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From attitude to intent to action: Predictors of psychological help-seeking behavior among clinically distressed adults

by

Rachel Lori Bitman-Heinrichs

A dissertation submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Psychology (Counseling Psychology)

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DEDICATION

This dissertation is dedicated to my grandparents Leonor and Arturo Sanchez, and Melvin and Lillian Bitman, who worked tirelessly to help others lead lives that are more satisfying and whose countless acts of service, love, and compassion continue to be an inspiration to me and many others.

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ABSTRACT

Although many people suffer from mental health concerns, a large proportion of these people do not seek psychological help (Alonso et al., 2009; Clement et al., 2015; Kessler et al., 2003; Thornicroft, 2007; Vogel, Wester & Larson, 2006). Research indicates that public and self-stigma, attitudes toward counseling, and intentions to seek counseling are all important factors in the help-seeking process (Bayer & Peay, 1997; Cooper et al., 2003; Corrigan, 2004; Komiya et al., 2000; Link et al., 2014; Mojtabai, Olfson, & Mechanic, 2002; Sirey et al., 2001; Vogel et al., 2005; Vogel, Wade, & Haake, 2006; Vogel, Wade, & Hackler, 2007). However, one glaring omission exists in the vast majority of this research: very few studies measure actual help-seeking behavior. In addition, most of this research has been conducted with college students, most of whom did not have a current mental health concern. In the present study I explored psychological help-seeking behavior in a clinically distressed sample of adults. In particular, I explored whether public stigma of help-seeking, self-stigma of help-seeking, and attitudes towards receiving professional psychological help predicted intentions to seek help in a sample of clinically distressed adults. Additionally, I examined these relationships with actual help-seeking behavior. For this study a total of N =125 clinically distressed adults completed two surveys two weeks apart. Results of the hierarchical regression predicting attitudes suggested that self-stigma predicted attitudes above and beyond the other variables entered into the model. Results of the hierarchical regression predicting hypothetical intentions revealed that encouragement and pressure to seek help by friends and family and attitudes toward counseling are more predictive than self-stigma when all variables were entered into the model. Results of a third hierarchical regression predicting actual intentions revealed similar patterns; self-stigma was related to actual intentions but not in the final model, in which ethnicity, social

encouragement, and attitudes predicted actual intentions above and beyond the other variables entered into the model. Results of a logistic regression predicting actual behavior (i.e., scheduling or attending an appointment with a mental health professional) suggest that minority ethnicity, greater public stigma, and greater hypothetical intentions predicts actual help-seeking behavior. Results are discussed based on previous research, Theory of Planned Behavior (TPB), and Theory of Reasoned Action (TRA). Limitations, implications, and future recommendations are discussed.

CHAPTER 1

INTRODUCTION

One in four adults (approximately 61.5 million Americans) experience mental illness in a given year. Per some estimates, more than fifty percent of American adults will meet DSM-5 criteria for a mental illness within their lifetime (Clement, Schauman, Graham, Maggioni, Evans-Lacko, Bezborodovs, Rüsch, Brown, Thornicroft, 2015). However, less than forty percent of these individuals actually seek help from mental health professionals for mental health concerns (Alonso et al., 2009; Clement et al., 2015; Kessler et al., 2003; Thornicroft, 2007; Vogel, Wester, & Larson, 2006). For those who do seek help, many delay services, have difficulty adhering to treatment, or withdraw prematurely (Eisenberg, Downs, Golberstein, & Zivin, 2009; Nose, Barbu, & Tansella, 2003; Sirey et al., 2001). Researchers have estimated that approximately 20 to 50 percent of individuals who seek out counseling services miss appointments or discontinue services prematurely (Swift & Callahan, 2010).

Several models have been proposed to explain these phenomena. Models have explained service use in several contexts, including the combined effects of sociodemographics (age, gender, education), access (income, insurance, availability), and severity of illness. Yet, all of these have only demonstrated modest power in predicting help-seeking for individuals with mental illness or personal problems (Aromaa, Tolvanen, Tuulari, & Whalbeck, 2011). Several theoretical models have also been proposed to explain help-seeking behavior. Two of the most prominent models are the Theory of Reasoned Action and Modified Labeling Theory.

One commonality among these theories is an individual's consideration of the costs and benefits of participating in specific treatments. In other words, people weigh the pros and cons when making the decision to seek or not to seek mental health services (Aromma et al., 2011).

These considerations, as well as several other variables considered within these frameworks, suggest a matrix of possible influences that may motivate someone to approach or avoid seeking mental health services. Though many purportedly predict behavior, none of the established theories in this literature provide a comprehensive conceptualization of how different variables interplay in the process of deciding on, facilitating, and ultimately following through (or not) with attending an initial mental health appointment.

One potential cost to engaging in treatment is the risk of being stigmatized (Brown & Bradley, 2002; Corrigan, 2004; Vogel, Shectman, & Wade, 2010). Often, individuals hesitate to use mental health services because they fear being labeled and want to avoid negative consequences associated with stigma (Satcher, 1999). Stigma is “the perception of being flawed because of a personal characteristic that is regarded as socially unacceptable” (Vogel et al., 2006, p. 325). Stigma can be categorized as public (what others believe about a person) and self (what a person believes about him/herself). Both types of stigma exist about having a mental illness and about seeking psychological help. This results in four distinct types of stigma: public stigma of mental illness, public stigma of seeking psychological help, self-stigma of mental illness, and self-stigma of seeking psychological help (Corrigan, 2004; Tucker et al., 2013; Vogel, Wade, & Haake, 2006). Though related, both public and self-stigma each play unique roles in the underutilization of mental health care (Corrigan, 2004).

As a mark of disgrace that others associate with mental illness and/or seeking psychological help, public stigma correlates with poor attitudes and negative behaviors towards those with mental illness or those who seek services. Perceptions of public stigma have also been connected to lowered intentions to seek psychological care, poorer attitudes about services, difficulty with treatment adherence, and early treatment termination (e.g., Cooper et al., 2003;

Komiya et al., 2000; Mojtabai, Olfson, & Mechanic, 2002; Sirey et al., 2001; Vogel, Wade & Hackler, 2007). Additionally, stereotyping, discrimination, and prejudice associated with having a mental illness and seeking treatment have been demonstrated to make it difficult for individuals to achieve life goals such as buying a house or obtaining a job (Corrigan, 2004).

Self-stigma—generally, the internalized stigma associated with having a mental illness and/or seeking psychological help—has been shown to uniquely and negatively influence feelings of empowerment, self-esteem, hope, and social integration (Girma et al., 2013), and is related to lower self-esteem and self-efficacy (Corrigan, 2004; Holmes & River, 1998; Link et al., 2014). Additionally, it is related to lowered treatment participation, effectiveness of psychotherapeutic treatment, and increased difficulty in recovery from mental illness (Hobson, 2008). Self-stigma is positively related to public stigma and negatively related to attitudes towards counseling. In conjunction with attitudes about counseling, self-stigma has been shown to mediate the relationship between public stigma and one's willingness to seek mental health services (Vogel et al., 2007).

The broad negative impact of stigma as a barrier to treatment is universally acknowledged. Millions of dollars are spent annually in the United States and abroad to develop and implement interventions and campaigns designed to reduce stigma and spread awareness of available interventions. However, little is yet known about self-stigma and its impact on actual help-seeking behaviors. There are significant gaps in the literature regarding the effects of stigma on actual behavior, as well as how stigma may change or have varying effects on behavior over time and across treatment. A better understanding of this would help illuminate more nuanced effects of stigma, and streamline interventions and campaigns aimed at preventing and

overcoming stigma. This could ultimately increase help-seeking behaviors and treatment compliance among individuals with mental illness.

This study will examine the role of self-stigma of help seeking on actual help-seeking behaviors and mental health outcomes. Unlike previous research that has largely focused on attitudes and intentions within college student populations, this study will measure the impact of self-stigma on actual help seeking behaviors in a clinical sample of adults who begin the process of seeking professional psychological help.

CHAPTER 2

LITERATURE REVIEW

The number of individuals living with or at risk for developing a mental illness is staggering. Approximately one out of every four individuals experiences mental illness in a given year (Clement et al., 2015). Of those, approximately half are diagnosed with two or more disorders. In a recent study conducted by The World Health Organization (WHO), mental illness and suicide accounted for over fifteen percent of the years of life lost to mortality and to time lost to ill health in the United States. This is more than the disease burden caused by all cancers combined (WHO, 2004).

In line with this, Demyttenaere and colleagues (2004) studied the prevalence, severity and treatment of Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) mental disorders in 14 countries (6 less developed, 8 developed) in the WHO's World Mental Health (WMH) Survey Initiative. Researchers conducted face-to-face household surveys of 60,463 community adults from 2001 to 2003 in 14 countries in the Americas, Europe, Middle East, Africa and Asia. Within the United States, of the individuals surveyed, 18.2% met criteria for anxiety disorders, 9.6% mood disorders, 6.8 impulse control disorders, 3.8% for substance use and 26.4 for any disorder. Of those who met criteria, 52.3% of those with an illness categorized as serious received health care treatment, 34.1% with moderate categorization received treatment and 22.5% with a mild disorder received treatment. Serious cases included serious lethal suicide attempts within the past 12 months, work limitations due to mental illness or substance disorders, symptoms of psychosis, bipolar disorders, substance dependence that impacted daily functioning, serious repeated violence due to problems with impulse control, and mental illness that resulted in 30 or more days out of life roles (Demyttenaere, Bruffaerts,

Posada-Villa, Gasquet, Kovess, Lepine, & Chatterji, 2004). Moderate cases were defined as those that included a suicidal gesture, plan, or ideation, substance dependence without impact on work or daily tasks, or any disorder that had a moderate impact on daily functioning (Demyttenaere et al., 2004). Researchers also noted that the three countries with the highest overall prevalence estimates also had the lowest proportions of treatment devoted to sub threshold cases (52-59%). In other words, approximately half of individuals with a serious mental health concern receive treatment, and even fewer individuals with moderate, mild, or subthreshold mental health concerns access care.

Trends and global health projections indicate that psychological symptoms will continue to impact and worsen among the United States population. For instance, estimates have demonstrated that over fifty percent of American adults will meet DSM-5 criteria for a mental illness within their lifetime (National Alliance on Mental Illness, 2014). Additionally, researchers projected that between 2002 and 2030, depressive disorders will increase from the fourth to the second leading cause of disability. The WHO projects that in the next 30 years, self-inflicted injuries resulting in death will increase from the fourteenth to the twelfth leading cause of death worldwide (Mathers & Loncar, 2006). Given the negative impacts of mental illness, forming effective interventions, and understanding how and why an individual seeks or does not seek psychological help is vital (Brown & Bradley, 2002).

Efficacy of Psychotherapy

Research has firmly established that psychological treatments are effective for treating a wide range of issues (Chorpita et al., 2011; Smith, Glass, & Miller, 1980; Wampold, 2013). The benefits of psychotherapy span across most diagnostic conditions with variations more often due to severity than particular diagnosis. Research has consistently demonstrated that variations in

outcome are mostly influenced by chronicity, complexity, social support and intensity, as well as by clinician and context factors (Beutler, 2009; Beutler & Malik, 2002a; Drisko, 2004; Lambert & Bergin, 1994; Malik & Beutler, 2002b; Wampold, 2001).

Regardless of type of treatment, research suggests that psychotherapy is likely to result in improvements for clients by stimulating the healing process and helping clients to develop lifelong skills that can help them better manage problems that arise in the future (Brown & Bradley, 2002; Hollon, Stewart, & Strunk, 2006; Shelder, 2010). In line with this, studies that measure psychotherapy effectiveness have reported that the benefits of treatment endure and continue to improve even after therapy has ended (Leichsenring & Rabung, 2008; Leichsenring, Rabung, & Leibing, 2004; Shedler, 2010).

Additionally, research suggests that psychotherapy reduces medical utilization and expense (Chiles, Lambert & Hatch, 2002; Linehan et al., 2006). Chiles and colleagues (2002) reported that individuals diagnosed with mental health disorders who received treatment had their overall medical costs reduced by 17 percent compared to a 12.3 percent increase in medical costs for individuals diagnosed with a mental illness who did not receive treatment. However, to reap the benefits of therapy, an individual must first decide to seek help.

Help-Seeking Behavior

Formal help-seeking specifically refers to the act or acts of seeking help from a professional who has a recognized role and appropriate training in providing interventions. In the case of mental illness, this might include mental health professionals such as psychologists, psychiatrists, or counselors (Rickwood, Deane, Wilson, & Ciarrochi, 2005). Several studies on non-professional help-seeking have found that individuals often do not ask for help, even from family and friends, in order to protect their self-esteem (Nadler & Fisher, 1986; Vogel et al.,

2006). Additional studies indicate that individuals are less likely to seek help from family and friends or teachers if they fear being embarrassed (Mayer & Timms, 1970; Nadler, 1991) or believe the act of seeking help will result in feelings of incompetence or inferiority (Nadler, 1991).

Despite the potential benefits one can receive from obtaining mental health services, studies consistently demonstrate that the majority of people who could benefit do not seek professional help. Some studies have estimated less than forty percent of individuals who suffer from mental illness in a given year actually seek help from mental health professionals (Alonso, Angermeyer, Bernet, Bruffaerts, & Brugha, 2004; Clement et al., 2015; Kessler et al., 2005; Thornicroft, 2007; Vogel et al., 2006; Wittchen & Jacobi, 2005). Of those who do seek and receive mental health services, some drop out prematurely (Olfson et al., 2009). These numbers are worse in low- and middle-income communities, in which mental health care may be less accessible (Wang, 2007).

Avoiding or delaying care can have significant negative consequences. Untreated mental illness is associated with worse outcomes in major depressive disorder, anxiety disorders, bipolar disorder, and psychosis (Boonstra et al., 2012; Dell Osso et al., 2013). Of those who seek help, many delay services, have difficulty adhering to treatment regimens, or withdraw prematurely from treatment, which often results in negative outcomes (Nose et al., 2003; Barret et al., 2008; Eisenberg et al., 2009; Sirey et al., 2001; Wang et al., 2005). Thus, there is a high level of unmet need among individuals with mental illness (Pattyn, Verhaeghe, Sercu, & Bracke, 2014).

Mental Health Service Use

A study conducted in 2007 that examined use of mental health services over a twelve-month period in the United States found that just over 40 percent of individuals with mental

illness received some form of treatment (Wang et al., 2007). Similar results were found in the 2008 National Survey on Drug Use and Health (Department of Health and Human Services, 2009). This study found that over 13 percent of adults in the United States received treatment for a mental health problem in inpatient and outpatient settings, or used prescription medication for mental or emotional problems. Additionally, over half of adults with serious mental illness received treatment, and the most common types of treatment were outpatient services and prescription medication. National Surveys on Drug Use and Health (NSDUHs) conducted between 2008 and 2012 found that of the 31,000 respondents of varying ethnic groups across the United States surveyed 30 percent of individuals with mental health concerns sought treatment (Substance Abuse and Mental Health Service Administration, 2015). These results demonstrate that only 13 to 40 percent of those needing help actually received it. To understand possible reasons why more people are not receiving the help they need, one must understand the processes at play in help-seeking, particularly scheduling and attending initial counseling appointments.

Barriers to Scheduling and Attending Psychological Services

Seeking help from a mental health provider often entails getting in contact with a mental health agency. After calling an agency, support staff may assist the individual by scheduling an initial "intake" or screening appointment. During intake appointments clients meet with a mental health professional who, in most cases, conducts a thorough mental health screening. This consists of listening to the individual's presenting concerns and gathering information about the individual's developmental, social, psychological and medical histories, as well as pertinent identities. This information is then utilized to assist the individual in determining type of treatment within or outside of the agency and, in some cases, treatment goals. Initial

appointments are important, as they can help individuals familiarize themselves with the agency, provide an opportunity to experience what it may be like to meet one-on-one with a counselor, and may be a time to address questions and concerns about treatment.

Unfortunately, even if a client contacts and schedules a first appointment with a mental health provider, this does not always result in use of services. One possible reason for this is wait-time. Some individuals are able to access same-day services while some wait for months before they are able to see a mental health provider. This is problematic as researchers have consistently found that individuals who endured a longer delay in service assignment from initial contact are more likely not to utilize services (Booth & Bennett, 2004; Reitzel, Stellrecht, Gordon, Lima, Wingate, Brown, Wolfe, Zenoz, & Joiner, 2006). One study found that every day of wait time led to a 150% increase in absenteeism at first appointment (Swift, Whipple &Sandberg, 2012).

The percentage of scheduled sessions that are not attended by clients has been found to vary from ten to 60 percent (Sherman, Barnum, Buhman-Wiggs & Nyberg, 2009; Sparr, Moffitt, & Ward, 1993) and attendance at first appointments has been found to be exceptionally low (Neelman & Mikhail, 1997). First appointments are not only more often missed, but are less frequently rescheduled than appointments for ongoing treatment (Barrett et al., 2008; Gottsfield & Martinez, 1972; Killaspy et al., 2000; Lefforge, Donohue, & Strada, 2007; Peeters & Bayer, 1999; Sparr et al., 1993). One study found that nine percent of missed appointments occurred in the first month since initial contact (Melo & Guimaraes, 2005). Rates of missed first appointments have been found to positively correlate with increased time delay between initial referral (or scheduling) and the actual appointment (Gallucci, Swartz & Hackerman, 2005;

Grunebaum et al., 1996). Aligned with this, rates of missed follow-up appointments increase with delay between assessment and treatment (Jackson et al., 2006).

In psychiatry, non-attendance rates for first appointments range from 10 to 40 percent (Compton et al., 2006; Kruse, Rholand, & Wu, 2002; Mitchell & Selmes, 2007b) and are twice as high as those found in other medical sectors. In community mental health sectors, researchers have reported no-show rates (clients missing appointments without calling to cancel or reschedule) ranging from 26 to 50 percent (Chen, 1991), with one study reporting no-show rates as high as 64 percent (Compton et al., 2006). These high rates are cause for concern.

Researchers have found that early non-attendance increases the risk of future non-attendance (Carpenter et al., 1981). For instance, Peetrs and Bayer found that approximately 50 percent of individuals who do not attend first appointments do not seek any further help (Peeters & Bayer, 1999). Similarly, Pang and colleagues (1996) followed 250 individuals over the course of six months after missing an initial appointment, and found that approximately 50 percent dropped out of treatment altogether. In a separate study, individuals who missed first appointments were more likely to disengage from clinic contact altogether than clients who missed a follow-up appointment or clients who attended follow-up appointments after missing an intake appointment (Feitsma, Popping, & Jansen, 2012).

These findings are similar even for those with severe mental illness (SMI). Compton and colleagues (2006) found that patients with SMI who were recently discharged from the hospital who did not attend scheduled outpatient appointments were less likely to maintain compliance with prescribed medication. These findings are consistent with research indicating that individuals with SMI who do not attend their appointments are at greater risk of being re-hospitalized or of endangering themselves or others (Kruse, et al., 2002; Nelson, 2014). Not

surprisingly, approximately 28 percent of victims of suicide had lost contact with mental health services prior to their death, and 24 percent of deaths occurred within a month of being discharged from a hospital but before attending an initial appointment at a community mental health center (Steering committee of the confidential inquiry into homicides and suicides by mentally ill people, 1996).

This research indicates that seeking and receiving treatment is not consistent, despite the degree of severity of symptoms. Many people, from those who are struggling with problems in living to those profoundly affected by SMI, are not receiving treatment that could alleviate their pain, reduce their symptoms, and improve daily functioning. This issue has yet to be comprehensively understood. Certainly, several different barriers impede these individuals' ability to seek and utilize relevant resources (see later discussion), and the above research notes how it can negatively impact the individuals. However, nonattendance also has a negative impact on the mental health delivery system as a whole.

Impact of Underuse of Psychological Services

Empirical research in the area of mental health service utilization has found that underutilization of mental health services impacts clients, clinicians, and the mental health service delivery system. Below is a brief summary of how these various levels of service provision are affected.

Clients

As described above, there is a general conclusion in the literature that individuals who attend and complete psychotherapy treatment are better off than individuals who do not attend appointments or who drop out prematurely (Pekarik, 1992). Killaspy and colleagues (2000) found that individuals who missed their mental health appointments were more unwell and more

functionally impaired than those who attended. Also, patients who do not attend their initial appointment after being discharged from an inpatient setting may be twice as likely as those who kept at least one outpatient appointment to be re-hospitalized in the same year (Nelson et al., 2014). Similarly, individuals who do not attend their appointments have a 33 percent chance of being admitted to the hospital within the preceding twelve months compared with a 20 percent chance for those who attend their appointments (Killaspy et al., 2000). These studies are in line with previous findings that suggest individuals who did not attend their appointments after being discharged from the hospital were at greater risk for being re-hospitalized, sometimes with more serious symptoms that could put them or others at risk (Kruse et al., 2002; Olfson et al., 1998).

In a meta-analysis on this topic, Howard, Kopta, Karause, and Orlinsky (1986) examined 15 studies where researchers reported psychological improvements as it varied with number of psychotherapy sessions received. They found that approximately 53% of patients demonstrated measurable improvements in eight sessions, 75% at 26 sessions and 85% at 52 sessions. Since this seminal study, a number of studies have improved upon this original meta-analysis by using more reliable change measures, and by delineating parameters for clinically significant change (Erekson, 2013). These studies have found a similar positive relationship between number of sessions received and total proportion of significant change. Additionally, they also found evidence to support a negatively accelerating curve, indicating that each incremental increase in the number of sessions yields a decreasing proportion of clients achieving significant change (Barkham et al., 2006; Stiles, Barkham, Connell, & Mellor-Clark, 2008). Furthermore, studies that examined dose-effect response using session by session outcome measures have found support for the does-effect relationship and estimate that 13 to 18 sessions are sufficient for 50% of clients to recover, where recovery is measured by clinically significant change on the

Outcome Questionaire-45 (OQ-45; Hansen, Lambert, & Foreman, 2002). In a recent study, Erekson (2013) examined change trajectories of 16,003 clients using multi-level modeling and session frequency as a fixed effect. Results suggested that more frequent therapy was associated with a steeper recovery curve. Additionally, researchers found that individuals who attended once a week had more clinically significant change than those who attended once every two weeks. Results also indicated that those who attended once every two weeks had more significant deterioration than those who attended once a week.

A substantial amount of research has established a correlation between missed appointments and medication non-adherence (Mitchell & Selmes, 2007a). As can be expected, discontinuation of medication can lead to significant deterioration in quality of life. Patients who miss appointments with mental health professionals are not able to obtain the full benefit of medical services, and thus are less likely to make informed choices about their care (Mitchell & Selmes, 2007a). In sum, individuals who do not attend their first appointment or who drop out of treatment early do not receive the help that they need (Baekeland & Lundwall, 1975; Pekarik, 1983; Weighill, Hodge, & Peck, 1983).

Agencies

When clients do not attend appointments, the efficiency and economics of mental health agencies are negatively impacted (Dubinsky, 1986; Garfield, 1986) For instance, failure to attend treatment or terminating prematurely can unnecessarily create longer wait times for others seeking help (Barrett et al., 2008; Bischoff & Sprenkle, 1993; Garfield, 1994). Longer waitlists may be more discouraging for individuals seeking help, as they are associated with increased loss of desire, motivation, and courage to engage with mental health services (Freund, Russell, & Schweitzer, 1991). This relationship between wait time for appointments and no-show rates

appears circular: longer wait times increases the chances of missed appointments, and missed appointments may create longer wait times. This is supported by research, which indicates high no-show rates to be associated with a period of wait prior to treatment entry (Gallucci et al., 2005; Glyngdal, Sorensen, & Kistrup, 2002; May, 1991). This same body of research also found that a reduction of waiting time leads in general to fewer missed appointments and fewer hospitalizations (Redko, Rapp, & Carlson, 2006; Sturm & Sherbourne, 2001).

Wait time has also been linked to reduced quality of life, poorer social and physical functioning, feelings of difficulty and frustration, and poorer health status (Oudhoff, Timmermans, Bijnen, & Ven Der Wal, 2004; Oudholff, Timmerman, Knol, Bijnen, & Ven der Wal, 2007; Sampalis, Boukas, Liberman, Reid, & Dupuis, 2001). In a 2006 ethnographic study, Redko et al. (2006) interviewed individuals with substance abuse or dependence disorders who were referred to substance use services. Participants reported considerable frustration with wait times. One participant specifically noted that not having access to services impeded her ability to apply for a job or engage in any other meaningful activities (Redko et al., 2006). Biringer, Sundfor, Davidson, Hartbeit, and Borg (2015) found that individuals coped differently with delayed access to treatment. In their study, the wait caused some to worry more about treatment, whereas for others the wait led to creative coping strategies such as keeping up with routines, spending time with family and friends, exercising, spending time with animals and family pets, or researching on the internet (Biringer et al., 2015). Despite developing strategies to cope during the wait for services, most participants found the time on the waiting list problematic and challenging. Clients still had to cope with hardships in their everyday life, and some experienced additional fear about the upcoming treatment that intensified with longer waits.

Missed appointments have also been found to result in increased provider frustration (Husain-Gambles, Neal, Dempsey, Lawlor & Hodgson, 2004), decreased levels of provider empathy, and decreased quality of patient-provider communication (Pesata, Pallija & Webb, 1999). In a study exploring general practitioner (GP) attitudes, GP's developed negative attitudes about patients who unexpectedly missed appointments (Husain-Gambles et al., 2004).

Delivery System

Lack of mental health service use by clients in need can also have a profound effect on the mental health delivery system as a whole. For instance, as of 1999 the financial cost of missed appointments was estimated to be approximately $360 million per year (Stone, Palmer, Saxby, & Devaraj, 1999). Extending from this, decisions about administrative structure and financial allocations are often driven by the number of clients served at an agency. When clients miss appointments for reasons other than improved symptoms, this may appear as though the need for services in an area is decreased, and agency service provision becomes deflated. The need for clinicians can be underestimated and administrative structure is negatively affected when clients fail to attend their appointments (Klein et al., 2003). Over time, this may lead to a deficit in service providers relative to the needs of the population (Baekland & Lundwall, 1975; Imber, Frank, Gliedman, Nash, & Stone, 1956). Client nonattendance may also lead to increased clinician job dissatisfaction, which may lead to greater clinician turnover rates (Pekarik, 1983). High turnover rates at community mental health centers have been common, with some estimates as high as 34 percent of clinicians leaving each year (Pekarik, 1983; Clement et al., 2015).

Mental health agencies have been forced to find creative ways to offset losses created by underutilization of services. For instance, agencies have created and implemented policies that require clients to pay a fee if they miss appointments or fail to provide adequate advanced notice.

However, enforcing the payment of these fees when clients do not attend their appointments is difficult. Many agencies invest in outreach such as weekly reminder calls, texts, or emails. While these methods have proven somewhat useful to reduce missed appointments, it has raised questions about confidentiality and often results in significant use of agency funds as well as staff time and energy. Even when clients give advanced notice that they will not attend an appointment, some agencies attempt to cold-call clients on a wait list to offer appointments during the newly freed time slot. This is done in an effort to fill clinician's schedules both to generate otherwise lost revenue, and to assist in providing services to needed individuals. However, while this may reduce the negative impacts of missed appointments, it can leave clinicians ill-prepared for sessions with impromptu clients, and may result in disrupted schedules for both clinicians and clients. This may lead to increased anxiety or added stress for both the clinician and the client. For those individuals on the waitlist, some agencies refer service users to self-help and management strategies they might try out while waiting, while others simply focus on only providing individuals with brief interventions (Vallerand & McLennan, 2013; Williams, Latta, & Conversano, 2008).

Perhaps most salient is the direct impact of missed appointments on agency capital. Research has consistently identified that the underutilization of mental health services can have significant effects on agency funding. Publically funded agencies such as community mental health centers, may receive fewer funds than needed to serve less advantaged and impoverished communities when no-show rates are high. This is especially problematic as these communities tend to have the highest need for these services. Additionally, high no-show rates and clinician turnover may also negatively impact agencies' reputations or ability to provide consistent services, which may lead to fewer individuals seeking services from particular agencies

(Clement et al., 2015; Pekarik, 1983). For all of these reasons, it is important to understand the dynamics of how would-be clients identify, facilitate, and follow through with professional services for mental health issues.

Theoretical Frameworks that Explain Help-Seeking Behavior

As demonstrated above, many individuals with mental illness who might benefit from treatment do not obtain services. Several theoretical models have been posited that may help to explain how the above variables interact and possibly influence health-oriented decision-making processes. In this section I will review the frameworks and research behind the Health Belief Model, the Theory of Reasoned Action, and the Theory of Planned Behavior.

The Health Belief Model

The Health Belief Model (HBM) is a framework used to explain health behavior as well as non-compliance with recommended health action (Becker & Rosenstock, 1984). HBM emerged in the 1950s as a way of explaining why medical screening programs implemented by the U.S. Public Health Service were not successful (Hochbaum, 1958). Specifically, HBM posits that driving forces for health behavior are personal beliefs or perceptions an individual has about a disease and the treatments available to decrease its impact (Hochbaum, 1958).

The model has four main constructs, which include perceived susceptibility, seriousness, benefits, and barriers. Perceived susceptibility refers to an individual's perceived chances of getting a disease. Perceived benefits refers to an individual's perception that a new behavior or course of action is better than what they are already doing. Perceived barriers refers to what an individual perceives will stop him or her from adopting a new behavior. Perceived seriousness is an individual's judgement of the severity of their disease. Additional constructs have also recently been added to the model which include modifying variables, cue to action and self-

efficacy. Modifying variables refers to personal factors (i.e., sex, ethnicity, socioeconomic status, and personality) that affect whether or not a behavior is adopted. Cue to action refers to factors that will start a person on the way to changing behavior and self-efficacy refers to an individual's belief in their ability to do something. Researchers note that these variables can be used to explain health behavior on their own or in combination.

This model has been used in several studies to date to help illuminate the factors at play in health action. Turner, Hunt, DiBrezzo, and Jones (2004) conducted a study to explore the impact of an osteoporosis prevention program that used the Health Beliefs Model for middle aged women and found that increasing perceived severity, susceptibility, benefits, self-efficacy, and cue to action while also reducing barriers led to increased participation in the program. In another study, Gustafson, Getting, Watt, Morse, and Krishnamurti (2007) explored the health beliefs of African American women to determine causes of low acceptance of genetic testing and counseling despite high prevalence of sickle cell disease among this population. Results suggested that African American women had high belief of the severity of sickle cell and saw the benefits of genetic counseling but did not appear to believe they were at risk of having a child with the disease. Cyz, Horwitz, Eisenberg, Kramer, and King (2013) explored self-reported barriers to help-seeking among college students at risk for suicide. They utilized the HBM to explain barriers to help-seeking among college students at risk for suicide. Results indicated that barriers included perception that treatment is not needed, lack of time, preference to self-manage, and stigma.

Theory of Reasoned Action and Planned Behavior

Ajzen and Fishbein (1980) proposed the Theory of Reasoned Action (TRA), and later the Theory of Planned Behavior (TPB; 1991), both of which help to elucidate the influential factors

during an individual's decision to perform or not perform a certain behavior. According to TRA, the most important determinant of behavior is behavioral intention. Behavioral intentions are heavily influenced by attitudes towards performing a behavior in question (i.e., attending an initial appointment) and the subjective norms associated with performing that behavior. Following this, TPB proposes that an individual's perceived control over performance of a behavior also directly influences an individual's decision to perform that behavior.

According to Ajzen and Fishbein (1980), one's attitude about a behavior is dependent on an individual's beliefs or anticipations regarding outcomes or attributions of performing the behavior (called behavioral beliefs), as well as one's evaluations of those outcomes or attributes. For instance, if an individual associates negative outcomes or attributes with seeking help from a mental health professional, then the individual will likely possess a negative attitude about seeking help from mental health professionals (Ajzen & Fishbein, 1980). These beliefs are often heavily influenced by norms.

Subjective norms are determined by normative beliefs, or the approval or disapproval of others in an individual's close social network, as well as the individual's motivation to comply with those individuals. If an individual thinks that a behavior is approved or encouraged by individuals with whom he is close, then he may be more motivated to meet these expectations, and will likely possess a positive subjective norm about engaging in the behavior (Montano, Kaspryzk, Glanz, Rimer, & Viswanath, 2008). However, if the individual believes that individuals in his social network hold negative beliefs about the behavior, he will create and hold negative subjective norms about that behavior.

In addition to attitudes and subjective norms, Ajzen and Fishbein (1980) noted that the most proximal determinant of behavior is intention. Intention refers to the degree to which the

individual perceives that behavior is within volitional control. This is determined by control beliefs, which refers to the presence or absence of enablers and barriers to performance, as well as their perceived power to facilitate or inhibit the behavior. Madden, Ellen, and Ajzen (1992) argued that when volitional control over a behavior is high, the effect of perceived control declines and intention is sufficient to predict behavior.

According to TPB, perceived control is an independent determinant of behavioral intention. In other words, a person's belief about a behavior's level of difficulty will influence his or her intention to perform that behavior. Researchers agree that the degree to which attitudes, subjective norms, and perceived control impact behaviors will depend on the behavior and population being measured (Ajzen & Fishbein, 1980).

Factors that Influence Psychological Help-Seeking Behavior

Attitudes Towards Seeking Professional Psychological Help

According to Ajzen and Fishbein's (1980) TRA and Ajzen's (1991) TPB, attitudes heavily influence intentions to seek help. With regards to psychological help-seeking, researchers have consistently shown that attitudes toward seeking professional help are the best predictor of help-seeking intention (Bayer & Peay, 1997, Halgin, Weaver, Edell, & Spencer, 1987, Deane & Todd, 1991, Vogel et al., 2005). More specifically, Deane and Todd (1991) found that attitudes towards seeking professional psychological help predicted help-seeking intentions with regard to personal emotional problems and suicidal thoughts. Vogel and colleagues (2005) examined the role of attitudes in mediating the relationship between 11 psychological and personal factors (social stigma, treatment fears, self-disclosure, self-concealment, anticipated risk, anticipated utility, social norm, distress, social support, previous therapy, sex of the participant) and intentions to seek professional help in a sample of college

students. Results demonstrated that these psychological factors, plus attitudes, predicted 63% of the variance in intention to seek help for interpersonal problems and 18% of the variance for drug problems. Furthermore, attitudes mediated the relationship between the majority of psychological factors included in the study and intentions.

Research has firmly established a diverse range of factors in addition to attitudes and intentions that play a role in help-seeking decisions (Rickwood, Deane, Wilson, & Ciarrochi, 2005). As noted above, empirical studies have demonstrated many factors that motivate or inhibit an individual from seeking help. One way of understanding these factors is with two distinct categories: internal factors, including psychological or demographic variables, and external factors, or variables related to the environment.

Other Important Influences

In this section I will review internal factors beyond general attitudes and intentions that may motivate or inhibit individuals from seeking professional psychological help. Most importantly, this section will review literature on established connections between help-seeking and stigma, including general public and self-stigmas, as well as the public and self-stigmas specifically related to seeking psychological help. I will discuss limitations of the research, and also review additional internal influences including psychological distress, functional impairment, sex, and race. I will conclude with an exploration of one external influence, that is the influence of people encouraging a loved one to seek psychological help. It is important to note that internal influences may stem from external influences and vice versa and distinguishing variables in these categories is not the focus of this paper. Rather, the focus is on a review of important variables identified in the help-seeking literature.

Stigma of Mental Illness and Seeking Mental Health Care

Stigma as it applies to mental health is particularly important, as it has been found to significantly impede individuals' pursuit of activities. It has been linked to increased experiences of discrimination, unemployment, and income loss (Link, 1982; Link, Mirotznik, & Cullen, 1991), constricted social support networks (Link, Cullen, & Struening, 1989; Perlick et al. 2001), decreased quality of life (Rosenfield, 1997; Markowitz, 1998), increased depressive symptoms and demoralization (Link, 1987; Link et al., 1997), delayed help-seeking (Sirey et al., 2001), reduced self-esteem (Link et al., 2008; Link, Struening, Neese-Todd, Asmussen, & Phelan, 2014), and reduced opportunities for employment, education, health care, marriage, and parenthood (Clement et al., 2015).

Researchers have also consistently noted that stigma is one of the major barriers that keeps people from seeking and adhering to psychological treatment (Brown & Bradley, 2002; Corrigan, 2004; Vogel, Shectman & Wade, 2010). For instance, an individual may avoid seeking treatment or mask his or her symptoms to avoid being labeled "mentally ill" or a "therapy client" (Corrigan, 2004). Some individuals may purposely conceal their use of mental health services by paying significantly increased out-of-pocket service fees so as to avoid disclosing to an insurance company, or by withholding or concealing information from family or friends. Individuals may also avoid seeking treatment or disclosing their mental health struggles with others out of fear that judgment will cause shame and embarrassment. Unfortunately, this may lead to avoiding otherwise helpful treatment altogether.

Public Stigma

Public stigma in the context of mental health refers to negative and detrimental perceptions endorsed by the general population that an individual who has a mental illness or

seeks mental health services is undesirable or unacceptable (Corrigan, 2004; Vogel et al., 2006; Vogel & Wade, 2009; Vogel et al., 2013). In other words, public stigma is the prejudice and discrimination endorsed by the public that affects a person (Corrigan, Morris, Michaels, Rafacz & Rüsch, 2012).

Public sigma about mental illness is salient in the Western world. For instance, studies suggest that the majority of U.S. citizens (Link et al., 1987; Phelan, Link, & Stueve, 2000; Roman & Floyd, 1981) and many Western European nations hold stigmatizing attitudes about mental illness (Bhugra, 1989; Madianos, Madianou, Vlachonikolis, & Stefanis, 1987). Researchers have found that even trained professionals from various mental health disciplines hold negative stereotypes about mental illness (Keane, 1990). The public generally seems to disapprove of people with psychiatric disabilities significantly more than people with related conditions such as physical illnesses (Corrigan, River & Lundin, 2000). More specifically, people with mental illness are externally perceived to be in control of—and therefore "responsible" or "to blame" for—their disability. A media analysis of film and print found individuals with mental illness to be portrayed as childlike, as well as at fault for their illness due to weakness in character (Wahl, 1995). This is consistent with findings of a more current study in which mentally ill individuals were publicly assumed as "weak, social rejects," and "crazy" or associated with an inflated sense of fear that psychiatric patients are violent and unpredictable (Clement et al., 2015). Furthermore, people are less likely to empathize with those who have a mental illness, often reacting to their disability with anger and at times believing that help is not deserved (Corrigan & Rüsch, 2002).

Public stigma of seeking psychological help. One specific type of public stigma is the public's stigmatization of seeking psychological help (regardless of whether the help-seeker has

a formal mental illness or not). Thus, public stigma of seeking psychological help is the negative view held by a society about individuals who seek help from mental health professionals (Clement et al., 2015; Corrigan, 2001). Public stigma of seeking help has been found to predict negative attitudes towards help-seekers and help-seeking behaviors (Ben-Porath, 2002; Komiya, Good & Sherrod, 2000). In line with this, research has found that people who have a history of seeking psychological services are labeled by others as more awkward, cold, defensive, dependent, insecure, sad, unsociable (Sibicky & Dovidio, 1986), weak, disturbed (King, Newton, Osterlund & Baber, 1973), and less in control of their emotions (Oppenheimer & Miller, 1988). Ben-Porath (2002) found that people with depression are seen as unstable and those who seek help are deemed to be especially unstable. In a study conducted by Stefl and Prosperi (1985), individuals who would have benefited from psychological treatment but did not seek help were twice as likely to cite stigma as an important treatment barrier.

This begins to illustrate how stigma plays an important role in reducing help-seeking. A recent systematic review conducted by Clement et al. (2014) found that stigma was reported as a barrier to help-seeking in 21 to 23 percent of participants across studies that examined shame or embarrassment, social judgment, and employment-related discrimination. Additionally, Clement and colleagues (2014) reviewed five qualitative studies utilizing participants from clinical and general populations. They found that the relationship between stigma and help-seeking is generally influenced by dissonance between one's self and social identity, mental illness stereotypes and beliefs, anticipation and experience of stigma or discrimination, need or preference for nondisclosure, stigma-related strategies used by an individual, and stigma-related aspects of care. Greater public stigma of help-seeking has also been shown to predict worse

attitudes, fewer intentions, and less willingness to seek professional psychological services (Clement et al., 2015; Vogel et al, 2005; Vogel et al., 2007).

Self-stigma

Self-stigma refers to an individual's internalization and identification with negative stereotypes, labels, prejudices, and discrimination about individuals with mental illness or those who seek professional psychological help (Corrigan, 2004; Vogel et al., 2006; Vogel & Wade, 2009). Within these two overarching categorizations of stigma are subtypes related to having a mental illness and seeking professional help. It is important to note that these subtypes occur at both the public and self-levels.

Self-stigma of mental illness. Self-stigma of mental illness refers to an individual's identification with or internalization of negative beliefs and attitudes associated with mental illness (Yap, Wright, & Jorm, 2011). For example, many individuals share the publicly held perception that a mental disorder is a characterological weakness rather than an illness (Reichert, 2012). Similar to public stigmatization, the process of self-stigmatizing includes self-stereotyping, self-prejudice, and self-discrimination. Furthermore, the more responsible an individual believes himself or herself to be, the more likely they will feel guilt, shame, and apprehension about seeking professional help (Aaroma et al., 2011). Self-stigma of mental illness has been shown to negatively impact self-esteem and one's self-worth because of these internalized attributions (Vogel et al., 2007). Additional consequences may include depression and reduced self-efficacy and self-esteem (Corrigan, 2004; Corrigan & Roa, 2012; Corrigan, Watson, & Barr, 2006), lower treatment compliance (Conner et al., 2010; Manos et al., 2009), and reduced help-seeking (Yap et al., 2011). High self-stigma has also been linked to impaired functioning and increased hospitalization rates (Topkaya, 2015),

Self-stigma of seeking psychological help. According to Vogel and colleagues (2006), self-stigma of seeking psychological help is the decrement in self-concept, self-esteem, and self-efficacy that occurs when an individual labels him- or herself as a seeker of mental health services (Vogel et al., 2006; Tucker et al., 2013). Empirical studies support the claim that self-stigma is more proximal to help-seeking attitudes than public stigma (Vogel, Wade, & Hackler, 2007) and have linked self-stigma of seeking help specifically with negative attitudes about therapy, reduced intentions and willingness to seek counseling, and avoidance of psychological treatment (Bathje & Pryer, 2011; Hackler et al., 2010; Vogel et al., 2006; Wade et al., 2011). Vogel and Wade (2009) argued that a person's sense of self-esteem, positive self-regard, and self-confidence can suffer due to the self-stigma associated with seeking help.

Vogel et al. (2006) explored the role of self-stigma of help seeking on attitudes towards seeking psychological help, and found that individuals who held greater self-stigma associated with help-seeking had less positive attitudes toward seeking treatment. More specifically, Vogel et al. (2006) proposed and found empirical support for a model in which public stigma of help-seeking influences self-stigma of help-seeking which predicts attitudes towards seeking help which influences one's intentions to seek help and *hypothetically* predicts behavior. In a series of five studies, they proposed the model and tested their newly developed scale, the Self-Stigma of Seeking Psychological Help (SSOSH) to see if it predicted attitudes and intentions to seek help, and if it differentiated between those who sought services and those who did not across a two-month period. In this instance, the SSOSH was a unique predictor of help-seeking intention above and beyond the effects of public stigma and anticipated risk and benefits, such that those who reported greater self-stigma with seeking help had less intention to seek psychological services. Results of their fourth study indicated that individuals who had greater self-stigma

about help-seeking had less positive attitudes about psychological help and less intentions to seek it out. Results of study five indicated that the SSOSH predicted individuals who sought services from those who had not over a two-month period from the initial assessment in which they completed the SSOSH scale.

Vogel and colleagues asserted that self-stigma extends from public stigma and is, in fact, a salient influence on attitudes and intentions towards help-seeking. Studies have supported these findings and suggest that public stigma, mediated by self-stigma, negatively affects the intentions to seek professional help for mental illnesses (Cooper et al., 2003; Corrigan, 2004; Corrigan & Rüsch, 2002; Eisenberg et al., 2009; Vogel et al., 2005; Vogel et al., 2006, Vogel et al., 2007, Vogel et al., 2010, Vogel et al., 2011).

Limitations of Self-Stigma Research

Despite these important discoveries, very few empirical articles have examined self-stigma as it applies to actual help-seeking behaviors. Table 1 (below) lists and summarizes the studies that examined the impact of self-stigma on a variety of aspects related to help-seeking. This shows that the majority of empirical studies to date that have explored self-stigma of mental illness or help-seeking have examined self-stigma of mental illness or help-seeking as it relates to attitudes and intentions, not specific behaviors. This is a significant limitation to the research because although most studies assume that attitudes and intentions are related to behavior there is little actual data supporting the association between stigma and help-seeking behavior.

In fact, only three studies explore self-stigma and behaviors, all of which explored the self-stigma associated with having a mental illness; no studies explored the relationship between self-stigma of help-seeking and actual help-seeking behaviors. The studies that explored self-stigma of mental illness and behavior were Corrigan et al. (2010), Fung et al. (2008) and Rüsch

et al. (2009). Corrigan and colleagues (2005) assessed individuals' disclosure behaviors (i.e., "coming out" to others as having a mental illness). Although increased self-disclosure about having a mental illness may be associated with behaviors related to the mental illness, coming out as mentally ill is not explicitly seeking professional help. Fung and colleagues (2008) utilized a sample of individuals with schizophrenia from Hong Kong who had recently been discharged from a hospital. They found that among individuals with serious mental illness, those with higher self-stigma of mental illness were less likely to follow through on treatment recommendations. Rüsch and colleagues (2009) utilized a sample of individuals with serious mental illness using outpatient mental health services in the Chicago area. Their data indicated that self-stigma of mental illness and stigma related cognitions (i.e., group identification and perceived legitimacy of discrimination) predicted use of outpatient therapy. Additionally, researchers found higher self-stigma of mental illness to be predictive of psychiatric hospitalization. Although all of these studies provide valuable information about the role self-stigma of mental illness plays in the help-seeking process for individuals with serious mental illness, they do not provide information about how this applies more generally to individuals with varying levels of psychological distress. Furthermore, these studies examined the role of self-stigma of mental illness specifically, and thus little is known about how self-stigma of help-seeking—which is arguably the most proximal variable to help-seeking behavior of all the stigma variables (Tucker et al., 2013; Vogel et al., 2006; Vogel et al., 2007., Vogel et al., 2010., Vogel et al., 2011) —affects actual help-seeking behaviors.

Psychological Distress. One of the most common influences for help-seeking is psychological distress (Ciarrochi & Deane, 2001; Deane & Chamberlain, 1994; Erdur-Baker, Aberson, Barrow, & Draper, 2006; Kushner & Sher, 1989; Leech, 2007; Vogel et al., 2007). A

large body of research shows that the more distress an individual experiences, the more likely they are to seek psychological treatment (Vogel et al., 2007). Erdur-Baker, Aberson, Barrow, and Draper (2006) examined the role of psychological distress in a sample of both non-clinical and clinical undergraduate students. The clinical sample indicated greater distress, as well as more positive attitudes towards and greater intentions to seek help. Additionally, Ciarrochi and Deane (2001) found that individuals were more likely to seek psychological help from a counselor for suicidal thoughts than for personal concerns, anxiety, and depression.

Leech (2007) found that for counselors-in-training, heightened distress was also related to greater intentions to seek help. Kushner and Sher (1989) found that psychological distress increased the likelihood of seeking psychological services. This is consistent with Deane and Chamberlain (1994), who also found that psychological distress predicted the likelihood of individuals seeking psychological help. Results from the 2012 National Survey on Drug Use and Health (NSDUH) found that individuals with serious mental illness were more likely than individuals with any mental illness to seek psychological services, regardless of race.

Functional Impairment. Functional impairment (or disability) is related to, but conceptually different from, symptom distress or severity (Hodgins, 2013). It can be argued, however, that personal problems and mental illness are related to functional impairment. Research that supports this has found that mental illness and personal problems can significantly impair one’s cognitive, social and emotional functioning (Fuller, Edwards, Proctor, & Moss, 2000) leading to poorer outcomes (i.e., loss of work productivity, reduced opportunities for housing, increased isolation and strained relationships; Clement et al., 2014). Additionally, the more severe one’s mental illness or one’s symptomology, the more functional impairment individuals report (Clement et al., 2015, National Institute of Health, 2007). To reduce the

discomfort and impairment caused by one's mental illness or personal problems, individuals may be motivated to seek help from mental health professionals.

Table 1

Summary Table of Research on Self-Stigma

Reference	Sample	Outcome Variable/s	Findings
Bathje & Pryor (2011)	$N = 211$ Undergraduates	Attitudes towards counseling Intentions to seek counseling	Public stigma awareness and lowered sympathy were found to predict self-stigma. Public stigma and self-stigma were related to attitudes to seek counseling. Attitudes were strongly related to intentions to seek counseling.
Corrigan, Watson & Barr (2006)	Study 1: $N = 54$ Adults w/ mental illness Study 2: $N = 60$ People w/ mental illness	Self-stigma of mental illness	Self-concurrence and self-esteem decrement were associated with measures of self-esteem and self-efficacy.
Corrigan et al. (2010)	$N = 85$ People with serious mental illness	Coming out with mental illness	Benefits of coming out with a mental illness was associated with affirming strategies and becoming aloof.
Eisenberg, Downs, Golberstein & Zivin (2009)	$N = 5{,}555$ Undergraduates	Perceived need and use of medication, therapy and non-clinical sources of support	Personal stigma was negatively associated with measures of help seeking (perceived need and use of medication, therapy and non-clinical sources of support).

Table 1 Continued

Fung et al. (2008)	*N* = 86 Adults with Schizophrenia from Hong Kong	Treatment adherence	Self-stigma reduces treatment adherence.
Hackler, Vogel & Wade (2010)	*N* = 658 Undergraduates	Attitudes towards seeking counseling	Self-stigma and anticipated outcomes of seeking counseling play a role in the attitudes towards seeking counseling for people who are experiencing unhealthy eating attitudes and behaviors.
Lannin, Vogel, Brenner, Tucker (2015)	*N* = 448 Undergraduates	Intentions to seek counseling	Self-stigma mediated the relationships between public stigma on self-stigma of mental illness and self-stigma of seeking psychological help. Self-stigma of seeking help predicted decreased intentions to seek counseling.
Lannin, Vogel, Brenner, Abraham Heath (2015)	*N* = 370 Undergraduates	Information Gathering	Self-stigma negatively predicted decisions to seek both mental health counseling information, with attitudes toward counseling mediating self-stigma's influence on these decisions.
Pattyn, Verhaeghe, Sercu, Bracke (2014)	*N* = 728 Adults from Belgium	Attitudes towards seeking help	Anticipated self-stigma and perceived public stigma have a differential impact on attitudes towards formal and informal help-seeking. Anticipated self-stigma is negatively associated with the perceived importance of care and public stigma deterred individuals from acknowledging the importance of informal care.

Table 1 Continued

Rüsch et al. (2009)	*N* = 85 Adults with mental illness	Service Use	Self-stigma and stigma related cognitions predict service use among people with serious and chronic mental illness.
Shectman, Vogel, Maman (2009)	*N* = 307 Undergraduates from Israel	Attitudes about seeking help Intentions to seek help	Self-stigma is related to attitudes and intentions to seek help.
Topkaya (2015)	*N* = 362 Undergraduates	Attitudes towards psychological help-seeking	Gender and self-stigma of help-seeking predict attitudes toward seeking help. Public stigma is not a significant predictor of attitudes towards seeking help. Males are more likely to experience self-stigma and pubic stigma associated with psychological help-seeking when compared to females.
Vogel, Heimerdinger-Edwards, Hammer & Hubbard (2011)	*N* = 4,773 Adult men	Attitudes towards counseling	Men who endorse higher masculine beliefs have less favorable attitudes towards seeking help. Self-stigma is a mediator between masculine norms and attitudes towards counseling.
Vogel, Shectman & Wade (2010)	*N* = 491 undergraduates	Attitudes toward seeking help	Public stigma is internalized as self-stigma and self-stigma is then negatively associated with attitudes toward group counseling.

Table 1 Continued

Vogel, Wade & Haake (2006)	Study 1: *N* = 583 Undergraduates Study 2: *N* = 470 Undergraduates Study 3: *N* = 454 Undergraduates Study 4: *N* = 271 Undergraduates Study 5: *N* = 655 Undergraduates	Attitudes toward seeking help Intention to seek counseling	Psychometric properties of the SSOSH scale are adequate. SSOSH predicted attitudes towards and intentions to seek counseling. SSOSH differentiated who sought help vs those who did not seek help over a 2-month period.
Vogel, Wade & Hackler (2007)	*N* = 680 Undergraduates	Willingness to seek counseling	Perceptions of public stigma associated with mental illness predicted self-stigma associated with seeking counseling which predicted attitudes and willingness to seek services.
Wade, Post, Cornish, Vogel & Tucker (2011)	*N* = 262 Undergraduates	Self-stigma of seeking help Intentions to seek help Interest in continuing in counseling	Participants reported a decrease in self-stigma following an initial session of group counseling. Greater change in self-stigma was associated with greater perceptions of working alliance and session depth. Being female, increased perception of working alliance, session depth, psychological problems and lower self-stigma were associated with intentions to seek help. The desire to continue in counseling was associated with lower self-stigma and session depth.

Table 1 Continued

Wade, Vogel, Armistead-Jehle, Meit, Heath & Strauss (2015)	*N* = 97 Military members	Attitudes to seek help Intentions to seek help	Self-stigma fully mediates the relationships between public stigma and help-seeking attitudes and intent to seek behavioral health care.
Watson, Corrigan, Larson, Sells (2007)	*N* = 71 Adults with mental illness	Stereotype agreement Self-concurrence Self-efficacy	Stereotype awareness is an initial component of the self-stigma process. Stereotype agreement fully mediated the effect of group identification and perceived legitimacy on self-concurrence. Self-concurrence fully mediated their effect on self-efficacy.

Note. To be included in this table studies must have explored self-stigma of mental illness or self-stigma of help-seeking. Qualitative studies were excluded from analysis. Dissertations and thesis were also not included.

Sex. Research has consistently shown that females tend to demonstrate more positive attitudes about seeking professional help than men (Fischer & Farina, 1995; Topkaya, 2015, Vogel., 2011). Additionally, sex has been highlighted in the no-show literature, as males are more likely to drop out from treatment than females (Bogenschutz & Siegfriend, 1998; Paige & Mansell, 2013). Researchers argue that socialization processes that emphasize traditional male gender roles of independence and control may result in minimization or concealment of emotions that prevent help-seeking behaviors (Addis & Mahalik, 2003). Yet, males are more likely to be treated for serious mental illnesses than females (Leaf, Bruce, Tischler, & Holzer, 1987), and have been found to rate their level of distress as more extreme or severe than their female counterparts (Tomlinson & Cope, 1988). In a study conducted in 2000, participants were more likely to refer a hypothetical woman to psychological services than a man (Raviv, Sills, Raviv, & Wilansky, 2000). Additionally, studies have also demonstrated that men are more likely to believe they would be stigmatized for consulting with a mental health professional than women (Martin, Wrisberg, Beitel, & Lounsbury, 1997; Topkaya, 2015; Vogel et al., 2011).

With regards to gender, Topkaya (2015) found that sex and self-stigma are associated with attitudes towards help-seeking, such that males are more likely to experience self-stigma and pubic stigma associated with psychological help-seeking than females. A similar study by Vogel and colleagues (2014) found that men who endorse higher masculine beliefs have less favorable attitudes towards seeking help. They also found that self-stigma of seeking help mediated the relationships between masculine norms and attitudes towards counseling (Vogel, Wester, Hammer, Downing-Matibag, 2014).

Race and Ethnicity. With regards to factors that may influence help-seeking behavior, studies have consistently found that cultural values, norms, and beliefs greatly affect an

individual's perception of psychological distress as well as help-seeking behaviors. For some individuals, seeking help is inconsistent with values held by their culture (Diala et al., 2000). For instance, in some Asian cultures that value self-control and emotional restraint, seeking services where one might be required to disclose personal struggles or to "cathart" may be regarded as shameful and associated with "loss of face" (Cheong & Snowden, 1990). Additionally, cultures that value utilizing close networks may discourage individuals from disclosing difficulties to someone outside of their network such as a mental health professional (Atkinson, Whiteley, & Gim, 1990; Vogel et al., 2007). Aligned with this, it has been demonstrated that youth from Mexican American, African American, and Asian cultures are more likely to seek help from a trusted family member than Caucasian youth (Offer, Howard, Schonert, & Ostriv, 1991). Additionally, an individual may resist seeking help from professional supports out of fear that seeking services may stigmatize his or her family. Some cultures assume seeking professional help for mental illness has other public consequences, such as being seen negatively by the community. This is especially influential in cultures where community involvement and engagement are prioritized. For some cultures, certain types of counseling may be seen as more stigmatizing than others. For instance, the stigma associated with individual or group counseling may be worse than the stigma associated with career counseling (Leong, 1993).

A recent review conducted by the Substance Abuse and Mental Health Service Administration (SAMHSA) found that white adults, American Indian or Alaska Native adults, and adults who reported two or more races show consistently higher mental health service use (ranging from over 15 to over 17 percent). Asian adults had the lowest estimate (4.9 percent) and black and Hispanic adults are estimated between 7 and over 8 percent. This is consistent with

previous findings by studies conducted with regional and national samples (Substance Abuse and Mental Health Service Administration, 2015).

Unfortunately, when individuals from minority groups seek treatment they may not be getting the care that they require. Results from the U.S General's Report on Mental Health, Culture, Race and Ethnicity (2001) suggested that racial and ethnic minorities are both under- and ineffectively served by the mental health community. Related to this, racial match, that is, a shared race between the counselor and client, has been an important area of investigation in this line of research. Ward (2005) found that African American clients reported assessing the race and ethnicity of the counselor above all other factors. Related to this, several studies have found racial match to be linked with increased service use, reduction in symptomology, greater satisfaction, and lower dropout (Gamst et al., 2003; Maramba & Hall, 2002; Meyer, Zane, & Cho, 2011; Turner, Brody, & Hopps, 2008). However, a more recent study found no significant differences between racially matched and unmatched dyads (Shin et al., 2005).

External Influences

More broadly, researchers have demonstrated that asking questions about certain health behavior can change behavior. For instance, in a study conducted by Godin, Sheeran, Conner & Germain (2008) researchers found that merely asking individuals about donating blood increased the frequency of individuals' blood donation. Williams, Block and Fitzsimons (2006) found that asking questions about health behaviors increased both healthy and unhealthy behavior. This research broadly demonstrates that simply asking about intended behavior can influence behavior. This highlights the importance of understanding not only individual's intrinsic factors but also external influences such as one's social network.

Social Encouragement to Seek Help

Social networks that accept and encourage help-seeking play an important role in individuals' help-seeking decisions (Friedson, 1961; Rickwood & Braithwaite, 1994). Individuals are influenced by their communities, drawing advice and assistance from professionals, folk and lay care systems (Pescosolido, Wright, Alegriá, & Vera, 1998). A similar concept can be applied to mental health service use. More specifically, the messages and pressure transmitted by family and friends to seek or avoid help play an important role in how individuals define, and ultimately make decisions about, what to do when they experience psychological distress (Angermeyer, Matschinger, & Ridel-Heller, 2001; Hammer, 1963; Horwitz, 1977; Kadushin, 1966; McKinlay, 1973).

Social networks have a positive effect on service use (Hammer, 1963; Horowitz, 1977; Kadushin, 1966; McKinlay, 1973). For instance, in one study, having relatives and friends who were proponents of help-seeking was a strong predictor of mental health service use among a low-income Puerto Rican sample (Pescosolido et al., 1998). Similarly, Kadushin (1966) conducted a study in the Upper West Side of Manhattan and found that individuals with friends who supported psychotherapy and who encouraged individuals with mental health problems to seek services were more likely to seek and attend mental health treatment. More recent studies have found that if individuals feel accepted by and believe friends and family would support their help-seeking behavior, they are more likely to seek professional help (Vogel, Wester, Wei & Boysen, 2005).

These findings are reflected in research that has shown that about half of patients receiving inpatient mental health treatment reported that other people attempted to persuade them to seek help (Monahan et al., 1995). Furthermore, knowing individuals who had sought therapy

in the past was shown to positively impact one's willingness to seek help (Tijhuis, Peters, & Focts, 1990). In line with this, a study by Cameron and colleagues (1993) found that 50 percent of individuals who sought treatment from a mental health professional reported they were referred by a significant other. Thus, the research suggests that pressure from family and friends, positive messages about help-seeking and knowing others who have sought help has a positive influence on the decision to seek help.

In sum, it is not surprising that individuals who perceive multiple barriers towards mental health treatment are less likely to seek services, or renege on a scheduled appointment. However, even though the detrimental effects of these dynamics are well-documented, understanding why potential clients do not become actual clients is a little-understood area in need of investigation.

Gaps in the Literature

Given the numerous consequences to clients, agencies, and the health delivery systems when clients do not seek or prematurely disengage from psychological services, research on help-seeking behaviors and influential factors that impact decisions and subsequent behaviors is imperative. Research that examines the complex interplay of these various factors and the relative importance of these factors over time would provide a more comprehensive understanding of the processes at play that influence help-seeking behaviors and, in particular, follow-through with psychological services (Mitchell & Selmes, 2007b). Although a significant amount of literature has already explored service utilization and barriers to help-seeking, the majority of this work has focused almost exclusively on the impact these barriers have on help-seeking attitudes and intentions. Limited studies exist that explore the effect of these barriers on

actual help-seeking behavior (i.e., scheduling and or attending an appointment with a mental health provider).

A second major gap is that the majority of research conducted to date has focused on two specific time points within the help-seeking process. The first is the period of time that one is contemplating seeking services or becomes aware that they could benefit from services. The second is the period of time after one has already facilitated (and is currently involved in) treatment. The majority of research articles examining the latter have explored the impact of the above variables on decisions to remain or discontinue treatment. While this information is useful, there is a considerable lack of knowledge about the period of time between when an individual makes the decision to seek help and then actively engages in scheduling or attending a mental health appointment. See Figure 1 below.

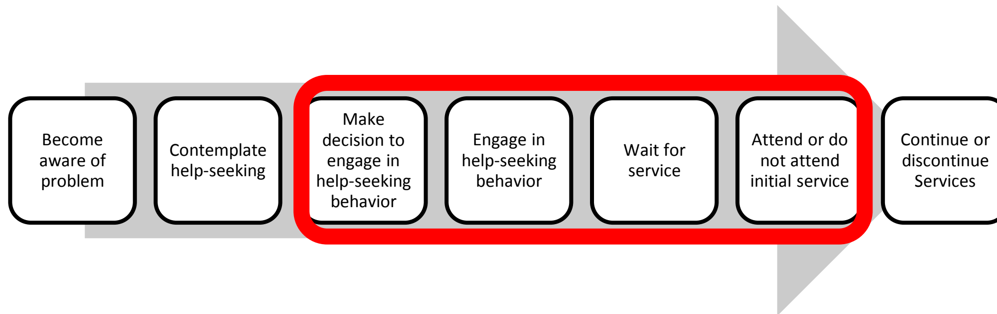

Figure 1. Help-Seeking Time-Points Yet to be Addressed in Psychological Help-Seeking Literature

Clement et al. (2015) argued that it would be most helpful to know more about how stigma contributes to disengagement and discontinuation by those already in contact with services, especially in the initial stages. The initial stages of help-seeking can be especially important as the individual seeking services may be more acutely aware of their need for help, more susceptible to negative social and internalized messages about those who seek help, and more sensitive to barriers they may encounter. Moreover, individuals may be less

knowledgeable about the actual benefits of attending and remaining in treatment for their presenting concerns, given the likelihood they have yet to speak to an actual mental health provider who can answer questions about the process. This prevents an opportunity to potentially reduce anxiety associated with psychotherapeutic treatment and other avoidance factors. To this end, little is known about the factors that are most salient during this timeframe that influence one's exploration of mental health resources.

A third significant gap in the existent literature is a lack of knowledge about clinical samples of individuals beyond college students or individuals with serious mental illness. The majority of the research conducted in this area is done with college-aged young adults or individuals suffering from a serious mental illness such as schizophrenia or bipolar mood disorders. Unfortunately, few studies have been able to examine the variables that influence people from a wider demographic with less serious mental illness.

A fourth major gap in the literature is the lack of measures that explore pressure individuals receive in favor of seeking mental health resources from their social networks. According to the research reviewed I reviewed, when measuring social norms to seek help, most studies utilized a single item measure developed by Bayer and Peay (1997), which asks participants to rate on a Likert-type scale ranging from 3 (*likely*) to -3 (*unlikely*) the item: "Most people who are important to me would think that I should seek help from a mental health professional if I were experiencing a personal problem in my life" (Bayer & Paey, 1997; Vogel et al., 2005). Though researchers found that this item uniquely predicted help-seeking intent such that those who were likely to seek help responded more favorably to this item, measurement research has consistently argued against the use of single item measures. Single-item measures are often viewed as psychometrically suspect due to the fact that with single items the internal

consistency reliability cannot be computed. Furthermore, single-items are more vulnerable to measurement errors and unknown biases in meaning and interpretations (Devellis, 1991; Netemeyer, Bearden, Sharma, 2003). Additionally, multi-item scales sample a broader range of meanings to cover a fuller range of a specific construct, while with single items, the respondent is left with more ambiguity to interpret the meaning of the item (Hoepper, Kelly, Urbanoski, Slaymaker, 2012). Thus, a multi-item scale measuring social encouragement to seek help is warranted.

The Current Study

In this study, I aimed to extend the psychological help-seeking literature by addressing several of the gaps in the existing research. Specifically, I examined the predictors of both intentions to seek help and actual help-seeking behavior in a community sample of distressed adults. This included examining the following predictors: sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma of help-seeking, self-stigma of help-seeking, attitudes towards seeking-help, help-seeking intentions (hypothetical and actual), and help-seeking behavior (i.e., calling to schedule or attend a mental health appointment). Given these variables, I posed the following hypotheses:

Hypothesis 1: Social encouragement to seek help will account for significant variance of attitudes towards seeking psychological help above and beyond the effect of other variables entered into the model at Step 1 (sex, ethnicity, psychological distress and functional impairment). Public stigma will contribute significant variance to attitudes above and beyond the effect of other variables entered into the model at Step 2 (sex, ethnicity, psychological distress, functional impairment, and social encouragement). Self-stigma will contribute significant variance to attitudes above and beyond the variables entered into the model at Step 3 (sex,

ethnicity, psychological distress, functional impairment, social encouragement, and public stigma). Furthermore, public stigma will no longer be a unique predictor at this step.

Hypothesis 2. As a set, social encouragement, public stigma and self-stigma will predict hypothetical intentions to seeking psychological help above and beyond the other variables entered into the model at Step 1 (sex, ethnicity, psychological distress and functional impairment). Furthermore, both social encouragement and self-stigma will account for unique variance in hypothetical intentions as this step. Attitudes toward counseling will contribute significant variance to hypothetical intentions above and beyond the other variables entered into Step 2 (sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma, self-stigma) and will account for the relationship between self-stigma and intentions, such that self-stigma will no longer be a significant predictor at this step.

Hypothesis 3. Similar to Hypothesis 2, social encouragement, public stigma and self-stigma as a set will predict actual intentions towards seeking psychological help above and beyond the effect of other variables entered into the model at Step 1 (sex, ethnicity, psychological distress, and functional impairment). Furthermore, both social encouragement and self-stigma will account for unique variance in hypothetical intentions at this step. Attitudes toward counseling will account for significant variance to actual intentions above and beyond the other variables entered into the model at Step 2 (sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma, and self-stigma) and will account for the relationship between self-stigma and intentions, such that self-stigma will no longer be a significant predictor at this step.

Hypothesis 4: Following the same pattern from Hypothesis 2 and 3, social encouragement, public stigma, and self-stigma as a set will predict actual help-seeking behavior

(scheduling or attending a counseling appointment) above and beyond the effect of other variables entered into the model at Step 1 (sex, ethnicity, psychological distress, and functional impairment). Furthermore, both social encouragement and self-stigma will account for unique variance in hypothetical intentions at this step. Attitudes will account for significant variance of actual help-seeking behavior above and beyond the effect of other variables in Step 2 (sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma, and self-stigma) and will account for the relationship between self-stigma and intentions, such that self-stigma will no longer be a significant predictor at this step. Hypothetical and actual intentions will account for significant variance of actual help-seeking behavior above and beyond the effect of other variables at Step 3 (sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma, self-stigma, and attitudes).

CHAPTER 3

METHODOLOGY

Participants

A total of 125 participants completed the screening survey, Time 1 Survey (T1) and Time 2 Survey (T2). Of these individuals 71 (54%) identified as male, 58 (44%) female, 1 identified as transgender (1 female to male) and 1 as Other (genderqueer). Ages ranged from 18 to 66 years old with the mean age being 34.3, *SD*= 12. With regards to race/ethnicity, nine (7%) identified as Black or African-American, three (2%) as American Indian or Alaska Native, 31 (25%) as Asian, 71 (57%) as White (not of Latino or Hispanic ethnicity), six (5%) as Latino or Hispanic and 5 (4%) identified as other (1 Arab, 1 Chinese/Hispanic, 1 Indian/White, 1 White/Latino, 1 White/Filipino). Furthermore, ten (8%) identified as holding an LGBTQ identity. Of these, five self-identified as bisexual, two as gay and three identified as queer. Regarding relationship status, 57 (46%) self-identified as single, never married or partnered, 57 (46 %) as married or in a domestic partnership, ten (8%) as divorced and one as widowed (1%). Regarding housing, 40 (32%) reported they lived with their parental family, four (3%) with relatives, 33 (26%) with their own family, 26 (21%) with a partner, 15 (12%) alone and seven (5%) other (2 boyfriend, 1 children, 1 co-worker, 1 nursing home, 1 roommate, and 1 brother). Regarding employment status 11 (9%) identified as being in school, 71 (57%) employed full-time, 14 (11%) employed part-time, one as a volunteer/unpaid work (1%) and 29 (22%) as unemployed. Regarding highest degree obtained 12 (10%) reported obtaining a high school diploma or GED equivalent, 22 (18%) some college credit with no degree, eight (6%) associates or vocational training, 53 (42%) bachelor's degree, 18 (14%) master's degree, eight (6%) professional degree, two (2%) doctorate

degree. One participant indicated that they were currently enrolled in college and one person left this response blank.

Procedure

First, I obtained Institutional Review Board Approval (IRB) to ensure the study procedure and guidelines met ethical practice (see Appendix A and B for approvals). Once Iowa State University IRB approval was obtained, data collection took place in the spring of 2016. Qualtrics software was utilized to create three separate surveys which will be referred to as Screening Survey, Time 1 Survey, and Time 2 Survey. For a visual representation of the procedures, see Figure 2. For a complete list of measures by survey please see Appendix C.

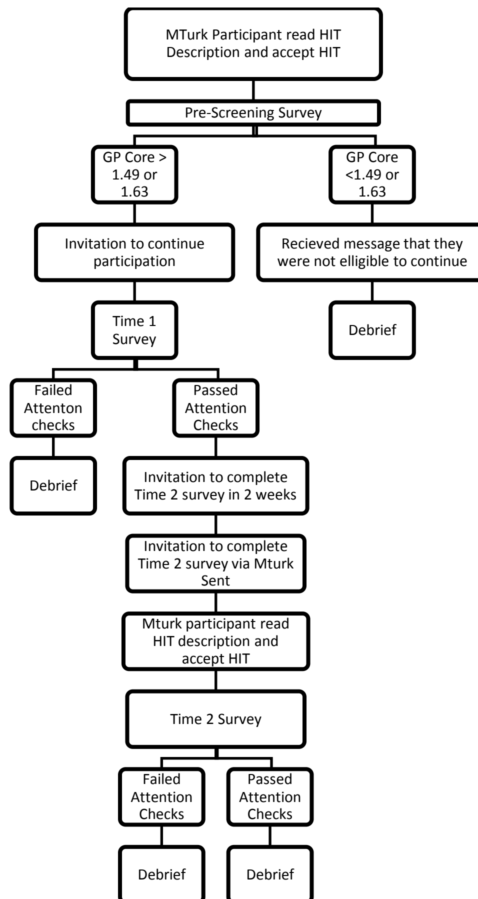

Figure 2. Flow Chart of Participant Progress through the Study

Amazon Mechanical Turk (Mturk). Participants were recruited using Amazon Mechanical Turk (MTurk), a crowdsourcing internet marketplace that enables individuals to coordinate the completion of human intelligence tasks. There has been consistently good evidence for its use in social psychological research (Buhrmester, Kwang, & Gosling, 2011; Goodman, Cryder, & Cheema, 2013). MTurk workers' complete tasks for minimal compensation and self-select into tasks based on task-criteria. To be eligible to participate in this study, workers had to meet the following criteria: 18 years of age or older, fluent in English, currently living in the United States and have not scheduled or attended a counseling or therapy appointment with a mental health provider (mental health counselor, psychologist, psychotherapist, social worker and/or marriage and family therapist) in the last month. We were interested in recruiting a sample of individuals who have not recently sought professional counseling or therapy at the start of this study. To recruit individuals for this study on Mturk, I posted a human intelligence task (HIT) description on the Mturk worker marketplace (Appendix D). Mturk workers who were eligible self-selected to complete or not complete the HIT after reading the HIT description. Those individuals who were interested then accepted the HIT and clicked on a link that brought them to the informed consent.

Informed consent. Participants completed an informed consent (Appendix E) that provided a reminder about study eligibility, a description of procedures, risks and discomforts, benefits, rights, confidentiality and compensation. Individuals were informed that they would receive 10 cents for completion of the screening survey, 90 cents for completing Survey 1, and one dollar and fifty cents for competing Survey 2 in two weeks.

Screening survey. Once Mturk workers completed the informed consent, they were enrolled in the study and routed to the screening survey (Appendix F) in which they answered

several demographic questions, including providing their worker ID, gender and age, and their current help-seeking behavior. The question read, "In the last month, I scheduled or attended a counseling/therapy appointment with a mental health provider (psychotherapist, mental provider, psychologist, social worker, marriage and family therapist)." If participants answered "Yes," they were thanked and informed that they were ineligible to continue in the study. If they responded "No", they continued on in the survey to complete the 14-item General Population-Clinical Outcomes and Routine Evaluation Measure (GP-CORE; Evans, Connell, Audin, Sinclair, & Barkham, 2005). Individuals who achieved an item response average of 1.49 or higher for men and 1.63 or higher for women (clinical cut-offs for the CORE) on the GP-Core (screening survey) were informed that they had the option to stop their participation or continue on to Survey 1 for additional compensation of 90 cents for a total of one dollar of compensation when combined with the 10 cents received for completion of the screening survey.

Time 1 Survey. For the Time 1 Survey (Appendix F) participants re-entered their Mturk worker ID (to assist in linking the data) and completed additional demographic questions. Participants then completed a series of measures which included the Self Stigma of Seeking Help Scale (SSOSH; Vogel et al., 2006), Theory of Planned Behavior Instrument, Intention subscale (Hess & Tracey, 2012; Azjen, 1995), Perceptions of Stigmatization by Others for Seeking Help (PSOSH; Vogel et al., 2009), Attitudes Toward Seeking Professional Psychological Help-Short Form (ATSPPH-SF; Fischer & Farina, 1995), Intentions to Seek Counseling Inventory (ISCI; Cash et al., 1975), Sheehan Disability Scale (SDS; Sheehan, 1983), and Scale of Social Encouragement To Seek Help (SSESH).

The above measures were presented to participants in a randomized order to avoid order-effects. At the end of the Time 1 Survey participants were also asked to answer three questions

pertaining to the usability of their responses. These items included the following questions: "How would you rate your effort on this questionnaire" (*No effort* - *Complete effort*), "How true are your responses on this survey to who you are as a person?" (*Not at all true* - *Completely true*), and "How well do your responses on this survey represent how you would really feel about seeking help and what you would really do?" (*Not at all representative* -*Very representative*). After responding to these three questions participants were asked to answer one last Yes or No multiple choice question that read " Based on the amount of effort put towards carefully responding, in your opinion, should we use your data for research purposes?"

The Time 1 Survey also included an attention-check item which was randomly embedded into the Self Stigma of Mental Illness scale and read "Mark disagree for this item." If answered incorrectly, participants were unable to continue in the study and they were sent to a debriefing page for failed attention check items (See Appendix G). For all participants who successfully passed the attention check item and completed the remaining items, prior to the debriefing, participants were asked to complete three items used to assess reliability and effort on the survey (See Appendix F).

Time 2 Survey. Approximately two weeks after the completion of Time 1 Survey, participants received a unique survey code to complete Time 2 Survey for additional compensation of one dollar and fifty cents. Interested individuals saw the posted HIT and corresponding description and introduction to Time 2 Survey and entered their unique survey code and accepted the HIT to access the questionnaires (See Appendix D). Following the introduction, participants entered their Mturk worker ID and answered a question about recent (last two weeks) help-seeking behavior and completed a series of measures (See Appendix F) which included The Theory of Planned Behavior Instrument, Intention subscale (Hess & Tracey,

2012; Azjen, 1995), Attitudes Toward Seeking Professional Psychological Help-Short Form (ATSPPH-SF; Fischer & Farina, 1995) and Intentions to Seek Counseling Inventory (ISCI; Cash et al., 1975).

Similar to Time 1, the above measures were presented to participants in a randomized order to avoid order effects. At the end of the Time 2 Survey participants were once again asked to answer three questions pertaining to the usability of their responses. These items included the following questions: “How would you rate your effort on this questionnaire” (*No effort* - *Complete effort*), “How true are your responses on this survey to who you are as a person?” (*Not at all true* - *Completely true*), and “How well do your responses on this survey represent how you would really feel about seeking help and what you would really do?” (*Not at all representative* -*Very representative*). After responding to these three questions participants were asked to answer one last Yes or No multiple choice question that read “Based on the amount of effort put towards carefully responding, in your opinion, should we use your data for research purposes?” Time 2 also included one attention-check item which was embedded into the Attitudes Towards Receiving Professional Psychological Help Scale. The item read “Mark disagree for this response to indicate you are reading and answering thoughtfully.” If answered incorrectly participants were unable to continue in the study and were automatically sent to a debriefing page for failed attention check items. Additionally, similar to Time 1, participants who passed the attention check and completed the remainder of the survey were asked to answer a series of questions pertaining to the usability of their responses on the measure (for more information see Appendix F) and were then routed to a debriefing page (see Appendix G).

Measures

Predictor Variables

Psychological Distress. The Clinical Outcomes in Routine Evaluation for the General Population (GP-CORE; Evans, Mellor-Clark, Margison, Barkham, Audin, Connell, & McGrath, 2000) was used to assess psychological symptoms and to screen participants into and out of the study. The 14-item measure was adapted for use with the general population from the Clinical Outcomes in Routine Evaluation Outcome Measure (Evans et al., 2000). The measure was created to improve upon the CORE-OM for use with the general population and college student populations by removing risk items and all but two high intensity items. Items include statements such as, "I have felt tense, anxious, or nervous," and, "I have felt warmth and affection for someone" (reverse scored). Items are rated on a 5-point Likert scale with 0 indicating *not at all* to 4 indicating *most or all of the time*. Eight items are reverse scored. Research has shown the GP-Core to discriminate between non-clinical and clinical populations. The 14 items composing the GP-CORE demonstrate internal reliability ($\alpha = .83$), and high test-ret-test reliability ($r = .91$). The Cronbach's alpha score for the sample who took the GP-CORE at the prescreening ($N= 752$) was .88.

The authors of the scale derived clinical cutoff scores for both men and women based on the means and standard deviations from two independently sampled groups of individuals. The first was a sample of ($N = 772$) undergraduate students, and the second was a sample of individuals presenting for counseling at a counseling center ($N = 663$; Evans et al., 2005). From these samples the authors determine a single item-level average cut-off score to differentiate between clinical and nonclinical population; 1.49 for men and 1.63 for women. This score was

determined using the mean scores and standard deviations of the clinical and non-clinical datasets using a formula proposed by Jacoson & Truax (1991).

Functional impairment. The Sheehan Disability Scale (SDS: Sheehan, 1983; Sheehan & Sheehan, 2008) was used to assess functional impairment due to mental health concerns. The SDS is comprised of three self-rated items along three domains: social, work, and home/life responsibilities. The SDS also provides a visuo-spatial layout as well as verbal descriptors to accompany each item. Items are rated on an 11-point scale from 0 (*Not at all*) to 10 (*Extremely*). A sample item includes "The symptoms have disrupted my work/school work." All items are then summed into a single measure of 0 (unimpaired) to 30 (highly impaired). Two additional items are also included in the measure that assess days lost and unproductive. For this study the term "symptoms" was replaced with "emotional or personal issues." A sample item is, "On how many days in the last week did emotional or personal issues cause you to miss school or work or leave you unable to carry out your normal daily responsibilities?" Studies using clinical samples have found the SDS to have strong internally consistent reliability (.89; Arbuckle et al., 2009) and acceptable test-retest reliability (.73; Arbuckle et al., 2009). Researchers have also found this measure to correlate with other similar measures suggesting convergent and divergent validity. Researchers have also noted that the SDS is able to detect change over time (Arbuckle et al., 2009). The Cronbach's alpha for this sample was .81.

Public stigma of seeking help. Public stigma of help-seeking was assessed using the Perception of Stigmatization by Others for Seeking Psychological Help (PSOSH; Vogel, Wade & Ascheman, 2009). Participants are instructed to "Imagine you had an emotional or personal issue that you could not solve on your own. If you sought therapy/counseling services for this issue, to what degree do you believe that YOUR FAMILY would _____." The scale includes 5

items that reflect how others may react, which include responses like “React negatively to you” or “See you as seriously disturbed.” Items are rated on a five point Likert scale from 1 (*Not at all*) to 5 (*A great deal*). Higher scores indicate greater perceived stigma from those the person interacts with. Previous Cronbach’s alpha scores have ranged from .91 (undergraduate students) to .78 (psychologically distressed). Researchers have also demonstrated test-retest reliability across a three-week period (.83). Furthermore, Vogel et al (2009) noted concurrent validity supported through associations with different stigma measures. The Cronbach’s alpha score in this sample was .93 (*N*= 125).

Self-stigma of seeking help. The Self-Stigma of Seeking Help Scale (SSOSH; Vogel et al., 2006) was utilized to assess participants’ self-stigma related to seeking professional counseling. The 10-item scale includes items such as, “If I went to a therapist, I would be less satisfied with myself.” Items are rated on a five-point scale from 1 (*Strongly Disagree)* to 5 (*Strongly Agree*). There are five items that are reverse scored (2, 4, 5, 7, 9) so that higher scores correspond to higher self-stigma related to seeking psychological help. Evidence for the construct validity of the SSOSH includes correlations with attitudes toward counseling (r = .63), intentions to seek counseling (r = -.38), and public stigma for seeking help (r = .48; Vogel et al. 2006). Previous Cronbach’s alpha scores have ranged from .89 to .92 in community samples (Tucker et al., 2013) and .86 to .90 in undergraduate samples (test-retest, .72; Vogel et al., 2006). The Cronbach’s alpha score in this sample was .86 (*N*= 125).

Attitudes. The Attitude Towards Seeking Professional Psychological Help Scale-Short Form (ATSPPHS-SF; Fischer & Farina, 1995) measured attitudes about counseling (see Appendix D). This measure has been shortened from the original 29-item scale (ATSPPHS; Fischer & Turner, 1970) to the current 10-item scale. The shortened form consists of items that

are answered on a 4-point Likert-type scale ranging from 0 (*Disagree*) to 3 (*Agree*). Five items are reverse scored so that higher scores indicate more positive attitudes towards seeking psychological help. A sample item is, "If I believed I was having a mental breakdown my first inclination would be to get professional attention." Research suggests that both the original measure and the shortened scale are highly correlated (r = .87, Fischer & Farina, 1995). Authors have reported good internal consistency (α =.79 to .89) and acceptable one-month test-retest reliability (r = .80, Fischer & Farina, 1995). The scale has been used with diverse samples and has been found to have concurrent validity and internal consistency (Fischer & Farina, 1995; Vogel et al., 2011). The Cronbach's alpha for this sample was .81 (N= 123)[1].

Social encouragement to seek help. Social encouragement to seek help was assessed using a five-item scale developed for this study (see Appendix D). To develop items for this scale I evaluated the available literature pertaining to social norms, connectedness, pressure and mental health service use. Among studies examining social encouragement, the tendency was to utilize a single item developed by Bayer & Peay (1997), "People who are important to me would think that I should seek help from a mental health professional." Bayer and Peay's item is rated on a five-point Likert-type scale from 1 (Strongly agree) to 5 (Strongly Disagree). Vogel et al. (2007) also utilized the Bayer and Peay item in addition to two other items that asked individuals a yes or no question to indicate whether they had ever had someone (i.e., a friend or relative) prompt them to seek therapy. They also asked individuals if they knew someone who had sought help from a mental health professional. Thus, I integrated Bayer and Peay's single item with

[1] Note that Time 1 scores for the Attitude Towards Seeking Professional Psychological Help Scale (ATSPPH) are not included. Due to an administrative error in which the wrong response scale with different anchors was provided to participants at Time 1. The anchors erroneously shown to participants for this scale at T1 included " A great deal, a lot, a moderate amount, a little and none at all." The original response anchors read "disagree, probably disagree, probably agree, agree." Additionally, for T1 the attitude T1 likert scale was out of five scale-points as opposed to the original four scale-points.

additional items rated on a five-point Likert-type scale ranging from 1 (*Not at all true*) to 5 (*Very true*). The items include: “Someone close to me has suggested that I seek therapy,” “People in my life have told me that I should get professional help,” “People who are important to me think that I should seek help from a mental health professional,” “People in my life whose opinions I value have told me that I should seek help from a mental health professional,” and “People who are close to me wish for me to seek professional help.” Item scores are summed with higher scores indicating higher pressure and encouragement to seek psychological help.

To assess the degree to which the items measure the same construct, I conducted an exploratory factor analysis using principal axis factoring. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was a .91, which was well above the recommended value of .6. Bartlett’s Test of Sphericity was significant and an examination of the Scree Plot indicated that the scale had a clear 1-factor structure. Factor loadings ranged from .92 to .94. Also indicating internal consistency, the Cronbach’s alphas for this scale were .96 (N= 125) at time 1 and .97 (N= 125) at at time 2.[2] Furthermore, the test-retest reliability was .73.

Criterion Variables

Hypothetical intentions. The Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCowan, & Weise, 1975; Cepeda-Benito & Short, 1998) was used to assess participant’s hypothetical intentions to seek counseling for a variety of problems. The 17-item scale measures help-seeking intentions with regards to specific problems that fall within three subscales, labeled psychological and interpersonal concerns, academic concerns, and drug use concerns. In the present study, I used the 10-item psychological and interpersonal concerns subscale. Participants were asked to rate their intentions to seek psychological support if they

[2] Note that the SSESH scale at time 2 was not used in the regression analysis. It is only reported here to show the reliability of the scale.

were experiencing a variety of problems including relationship difficulties, concerns about sexuality, depression, conflict with family or parents, difficulty sleeping, inferiority feelings, difficulty with friends, self-understanding, loneliness, and difficulties dating (typically on a 6-point Likert scale from 1=*Very Unlikely* to 6=*Very Likely*[3]). Responses on the ISCI are summed such that higher scores indicate greater likelihood of seeking help for the given issues. Previous research has supported the scale's validity with regards to associations with the perceived significance of the current problem, and general attitudes towards seeking psychotherapy (Kelly & Achter, 1995). Tucker et al utilized the Psychological and Interpersonal Concerns subscale with a community sample and found Cronbach's alpha was .88 in that sample. Cronbach's alphas for the Psychological and Interpersonal Concerns subscale in this sample was .91 (*N*= 125 at T1) and .85 (*N*= 124 at T2).

Actual intentions. Intentions to seek help was assessed using the Theory of Planned Behavior Instrument (TPBI) Intention subscale developed by Hess and Tracey (2013), which followed the recommendations provided by Azjen (2006). The subscale included three items routinely assessed by a 9-point Likert ratings.[4] I replaced the phrase "anxiety and depression" with "mental health concern." The three items were: "I intend to seek help from a mental health professional to address a mental health concern" (rated from *Extremely Unlikely-Extremely*

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[3] Typically, a 6-point Likert scale is used for the ISCI. However, for this study a 7-point Likert scale was displayed to participants due to administrative error. To account for this I wrote syntax to compute adjusted items for each item by multiplying each item by 6/7 if the item score was greater than 1. All adjusted items fell within a scale of 1-6 and were used to estimate Cronbach's alphas and measure averages. I then re-ran all models with this adjusted scale and compared the results to the non-adjusted version of the scale. Similar patterns were demonstrated across all models and thus the original scale displayed to participants was used in the final analysis.

[4] Typically, a 7-point Likert scale is used for the TPBI. However, for this study a 9-point Likert scale was displayed to participants due to administrative error. To account for this I wrote syntax to compute adjusted items for each item by multiplying each item in the TPBI by 7/9 if the item score was greater than 1. All adjusted items fell within a scale of 1-7 and were used to estimate Cronbach's alphas and measure averages. I then re-ran all models with this adjusted scale and compared the results to the non-adjusted version of the scale. Similar patterns were demonstrated across all models and thus the original scale displayed to participants was used in the final analysis.

Likely), “I will try to seek help from a mental health professional to address a mental health concern” (rated from *Definitely True-Definitely False*), and “I plan to seek help from a mental health professional to address a mental health concern” (rated from *Strongly Disagree-Strongly Agree*). Ratings on all three items were then summed so that higher scores represent greater intention to seek help. Hess and Tracey reported a Cronbach’s alpha of .87 for their intention variable for anxiety and depression. The Cronbach’s alpha for this sample was .87 (*N*=124 at T1) and .84 (*N*=123 at T2).

Actual help-seeking behavior. Actual help-seeking behavior was defined as scheduling or attending a counseling appointment with a mental health professional in the time since the first survey. A dichotomous variable “Yes = 1” or “No = 0” was created from participants’ responses to the item, “In the last two weeks, I scheduled and/or attended a therapy/counseling appointment with a mental health provider (psychotherapist, mental health counselor, psychologist, social worker, marriage and family therapist) Yes or No?”

Data Analysis Plan

Hypothesis 1: Social encouragement to seek help will account for significant variance of attitudes towards seeking psychological help above and beyond the effect of other variables entered into the model at Step 1 (sex, ethnicity, psychological distress and functional impairment). Public stigma will contribute significant variance to attitudes above and beyond the effect of other variables entered into the model at Step 2 (sex, ethnicity, psychological distress, functional impairment, and social encouragement). Self-stigma will contribute significant variance to attitudes above and beyond the variables entered into the model at Step 3 (sex, ethnicity, psychological distress, functional impairment, social encouragement, and public stigma). Furthermore, public stigma will no longer be a unique predictor at this step.

Hierarchical Linear Regression. I tested Hypothesis 1 using a hierarchical linear regression predicting attitudes at Time 2. I entered the predictor variables (all from Time 1) in multiple steps. The first step included sex, ethnicity, psychological distress and functional impairment. The second step included social encouragement to seek help. The third step included public-stigma of seeking help. The fourth step included self-stigma of seeking help.

Hypothesis 2. As a set, social encouragement, public stigma and self-stigma will predict hypothetical intentions to seeking psychological help above and beyond the other variables entered into the model at Step 1 (sex, ethnicity, psychological distress and functional impairment). Furthermore, both social encouragement and self-stigma will account for unique variance in hypothetical intentions at this step. Attitudes toward counseling will contribute significant variance to hypothetical intentions above and beyond the other variables entered into Step 2 (sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma, self-stigma) and will account for the relationship between self-stigma and intentions, such that self-stigma will no longer be a significant predictor at this step.

Hypothesis 3. Similar to Hypothesis 2, social encouragement, public stigma and self-stigma as a set will predict actual intentions towards seeking psychological help above and beyond the effect of other variables entered into the model at Step 1 (sex, ethnicity, psychological distress, and functional impairment). Furthermore, both social encouragement and self-stigma will account for unique variance in hypothetical intentions as this step. Attitudes toward counseling will account for significant variance to actual intentions above and beyond the other variables entered into the model at Step 2 (sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma, self-stigma) and will account for the

relationship between self-stigma and intentions, such that self-stigma will no longer be a significant predictor at this step

Hierarchical Linear Regression. I explored Hypothesis 2 and 3 using two separate hierarchical linear regressions predicting intentions (hypothetical and actual) at Time 2. To compute the hierarchical regression for Hypothesis 2, I utilized hypothetical intentions as the criterion variable, and for Hypothesis 3 I utilized actual intentions as the criterion variable. I entered the predictor variables (all from Time 1) in the following order for both regressions. The first step included sex, ethnicity, psychological distress, and functional impairment. Step 2 included social encouragement, public stigma, and self-stigma. At Step 3 I entered attitudes towards seeking professional psychological help.

Hypothesis 4. Following the same pattern from Hypothesis 2 and 3, social encouragement, public stigma and self-stigma as a set will predict actual help-seeking behavior (scheduling or attending a counseling appointment) above and beyond the effect of other variables entered into the model at Step 1 (sex, ethnicity, psychological distress, and functional impairment). Furthermore, both social encouragement and self-stigma will account for unique variance in hypothetical intentions as this step. Attitudes will account for significant variance of actual help-seeking behavior above and beyond the effect of other variables in Step 2 (sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma, and self-stigma) and will account for the relationship between self-stigma and intentions, such that self-stigma will no longer be a significant predictor at this step. Hypothetical and actual intentions will account for significant variance of actual help-seeking behavior above and beyond the effect of other variables at Step 3 (sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma, self-stigma, and attitudes).

Logistic regression. To examine hypothesis 4, I used a logistic regression predicting actual behavior (i.e., scheduling or attending a counseling appointment [Yes =1, No = 0]). The first step included sex, ethnicity, psychological distress, and functional impairment. I added social encouragement, public stigma, and self-stigma at Step 2. At Step 3 I added attitudes toward counseling. At Step 4 I added hypothetical and actual intentions to seek help.

Power Analysis

To estimate the number of participants needed to observe a small and medium effect (if one exists), two power analyses were calculated using G*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007). With the given research questions and analytic plan, the least powerful test for the linear regression analyses is the F-test for the ΔR^2 for the block of variables entered into the regression equation at Step 4. Previous research indicates that attitudes and stigma account for a considerable portion of the variance in intentions to seek help (Vogel et al., 2006; Vogel et al., 2007; Vogel et al., 2010; Wade et al., 2011). So, for the power analysis for the regression to test Hypotheses 1-3, a medium effect size (f^2 = .15) was chosen. Given the following parameters (effect size, f^2 = .15; α error prob= .05; 1-β = .80; total predictors = 6), a total sample size of 98 would be needed.

For Hypothesis 4, a logistic regression was used to test the predictors of the odds of engaging in actual help-seeking behavior. The least powerful test for the logistic regression is the Z-test for the Binomial distribution of one variable predicting the outcome. I chose certain parameters to reflect reasonable differences that would be clinically noteworthy to detect (what might be considered a "medium effect"). If the general probability of engaging in help-seeking behaviors is .4 (40% likelihood that someone would seek treatment; Wang et al., 2007, Alonso et al., 2004, Clement et al, 2015) and a clinically-meaningful difference due to any single predictor

variable is 40% reduction in help-seeking behavior, then the probability of someone with high values of that variable would be .24 (40% less of .40). To detect the situation in which the predictor variable is one standard deviation above the mean and the probability of engaging in actual help-seeking behaviors is .24 with $\alpha = .05$, power = .80, and a multiple correlation between that predictor and all other variables in the model is .20, I would need 112 participants.

CHAPTER 4

RESULTS

Preliminary Analysis

Data preparation and cleaning. The screening survey was completed by 1,030 individuals. Of the 1,030 individuals who completed the screening survey, 457 were eligible to continue on to Time 1 Survey. Of the 457 who continued on to complete Time 1 Survey, 32 failed the attention check item and were ineligible to continue. Additionally, four individuals asked not to use their data. This resulted in a total of 421 individuals who accurately and thoroughly completed Time 1 Survey. Of the 421 who were eligible to complete Time 2 Survey, 134 completed the survey two weeks later. However, nine of these individuals failed one of the two attention check items and were excluded from the final data set. This resulted in a final data set of 125 (30% of the initial 421 who were eligible). I conducted a series of t-tests on all study variables to determine if there were significant differences between those who only completed Time 1 Survey and those who continued on to Time 2 Survey. Results indicated that there were no significant differences among the variables of interest between those who continued in the study and those who did not.

For the purpose of this study, SPSS scale calculation syntax was written to compute composite scores for all variables of interest. For scales with four, ten, and fourteen items, I averaged the item responses for participants who responded to at least 50% of the items (i.e., at least 2, 5, 7 items respectively). For scales with three and five items, I averaged the item responses for participants who responded to at least 60% of the items (i.e., at least 2 and 3 items respectively).

Missing data and outliers. It is important to note that researchers vary with regards to recommended cut offs for missing data. Those who suggest particular cut offs range from 5 % (Schafer, 1999) to 20 % (Peng et al., 2006). However, this author followed recommendations outlined by Cohen et al (2013) and Schlomer et al (2010) who recommend determining if the resultant data set has adequate statistical power to detect effects of interest and the pattern of missingness. The resultant data set for the study had adequate power to detect effects and thus it was determined that less restrictive criteria would suffice and thus composite scores were computed only for those participants who completed over 50% of each scale.

The data set was also examined for univariate and multivariate outliers. According to Tabachnick and Fidell (2001), a case is not considered a potential outlier unless it exceeds a standardized score of 3.29. Thus, Z scores were calculated for all variables of interest. Two outliers (Z= 3.30) were detected for the Perceived Stigmatization by Others for Seeking Psychological Help Scale in Survey 1. For the purpose of analysis these cases were excluded by ensuring that in the data file scores greater than 4.5 to 5 on Time 1 PSOSH would be treated as missing data.

Mahalanobis distance was used to identify potential multivariate outliers (Tabachnick and Fidell, 2001). The critical chi-square value for each regression model was not exceeded, indicating that there were no multivariate outliers present. Additionally, an examination of the residuals and Cook's distance indicated no extreme values and that none of the residuals had an undue influence on their respective model for each regression model.

Tests for normality, linearity, and homoscedasticity. The data set was examined in order to determine whether the four regression models met the regression assumptions of normality, linearity and homoscedasticity (see Cohen, Cohen, West, & Aiken, 2003). No

substantial departures from linearity or residual homoscedasticity were noted for any of the regression models. Furthermore, the data set was examined for univariate normality by dividing the skewness and kurtosis statistic for each observed variable by their respective standard error and comparing the resulting standardized scores to a critical value of 1.96 (Field & Miles, 2010).

Within the data set, results revealed univariate normality for all measured variables except public stigma of seeking help (skewness: z = 1.20: kurtosis: z = .40), social encouragement (skewness: z = .56; kurtosis: z = -.99), psychological distress (skewness: z = .98; kurtosis: z = .41), and hypothetical intentions at T1 (skewness: z = .43; kurtosis: z = -.62) Logarithmic, square root, and inverse transformations were also conducted on each of these skewed and kurtotic variables.

The logarithmic transformation method was the method that resulted in the greatest reduction in skewness for each variable that failed the test for normality. The transformation resulted on the following scores: public stigma of seeking help (skewness: z = .66: kurtosis: z = -.84), social encouragement (skewness: z = .10; kurtosis: z= -1.58), psychological distress (skewness: z = .58; kurtosis: z = -.36), and hypothetical intentions at T1 (skewness: z = -.27; kurtosis: z = -.85).

Thus, the regression analyses were conducted twice—once with the untransformed variables, and once with the transformed variables. Both methods resulted in the same pattern of results. Therefore, the untransformed variables were chosen over the transformed variables because the transformation complicates statistical interpretation.

Validity items. For each survey, I included three items at the end of the survey to assess for the validity of the participants' responses to the questionnaires. These items included the following questions: "How would you rate your effort on this questionnaire" (*No effort* -

Complete effort), "How true are your responses on this survey to who you are as a person?" (*Not at all true* - *Completely true*), and "How well do your responses on this survey represent how you would really feel about seeking help and what you would really do?" (*Not at all representative* -*Very representative*). Means and standard deviations are displayed in Table 2. Results suggest that, on average, participants perceived themselves to have put forth considerable effort on both surveys. Additionally, results suggest that individuals' responses were true to who they are as a person and represented both how they really feel about seeking help as well as what they would really do.

Table 2

Means and Standard Deviations for Use Items

	EffortT1	TrueT1	RepT1	EffT2	TrueT2	RepT2
Mean	6.50	6.83	4.74[a]	6.60	6.81	6.70
SD	.85	.42	.49	.86	.52	.62

[a] *Note* that the score for the representative item (REPT1) in Survey 1 was scaled from 1 (*Not at all representative*) to 5 (*Very representative*), whereas all other items were rated on a scale of 1 (*Not at all representative*) to 7 (*Very representative*).

Descriptive Statistics and Correlation Matrix

Descriptive statistics for the amount of time between surveys for all participants were conducted. The average amount of time between Time 1 Survey and Time 2 Survey for all participants was 15 days with a standard deviation of 3.61. Descriptive statistics (means, ranges, and standard deviations) were also computed for all variables of interest (see Table 3). A zero-

order correlation matrix was also calculated to examine the relationships among all key variables in the study (see Table 4). Because only one participant marked “transgender” and one indicated “other,” they were excluded from the sex variable for purposes of the correlations (female = 0, male = 1). Additionally, race/ethnicity was dichotomized by placing European Americans in one group (majority ethnicity = 0) and all other participants in a second group (minority ethnicity = 1). It was determined that multicollinearity was not a problem with this data set because none of the relationships between independent variables exceeded a Pearson’s correlation of .6 (Tabachnik and Fidell, 2001).

Table 3

Descriptive Statistics for All Variables of Interest

Measure	***N***	**Range**	**Min.**	**Max.**	***Mean***	***SD***
Psychological Distress	125	2.1	1.5	3.6	2.1	0.45
Functional Impairment	125	10	0.0	10.0	4.7	2.44
Public Stigma	123	3.4	1.0	4.4	1.8	.90
Self-Stigma	125	3.4	1.0	4.4	2.7	.70
Attitudes T2	125	2.8	.10	2.9	1.7	.52
Social Encouragement	125	4.0	1.0	5.0	2.3	1.33
Hypothetical Intentions T1	125	6.0	1.0	7.0	3.4	1.46
Hypothetical Intentions T2	125	6.0	1.0	7.0	3.4	1.22
Actual Intentions T1	125	6.0	1.0	9.0	4.0	2.03
Actual Intentions T2	125	6.0	1.0	9.0	4.8	2.12

Note. Variables without time indicators (T1 or T2) were measured at Time 1.

Table 4

Zero-Order Correlation Matrix with Study Variables

		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1	Psychological Distress	1											
2	Functional Impairment	.40**	1										
3	Social Encouragement	.34**	.53**	1									
4	Public Stigma	.04	.24**	.13	1								
5	Self-Stigma	.14	.27**	.14	.35**	1							
6	Attitudes T2	-.12	-.11	.01	-.20*	-.47**	1						
7	Hypothetical Intent T1	-.03	.16	.25**	-.03	-.13	.24**	1					
8	Hypothetical Intent T2	-.15	.07	.16	.07	-.15	.42**	.49**	1				
9	Actual Intent T1	-.04	.17	.37**	.20*	-.06	.22*	.46**	.40**	1			
10	Actual Intent T2	-.08	.24**	.31**	.14	-.15	.38**	.28**	.34**	.41**	1		
11	Sex	-.14	-.01	-.10	.26**	.00	-.07	.10	.16	.06	.10	1	
12	Ethnicity	-.16	.11	.01	.28**	.01	-.01	.10	.12	.19*	.27**	.18*	1
13	Actual Behavior T2	.04	.04	.14	.23*	-.14	.20*	.33**	.28**	.29**	.41**	.16	.26**

Note. **p < .01 level (2-tailed). *p < .05 level (2-tailed). Variables without time indicators (T1 or T2) were measured at Time 1.

Main Analysis

Hypotheses 1 through 3 were tested using three separate hierarchical linear regressions, which were conducted in SPSS 20.0. I conducted one regression for each of the three continuous criterion variables: attitudes toward counseling, hypothetical intentions to seek counseling, and actual intentions to seek counseling. All of these were measured at Time 2. Hypothesis 4 was tested using a four-step logistic regression predicting behavior at Time 2.

Hypothesis 1

To examine Hypothesis 1, I utilized attitudes toward seeking psychological help (T2) as the criterion variable and I entered the predictor variables in the following order: the first step included sex, ethnicity, psychological distress and functional impairment. The second step included social encouragement to seek help. The third step included public-stigma of help-seeking. The fourth step included self-stigma of seeking help. All predictor variables were measured at Time 1.

As noted in Table 5, the first three steps of the analysis were not significant. However, Step 4 accounted for significant variance in attitudes toward seeking psychological help, $\Delta R^2 = .19$, F (1, 114) = 5.03, $p < .001$. As the only variable in this step, self-stigma accounted for significant variance above and beyond the other variables in the model (B = -.35, SE= .07, β= -.46, p= < .001. This suggests that when all the variables are entered into the model, those with less self-stigma had more favorable attitudes about psychological help at T2.

Hypothesis 2

To examine Hypothesis 2, I utilized hypothetical intentions to seek counseling at T2 as the criterion variable. I then entered the predictor variables from Time 1 in the following order: sex, ethnicity, psychological distress, and functional impairment at Step 1. Social

encouragement, public stigma, and self-stigma were entered at Step 2. I entered attitudes towards seeking psychological help (measured at T2) at Step 3.

As noted in Table 6 below, Step 1 was not significant. However, Steps 2 and 3 were significant. At Step 2, psychological distress (B = -.54, SE = .27, β = -.20, p = .05), social encouragement (B = .21, SE = .10, β = .22, p = .04) and self-stigma (B = -.39, SE = .17, β = -.22, p = .02) accounted for unique variance in hypothetical intentions above and beyond the other variables entered into the model. In other words, individuals with greater social encouragement and lower self-stigma possessed greater hypothetical intentions to seek psychological help. At Step 3, sex became significant (B = .43, SE = .21, β = .17, p = .04) and social encouragement remained a significant predictor (B = .18, SE = .09, β = .19, p = .05); self-stigma did not. In addition, attitudes toward counseling accounted for unique variance in hypothetical intentions (B = 1.01, SE = .21, β = .43, p < .001). This suggests that when all variables are in the model, sex (i.e., being male), participants with greater social encouragement and more favorable attitudes towards receiving psychological help reported greater hypothetical intentions to seek help if they were experiencing a mental health concern.

Hypothesis 3

To examine Hypothesis 3, I utilized actual intentions (T2) as the criterion variable and I entered the predictor variables in the following order: in Step 1 I entered sex, ethnicity, psychological distress, and functional impairment. Step 2 included social encouragement, public stigma, and self-stigma. In Step 3 I entered attitudes towards seeking professional psychological help. Results presented in Table 7 show that Steps 1, 2 and 3 were significant. At Step 1, ethnicity (B = .98, SE = .38, β = .23, p = .01) and functional impairment (B = .24, SE = .08, β = .28, p = .01) significantly predicted actual intentions. In other words, ethnic minorities and those

with greater functional impairment reported greater actual intentions to seek psychological help. At Step 2, ethnicity (*B* = .93, *SE* = .36, β = .22, *p* = .01), psychological distress (*B* = -.90, *SE* = .43, β = -.19, *p* = .04), social encouragement (*B* =.48, *SE* = .15, β = .30, *p* = .002) and self-stigma (*B* = -.81, *SE* = .27, β = -.27, *p* = .003) were significant. In other words, ethnic minorities and those with lower psychological distress, greater social encouragement, and lower self-stigma had greater actual intentions to seek help. At Step 3, ethnicity (*B* = .91, *SE* = .34, β = .22, *p* = .009), functional impairment (*B* = .17, *SE* = .08, β = .19, *p* = .05), social encouragement (*B* = .44, *SE* = .14, β = .28, *p* = .003), and attitudes (*B* = 1.42, *SE* = .35, β = .35, $p < .001$) were significant. When all the variables were entered into the model, participants with a minority racial or ethnic identity, greater functional impairment, greater social encouragement, and more favorable attitudes towards receiving help reported greater actual intentions to seek psychological help.

Hypothesis 4

To examine hypothesis 4, I used a logistic regression predicting actual behavior (i.e., scheduling or attending a counseling appointment [Yes =1, No = 0]). The first step included sex, ethnicity, psychological distress, and functional impairment. I added social encouragement, public stigma, and self-stigma at Step 2. Attitudes toward counseling was added at Step 3 and hypothetical and actual intentions to seek help were added to the model at Step 4.

Results of the logistic regression presented in Table 8 indicate that at Step 1, ethnicity significantly predicted actually seeking help (*B* = 1.42, *SE* = .50, Exp [*B*] = 4.16, *p* = .002). This suggests that participants of minority identity were more likely than participants of a majority identity to engage in actual help-seeking behaviors. At Step 2 ethnicity (*B* = 1.31, *SE* = .54, Exp [*B*] = 3.70, *p* = .02), public stigma (*B* = .62, *SE* = .31, Exp [*B*] = 1.87, *p* = .05), and self-stigma (*B* = -1.10, *SE* = .45, Exp[*B*] = .33, *p* = .02) are significant. This suggests that members of

minority ethnicity and those with greater public stigma and lower self-stigma were more likely to seek help. At Step 3, ethnicity (*B* = 1.42, *SE* = .57, Exp[*B*] = 4.13 *p* = .01), public stigma (*B* = .70, *SE* = .32, Exp[*B*] = 2.0 *p* = .03), and attitudes (*B* = 1.39, *SE* = .66, Exp[*B*] = 4.00, *p* = .04) was significant.

Thus, ethnic minorities and those with greater public stigma and lower self-stigma were more likely to engage in help-seeking behavior. At Step 4, when all the variables were entered into the model, ethnicity (*B* = 1.36, SE = .59, Exp[*B*] = 3.91, *p*= .02), public stigma (*B* = .79, *SE* = .36, Exp[*B*] = 2.20, *p* = .03), and hypothetical intentions (*B* = .52, *SE* = .24, Exp[*B*] = 1.68, *p* = .03) were significant. Thus, at the final step, participants of minority ethnicity and those with greater public stigma and hypothetical intentions to seek counseling were more likely to engage in actual help-seeking behavior.

Of note, Model 4 was statistically significant, χ^2 = 36.29, p < .001. The model explained 39% (Nagelkerke R^2) of the variance in engaging in active help-seeking behavior and correctly classified 81.8% of cases. Ethnic minorities in this sample were 3.9 times more likely to engage in actual help-seeking behavior than individuals of a majority ethnicity. For every unit increase in public stigma, participants were 2.2 times more likely to engage in active help-seeking behavior. Additionally, for every unit increase in hypothetical intentions, participants were 1.7 times more likely to engage in actual help-seeking behavior. None of the other variables in this model contributed unique variance to actual help-seeking behaviors.

Table 5

Hierarchical Multiple Regression Analysis Predicting Attitudes toward Psychological Help at Time 2

	Step 1			**Step 2**			**Step 3**			**Step 4**		
	B	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Sex	-.09	.10	-.08	-.08	.10	-.08	-.04	.10	-.04	-.06	.09	-.06
Ethnicity	.00	.10	.00	.00	.10	.00	.05	.10	.05	.01	.09	.01
Psychological Distress	-.10	.12	-.09	-.11	.12	-.10	-.11	.12	-.10	-.10	.11	-.09
Functional Impairment	-.02	.02	-.08	-.03	.03	-.12	-.02	.03	-.08	.00	.03	.01
Social Encouragement				.03	.04	.07	.03	.04	.08	.03	.04	.07
Public Stigma							-.11	.06	-.18	-.02	.06	-.03
Self-Stigma										-.35	.07	**-.46*****
R^2		.03			.03			.06			.24	
ΔR^2		.03			.00			.03			.18	
F **for** ΔR^2		.76			.38			3.36			26.87	
P**-value of** ΔR^2		.55			.54			.07			<.001	

Note. The dependent variable is attitudes at T2. $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$

Table 6

Hierarchical Multiple Regression Analysis Predicting Hypothetical Intentions at Time 2

	Step 1			Step 2			Step 3		
	B	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Sex	.34	.22	.14	.36	.23	.14	.43	.21	**.17***
Ethnicity	.16	.23	.07	.14	.23	.06	.13	.21	.05
Psych. Distress	-.47	.27	-.17	-.54	.27	**-.20***	-.45	.25	-.17
Functional. Impairment	.06	.05	.11	.03	.06	.06	.03	.05	.05
Social Encouragement				.21	.10	**.22***	.18	.09	**.19***
Public Stigma				.08	.14	.06	.09	.13	-.07
Self-Stigma				-.39	.16	**-.22***	-.04	.17	-.02
Attitudes							1.01	.21	**.43*****
R^2	.07			.15			.29		
ΔR^2	.07			.08			.14		
F **for** ΔR^2	2.05			3.43			22.71		
P**-value of** ΔR^2	.09			.02			<.001		

Note. The dependent variable is hypothetical intentions at T2. $*p < .05$, $**p < .01$, $***p < .001$

Table 7

Hierarchical Multiple Regression Analysis Predicting Actual Intentions at Time 2

	Step 1			**Step 2**			**Step 3**		
	B	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Sex	.25	.37	.06	.29	.36	.07	.39	.34	.09
Ethnicity	.98	.37	**.23****	.93	.36	**.22****	.91	.34	**.22****
Psych. Distress	-.72	.45	-.15	-.90	.43	**-.19***	-.76	.40	-.16
Functional Impairment	.24	.08	**.28****	.17	.09	.19	.17	.08	**.19***
Social Encouragement				.48	.15	**.30****	.44	.14	**.28****
Public Stigma				.15	.22	.06	.17	.21	.07
Self-Stigma				-.81	.27	**-.27****	-.32	.28	-.10
Attitudes							1.42	.35	**.35*****
R^2	.15			.28			.38		
ΔR^2	.15			.13			.10		
F **for** ΔR^2	5.18			6.56			16.99		
P**-value of** $R^2 \Delta$	<.001			<.001			<.001		

Note. The dependent variable is actual intentions at T2. $*p < .05$, $**p < .01$, $***p < .00$

Table 8

Logistic Regression Predicting Actual Help-Seeking Behavior at Time 2

	Step 1			**Step 2**			**Step 3**			**Step 4**		
	B	*SE*	Exp(β)	*B*	*SE*	Exp(β)	*B*	*SE*	Exp(β)	*B*	*SE*	Exp(β)
Sex	.77	.52	2.17	.61	.56	1.8	.62	.58	1.86	.50	.60	1.64
Ethnicity	1.42	.50	**4.16****	1.31	.54	**3.70***	1.42	.57	**4.13***	1.36	.59	**3.91***
Psych. Distress	.59	.55	1.81	.36	.64	1.44	.45	.60	1.56	.83	.68	2.29
Functional Impairment	-.02	.11	.98	-.11	.13	.90	-.10	.13	.90	-.15	.14	.86
Social Encouragement				.42	.24	1.53	.37	.24	1.45	.12	.29	1.13
Public Stigma				.62	.31	**1.87***	.70	.32	**2.01***	.79	.36	**2.20***
Self-Stigma				-1.10	.45	**.33***	-.72	.49	.49	-.43	.53	.65
Attitudes T2							1.39	.66	**4.00***	1.21	.71	3.37
Hypothetical Intent T1										.52	.24	**1.68***
Actual Intent T1										.05	.17	1.05
Step χ2	12.75			11.75			4.91			6.88		
Model χ2	12.75			24.50			29.41			36.29		
-2 Log Likelihood	113.65			101.90			96.99			90.11		
Nagelkerke R2	.28			.28			.33			.39		
Step Sig (*p* value)	.01			.01			.03			.03		
% Correct	79.5			80.3			78.7			81.1		

Note. The dependent variable is actual behavior at T2. *$p < .05$, **$p < .01$, ***$p < .001$

CHAPTER 5

DISCUSSION

The purpose of this study was to explore the predictors of help-seeking attitudes, intentions, and actual behavior in a sample of clinically distressed individuals. The single most important finding of the present research is that past models predicting help-seeking attitudes and intentions (e.g. Cooper et al., 2003; Corrigan, 2004; Corrigan & Rüsch, 2002; Eisenberg et al., 2009; Vogel et al., 2005; Vogel et al., 2006, Vogel et al., 2007, Vogel et al., 2010, Vogel et al., 2011,) were supported in the prediction of actual help-seeking behavior. For example, not only does self-stigma and attitudes toward counseling predict intentions, but they follow the same pattern when predicting actual behavior. The present chapter begins with an overview of how the current findings relate to past research. Then, I provide a more specific review of each of the hypotheses and results within the context of previous help-seeking research. The chapter concludes with clinical implications of the findings, limitations of the study, and recommendations for future research.

Overview

When applied broadly, results of this study are consistent with results obtained in Vogel et al. (2007) and extend the previously purported model by adding support for the roles of self-stigma, attitudes, and intentions on actual help-seeking behavior for a sample of distressed adults (Bathje & Pryer, 2011; Hackler et al., 2010; Vogel et al., 2006; Vogel & Wade, 2009; Wade et al., 2011). My results support past research findings that suggest that attitudes mediate the relationship between self-stigma and intentions to seek help. In my regression analyses predicting (a) hypothetical intentions, (b) actual intentions, and (c) actual behavior, self-stigma was a significant predictor until attitudes toward counseling was entered into the regression. This

is consistent with a mediation relationship, although more direct tests of such relationships are needed (for more discussion on this, see the Limitations section later in this chapter). In addition, in the regression predicting actual behavior, attitudes toward counseling become no longer significant once intentions are entered into the model. This provides similar evidence that intentions are more proximal to actual help-seeking behavior than our other variables and might mediate the relationship between attitudes and actual help-seeking. This finding is consistent with both the Theory of Planned Behavior (Azjen, 1991) and the Theory of Reasoned Action (Azjen & Fishbein, 1980) and past empirical work (Bayer & Peay, 1997; Halgin, Weaver, Edell, & Spencer, 1987; Deane & Todd, 1991; Vogel et al., 2005).

Hypothesis 1

I posited in Hypothesis 1 that social encouragement to seek help would account for significant variance of attitudes towards seeking psychological help above and beyond the effect of other variables entered into the model at Step 1, and that public stigma would contribute significant variance to attitudes above and beyond the effect of other variables entered into the model at Step 2. Self-stigma would contribute significant variance to attitudes above and beyond the variables entered into the model at Step 3. Furthermore, public stigma would no longer be a unique predictor at this step. This hypothesis was supported.

As expected, self-stigma of help-seeking accounted for unique variance in help-seeking attitudes. This result is in line with a considerable amount of past research that has found self-stigma to be related to attitudes towards seeking help (Eisenberg et al., 2009; Shectman et al., 2010; Vogel et al., 2006; Vogel & Heimerdinger-Edwards, 2011; Vogel et al., 2007). It also extends past research, most of which has been done with college-aged students, by finding these patterns in a sample of community adults who are clinically distressed. The present work, then,

would add additional support for the notion that self-stigma is more proximal to (and perhaps more important for understanding) attitudes toward counseling than public stigma (or the other variables in the first step). In contrast, it is important to note that although public stigma was correlated with attitudes ($r = -.20$, $p = .03$), it did not significantly predict attitudes beyond the variables in Step 1, even before self-stigma was entered into the equation. Past research has shown similar bivariate correlations between public stigma and attitudes (Topkaya, 2014; Pfohl, 2010; Vogel et al., 2007; Vogel & Wade, 2009. However, few studies have explored the prediction of attitudes by public stigma after accounting for sex, ethnicity, distress, and impairment. Thus, my results suggest that those variables might account for the variance in attitudes that is otherwise attributed to public stigma, perhaps further reducing the importance of public stigma in understanding attitudes toward counseling.

Hypothesis 2

I predicted in Hypothesis 2 that as a set, social encouragement, public stigma and self-stigma would predict hypothetical intentions to seeking psychological help above and beyond the other variables entered into the model at Step 1. However, attitudes toward counseling was expected to contribute significant variance to hypothetical intentions above and beyond the other variables entered into Step 2 and would account for the relationship between self-stigma and intentions, such that self-stigma would no longer be a significant predictor at this step. This hypothesis was supported.

Results of this analysis indicated that self-stigma was a significant predictor of hypothetical intentions to seek counseling. However, this relationship was no longer significant when attitudes toward counseling was entered into the model. Thus, my hypothesis was supported that although self-stigma would be related to hypothetical intentions, attitudes would

account for that relationship when entered into the regression. These results are consistent with past research that has found attitudes to be more proximal to help-seeking intentions. Specifically, these results support the use of Azjen's (1999) Theory of Planned Behavior (TPB), which argues that attitudes are a direct determinant of intentions to perform a planned behavior (in this case seek psychological help). These findings are also consistent with previous research that shows that help-seeking attitudes predict intentions to seek help (Bayer & Peay, 1997; Carlton & Deane, 2000; Lee & Green, 1991; Halgin, Weaver, Edell, & Spencer, 1987; Deane & Todd, 1991; Vogel et al., 2005).

In addition to the findings about self-stigma and attitudes, my results indicated that receiving encouragement to seek psychological services was related to greater hypothetical intentions to seek psychological help. This relationship was significant even after controlling for all the other variables in the model. Thus, there is something unique about receiving encouragement from others to seek help in understanding hypothetical intentions. This finding is in line with previous work that more broadly has confirmed that messages transmitted by family and friends to seek help play an important role in how individuals decide and ultimately make decisions about what to do when they experience psychological distress (Angermeyer, Matschinger, & Ridel-Heller, 2001; Hammer, 1963; Horwitz, 1977; Kadushin, 1966; McKinlay, 1973). It seems that social networks can have a positive relationship with service use and may contribute to people's intentions to seek help (Hammer, 1963; Horowitz, 1977; Kadushin, 1966; McKinlay, 1973).

Hypothesis 3

I stated in Hypothesis 3 that social encouragement, public stigma, and self-stigma as a set would predict actual intentions towards seeking psychological help above and beyond the effect

of other variables entered into the model at Step 1. Social encouragement and self-stigma were expected to account for unique variance in hypothetical intentions as this step. Attitudes toward counseling would account for significant variance to actual intentions above and beyond the other variables entered into the model at step 2 and self-stigma would no longer be a significant predictor at this step.

The regression predicting actual intentions to seek help followed the same pattern as hypothetical intentions with regards to social encouragement, self-stigma and attitudes. Specifically, social encouragement accounted for unique variance in actual intentions regardless of the other variables in the model. Also, self-stigma was related to actual intentions until attitudes was entered into the model. These findings provide further validation to the existing models of stigma and help-seeking (Vogel et al., 2005; Vogel et al., 2007; Wade et al., 2015) and to the findings of hypothetical intentions discussed previously. Most of the past work on help-seeking intentions has used hypothetical intentions. Hypothetical intentions (i.e., what one would do if they had a concern) could be understood as a limited variable in real help-seeking process. Whether a person actually intends to seek help when they have a problem might not be strongly related to what they would think they might do if they had a concern. However, with the current sample, the pattern of predictors was the same with both hypothetical and actual intentions. This lends validity to the previous research that has been done with hypothetical intentions.

Hypothesis 4

In Hypothesis 4 I projected that social encouragement, public stigma and self-stigma as a set would predict actual help-seeking behavior at Step 1. Furthermore, social encouragement and self-stigma would account for unique variance in hypothetical intentions as Step 2. Attitudes would account for significant variance of actual help-seeking behavior above and beyond the

effect of other variables in Step3, and would account for the relationship between self-stigma and intentions, such that self-stigma would no longer be a significant predictor at this step. Lastly, hypothetical and actual intentions would account for significant variance of actual help-seeking behavior above and beyond the effect of other variables at Step 3 (sex, ethnicity, psychological distress, functional impairment, social encouragement, public stigma, self-stigma, and attitudes). This hypothesis was partially supported.

Self-stigma and attitudes toward counseling. With regards to the interplay between self-stigma and attitudes, I found similar patterns between predicting actual intentions and predicting actual behaviors. Those who had less self-stigma were more likely to seek help prior to the addition of attitudes to the model. At Step 3, when attitudes entered the equation, self-stigma was no longer a significant predictor. As discussed previously, this pattern is consistent with past research that has found attitudes to mediate the relationship between self-stigma and intentions to seek help (Tucker et al., 2013; Vogel et al., 2006; Vogel et al., 2007., Vogel et al., 2010., Vogel et al., 2011). However, this finding adds to the literature by demonstrating that this pattern of relationships holds with actual help-seeking behavior. Thus, although self-stigma is related to help-seeking behaviors, it appears that such a relationship might be mediated by attitudes.

Hypothetical and actual intentions. Unlike the relationships between self-stigma and attitudes which supported my hypothesis, the relationship between actual help-seeking intentions and behavior did not. Based on the Theory of Planned Behavior, I hypothesized that actual intentions would be the strongest, most proximal predictor of actual behavior and therefore be a significant predictor at the final step of the model. Instead, I found that hypothetical intentions remained a significant unique predictor at the final step, not actual intentions. One possible

explanation is that actual intentions might capture a state-based intention, what one is intending at the present moment. For this variable, participants rated scale items that stated, “I will try…, I plan to…, I intend to…” with the understanding that this is what they are planning right now. Thus, it is possible that actual intentions might have changed for some people after indicating their actual intentions. Perhaps some participants had very low intentions and then something happened to them over the course of the two weeks to increase their actual intentions, such as their distress became much worse. Others with higher actual intentions might have experienced something that reduced the intention to go to therapy, such as feeling relief and comfort by talking to a loved one.

In contrast, hypothetical intentions might be more stable based on design of that measure, which asks people: “How likely would you be to seek counseling/therapy if you were experiencing” specific problems. This would provide a buffer from the idiosyncratic changes that might occur over a two-week period. Instead, it would measure people’s intentions to seek help, if particular problems emerged, which might or might not occur for any given person. But for those for whom problems emerged or intensified, the hypothetical intentions would likely more accurately predict who sought help.

Another explanation could be that nonreasoned processes such as those delineated in the prototype/willingness model (PWM; Gerrard et al., 2006) played a more important role than planned intention processes in this sample of clinically distressed adults. According to PWM two different information processing pathways exist that influence behavior. The first is a deliberate, reasoned path that impacts behavior through intention. The second, is a social reaction path that impacts behavior through willingness which is often reactive, spontaneous and impacted by situational and social influences. Research in this area has demonstrated willingness to be a

better predictor of behavior than intention when behavior is unfamiliar (Gibbons, Gerrard, Reimer & Pomery, 2006), socially undesirable (Gibbons, Gerrard, & Lane, 2003) and involves emotional processes. A study conducted by Hammer and Vogel (2013) examined help-seeking decisions among 183 college students experiencing clinical levels of distress and found that when both information processing pathways were modeled simultaneously, only the social reaction pathway independently accounted for a significant variance in help-seeking decisions. While this was beyond the scope of this study, future research should consider exploring how social-reaction pathways and in particular willingness impacts help-seeking decisions among clinically distressed adults.

An alternative explanation is that, for some participants, expressing actual intent may have felt like an action step and in doing so reduced the commitment or need for actual behavior. For instance, stating an actual intent for some may feel like a commitment which may intensify the saliency of all of the other factors already influencing behavior. Within this context, actual intent may serve to exacerbate attitudes and hypothetical intent without reliably predicting any actual behavior. This might explain why hypothetical intention led to actual behavior but actual intention did not. More research is needed to understand the influence of hypothetical versus actual intentions on help-seeking behavior.

Public stigma and ethnicity. In addition to the hypothesized relationship, other predictors of help-seeking behavior emerged. At the final step of the model, greater public stigma and minority ethnicity also uniquely predicted actual help-seeking behavior. In other words, those with greater public stigma and ethnic minorities were more likely to seek help. Both findings are counter to expectations based on previous research; those who perceive greater public stigma associated with seeking psychological help and ethnic minorities have been found

to have poorer attitudes toward counseling, less intention to seek help, and therefore would be expected to be less likely to actually seek help (Substance Abuse and Mental Health Service Administration, 2015; U.S. Department of Health and Human Services, 2002). The fact that these patterns did not emerge bears some explanation.

One possible explanation for the finding that greater public stigma was related to seeking help, whereas it was not related to hypothetical or actual intentions, may be related to salience of help-seeking. Much of the research on public stigma associated with seeking help and the help-seeking process examine these processes in the hypothetical, and often much removed from actual help-seeking behaviors (e.g., Bathje, Pryor, 2011; Clement et al., 2015; Corrigan, 2004; Vogel et al., 2007; Vogel et al., 2009). For much of this research, the majority of the participants are not even in psychological distress (e.g., Clement et al., 2015; Vogel et al., 2006; Vogel et al., 2009; Vogel et al., 2011). This would lower the salience of the public stigma associated with seeking help. However, participants still showed a range of perceived public stigma and, because help-seeking behavior would be more distant, those with greater public stigma are less likely to express the intent to seek help. Public stigma measured in this way with these populations might also predict who does or does not seek help in the more distant future in an opposite direction (those with lower public stigma might seek help in the future more often than those with higher).

However, these characteristics do not fit my sample. Instead, being a group of people who are clinically-distressed, my sample may have experienced the help-seeking process much more imminently. As a result, for those who reported actually seeking help (at Time 2) were likely aware of their needs at Time 1, and may have already been contemplating the implications of seeking help. Thus, public stigma for this subset could have been much more salient. When considering seeking help more imminently, people are likely to be more aware of and perhaps

concerned about public stigma. As a result, participants who eventually did seek help may have been more likely to report higher perceptions of public stigma.

In addition to these findings, I also found that minority ethnicity predicted help seeking (as it did with actual intentions, reported previously) after all of the variables were entered into the model. Thus, ethnic minorities were more likely to report higher intentions and to actually seek help after controlling for sex, distress, impairment, social encouragement, stigma, attitudes, and intentions. This contrasts with past research which indicates that racial and ethnic minorities are less likely to seek psychological help and more likely to drop out of therapy (Diala et al., 2000; Substance Abuse and Mental Health Service Administration, 2015; U.S. Department of Health and Human Services, 2002), often because mental health providers do not share their ethnicity (Gamst et al., 2003; Maramba & Hall, 2002; Meyer, Zane, & Cho, 2011; Meyer & Zane, 2013; Turner, Brody & Hopps, 2008; Ward, 2005). Perhaps one possible explanation is that individuals were responding based on what they thought the researcher wanted instead of what they would really do. Another possibility could be that the individuals who participated in the survey might live in urban environments and have greater access to mental health providers who are culturally competent and or of similar identities which may help to improve intentions and increase help-seeking behavior. It is unclear however, how many of the individuals who completed the survey live in urban environments and or have access to culturally competent mental health providers or providers of similar identities. Additionally, it was beyond the scope of this study to assess whether or not racial/ ethnic background was or was not a variable that individuals considered when thinking about accessing services. Additionally, participants who completed the survey might be younger, have had more time in the United States and therefore feel more acculturated and possibly increasingly more open to accessing mental health services.

Another possibility is that the other variables in the model created a suppression effect. This does not appear to be the case, however, because ethnicity shared a direct relationship with help seeking behavior ($r_\phi = .28$). Other possibilities for understanding this relationship are accounted for by the variables in the model. For example, although minorities might distrust the mental health care establishment and the European American therapists they are likely to see, psychological distress and impairment might simply overpower those fears. In other words, highly distressed or impaired people might seek help anyway. Then, to the degree that minorities are more distressed or impaired than majority groups, they would be more likely to seek help. However, these factors should have been captured by the distress and impairment variables already in the model.

This finding, coupled with the finding that ethnic minority status did not predict attitudes or hypothetical intentions, suggests that the typical stigma and help-seeking model (Vogel et al., 2005, 2007) may not work in a similar fashion with ethnic minorities in the U.S. Recent work has just begun to explore help-seeking models in other countries along different racial ethnic minorities. Specifically, Hui, Wong and Fu (2014) created models of encouraging help-seeking for depression which drew upon TPB. Results of this qualitative study suggest that a limited view of treatment options and diverse view of symptoms of depression impacted motivation to seek help. The latter is an example of a promising future area for research.

Implications for Practice

Results from this study are important with respect to clinical practice, to the degree that the correlations established through this research represent some causal relationships. Certainly, this research cannot establish causation among the variables. However, taken with caution, the following implications may be useful for clinical practice. First, the results suggest that self-

stigma may be an important avenue for change with respect to clinically distressed adults. Specifically, this knowledge can help to support the creation, design, and implementation of programming created to increase help-seeking behaviors among distressed adults. For instance, programs that target the individual (as well as individuals of minority identity groups) may more effectively and efficiently reduce internalized stigma that may in essence reduce the greater public's stigma.

These results also demonstrate the unique influence of social networks in help-seeking decisions. Mental health professionals should work within their own communities to promote education and awareness of mental health concerns, as well as ways in which mental health services may benefit an individual in need. This may occur as part of outreach efforts directed towards friends and family of those in need of services, to educate on how they can create optimal environments that motivate an individual to seek services. Additionally, clinicians may also consider targeting interventions to families, and trusted support groups for patients, recognizing that this may have an impact in promoting positive attitudes, and hopefully engagement. For example, once someone has initiated and started services, inviting trusted supports to participate in creating and achieving therapeutic goals may encourage follow through by the client.

Results also suggest that efforts to reduce public stigma remain warranted. Because public stigma may become more salient for individuals who actually engage in help-seeking behaviors, it is particularly important for these efforts to not only reduce public stigma of seeking help but also reduce public stigma for those who have already engaged in services. Clinics who receive requests for services may have a unique opportunity to assist individuals in these early stages of help-seeking by encouraging follow through via communicating positive attitudes or

encouragement around seeking help, answering questions about counseling, and normalizing the experience to target public stigma. These efforts could occur during initial inquiries for services by would-be clients, or perhaps could occur via follow-up contacts with individuals who have scheduled but are still waiting for upcoming initial appointments.

Per the results of this study, these efforts may be especially pertinent to minority populations. Results indicated that public stigma of help-seeking and social encouragement were influential on help-seeking behaviors for minority participants. As a result, outreach efforts to reduce stigma around help-seeking should align to culturally-relevant and culturally-appropriate sources of social support (i.e. places of worship, established community centers) and should involve established and respected authority figures within these communities (i.e. religious leaders, teachers, political figures). Supporting outreach within these communities with the support of established leaders may be more effective than generally targeted efforts.

Furthermore, the research sheds light on several factors that might be relevant for individuals who are waiting, who attend and or who do not attend appointments. More specifically, as per results of this study individuals with greater hypothetical intentions, less public stigma and of minority ethnicity were more likely to seek help. Individuals who are waiting for an appointment may be more acutely aware of public stigma and thus more positively influenced by continued social encouragement as well as interventions aimed at increasing intention.

Limitations and Future Research

There are limitations to the present research that should be noted. First, it is important to note that the results presented are correlational and do not show causation. Moving forward, researchers should develop experimental designs that can test the causal elements in these

relationships more directly. Second, the present sample is limited by the sample size. Collecting data on enough people who have actually sought psychological help is very difficult. However, without large enough numbers, more sophisticated statistical analyses, such as structural equation modeling, can be performed. This study utilized a regression analysis due to the small sample size and interest in exploring the relationship among new variables (i.e., social encouragement). However, a greater sample size would have allowed for more complex statistical procedures that may have illuminated additional relationships among these variables.

Third, the GP-Core "clinical" cut offs used to screen individuals in and out of this study should be interpreted with caution. The GP-Core was originally designed to focus on a non-clinical population. However, researchers believed it was important that it be able to identify those individuals whose levels of distress were more similar to a clinical population. Using a formula proposed by Jacobson and Truax (1991) and using two datasets, researchers derived 1.49 and 1.63 as the clinical cut offs for men and woman. Some may argue that these cut offs are more reflective of a "quasi" clinical population as opposed to a "true" clinical population. However, it is important to note that the overall means for the two datasets used were 2.03 and 2.07. The overall mean for participants in this study was 2.1 with scores ranging from 1.49 to 3.60. Because the overall mean for this sample is greater than the overall mean scores for the two samples used to derive the cut offs it is possible that this sample was more distressed if not truly clinically distressed. It is also important to acknowledge that results of this study may or may not change depending on different cut offs utilized to screen individuals in and out. Future researchers may want to consider utilizing different cut offs or perhaps different measures that differentiate clinical vs. nonclinical populations.

Additionally, the retention rate across time points was limited (30%). It is possible that a self-selection bias may have been a factor. For example, perhaps individuals who were more interested in mental health or who valued psychological therapy agreed to continue in the study. However, with the variables that we measured, there were no differences between those who did not complete the study and those who did.

Another limitation is the short duration of the study. Surveys were collected two weeks apart. This provided important information about what occurs with the help-seeking process over a short duration with people who are clinically distressed. It does not inform us about the help-seeking process over a greater amount of time. It is likely that the significant relationships found in this study would differ given longer duration of time between survey administrations.

Although Amazon Mechanical Turk has been found to be a useful tool for data collection, there are inherent drawbacks or limitations to using an online sample. Individuals may be motivated to complete surveys quickly as the more surveys they complete the more compensation they may obtain. This could result in Mturk workers being more careless when completing the questionnaires. To account for this I offered pay that was higher than the typical survey on MTurk. Horton & Chilton (2010) found that the average Mturk pay for was $1.38 per hour, which amounts to approximately 2 cents per minute. In contrast this study paid $2.50 for a total of 35 minutes across two-time-points which amounts to 7 cents a minute. This is 5 cents more a minute than the average Mturk pay in 2010. Furthermore, to safeguard against careless responders, I included three separate attention checks. Still, although safeguards were used, some caution with the results is appropriate.

Another limitation of this study was the administrative errors on both the intention measures. With regard to the ISCI, a 7-point Likert scale instead of a 6-point Likert scale was

presented to participants. Similarly, for the TPBI a 9-point visual Likert-type scale was presented instead of the traditional 7-point Likert scale (though the correct anchors were given) to participants. Before completing the analyses, I caught the mistake. Measure averages were computed with both adjusted and unadjusted items and models were re-run with both adjusted and unadjusted items. Results demonstrated similar patterns and so the unadjusted average totals were used in the final models run. This aligns with previous research that has demonstrated that rescaling Likert scales has little effect on means, standard deviations, skewness and kurtosis (Dawes, 2012). Additionally, it is important to note that in the in the logistic regression predicting actual behavior, attitudes was measured at time 2 as time 1 data for this measure was rendered unusable. This is problematic because in the logistic regression at step 3 attitudes was measured after intentions. However, it is important to note that while this is indeed a significant limitation, hypothetical intentions at time 1 was actually more predictive of current behavior at time 2 after controlling for current attitudes (at time 2). Future research should explore the relationship among these variables across multiple time-points along the help-seeking process.

An area of future study may be to explore the role of proximal and distal supports for help-seeking. For instance, research may explore the influence of more proximal networks such as family and more distal networks such as an individual's school, employment communities, as well as the type of support related to mental health help-seeking being provided (i.e., emotional, informational, instrumental) to help further parcel out the mechanisms at play with regard to this variable and its influence on help-seeking intention and behaviors (House & Kahn, 1985; Cohen & McKay, 1984., Weis, 1974, Lin and Westcott, 1991).

Future research is also needed to explore the relationships among the studied variables within and across racial and ethnic groups. In this study, I found significant differences between

whites and non-whites, but little is known from this study about how these specific variables affected non-whites within and across reported identities. In the future, researchers should examine the factors that influence non-whites' hypothetical and actual intentions, as well as actual help-seeking behavior. For example, I measured overall levels of social support. However, it may be pertinent (especially in the case of minority identities) to determine whether or not there are differences in how attitudes and pressures are formed when pressure comes from within or outside of an individual's identified community or ethnic group. This line of research may also extend into researching how the process of acculturation, generational factors, and identification with a majority population affect the factors highlighted in this study.

Results indicated that hypothetical intentions were more predictive of actual behavior than was actual intentions. Researchers may consider further exploring if actual intentions is related to help-seeking behavior. Additionally, future research exploring the impact of these variables on varied help-seeking behaviors (i.e., gathering information online about a mental illness versus calling versus attending a mental health appointment) may be warranted as certain variables may influence these behaviors differently. For example, gathering information online about mental health or looking up how to locate a provider in one's community may be predicted by different variables than the ones presented in this study. Furthermore, research could be done to further explore the processes that influence these individuals into help-seeking actions.

Additionally, future research should concern itself with public stigma and in particular explore the role of public stigma in predicting actual help-seeking behavior. Results of this study suggest that those with greater public stigma were more likely to seek help. Additional studies could be conducted to explore if and when this variable becomes salient along the help-seeking process for individuals of different racial/ethnic identities. A revision to the traditional model in

which public stigma is shown predicting actual behaviors may more accurately demonstrate the help-seeking process for distressed adults though future research is needed to explore this further.

Conclusion

This chapter summarized the results of each hypothesis and explored key findings within the context of past research. It also explored this studies' unique contributions and provided justification when findings did not align with previous work. A review of limitations and future research was also provided.

The aim of this study was to explore the unique contribution of self-stigma of help-seeking on help-seeking attitudes, intentions and behavior. As expected, self-stigma predicted attitudes and attitudes predicted both hypothetical and actual intentions. Interestingly, hypothetical intentions predicted actual behavior while actual intentions did not predict behavior in this sample. Furthermore, individuals of reported minority identity are likely to seek help (i.e., schedule or attend an appointment with a mental health professional) more than their white counterparts in spite of greater public stigma.

Results from this study support past research on attitudes and behaviors. It also extends the work in this area by contributing to gaps in the help-seeking literature. Specifically, this study sheds light on the unique role of social encouragement as well as the different variables at play in predicting actual versus hypothetical intentions to seek help. This is also the first study to contribute knowledge about actual help-seeking behavior. Results reflect a need for future research related to actual help-seeking behavior within clinically distressed and demographically diverse samples. Lastly, these findings validate the legitimacy of individual, community and societal interventions aimed at reducing the impact of public and self-stigmas of help-seeking.

Given the detrimental impacts to both the individual and service delivery system when individuals in need do not seek help, it is imperative that research in this area continue.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

Date: 5/18/2016

To: Rachel Bitman-Heinrichs
W112 Lagomarcino Hall

CC: Dr. Nathaniel Wade
W112 Lagomarcino
Dr. David Vogel
W112 Lagomarcino Hall

From: Office for Responsible Research

Title: How do you handle stress?

IRB ID: 16-175

Approval Date: 5/18/2016 **Date for Continuing Review:** 5/17/2018

Submission Type: New **Review Type:** Expedited

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University according to the dates shown above. Please refer to the IRB ID number shown above in all correspondence regarding this study.

To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- **Use only the approved study materials** in your research, **including the recruitment materials and informed consent documents that have the IRB approval stamp**.
- **Retain signed informed consent documents for 3 years after the close of the study**, when documented consent is required.
- **Obtain IRB approval prior to implementing any changes** to the study by submitting a Modification Form for Non-Exempt Research or Amendment for Personnel Changes form, as necessary.
- **Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences** involving risks to subjects or others; and (2) **any other unanticipated problems involving risks** to subjects or others.
- **Stop all research activity if IRB approval lapses**, unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- **Complete a new continuing review form** at least three to four weeks prior to the **date for continuing review** as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Please be aware that IRB approval means that you have met the requirements of federal regulations and ISU policies governing human subjects research. **Approval from other entities may also be needed.** For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. **IRB approval in no way implies or guarantees that permission from these other entities will be granted.**

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1138 Pearson Hall, to officially close the project.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.

APPENDIX B

INSTITUTIONAL REVIEW BOARD APPROVAL MODIFICATION

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

Date: 6/14/2016

To: Rachel Bitman-Heinrichs
W112 Lagomarcino Hall

CC: Dr. Nathaniel Wade
W112 Lagomarcino
Dr. David Vogel
W112 Lagomarcino Hall

From: Office for Responsible Research

Title: How do you handle stress?

IRB ID: 16-175

Approval Date: 6/14/2016 **Date for Continuing Review:** 5/17/2018

Submission Type: Modification **Review Type:** Expedited

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University according to the dates shown above. Please refer to the IRB ID number shown above in all correspondence regarding this study.

To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- **Use only the approved study materials** in your research, **including the recruitment materials and informed consent documents that have the IRB approval stamp.**
- **Retain signed informed consent documents for 3 years after the close of the study,** when documented consent is required.
- **Obtain IRB approval prior to implementing <u>any</u> changes** to the study by submitting a Modification Form for Non-Exempt Research or Amendment for Personnel Changes form, as necessary.
- **Immediately inform the IRB of** (1) **all serious and/or unexpected adverse experiences** involving risks to subjects or others; and (2) **any other unanticipated problems involving risks** to subjects or others.
- **Stop all research activity if IRB approval lapses,** unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- **Complete a new continuing review form** at least three to four weeks prior to the **date for continuing review** as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Please be aware that IRB approval means that you have met the requirements of federal regulations and ISU policies governing human subjects research. **Approval from other entities may also be needed.** For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. **IRB approval in no way implies or guarantees that permission from these other entities will be granted.**

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1138 Pearson Hall, to officially close the project.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.

APPENDIX C

MEASURES BY SURVEY

Variable	Measure	Survey
Psychological Distress	General Population-Clinical Outcomes in Routine Evaluation (GP-Core Evans et al., 2005)	Screening Time 1 Survey
Self-Stigma	Self-Stigma of Seeking Psychological Help (SSOSH; Vogel et al., 2006)	Time 1 Survey
Public Stigma	Perceived Stigmatization by Others for Seeking Help (PSOSH; Vogel et al., 2009)	Time 1 Survey
Social Encouragement	Scale of Social Encouragement to Seek Help (SSESH; Bitman & Wade, for this study)	Time 1 Survey
Functional Impairment	Sheehan Disability Scale (SDS; Sheehan, 1983; Sheehan & Sheehan, 2008)	Time 1 Survey Time 2 Survey
Attitudes	Attitudes Towards Receiving Professional Psychological Help (ATSPPH; Fischer & Farina, 1995)	Time 1 Survey Time 2 Survey
Hypothetical Intentions	Intentions to Seek Counseling Inventory (ISCI-Psychological and Interpersonal Concerns subscale; Cash et al., 1975)	Time 1 Survey Time 2 Survey
Actual Intentions	Theory of Planned Behavior Instrument-Intentions Subscale (TPBI-Intentions Subscale; Hess & Tracey, 2013)	Time 1 Survey Time 2 Survey
Actual Behavior	1 item: In the last two weeks, I scheduled or attended a therapy counseling appointment with a mental health provider. Yes or NO	Time 2 Survey

APPENDIX D

MTURK RECRUITMENT MATERIALS

Screening Survey -Mturk HIT Description

Title: How do you handle stress?

Description: This is an academic survey that explores how people handle stress. To participate you must be 18 years of age or older, fluent in English, currently living in the United States and have not scheduled or attended a counseling/therapy appointment with a mental health provider (mental health counselor, psychologist, psychotherapist, social worker and or marriage and family therapist) in the last month.

Keywords: Brief Survey, Stress, Counseling, Help-Seeking, Attitudes, Beliefs, Feelings, Therapy

Screening Survey-MTurk HIT Introduction

We are conducting an academic survey to help us learn more about how people handle stress. Please complete this survey in one sitting. Select the link below to complete Survey 1 (Part 1). At the end of Survey 1 (Part 1) you may qualify to complete Survey 1 (Part 2). If you do not qualify you will be debriefed. At the end of the survey, you will receive a code to paste into the box below to receive credit for taking the survey. If after completing Survey 1 (Part 1), you qualify to complete Survey 1 (Part 2) you will be eligible to complete a follow up survey (Survey 2) in two weeks.

Make sure to leave this window open as you complete the survey. When you are finished, you will return to this page to paste the code into the box.

Survey link: *Qualtrics Survey 1 (Part 1) link here*

Provide the survey code here:

You must ACCEPT the HIT before you can submit the results.

Time 2 Survey-Mturk HIT Description

Title: How do you handle stress: Survey # 2

Description: This survey explores how you handle stress. Participants must be 18 years of age or older, fluent in English, and living in the United States. Additionally, participants must have a *Survey 2 qualification number here* qualification.

Keywords: Brief Survey, Stress, Counseling, Help-Seeking, Attitudes, Beliefs, Feelings, Therapy

Qualifications Required: Enter *Survey 2 qualification number here*

Mechanical Turk Introduction: Time 2 Survey

We are conducting a 2-part survey about how people handle stress. This is the second and final part. Please complete this survey in one sitting. Select the link below to complete the survey. At the end of the survey, you will receive a code to paste into the box below to receive credit for taking the survey.

Make sure to leave this window open as you complete the survey. When you are finished, you will return to this page to paste the code into the box below.

Survey link: *Qualtrics Survey 2 link here*

Provide the survey code here:

You must ACCEPT the HIT before you can submit the results.

APPENDIX E

INFORMED CONSENT

Title of Study: How do you handle stress?

Investigators: Rachel Bitman, MA

The information presented below describes a research study and is to help you decide whether you wish to take part in this study. Research studies include only people who choose to take part—your participation is your choice.

Introduction
The purpose of this study is to investigate how thoughts, beliefs and feelings influence whether or not people seek counseling. You are invited to participate in this study if you are:

- 18 years of age or older
- Fluent in English
- Currently living in the United States
- Have not scheduled or attended a counseling/therapy appointment with a mental health provider (mental health counselor, psychologist, social worker, marriage and family therapist) in the last month.

Description of Procedures
This study entails completing two separate surveys that can be completed online. Survey 1 is two parts. Survey 1 (Part 1) consists of a screening measure that asks questions about stress and how you have been feeling over the past week. Survey 1 (Part 2) asks demographic questions as well as questions about your thoughts, beliefs and feelings about counseling/therapy. Not everyone who completes Survey 1 (Part 1) will move on to Survey 1 (Part 2). Only those eligible (criteria based on responses to Part 1) will be invited to move on. You will know if you have been invited immediately after completion of Survey 1 (Part 1). The entire survey will take approximately 10-20 minutes to complete.

It is important to note that if you fail to successfully complete the survey or withdraw early you will not be eligible to participate in Survey 2.

If you complete Survey 1 (Part 1 and 2) you will have an opportunity to complete Survey 2. Survey 2 will take approximately 10-15 minutes to complete and will be made available two-weeks after completion of Survey 1 (Parts 1 and 2) on Amazon Mechanical Turk. Survey 2 will ask you to answer questions about your thoughts, feelings and attitudes about therapy/ counseling.

Risks or Discomforts
For some, the survey questions may produce mild emotional/psychological discomfort. To minimize this you are free to skip any questions you do not want to answer. You may also stop the study with no consequences at any time. Participants may experience mild stigma if their participation in the study becomes known. Additionally, if there were a breach in confidentiality

and information were disclosed, this may result in feelings of embarrassment, stigmatization or a disruption in personal relationships.

Benefits
Participating in this study may help you learn more about yourself. It is also hoped that the information gained in this study will benefit society by understanding how beliefs, thoughts and feelings impact help-seeking decisions.

Costs and Compensation
If you complete Survey 1 (Part 1) but do not qualify to complete Survey 1 (Part 2) you will be paid ten cents which will be awarded to you via the Amazon Mechanical Turk website. If you complete Survey 1 (Part 1 and 2) you will be paid $1.00 which will be awarded to you via the Amazon Mechanical Turk website after researchers approve your HIT. If, two weeks later, you complete Survey 2 you will be paid $1.50 which will be awarded to you via the Amazon Mechanical Turk website.

If you decide to end your participation in the study early or fail to appropriately complete any of the surveys you will be compensated one cent for your efforts but you will not be eligible to receive the full payment amount for that survey. Furthermore, you will not be invited to participate in subsequent surveys.

Participant Rights
Participating in this study is voluntary. You can also choose to stop completing surveys at any time, for any reason, without penalty. As was said before, you can skip any questions that you do not want to answer during any part of the study.

If you have any questions *about your participant rights, or research-related injury*, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

Confidentiality
All of the information obtained through your participation will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. However, federal government regulatory agencies certain departments of Iowa State University, and the Institutional Review Board (a committee that reviews and approves human subject research studies) may need them to look at and/or copy study records for quality assurance and data analysis. These records may contain private information.

To make sure that your privacy is protected as the law allows the following measures will be taken:

a. You will be assigned a unique number code that will be used instead of your name
b. Your responses will be combined with everyone else's responses so that it is not separate or different from anyone else
c. Only study researchers will have access to your information
d. All of your information will be stored in encrypted files on a password-protected computer in a locked room that only research members have access to.

e. If the study releases any results to the public (such as in a journal article, conference presentation, or to teach others), your identity will be left out entirely. Results will only be shown for groups of individuals in a way that that no one person's information can be separated out from anyone else's.
f. Anything that is used to keep your answers separate from other people during data collection will be destroyed once the study is over.

Questions
You are encouraged to ask questions at any time during this study.

- For further information *about the study,* contact the principal investigator Rachel Bitman by e-mail at rlbitman@iastate.edu. You may also contact Dr. Nathaniel Wade by e-mail at nwade@iastate.edu.
- If you have any questions *about the rights of research subjects or research-related injury*, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

****

Consent and Authorization Provisions
"By clicking YES below you agree it is YOUR CHOICE to be in this study. It also means that you UNDERSTAND the study, and that you have had enough time to ask questions about your participation. Clicking NO will direct you to END the survey immediately."

YES-BEGIN SURVEY

NO-END SURVEY

APPENDIX F

QUESTIONNAIRES

Screening Survey

Introduction

Thank you for your interest in this study. This is Survey 1 (Part 1). The following items pertain to how you have been feeling over the last week and will help to determine if you are eligible to complete Survey 1 (Part 2). Click next to begin Survey 1 (Part 1).

Enter your MTurk Worker ID: ____________________
E-Mail Address: (ex. rlbitman@iastate.edu): _______________________
Today's Date: ________________________________

What is your Gender?

a. Male
b. Female
c. Transgender
   i. Female to male transgender
   ii. Male to female transgender
d. Not sure
e. Other (please specify): _______________

Age (ex. 18): __________________

INSTRUCTIONS: The following questions pertain to CURRENT (in the last month) psychological help-seeking.

1. In the last month, I scheduled/attended a counseling/ therapy appointment with a mental health provider (psychotherapist, mental health counselor, psychologist, social worker, marriage and family therapist).
   a. Yes
      i. Individual therapy/counseling
      ii. Couples therapy/counseling
      iii. Group therapy/counseling
      iv. Family therapy/counseling
      v. Other (Please specify)
   b. No
      i. How long have you been working with this mental health provider (in weeks or months)?______

ii. Approximately how many sessions have you attended? _______

General Population-Clinical Outcomes in Routine Evaluation (GP-Core Evans et al., 2005)

INSTRUCTIONS: Below are 14 statements about how you have been OVER THE LAST WEEK. Please read each statement and think how often you felt this way over the last week. Then mark the box which is closest to this.

Over the last week…	Not at all	Only occasionally	Sometimes	Often	Most or all of the time
1. I have felt tense, anxious or nervous	0	1	2	3	4
2. I have felt I have someone to turn to for support when needed	0	1	2	3	4
3. I have felt O.K about myself.	0	1	2	3	4
4. I have felt able to cope when things go wrong	0	1	2	3	4
5. I have been troubled by aches, pains or other physical problems	0	1	2	3	4
6. I have been happy with the things I have done	0	1	2	3	4
7. I have had difficulty getting to sleep or staying asleep	0	1	2	3	4
8. I have felt warmth or affection for someone.	0	1	2	3	4
9. I have been able to do most things I needed to	0	1	2	3	4
10. I have felt criticized by other people	0	1	2	3	4
11. I have felt unhappy	0	1	2	3	4
12. I have been irritable with other people	0	1	2	3	4

13. I have felt optimistic about my future	0	1	2	3	4
14. I have achieved the things I wanted to	0	1	2	3	4

Time 1 Survey

Introduction

Thank you for your interest in this survey. You qualify to complete Survey 1 (Part 2). In Survey 1 (Part 2) You will be asked to provide additional demographic information and answer questions about your thoughts, beliefs and feelings about counseling/therapy. Please read the instructions to each section carefully and provide an honest response.

Individuals who successfully complete the survey will be compensated $1.00 via Amazon Mechanical Turk and will be eligible to complete Survey 2 in two weeks which will take approximately 10-15 minutes for compensation of $1.50.

If you decide to end your participation in the study early or fail to appropriately complete any of the surveys you will be compensated one cent for your efforts but you will not be eligible to receive the full payment amount. Furthermore, you will not be invited to participate in Survey 2.

When you are ready, click CONTINUE SURVEY button to start.

If you would no longer like to participate in the study click END SURVEY.

**Please note that if you click END SURVEY you will not be invited to participate in Survey # 2 and forfeit your opportunity for full compensation for this or any remaining surveys in this study.

Good luck!
CONTINUE SURVEY
END SURVEY

INSTRUCTIONS: Please provide additional demographic information by answering the questions below.

1. Enter your Mturk Worker ID: ___________________________
2. How do you describe your race/ethnicity?
    a. Black or African American

b. American Indian or Alaska Native
c. Asian
d. White (not of Latino or Hispanic ethnicity)
e. Native Hawaiian or Other Pacific Islander
f. Latino or Hispanic
g. Other
i. Please specify: ______________________

3. Do you identify as LGBT
a. Yes
i. Please Specify: ______________________
b. No

4. What is your relationship status?
a. Single, never married or partnered
b. Married or domestic partnership
c. Divorced
d. Widowed
e. Separated
f. Other
i. Please specify:_______________________

5. Who do you live with?
a. Parental family
b. Relatives
c. Own Family
d. Partner
e. Alone
f. Other
i. If other: _____________________

6. What is your School/ Employment status?
a. Regular Attendance at School
b. Employed full-time
c. Employed part-time
d. Volunteer/ Unpaid Work
e. Unemployed
f. Unknown or Not Applicable

7. What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.
a. High school diploma/ GED
b. Some college credit, no degree

c. Associate's degree
d. Bachelor's degree
e. Master's degree
f. Professional degree
g. Doctorate degree
h. Currently enrolled in:
    i. Freshman
    ii. Sophomore
    iii. Junior
    iv. Senior
i. Other (please specify) ____________________

Some questions may look like others, but each one is different. Please take the time to read and answer each question carefully. Additionally, please note that the term mental health provider refers to anyone who is able to provide therapy/counseling services such as psychotherapists, mental health counselors, psychologists, social workers and marriage and family therapists.

Self-Stigma of Seeking Psychological Help (SSOSH; Vogel et al., 2006)

INSTRUCTIONS: 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.

	Strongly Disagree	Disagree	Agree & Disagree Equally	Agree	Strongly Agree
1. I would feel inadequate if I went to a therapist for psychological help.	1	2	3	4	5
2. My self-confidence would NOT be threatened if I sought professional help.	1	2	3	4	5
3. Seeking psychological help would make me feel less intelligent.	1	2	3	4	5
4. My self-esteem would increase if I talked to a therapist.	1	2	3	4	5
5. My view of myself would not change just because I made the choice to see a therapist.	1	2	3	4	5

6. It would make me feel inferior to ask a therapist for help.	1	2	3	4	5
7. I would feel okay about myself if I made the choice to seek professional help.	1	2	3	4	5
8. If I went to a therapist, I would be less satisfied with myself.	1	2	3	4	5
9. My self-confidence would remain the same if I sought professional help for a problem I could not solve.	1	2	3	4	5
10. Mark "disagree" for this response.	1	2	3	4	5
11. I would feel worse about myself if I could not solve my own problems.	1	2	3	4	5

Theory of Planned Behavior Instrument-Intentions Subscale (TPBI-Intentions Subscale; Hess & Tracey, 2013)

Please indicate the likelihood that represents your level of belief about seeking help.

1. I intend to seek help from a mental health provider to address a mental health concern.
   Extremely Unlikely: ___: ___: ___: ___: ___: ___: ___: ___: ___ Extremely Likely

Please indicate how true the following statement is for you.

2. I will try to seek help from a mental health provider to address a mental health concern.
   Definitely true: ___: ___: ___: ___: ___: ___: ___: ___: ___ Definitely False

Please indicate the level of agreement you have with the following statement.

3. I plan to seek help from a mental health provider to address a mental health concern.
   Strongly Disagree: ___: ___: ___: ___: ___: ___: ___: ___: ___ Strongly Agree

Perceived Stigmatization by Others for Seeking Help (PSOSH; Vogel et al., 2009)

INSTRUCTIONS: Imagine you had an emotional or personal issue that you could not solve on your own. If you sought therapy/counseling services for this issue, to what degree do you believe that YOUR FAMILY would___________.

	Not at all	A little	Some	A lot	A great deal
1. React negatively to you	1	2	3	4	5
2. Think bad things of you	1	2	3	4	5
3. See you as seriously disturbed	1	2	3	4	5
4. Think of you in a less favorable way	1	2	3	4	5
5. Think you posed a risk to others	1	2	3	4	5

Scale of Social Encouragement to Seek Help (SSESH; Bitman & Wade, for this study)

INSTRUCTIONS: Read the following questions and rate the degree to which these statements are true for you.

	Not at all true.				Very True
1. Someone close to me has suggested that I seek therapy.	1	2	3	4	5
2. People in my life have told me that I should get professional help.	1	2	3	4	5
3. People who are important to me think that I should seek help from a mental health professional.	1	2	3	4	5
4. People in my life whose opinions I value have told me that I should seek help from a professional.	1	2	3	4	5
5. Someone who I am close with wishes for me to seek professional help	1	2	3	4	5

Sheehan Disability Scale (SDS; Sheehan, 1983; Sheehan & Sheehan, 2008)

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Attitudes Towards Receiving Professional Psychological Help (ATSPPH; Fischer & Farina, 1995)

INSTRUCTIONS: Please read each statement and mark the number that indicates how much you agree or disagree with the statement

	Disagree	Probably Disagree	Probably Agree	Agree
1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	0	1	2	3
2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	0	1	2	3
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.	0	1	2	3
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.	0	1	2	3
5. I would want to get psychological help if I were worried or upset for a long period of time.	0	1	2	3
6. I might want to have psychological counseling in the future.	0	1	2	3
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.	0	1	2	3
8. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	0	1	2	3
9. A person should work out his or her own problems; getting psychological counseling would be a last resort.	0	1	2	3

10. Personal and emotional troubles, like many things, tend to work out by themselves.	0	1	2	3

Intentions to Seek Counseling Inventory (ISCI-Psychological and Interpersonal Concerns Subscale; Cash et al., 1975)

INSTRUCTIONS: Below is a list of issues people commonly bring to counseling/therapy. How likely would you be to seek counseling/therapy if you were experiencing these problems?

	Very Unlikely						Very Likely
1. Relationship difficulties	1	2	3	4	5	6	7
2. Concerns about sexuality	1	2	3	4	5	6	7
3. Depression	1	2	3	4	5	6	7
4. Conflict with parents or family	1	2	3	4	5	6	7
5. Difficulty in sleeping	1	2	3	4	5	6	7
6. Inferiority feelings	1	2	3	4	5	6	7
7. Difficulty with friends	1	2	3	4	5	6	7
8. Self-understanding	1	2	3	4	5	6	7
9. Loneliness	1	2	3	4	5	6	7
10. Difficulties dating	1	2	3	4	5	6	7

Usability

INSTUCTIONS: Read the following questions and select the number that most accurately reflects what you believe about your work on this survey. Please answer as honestly as you can and note that your responses on this measure will not affect whether or not you receive payment for this survey.

1. How would you rate your effort on this questionnaire?
   No effort: ___: ___: ___: ___: ___: ___: ___ Complete Effort

2. How true are your responses on this survey to who you are as a person.
   No at all true: ___: ___: ___: ___: ___: ___: ___ Completely true

3. How well do your responses on this survey represent how you really feel about seeking help and what you would really do?

No at all representative: ___: ___: ___: ___: ___ Very representative

4. Based on the amount of effort put towards carefully responding, in your opinion, should we should we use your data for research purposes?
    a. Yes
    b. No

Time 2 Survey

Introduction

Thank you for your willingness to participate in Survey 2 for the study How do you handle stress? The following survey will take approximately 10-15 minutes to complete. Please be sure to complete the survey in one sitting. Once you have completed the survey you will be debriefed. Please answer all questions as honestly as you can. Once you have completed the survey and been debriefed you will be directed to return to the Amazon Mechanical Turk page to enter your completion code to submit your work. When you are ready to begin please click the NEXT button below.

If you have any questions or concerns please be sure to e-mail the primary investigator Rachel Bitman at rlbitman@iastate.edu .

Enter your Mturk Worker ID: ____________________________________

E-Mail Address: (ex. rlbitman@iastate.edu): ________________________

Today's Date: __________________________________

In the last two weeks, I scheduled and or attended a therapy/counseling appointment with a mental health provider (psychotherapist, mental health counselor, psychologist, social worker, marriage and family therapist).

a. Yes.
    i. If Yes please specify the type of counseling/therapy scheduled or attended:
        i. Individual therapy/counseling
        ii. Couples therapy/counseling
        iii. Group therapy/counseling
        iv. Family therapy/counseling
        v. Other (Please specify)
b. No

Theory of Planned Behavior Instrument-Intentions Subscale (TPBI-Intentions Subscale; Hess & Tracey, 2013)

Please indicate the likelihood that represents your level of belief about seeking help.

1. I intend to seek help from a mental health provider to address a mental health concern.
   Extremely Unlikely: ___: ___: ___: ___: ___: ___: ___: ___: ___ Extremely Likely

Please indicate how true the following statement is for you.

2. I will try to seek help from a mental health provider to address a mental health concern.
   Definitely true: ___: ___: ___: ___: ___: ___: ___: ___: ___ Definitely False

Please indicate the level of agreement you have with the following statement.

3. I plan to seek help from a mental health provider to address a mental health concern.
   Strongly Disagree: ___: ___: ___: ___: ___: ___: ___: ___: ___ Strongly Agree

Intentions to Seek Counseling Inventory (ISCI-Psychological and Interpersonal Concerns Subscale; Cash et al., 1975)

INSTRUCTIONS: Below is a list of issues people commonly bring to counseling/therapy. How likely would you be to seek counseling/therapy if you were experiencing these problems?

	Very Unlikely						Very Likely
1. Relationship difficulties	1	2	3	4	5	6	7
2. Concerns about sexuality	1	2	3	4	5	6	7
3. Depression	1	2	3	4	5	6	7
4. Conflict with parents or family	1	2	3	4	5	6	7
5. Difficulty in sleeping	1	2	3	4	5	6	7
6. Inferiority feelings	1	2	3	4	5	6	7
7. Difficulty with friends	1	2	3	4	5	6	7
8. Self-understanding	1	2	3	4	5	6	7
9. Loneliness	1	2	3	4	5	6	7
10. Difficulties dating	1	2	3	4	5	6	7

Attitudes Towards Receiving Professional Psychological Help (ATSPPH; Fischer & Farina, 1995)

INSTRUCTIONS: Please read each statement and mark the number that indicates how much you agree or disagree with the statement

	Disagree	Probably Disagree	Probably Agree	Agree
1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	0	1	2	3
2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	0	1	2	3
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.	0	1	2	3
4. Mark "disagree" for this response to indicate you are reading and answering thoughtfully.	0	1	2	3
5. 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.	0	1	2	3
6. I would want to get psychological help if I were worried or upset for a long period of time.	0	1	2	3
7. I might want to have psychological counseling in the future.	0	1	2	3
8. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.	0	1	2	3
9. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	0	1	2	3
10. A person should work out his or her own problems; getting psychological counseling would be a last resort.	0	1	2	3

11. Personal and emotional troubles, like many things, tend to work out by themselves.	0	1	2	3

Usability

INSTRUCTIONS: Read the following questions and select the number that most accurately reflects what you believe about your work on this survey. Please answer as honestly as you can and note that your responses on this measure will not affect whether or not you receive payment for this survey.

1. How would you rate your effort on this questionnaire?

   No effort: ___: ___: ___: ___: ___: ___: ___ Complete Effort

2. How true are your responses on this survey to who you are as a person.
   No at all true: ___: ___: ___: ___: ___: ___: ___ Completely true

3. How well do your responses on this survey represent how you really feel about seeking help and what you would really do?
   No at all representative: ___: ___: ___: ___: ___: ___: ___ Very representative

4. Based on the amount of effort put towards carefully responding, in your opinion, should we should we use your data for research purposes?

   a. Yes
   b. No

APPENDIX G

DEBRIEFING MATERIALS PER SURVEY

Screening Survey

Debriefing: Screening-Do not Qualify to Continue

Thank you for completing this brief screening survey. **You are not eligible to complete Survey 1 (Part 2) and this you are not eligible to continue in the study at this time.** Please return to the Amazon Mechanical Turk webpage and enter the following completion code to receive credit for completing this survey: *Enter Completion Code Here*

Once submitted, your HIT will be approved within 7 business days.

Please feel free to contact the primary investigator Rachel Bitman at rlbitman@iastate.edu with any questions or concerns. Thank you.

Debriefing: Screening- Qualify to Continue

Thank you for completing this brief screening portion of Survey 1. **You are eligible to complete Survey 1 (Part 2).** Clicking the NEXT button will automatically redirect you to Survey 1 (Part 2) where you will be asked to answer additional demographic questions as well as questions about your thoughts, beliefs and feelings about counseling/therapy.

Once you have completed Survey 1, please return to the Amazon Mechanical Turk webpage and enter the completion code provided to you at the end of the survey to receive credit for completing this survey. Once submitted, your HIT will be approved within 7 business days.

Please feel free to contact the primary investigator Rachel Bitman at rlbitman@iastate.edu with any questions or concerns. Thank you.

Time 1 Survey

Debriefing: Time 1 Survey-Failed

Based on your pattern of responses it appears you were not responding attentively and therefore are ineligible to continue completing the survey. Be advised that you will be compensated one cent for your efforts but are not eligible to receive the full payment or complete Survey 2.

Please return to the Amazon Mechanical Turk webpage and enter the following completion code to receive credit for beginning this survey. Payment will be awarded within 7 business days via Amazon Mechanical Turk.

Completion code: *Enter Survey 1 minimum payment/ completion code here*

Please feel free to contact the primary investigator Rachel Bitman at rlbitman@iastate.edu with any questions or concerns.

Thank you.

Debriefing: Time 1 Survey-Passed

Thank you for your responses. You will be compensated $1.00 for your time through Amazon Mechanical Turk. In two weeks, you will be able to complete Survey 2 which will be available to you in the "HITS available to you" tab in Amazon Mechanical Turk. Please return to the Amazon Mechanical Turk webpage and enter the following completion code to receive credit for completing this survey. Once submitted your HIT will be approved within 7 business days. Please feel free to contact the primary investigator Rachel Bitman at rlbitman@iastate.edu with any questions or concerns. Thank you.

Completion code: *Enter Survey 1 (Part 2) completion code here*

Time 2 Survey

Debriefing: Time 2 Survey-Failed

Based on your pattern of responses it appears you were not responding attentively and therefore are ineligible to continue completing the survey. Be advised that you will be compensated one cent for your time but you are not eligible to receive the full compensation amount of $1.50.

If you are worried in any way about the study or have any questions please e-mail the principal investigator Rachel Bitman at rlbitman@iastate.edu or with Atten: Rachel Bitman in the subject line of the e-mail.

If taking part in this study caused you to feel worried or upset about anything that you would like to discuss with your counselor, please be sure to talk about this with them.

If you are no longer seeing a mental health professional or have never seen one, but would like to below is a list of resources to help get you started.

- **Emergency Medical Services: 911**
  If the situation is life-threatening, you may contact 911, available 24 hours a day.

- **National Suicide Prevention Lifeline**: 1-800-273-TALK (8255) or LIVE CHAT
  If you or someone you know is suicidal or experiencing emotional distress you may contact the National Suicide Prevention Lifeline. Trained crisis workers are available to talk 24 hours a day, 7 days a week and are able to provide crisis counseling and mental health referrals. The call is confidential and toll-free and will go to the nearest crisis center in the lifeline national network. Or you can visit them online http://www.suicidepreventionlifeline.org/

- **SAMHSA Treatment Referral Helpline & Online Locator**: 1-877-SAMHSA7(726-4227)
  To get general information on mental health and locate treatment services in your area. Speak to a live person, Monday through Friday from 8 am to 8 pm EST. To locate an agency in your area using the online locator visit: https://findtreatment.samhsa.gov/locator

- **To locate an individual mental health provider**: https://therapists.psychologytoday.com/rms/
  To locate an individual mental health professionals in your area. You can search by zip code, city, last name, etc. For the providers listed you are able to read about their therapy approach, specialty areas, information about their fees, including insurance information, sliding fee scales, credentials and contact information.

- **General information about mental health**: http://www.mentalhealth.gov/index.html
  For general information about mental health concerns, how to get help, insurance and how to participate in clinical trials visit the website above.

Please return to the Amazon Mechanical Turk webpage and enter the following completion code to receive credit for beginning this survey. Payment will be awarded within 7 business days via Amazon Mechanical Turk.

Completion code: *Enter Survey 2 minimum payment/ completion code here*

Please feel free to contact the primary investigator Rachel Bitman at rlbitman@iastate.edu with any questions or concerns.

Thank you.

Debriefing: Time 2 Survey-Passed

Title of Study: How do you handle stress?

Investigator: Rachel Bitman, MA

Thank you for taking the time to complete this 2-part study. The study you just finished was about self-stigma. Self-stigma is all of the thoughts and beliefs we have about ourselves that get in the way of trying things, because we will feel embarrassed or inferior. This study tried to better understand how self-stigma affects the ways that we ask for professional help to solve problems. Earlier studies about this topic suggest that self-stigma of mental illness, and self-stigma of seeking help impact our attitudes, desires, and willingness to engage in treatment. But, there is almost no research that explores how stigma affects the actual steps of seeking help. Results of this study will help researchers figure out the ways in which stigma impacts help-seeking, and may help professionals develop or improve ways to reduce how self-stigma gets in the way of seeking help for people who need it, or help people in treatment stay connected to the help they asked for.

As mentioned before, all of your information and the responses you gave will be kept private and confidential. Your responses will also be combined with the responses of other participants, to make it even harder to connect your answers with any information that could be used to identify you. This information will be stored on a password-protected computer in a locked office.

If you are worried in any way about the study or have any questions please e-mail the principal investigator Rachel Bitman at rlbitman@iastate.edu or with Atten: Rachel Bitman in the subject line of the e-mail.

If taking part in this study caused you to feel worried or upset about anything that you would like to discuss with your counselor, please be sure to talk about this with them.

If you are no longer seeing a mental health professional or have never seen one, but would like to below is a list of resources to help get you started.

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  If the situation is life-threatening, you may contact 911, available 24 hours a day.

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  If you or someone you know is suicidal or experiencing emotional distress you may contact the National Suicide Prevention Lifeline. Trained crisis workers are available to talk 24 hours a day, 7 days a week and are able to provide crisis counseling and mental health referrals. The call is confidential and toll-free and will go to the nearest crisis center in the lifeline national network. Or you can visit them online http://www.suicidepreventionlifeline.org/

- **SAMHSA Treatment Referral Helpline & Online Locator**: 1-877-SAMHSA7(726-4227)
  To get general information on mental health and locate treatment services in your area. Speak to a live person, Monday through Friday from 8 am to 8 pm EST. To locate an agency in your area using the online locator visit: https://findtreatment.samhsa.gov/locator

- **To locate an individual mental health provider**:
  https://therapists.psychologytoday.com/rms/
  To locate an individual mental health professionals in your area. You can search by zip code, city, last name, etc. For the providers listed you are able to read about their therapy approach, specialty areas, information about their fees, including insurance information, sliding fee scales, credentials and contact information.

- **General information about mental health**:
  http://www.mentalhealth.gov/index.html
  For general information about mental health concerns, how to get help, insurance and how to participate in clinical trials visit the website above.

Please return to the appropriate Mechanical Turk webpage and enter the following completion code to receive credit for completing this survey. Once submitted your HIT will be approved no later than 7 business days.

Completion code: *Enter survey completion code here*