	0.27	0.64	2.44	2	0.81	1	4
7							0.28	0.35	0.33	0.61	2.52	3	0.70	1	4
8								0.51	0.33	0.68	2.64	3	0.74	1	4
9									0.51	0.73	2.54	3	0.80	1	4
10										0.59	2.58	3	0.69	1	4
Total											26.04	26	4.68	10	40

Note: α = .84; N = 770

www.manaraa.com

Table B4

HSCL-21 Inter-Item Correlations

	HSCL-21 Items																				
Item	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
1	0.30	0.26	0.27	0.12	0.26	0.24	0.24	0.28	0.30	0.31	0.36	0.21	0.27	0.26	0.32	0.25	0.28	0.26	0.23	0.24	0.48
2		0.39	0.30	0.23	0.26	0.28	0.27	0.27	0.27	0.31	0.34	0.17	0.29	0.26	0.47	0.25	0.25	0.42	0.25	0.25	0.54
3			0.43	0.18	0.30	0.32	0.29	0.25	0.31	0.37	0.30	0.20	0.34	0.31	0.34	0.24	0.31	0.31	0.31	0.29	0.55
4				0.28	0.50	0.54	0.51	0.45	0.43	0.32	0.50	0.26	0.32	0.34	0.36	0.29	0.30	0.38	0.35	0.30	0.66
5					0.26	0.22	0.28	0.22	0.21	0.20	0.23	0.49	0.24	0.30	0.27	0.29	0.25	0.23	0.39	0.32	0.49
6						0.73	0.56	0.53	0.48	0.24	0.49	0.21	0.22	0.33	0.32	0.25	0.35	0.37	0.30	0.32	0.65
7							0.59	0.55	0.45	0.29	0.51	0.24	0.25	0.32	0.34	0.27	0.38	0.40	0.34	0.31	0.68
8								0.62	0.51	0.30	0.49	0.23	0.28	0.35	0.31	0.21	0.32	0.30	0.31	0.27	0.65
9									0.58	0.31	0.46	0.23	0.24	0.27	0.31	0.23	0.27	0.30	0.33	0.27	0.63
10										0.37	0.58	0.16	0.27	0.30	0.35	0.25	0.30	0.32	0.28	0.27	0.62
11											0.43	0.28	0.56	0.34	0.41	0.30	0.28	0.33	0.32	0.32	0.60
12												0.26	0.37	0.40	0.39	0.31	0.36	0.36	0.33	0.34	0.68
13													0.36	0.40	0.32	0.40	0.33	0.26	0.51	0.46	0.55
14														0.42	0.40	0.36	0.33	0.29	0.35	0.32	0.60
15															0.49	0.50	0.55	0.31	0.51	0.51	0.65
16																0.40	0.44	0.51	0.42	0.42	0.67
17																	0.46	0.24	0.54	0.53	0.59
18																		0.36	0.55	0.54	0.63
19																			0.40	0.36	0.60
20																				0.71	0.67
21																					0.64

www.manaraa.com

Table B5

HSCL-21 Descriptive Statistics

Item	M	Mdn	SD	Range	
				Min.	Max
1	1.58	1	0.70	1	4
2	1.87	2	0.73	1	4
3	1.81	2	0.80	1	4
4	2.00	2	0.86	1	4
5	1.87	2	0.93	1	4
6	1.85	2	0.88	1	4
7	1.78	2	0.82	1	4
8	1.78	2	0.87	1	4
9	1.76	2	0.86	1	4
10	1.65	1	0.81	1	4
11	1.63	1	0.77	1	4
12	1.57	1	0.76	1	4
13	2.00	2	0.92	1	4
14	1.82	2	0.84	1	4
15	1.41	1	0.72	1	4
16	1.73	2	0.79	1	4
17	1.37	1	0.68	1	4
18	1.33	1	0.67	1	4
19	2.12	2	0.85	1	4
21	1.50	1	0.76	1	4
20	1.39	1	0.72	1	4
Total	35.69	33	10.20	21	81

Note: α = .92; N = 759

www.manaraa.com

Table B6

IPIP-NEO Neuroticism Inter-Item Correlations

	Neuroticism Items																			
Item	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
1	0.50	0.66	0.42	0.72	0.46	0.30	0.30	0.38	0.44	0.44	0.39	0.44	0.39	0.29	0.33	0.41	0.35	0.32	0.26	0.68
2		0.40	0.60	0.56	0.40	0.26	0.28	0.38	0.44	0.59	0.38	0.38	0.37	0.30	0.30	0.35	0.32	0.33	0.26	0.66
3			0.37	0.57	0.39	0.28	0.30	0.32	0.34	0.36	0.35	0.39	0.33	0.35	0.33	0.35	0.30	0.32	0.32	0.62
4				0.51	0.35	0.24	0.29	0.39	0.41	0.65	0.46	0.35	0.36	0.30	0.32	0.33	0.26	0.40	0.26	0.63
5					0.50	0.30	0.32	0.42	0.45	0.50	0.40	0.47	0.39	0.33	0.33	0.41	0.31	0.33	0.29	0.71
6						0.45	0.47	0.44	0.38	0.33	0.39	0.43	0.47	0.45	0.45	0.34	0.32	0.37	0.38	0.69
7							0.51	0.30	0.28	0.28	0.33	0.32	0.37	0.56	0.53	0.25	0.26	0.27	0.35	0.58
8								0.38	0.30	0.31	0.43	0.33	0.44	0.50	0.52	0.28	0.34	0.36	0.37	0.62
9									0.45	0.34	0.43	0.51	0.61	0.29	0.43	0.48	0.49	0.53	0.35	0.70
10										0.41	0.36	0.47	0.47	0.25	0.35	0.52	0.46	0.37	0.23	0.65
11											0.39	0.37	0.31	0.28	0.33	0.30	0.26	0.37	0.25	0.62
12												0.35	0.52	0.39	0.47	0.35	0.38	0.46	0.33	0.67
13													0.44	0.33	0.40	0.47	0.41	0.38	0.30	0.66
14														0.33	0.53	0.43	0.63	0.50	0.30	0.72
15															0.52	0.21	0.24	0.34	0.45	0.60
16																0.32	0.40	0.44	0.39	0.68
17																	0.49	0.33	0.21	0.62
18																		0.38	0.24	0.62
19																			0.42	0.64
20																				0.54
Total																				

www.manaraa.com

Table B7

IPIP-NEO Neuroticism Descriptive Statistics

				Range	
Item	M	Mdn	SD	Min.	Max
1	2.34	2	1.07	1	5
2	2.05	2	1.05	1	5
3	2.67	2	1.08	1	5
4	2.17	2	0.92	1	5
5	2.10	2	0.99	1	5
6	2.63	2	1.10	1	5
7	3.12	3	1.05	1	5
8	3.01	3	1.07	1	5
9	2.46	2	1.20	1	5
10	3.00	3	1.06	1	5
11	2.41	2	0.93	1	5
12	2.44	2	0.97	1	5
13	2.39	2	1.03	1	5
14	3.22	3	1.20	1	5
15	2.73	3	1.08	1	5
16	3.05	3	1.08	1	5
17	2.73	3	1.20	1	5
18	3.53	4	1.09	1	5
19	2.53	2	0.99	1	5
20	2.46	2	0.93	1	5
Total	53.01	52	13.60	20	96

Note: $\alpha = 0.93$; N = 760

www.manaraa.com

Table B8

IPIP-NEO Extraversion Inter-Item Correlations

	Extraversion Items																			
Item	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
1	0.39	0.55	0.41	0.38	0.44	0.33	0.37	0.44	0.35	0.31	0.23	0.59	0.30	0.38	0.44	0.33	0.31	0.32	0.40	0.64
2		0.49	0.57	0.33	0.52	0.27	0.41	0.53	0.41	0.42	0.28	0.43	0.39	0.48	0.54	0.38	0.39	0.40	0.51	0.69
3			0.53	0.41	0.50	0.44	0.49	0.59	0.45	0.44	0.26	0.60	0.39	0.48	0.49	0.40	0.32	0.41	0.51	0.75
4				0.38	0.53	0.30	0.48	0.57	0.42	0.42	0.34	0.48	0.41	0.48	0.54	0.45	0.45	0.42	0.57	0.75
5					0.34	0.21	0.32	0.43	0.26	0.36	0.25	0.39	0.34	0.36	0.33	0.34	0.25	0.33	0.34	0.57
6						0.32	0.46	0.47	0.44	0.35	0.38	0.48	0.51	0.40	0.51	0.36	0.39	0.38	0.49	0.71
7							0.43	0.39	0.45	0.25	0.17	0.37	0.31	0.26	0.34	0.24	0.18	0.20	0.34	0.54
8								0.46	0.55	0.24	0.28	0.47	0.46	0.30	0.50	0.31	0.35	0.28	0.59	0.69
9									0.40	0.47	0.23	0.53	0.34	0.48	0.55	0.49	0.35	0.45	0.53	0.76
10										0.30	0.28	0.39	0.43	0.35	0.41	0.27	0.31	0.28	0.45	0.64
11											0.32	0.38	0.22	0.54	0.33	0.56	0.42	0.53	0.33	0.63
12												0.31	0.32	0.32	0.33	0.27	0.37	0.26	0.27	0.48
13													0.35	0.43	0.48	0.41	0.32	0.36	0.45	0.72
14														0.24	0.44	0.26	0.27	0.24	0.37	0.57
15															0.42	0.43	0.42	0.57	0.42	0.68
16																0.35	0.42	0.38	0.57	0.72
17																	0.45	0.40	0.36	0.63
18																		0.36	0.40	0.59
19																			0.36	0.61
20																				0.72

www.manaraa.com

Table B9

IPIP-NEO Extraversion Descriptive Statistics

				Range	
Item	M	Mdn	SD	Min.	Max
1	3.74	4	1.02	1	5
2	3.86	4	0.90	1	5
3	3.40	4	1.07	1	5
4	3.78	4	0.99	1	5
5	3.84	4	1.01	1	5
6	3.66	4	0.91	1	5
7	2.82	3	1.01	1	5
8	2.91	3	1.06	1	5
9	3.33	4	1.15	1	5
10	3.33	4	1.09	1	5
11	3.43	4	1.07	1	5
12	4.02	4	0.73	1	5
13	3.60	4	1.14	1	5
14	3.30	3	0.87	1	5
15	3.87	4	0.98	1	5
16	3.57	4	0.95	1	5
17	3.48	4	1.15	1	5
18	3.62	4	0.93	1	5
19	3.50	4	1.01	1	5
20	3.34	4	1.17	1	5
Total	68.89	70	12.12	24	100

Note: $\alpha = 0.93$; N = 750

www.manaraa.com

Table B10

Testing the moderating effect of Neuroticism on the help seeking model while controlling for gender effects using hierarchical multiple regression

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
Gender	-1.17	-0.15	0.29	-4.02***	0.02	0.02	0.02	16.15***	1, 728
Step 2									
Neuroticism	-0.63	-0.08	0.25	-2.53**	0.29	0.29	0.27	139.13***	2, 726
SSRPH	4.07	0.53	0.24	16.68***					
Step 3									
Neuroticism x SSRPH	-0.41	-0.06	0.20	-2.02*	0.30	0.29	0.00	4.09*	1, 725
Step 4									
Neuroticism x Gender	-0.05	-0.01	0.27	-.17 ^{ns}	0.30	0.29	0.00	0.03 ^{ns}	3, 722
SSRPH x Gender	-0.04	-0.01	0.26	-.15 ^{ns}					
Neuroticism x SSRPH x Gender	-0.02	0.00	0.22	-.09 ^{ns}					
Attitudes									
Step 1									
Gender	1.04	0.21	0.18	5.88***	0.05	0.04	0.05	34.54***	1, 724
Step 2									
Neuroticism	0.68	0.14	0.13	5.21***	0.48	0.47	0.43	295.32***	2, 722
SSOSH	-3.08	-0.65	0.13	-23.82***					
Step 3									
Neuroticism x SSOSH	-0.15	-0.04	0.11	-1.31 ^{ns}	0.48	0.47	0.00	1.70 ^{ns}	1, 721
Step 4									
Neuroticism x Gender	0.02	0.01	0.14	0.17 ^{ns}	0.48	0.48	0.00	1.69 ^{ns}	3, 718
SSOSH x Gender	-0.09	-0.02	0.14	-0.62 ^{ns}					
Neuroticism x SSOSH x Gender	-0.27	-0.07	0.12	-2.24*					

* p < .05. ** p < .01. *** p < .001.

www.manaraa.com

Table B11

Testing the moderating effect of Neuroticism on the help seeking model while controlling for having participated in psychological services using hierarchical multiple regression

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
Previous Treatment (PT)	-2.18	-0.26	0.30	-7.23***	0.07	0.07	0.07	52.24***	1, 729
Step 2									
Neuroticism	-0.39	-0.05	0.25	-1.59**	0.319	0.316	0.25	134.43***	2, 727
SSRPH	3.93	0.51	0.24	16.36***					
Step 3									
Neuroticism x SSRPH	-0.42	-0.07	0.20	-2.12*	0.323	0.319	0.004	4.44*	1, 726
Step 4									
Neuroticism x PT	0.04	0.01	0.27	0.01 ^{ns}	0.325	0.318	0.002	0.69 ^{ns}	3, 723
SSRPH x PT	0.14	0.02	0.28	0.02 ^{ns}					
Neuroticism x SSRPH x PT	-0.31	-0.05	0.22	-0.05 ^{ns}					
Attitudes									
Step 1									
Previous Treatment (PT)	1.36	0.26	0.19	7.24***	0.07	0.07	0.07	52.43***	1, 725
Step 2									
Neuroticism	0.71	0.15	0.13	5.40***	0.47	0.47	0.40	274.12***	2, 723
SSOSH	-3.07	-0.65	0.13	-23.02***					
Step 3									
Neuroticism x SSOSH	-0.13	-0.03	0.11	-1.31 ^{ns}	0.47	0.47	0.00	1.28 ^{ns}	1, 722
Step 4									
Neuroticism x PT	0.07	0.02	0.16	0.47 ^{ns}	0.48	0.47	0.01	3.79**	3, 719
SSOSH x PT	-0.22	-0.05	0.15	-1.46 ^{ns}					
Neuroticism x SSOSH x PT	-0.34	-0.08	0.13	-2.60*					

* p < .05. ** p < .01. *** p < .001.

www.manaraa.com

Table B12

Testing the moderating effect of Neuroticism on the help seeking model while controlling for reported psychological distress using hierarchical multiple regression

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	Adj. R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
HSCL-21	-0.42	-0.05	0.29	-1.42 ^{ns}	0.003	0.001	0.003	2.03 ^{ns}	1, 708
Step 2									
Neuroticism	-0.49	-0.06	0.30	-1.59 ^{ns}	0.30	0.30	0.30	148.97***	2, 706
SSRPH	4.24	0.55	0.25	17.26***					
Step 3									
Neuroticism x SSRPH	-0.45	-0.07	0.21	-2.18*	0.30	0.30	0.005	4.74*	1, 705
Step 4									
Neuroticism x HSCL-21	-0.40	-0.07	0.22	-1.86 ^{ns}	0.31	0.30	0.008	2.63*	3, 702
SSRPH x HSCL-21	-0.04	-0.01	0.30	-0.14 ^{ns}					
Neuroticism x SSRPH x HSCL-21	-0.21	-0.06	0.15	-1.37 ^{ns}					
Attitudes									
Step 1									
HSCL-21	0.73	0.15	0.18	4.10***	0.02	0.02	0.02	16.84***	
Step 2									
Neuroticism	0.68	0.14	0.16	4.24***	0.47	0.47	0.45	299.42***	
SSOSH	-3.16	-0.66	0.13	-24.19***					
Step 3									
Neuroticism x SSOSH	-0.13	-0.03	0.11	-1.17 ^{ns}	0.47	0.47	0.001	1.36 ^{ns}	
Step 4									
Neuroticism x HSCL-21	0.07	0.02	0.12	0.61 ^{ns}	0.48	0.47	0.001	0.60 ^{ns}	
SSOSH x HSCL-21	0.01	0.003	0.17	0.07 ^{ns}					
Neuroticism x SSOSH x HSCL-21	-0.08	-0.03	0.09	-0.88 ^{ns}					

* p < .05. ** p < .01. *** p < .001.

www.manaraa.com

Table B13

Testing the moderating effect of Extraversion on the help seeking model while controlling for gender using hierarchical multiple regression

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
Gender	-1.18	-0.15	0.29	-4.03***	0.02	0.02	0.02	16.22***	1, 718
Step 2									
Extraversion	-0.11	-0.02	0.22	-0.52 ns	0.29	0.28	0.26	132.01***	2, 716
SSRPH	3.98	0.51	0.22	18.26***					
Step 3									
Extraversion x SSRPH	0.54	0.07	0.18	3.05*	0.29	0.29	0.01	5.32*	1, 715
Step 4									
Extraversion x Gender	0.03	0.00	0.26	0.12 ns	0.29	0.29	0.00	0.49ns	3, 712
SSRPH x Gender	-0.27	-0.03	0.26	-1.03 ns					
Extraversion x SSRPH x Gender	0.13	0.02	0.25	0.52 ns					
Attitudes									
Step 1									
Gender	1.08	0.22	0.31	7.33***	0.05	0.05	0.05	36.79***	1, 716
Step 2									
Extraversion	-0.15	-0.03	0.12	-0.65***	0.46	0.46	0.41	269.42***	2, 714
SSOSH	-3.06	-0.65	0.11	-22.05***					
Step 3									
Extraversion x SSOSH	-0.02	-0.01	0.10	-0.32 ns	0.46	0.46	0.00	0.04 ns	1, 713
Step 4									
Extraversion x Gender	0.22	0.05	0.14	1.55 ns	0.46	0.46	0.004	1.57 ns	3, 710
SSOSH x PT	-0.06	-0.01	0.13	-0.46 ns					
Extraversion x SSOSH x Gender	0.17	0.04	0.13	1.35 ns					

* p < .05. ** p < .01. *** p < .001.

www.manaraa.com

Table B14

Testing the moderating effect of Extraversion on the help seeking model while controlling for having participated in psychological services using hierarchical multiple regression

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
Previous Treatment (PT)	-2.23	-0.26	0.30	-7.33***	0.07	0.07	0.07	53.76***	1, 719
Step 2									
Extraversion	-0.29	-0.04	0.24	-1.20 ^{ns}	0.32	0.31	0.25	129.92***	2, 717
SSRPH	3.82	0.49	0.25	15.57***					
Step 3									
Extraversion x SSRPH	-0.52	0.07	0.23	2.28*	0.32	0.32	0.005	5.20*	1, 716
Step 4									
Extraversion x PT	-0.14	-0.00	0.27	-0.05 ^{ns}	0.32	0.32	0.00	0.09 ^{ns}	3, 713
SSRPH x PT	-0.04	-0.01	0.28	-0.16 ^{ns}					
Extraversion x SSRPH x PT	-0.13	-0.09	0.25	-0.52 ^{ns}					
Attitudes									
Step 1									
Previous Treatment (PT)	1.37	0.26	0.19	7.33***	0.07	0.07	0.07	53.76***	1, 717
Step 2									
Extraversion	-0.09	-0.02	0.14	-0.65***	0.45	0.45	0.38	246.27***	2, 715
SSOSH	-3.02	-0.64	0.14	-22.05***					
Step 3									
Extraversion x SSOSH	-0.04	-0.01	0.13	-0.32 ^{ns}	0.45	0.45	0.00	0.10 ^{ns}	1, 714
Step 4									
Extraversion x PT	-0.01	0.00	0.16	-0.01 ^{ns}	0.45	0.45	0.00	1.29 ^{ns}	3, 711
SSOSH x PT	-0.26	0.16	-0.05	-1.68 ^{ns}					
Extraversion x SSOSH x PT	0.13	0.14	0.03	0.95 ^{ns}					

* p < .05. ** p < .01. *** p < .001.

www.manaraa.com

Table B15

Testing the moderating effect of Extraversion on the help seeking model while controlling for reported psychological distress using hierarchical multiple regression

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
HSCL-21	-0.35	-0.05	0.30	-1.19 ^{ns}	0.002	0.001	0.002	1.41 ^{ns}	1, 698
Step 2									
Extraversion	-0.31	-0.04	0.26	-1.18 ^{ns}	0.30	0.29	0.29	144.68***	2, 696
SSRPH	4.19	0.54	0.25	16.58***					
Step 3									
Extraversion x SSRPH	0.66	0.09	0.23	-2.82**	0.30	0.30	0.008	7.92**	1, 695
Step 4									
Extraversion x HSCL-21	0.16	0.02	0.22	0.72 ^{ns}	0.31	0.30	0.005	1.65 ^{ns}	3, 692
SSRPH x HSCL-21	-0.43	-0.07	0.22	-1.98 ^{ns}					
Extraversion x SSRPH x HSCL-21	-0.07	-0.02	0.17	-0.42 ^{ns}					
Attitudes									
Step 1									
HSCL-21	0.72	0.15	0.18	4.04***	0.02	0.02	0.02	16.32***	1, 695
Step 2									
Extraversion	0.04	0.14	0.01	0.28 ^{ns}	0.46	0.46	0.44	280.78***	2, 693
SSOSH	-3.12	-0.66	0.13	-23.45***					
Step 3									
Extraversion x SSOSH	-0.06	-0.01	0.13	-0.48 ^{ns}	0.46	0.46	0.00	0.23 ^{ns}	1, 692
Step 4									
Extraversion x HSCL-21	0.22	0.05	0.12	1.83 ^{ns}	0.46	0.46	0.00	1.62 ^{ns}	3, 689
SSOSH x HSCL-21	-0.10	-0.02	0.13	-0.75 ^{ns}					
Extraversion x SSOSH x HSCL-21	0.14	0.04	0.11	1.34 ^{ns}					

* p < .05. ** p < .01. *** p < .001.

www.manaraa.com

Table B16

The moderating effect of Agreeableness on the help seeking model

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
Agreeableness	-0.66	-0.08	.21	-3.14**	0.29	0.29	0.29	143.07***	2, 711
SSRPH	3.92	0.51	.21	18.67***					
Step 2									
Agreeableness x SSRPH	.34	.051	.22	1.60^{ns}	0.29	0.29	0.00	2.56^{ns}	1, 710
Attitudes									
Step 1									
Agreeableness	0.04	0.01	0.11	0.36^{ns}	0.44	0.44	0.44	277.59***	2,708
SSOSH	-3.10	-0.66	0.11	-28.18***					
Step 2									
Agreeableness x SSOSH	0.17	0.04	0.12	1.39^{ns}	0.44	0.44	0.00	1.93^{ns}	1, 707

* p < .05. ** p < .01. *** p < .001.

www.manaraa.com

Table B17

The moderating effect of Conscientiousness on the help seeking model

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
Conscientiousness	-0.01	-0.00	0.25	-0.05 ^{ns}	0.27	0.27	0.27	136.09***	2, 725
SSRPH	4.06	0.52	0.25	16.47***					
Step 2									
Conscientious x SSRPH	0.23	0.03	0.23	1.04 ^{ns}	0.27	0.27	0.00	1.09^{ns}	1, 724
Attitudes									
Step 1									
Conscientiousness	-0.23	-0.05	0.13	-1.77 ^{ns}	0.44	0.44	0.44	283.41***	2, 722
SSOSH	-3.10	-0.66	0.13	-23.79***					
Step 2									
Conscientious x SSRPH	0.12	0.03	0.12	1.01 ^{ns}	0.441	0.44	.001	1.02 ^{ns}	1, 721

* p < .05. ** p < .01. *** p < .001.

www.manaraa.com

Table B18

The moderating effect of Openness to Experience on the help seeking model

Criterion, step, and variable	*B*	*β*	*SE B*	*t*	R^2	*Adj.* R^2	R^2 *inc.*	*F inc.*	*df*
Self-Stigma									
Step 1									
Openness	-0.66	-0.08	0.20	-3.30**	0.28	0.28	0.28	141.05***	2, 714
SSRPH	4.03	0.52	0.20	20.15***					
Step 2									
Openness x SSRPH	0.12	0.02	0.23	0.51 ns	0.28	0.28	0.00	0.26 ns	1, 713
Attitudes									
Step 1									
Openness	0.44	0.09	0.11	4.00***	0.45	0.45	0.45	289.39***	2, 711
SSOSH	-3.05	-0.65	0.11	-27.73***					
Step 2									
Openness x SSOSH	0.22	0.05	0.12	1.90*	0.45	0.45	0.003	3.60 *	1, 710

* p < .05. ** p < .01. *** p < .001.

www.manaraa.com