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Mental Illness Stigma, Mental Health Literacy, And Psychological Help-Seeking In A Rural Population

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MENTAL ILLNESS STIGMA, MENTAL HEALTH LITERACY, AND
PSYCHOLOGICAL HELP-SEEKING IN A RURAL POPULATION

by

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This dissertation, submitted by Astrid D'Cunha in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done, and is hereby approved.

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ABSTRACT

This study assessed relationships between mental illness stigma (public stigma (Vogel, Wade & Ascheman, 2009) and private stigma (Vogel, Wade & Haake, 2006)), mental health literacy (Mental Health Literacy Survey (MHLS; Epps et al. 2007) and Symptom Recognition Scale, (SRS)), and psychological help-seeking (Attitudes towards Seeking Professional Psychological Help Scale and Intentions via LSHS) in a rural population. Two-hundred three adults living in rural and urbanized counties within a rural Midwestern state completed paper and online surveys. Stepwise hierarchical regression analyses showed that private stigma, mental health literacy, and previous help-seeking behavior predicted attitudes towards seeking professional help while symptom recognition and previous help-seeking behavior were important predictors of intentions to seek help, relative to other factors. Mental health literacy did not moderate the relationships between stigma variables and help-seeking variables and previous help-seeking did not act as a mediator in the relationship between mental health literacy variables and help-seeking variables. Public stigma did not contribute significant variance to help-seeking attitudes and intentions. Support for private stigma reduction was garnered. Overall, findings support the role of mental health literacy in improving intentions to seek professional help.

CHAPTER I

OVERVIEW OF STUDY AND LITERATURE REVIEW

Overview of Study

The underutilization of mental health services is an important social issue that has detrimental effects on individuals and societies (Jorm et al, 2006; Coles & Coleman, 2010). According to the Substance Abuse and Mental Health Service Administration's 2008 National Survey on Drug Use and Health, 10.9% of adults aged 18 or older (24.3 million) experienced serious psychological distress (SPD) in the year prior to the report, but less than half (44.6%) of these individuals received mental health services during the same period of time (SAMHSA, 2009). Lost housing and employment opportunities, substance abuse, inappropriate incarceration, and suicide, are among the many devastating consequences of untreated mental illness, according to the National Alliance on Mental Illness (NAMI, 2006). Additionally, the monetary costs of untreated mental illness are as high as $70 billion per year, much higher than treating and supporting mental illness at a cost of $50 million per year (Bayer, 2005).

The underutilization of mental health or psychological services is due to a host of factors, an important one of which is negative attitudes towards professional psychological help-seeking. Fear about what psychological treatment entails, a desire to conceal secrets about oneself, low tendency to disclose distress, and social norms that discourage help-seeking, all serve to discourage help-seeking for psychological issues (Vogel, Wester & Larson, 2007). These factors

are all associated with unfavorable attitudes towards seeking professional psychological help and lower people's intentions to seek professional psychological help (Vogel, Wester, Wei & Boysen, 2005).

At the same time, certain factors are associated with positive attitudes towards psychological help-seeking and facilitate help-seeking behavior (Vogel et al., 2007). For instance, the anticipation of positive outcomes from psychological services is associated with positive attitudes towards psychological help-seeking. Vogel et al. (2005) found that the anticipated utility of seeking psychological help was a moderately strong predictor of help-seeking attitudes and intentions, relative to a number of other factors such as social norms, stigma, and distress. In some cases, the experience of psychological distress and negative social experiences may be enough for some individuals to seek psychological help as well (Vogel & Armstrong, 2010)

Also, females are more likely to report seeking psychological help compared to males (Barry, Doherty, Hope, Sixsmith & Kelleher, 2000; Smith, Peck & McGovern, 2004). This has been explained in terms of male gender role socialization that emphasizes independence, control, and the minimization of distress symptoms (Mansfield, Addis & Courtenay, 2005). Racial and ethnic identity differences in psychological help-seeking have also been noted (Wang, Shih, Hu, Louie & Lau, 2010; David, 2010). White individuals are more likely to seek professional psychological help than non-White individuals, due to factors such as mistrust of White individuals, given a history of oppression (David, 2010), and cultural backgrounds that prioritize group harmony and stoicism (Wang et al., 2010).

Among the range of factors that can affect attitudes towards psychological help-seeking, intentions and willingness to seek psychological help, and actual psychological help-seeking

behavior, two factors serve as major impediments. These two factors are mental illness stigma (Corrigan, 2004) and low mental health literacy (Jorm et al., 1997). Corrigan (2004) defined the concept of 'mental illness stigma' in order to facilitate research on a concept that affects psychological help-seeking, and attitudes towards individuals who have mental illness. Similarly, Anthony Jorm, an Australian researcher, coined the phrase 'mental health literacy' (Jorm et al., 1997) to facilitate research that can address the widespread lack of awareness about mental disorders among the public.

Corrigan (2004) defined mental illness stigma as the negative perceptions held by individuals and societies against people who have mental disorders. These negative perceptions may take the form of negative attitudes, beliefs, and thoughts towards people with mental illness. These negative perceptions may then lead to negative reactions such as fear, rejection, avoidance, prejudice and discrimination against people who have mental disorders. Stigma has detrimental impacts on individuals and societies (Corrigan, 2004). Some of the detrimental effects for individuals with mental illness include discrimination (Corrigan et al. 2003), lost housing and employment opportunities, and incarceration (NAMI, 2006). Chronic health issues and lost productivity in the workforce are important negative consequences of mental illness stigma as well (NAMI, 2006).

Mental illness stigma has negative outcomes through its impact on professional psychological help-seeking (Vogel et al., 2007). While there is appropriate professional help to treat mental illness, mental illness stigma prevents individuals from seeking it because of the fear of being labeled, rejected, and discriminated against (Corrigan, 2004). The lack of psychological help-seeking may then cause symptoms of mental illness to go unrecognized and untreated,

resulting in chronic physical and mental health issues, lower life satisfaction, and suicide (NAMI, 2006).

Despite some successful attempts to reduce mental illness stigma (Corrigan et al., 2001; Lepre, 2007), mental illness stigma is a force that is thought to be resistant to change (Corrigan, 2004; Angermeyer, Holzinger & Matschinger, 2009). Since mental illness stigma may be resistant to change, research is warranted on other factors that could affect mental illness stigma, through the interrelatedness of factors. In terms of designing community interventions to change stigmatizing attitudes, this could mean changing other factors that affect psychological help-seeking, such as awareness of symptoms, in order to have an indirect impact on stigma.

One such factor is mental health literacy. In addition to mental illness stigma, low mental health literacy has a detrimental impact on professional psychological help-seeking (Jorm et al. 1997). Mental health literacy has been defined by Jorm as the level of knowledge about mental illness (Jorm et al.; Olsson & Kennedy, 2010). More specifically, mental health literacy refers to the knowledge and beliefs about mental disorders that assist in the recognition, management, and prevention of these disorders (Jorm et al, 1997). It also includes knowledge and beliefs related to risk factors, self-help, and professional interventions for mental disorders.

Mental health literacy plays an important role in help-seeking and the utilization of psychological services (Wright, Jorm, Harris & McGorry, 2007; Olsson & Kennedy, 2010). In an Australian study by Wright et al., people aged 12-25 were interviewed by telephone to assess their recognition and labeling of mental disorder symptoms, and their endorsements of help-seeking and treatment options. Results of this study indicated that appropriate identification of a set of depression and psychotic symptoms is associated with endorsing timely and appropriate professional psychological help. Also, Coles and Coleman (2010) reported that lack of awareness

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about symptoms of mental disorders such as anxiety, contributes to not seeking professional psychological help. Despite the importance of mental health literacy for professional psychological help-seeking, overall health, and well-being, there is a low level of mental health literacy in the general adult population (Farberman, 1997).

Together, mental illness stigma and mental health literacy negatively affect attitudes towards psychological help-seeking in many populations. This negatively impacts psychological help-seeking behavior which in turn results in untreated mental illness, a costly affair for individuals and society (NAMI, 2006). Thus far, much of the research in the area of psychological help-seeking, mental illness stigma, and mental health literacy has been conducted on US college students and the Australian public. However, it is known that mental illness stigma, low mental health literacy, and psychological help-seeking are issues that pertain to rural populations as well (Pullmann, VanHooser, Hoffman & Heflinger, 2010).

There is an underutilization of mental health services in rural areas that exceeds that of metropolitan areas (Hauenstein et al., 2007). This lack of psychological help-seeking has the same detrimental consequences (Jorm et al, 2006; Coles & Coleman, 2010) as for any other population (Corrigan et al, 2003). Barriers to psychological help-seeking in rural areas include the cost of services, lack of knowledge about mental health (Wrigley, Jackson, Judd & Komiti, 2005), and stigma associated with seeking-help (Fox, Blank, Rovnyak & Barnett, 2001; Jameson & Blank, 2007). Further, agrarian values such as stoicism (Judd et al., 2006) and the culture of self-reliance (Fuller et al., 2000) have also emerged as barriers to psychological help-seeking behavior. This may result from the potential loss of privacy if people were to seek services from professionals within their small and dually-dependent network (Jameson & Blank, 2007). More importantly, there is a lack of mental health providers in rural areas compared to urban settings

(Komiti, Judd & Jackson, 2006; Johnson, Brems, Warner & Roberts, 2006). All these factors affect psychological help-seeking in rural areas to the point at which it has been termed as a rural mental health crisis by Jameson and Blank (2007).

Assessing the interplay of mental illness stigma and mental health literacy with psychological help-seeking is thus a critical need in research and practice. In order to impact rural attitudes, the relationship between mental illness stigma, mental health literacy and psychological help-seeking attitudes and intentions must be assessed for a rural population. An understanding of the dynamics between mental illness stigma, mental health literacy and attitudes will shed light on factors that can be the subject of community interventions. Mental health literacy may have the potential to lower mental illness stigma which could then increase help-seeking behavior. It is also possible that an increase in mental health literacy will change attitudes and intentions to seek psychological help, without affecting stigma.

One way of conceptualizing attitude and behavior change is based on the idea that change is a process. This might be especially true for forces such as mental illness stigma and negative attitudes towards psychological help-seeking. The Transtheoretical Model of Behavior Change (Prochaska & DiClemente, 1992) provides a useful theoretical model to study the process of change, in this case, towards a reduction in mental illness stigma and more favorable attitudes and intentions towards psychological help-seeking. This model of behavior change also provides the rationale for analyzing the variables of mental illness stigma, mental health literacy, and psychological help-seeking attitudes and intentions in this specific order.

Review of the Literature

This section will provide a detailed account of research findings as they relate to psychological help-seeking, mental illness stigma, and mental health literacy, for populations at

large and rural populations. Within each of these four main sections, the following will be discussed: definitions and measurement of constructs, how constructs are related to each other, and strengths and limitations of the research conducted thus far. The process of psychological help-seeking will also be anchored in the context of the Transtheoretical Model of Behavior Change (Prochaska & DiClemente, 1992). The summary of the literature section will briefly state overall findings, limitations, and how the current study addresses existing gaps.

Psychological Help-Seeking

Help-seeking has been defined by Rickwood, Deane, Wilson and Ciarrochi (2005) as an action performed to obtain understanding, advice, information, treatment, and general support for a problem or distressing experience. Help-seeking is one among many forms of coping with adversity and relies on interpersonal skills and social relationships. Informal help-seeking refers to help obtained or solicited from discretionary sources such as friends, roommates, and romantic partners, or kinship sources such as parents and siblings (Rickwood et al.; Wang et al, 2010). Formal help-seeking refers to assistance solicited from individuals who have a recognized role and specialized training in the provision of help and advice (Rickwood et al.). Mental health professionals, teachers, youth workers, and clergy are among different sources of formal help (Wilson et al., 2005). In the technologically-advancing world, help-seeking can also occur without direct human contact through sources such as the internet. Psychological help-seeking may thus be defined as attempts that individuals make in order to gain support for their mental health needs and psychological issues. Preferences for informal and formal sources of help in the context of psychological distress and needs are discussed in the following section.

Help-Seeking Sources

Psychological help-seeking may take two main forms, informal help-seeking and formal help-seeking (Rickwood et al., 2005). Often, help-seeking for mental health issues takes the form of informal rather than formal sources of help (Barry et al., 2000; Oliver, Pearson, Coe & Gunnell, 2004; Angermeyer et al., 2009). In a German study for instance, Angermeyer et al. found that people were more likely to endorse a confidant as a source of help for depression-related symptoms; in contrast, for disorders such as schizophrenia, people were more likely to endorse seeking psychotherapist consultation. The findings of this study (Angermeyer et al.) suggest that individuals are more likely to use informal sources of help such as family and friends (Scott & Chur-Hansen, 2008) when they experience symptoms of some forms of mental illness compared to others. The incidence of depression is much more common than schizophrenia (American Psychiatric Association, 2000), yet individuals may be less likely to seek professional help for it. While informal sources of help may afford benefits to individuals, it is not clear whether this is the case.

The distinction between informal and formal or professional psychological help-seeking is an important one. While informal help-seeking may afford benefits to individuals, informal help-seeking for mental illness may not provide adequate care to individuals with mental illness (Jorm et al., 2006). While improving the ability of the public to offer help to families, friends and peers in distress is important (Jorm et al.), the utilization of existing professional psychological services is one that has many barriers, and must therefore be considered. The benefits of professional psychological help-seeking and the costs of not seeking professional psychological help will be considered in the next two sections. Professional psychological help-seeking will be referred to as psychological help-seeking hereafter.

Benefits of Psychological Help-Seeking

Psychological help-seeking may have many positive benefits. Disclosure of distress is associated with greater self-esteem, life satisfaction, and perceived social support (Kahn & Hessling, 2001). Kahn and Hessling (2001) compared the distress disclosure tendencies of university undergraduates to their self-esteem, life satisfaction, and depressive symptoms two months after their distress disclosure levels were measured. Distress disclosure as measured by the Distress Disclosure Index remained stable over the two months and was associated with higher reported self-esteem, life satisfaction, and perceived social support. These findings shed light on the important benefits of disclosing distress for individuals.

Those who seek psychological help have a much faster recovery from mental illness symptoms as well. According to the Treatment Advocacy Center (2011), timely treatment leads to significant reductions in hospitalizations, arrests, and homelessness, for individuals diagnosed with mental illness. Timely help-seeking and treatment of mental illness leads to cost savings and increases in productivity.

Costs of Inadequate Psychological Help-Seeking

The underutilization of mental health services has many detrimental effects on individuals and societies (Jorm et al, 2006; Coles & Coleman, 2010). Research on stigma and lack of mental health literacy suggest that support from informal sources of help may not address all the needs of individuals who have mental illness symptoms (Jorm et al., 2006). Jorm et al. discuss the public's lack of knowledge on how to serve peers, friends, or family when they are in distress. Individuals may be at risk for not favoring formal sources of psychological help at times, and for minimizing the symptoms of mental illnesses such as depression, which may not be viewed as seriously as mental illnesses like schizophrenia. As stated earlier, the costs of

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untreated mental illness can run as high as $70 billion per year, which is significantly higher than treating mental illness at a cost of approximately $50 million per year (Bayer, 2005). The costs exceed monetary aspects as well. According to the National Alliance on Mental Illness (NAMI, 2006), lost housing and employment opportunities, substance abuse, inappropriate incarceration, and suicide are among the many devastating consequences of untreated mental illness.

In addition to the benefits and costs associated with psychological help-seeking, individuals may be affected by other factors as they decide to seek psychological services. Facilitative factors, called approach factors by Vogel et al. (2007), are aspects that may be associated with a greater likelihood of seeking psychological help. Inhibitive factors, referred to as avoidance factors (Vogel et al.) are those that may be related to a lower likelihood of seeking psychological help. Each of these two types of factors is discussed in the following sections.

Approach Factors in Psychological Help-Seeking

Vogel et al. (2007) discuss a number of approach factors that lead some individuals to be more likely to access psychological help. Individuals who tend to experience more comfort in disclosing their distress (Kahn & Hessling, 2001) may be more likely to seek professional psychological services. Having stronger social support in one's life is also associated with a higher likelihood of seeking psychological services, due to the encouragement that individuals may receive for help-seeking (Vogel & Armstrong, 2010). Personality factors such as neuroticism and openness to experience have also been implicated in tendencies to seek psychological help among older adults (Hayslip, Maiden, Thomison & Temple, 2010).

Importantly, the experience of psychological distress has been shown to facilitate psychological help-seeking, regardless of the presence of other factors that may serve as barriers (Vogel et al. 2005). These findings suggest that the experience of personal distress together with

certain personality factors, and social support, are among the many factors that facilitate psychological help-seeking.

Avoidance factors in Psychological Help-Seeking

Vogel et al. (2007) state that is important for counselors to consider avoidance factors towards counseling services. Factors that serve as barriers may be related to individuals, the cultural context of individuals, and systemic factors. The desire to avoid talking about painful emotions (Vogel & Wester, 2003; Komiya, Good & Sherrod, 2000), the preference to not disclose distress (Kahn & Hessling, 2001) and the tendency to conceal secrets about oneself (Cepeda-Benito & Short, 1998; Vogel et al.) may be classified as individual avoidance factors.

Cultural norms surrounding help-seeking (Vogel et al., 2007), interpersonal communication, and emotional experience (Wang et al., 2010) also affect the willingness to seek support from others. Negative views of help-seeking by one's family, peers, and friends (Vogel et al.) may dissuade individuals from seeking help as well. Racial identity differences have also been noted in help-seeking behavior (Wang et al., 2010). Wang et al. found that Asian-American college students sought support less frequently than European American students for stressful events on a daily basis, and this relationship was mediated by differences in group harmony values.

Systemic factors that facilitate an avoidance of psychological help-seeking include restrictive health insurance plans, lack of complete information about services (Willging, Waitzkin & Nicdao, 2008), and biases of mental health providers themselves (Jameson & Blank, 2007). Poverty and the lack of transportation to access services have also been cited as important barriers to psychological help-seeking (Pullmann et al., 2010). In addition, the systemic

oppression of ethnic minorities has led to individuals of color developing mistrust towards

seeking professional psychological help (David, 2010).

Gender Differences in Psychological Help-Seeking

Psychological help-seeking may be related to gender roles as well, although this effect is

not a consistent one. Barry et al. (2000) found that women were more likely than men to report

past help-seeking behaviors for mental health issues. Greater disclosure about distress by females

compared to males has also been documented by Kahn and Hessling (2001). Within rural areas,

being female is one of the factors associated with more favorable attitudes towards psychological

help-seeking (Smith, Peck & McGovern, 2004). On the other hand, Vogel et al. (2005) did not

find differences between male and female undergraduates in predicting the effects of stigma,

social support, self-disclosure, anticipated utility of counseling, social norms surrounding help-

seeking and previous use of counseling on attitudes towards and intentions to seek professional

psychological help. Researchers believe that lower help-seeking among males compared to

females is related to the independence and control that are emphasized in male gender role

socialization (Vogel et al., 2007; Mansfield et al., 2005).

The inconsistencies in the research (Vogel et al., 2005) may be due to researchers using

the words sex and gender interchangeably, the nature of the specific population, and

interpretations made by authors. It may have been that gender differences were not evident in

Vogel et al.'s (2005) study because of college-age of the sample, an age at which gender

differences may be minimal compared to later in life. It is likely that gender differences in some

studies reflect cohort and cultural effects that were not seen in Vogel's study. Despite the

inconsistency of Vogel et al.'s study with other studies' findings, it appears that generally

speaking, women have more favorable intentions to help-seek than men (Wade, Post, Cornish,

Vogel & Tucker, 2011; Vogel et al., 2007).

Cultural Differences in Psychological Help-Seeking

There is evidence that cultural factors interact with approach factors. Wang et al. (2010)

found that Asian-Americans less frequently accessed support that European-Americans, for

stressful daily events. The difference between the two groups was found to be mediated by group

harmony values. Asian-Americans found the support they sought to be less helpful than

European-Americans in this particular study. These cultural differences have been explained in

terms of group harmony or the desire to maintain a collectivistic interest rather than an

individualized focus.

While a combination of individual, cultural, and systemic barriers exist to psychological

help-seeking behavior, two factors emerge as major barriers in the literature. These barriers are

mental illness stigma (Corrigan, 2004) and low mental health literacy (Jorm et al., 1997). Due to

their importance in psychological help-seeking and in this study, mental illness stigma and

mental health literacy are discussed in detail in subsequent sections of their own.

Measurement of Psychological Help-Seeking

An important consideration in the measurement of psychological help-seeking is the

distinction between self-reported attitudes towards psychological help-seeking, self-reported

intentions to seek psychological help, and actual psychological help-seeking behavior (past or

future). Although researchers have measured past behavior and tracked help-seeking behavior on

in a longitudinal manner (Vogel et al., 2005), most studies have relied on participants' reports of

their attitudes towards psychological help-seeking and/ or their intentions to seek psychological

help (Wilson et al., 2005; Vogel, Wade & Hackler, 2007). Past psychological help-seeking and future help-seeking behaviors, although truly indicative of help-seeking behavior, are often hard to measure because they are self-reported and because participants need to be followed for an extended period of time. As a result, the bulk of existing research is based on attitudes towards and intentions to seek help (Vogel et al. 2008).

Attitudes have been measured with scales such as the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS), originally developed by Fischer and Turner (1970) and later shortened by Fischer and Farina (1995), the Inventory of Attitudes towards Mental Health Services (Mackenzie, Knox, Gekoski & Macaulay, 2004), and Beliefs about Psychological Services (BAPS; Ægisdóttir, S., & Gerstein, 2009). Intentions to seek psychological services have been measured with scales such as the Intentions to Seek Counseling Inventory (ISCI; Cash , Begley, McCown & Weise, 1975).

In addition to the use of psychometrically-validated scales, other measures have taken the form of open-ended questions about individuals' past use of help from informal sources such as family and friends as well as formal sources such as social workers, psychologists, and general practitioners (Wright et al., 2007). Such questions are useful and succinct in assessing intentions to seek help or actual help-seeking behavior, particularly when asked about attitudes as well.

Based on previous approaches to measuring help-seeking behavior, similar methods were used in this study. Since attitudes and intentions are two important aspects of help-seeking behavior, these two variables were measured using two separate scales. In addition, and more importantly, previous help-seeking behavior was also measured by asking participants to endorse help they had sought from difference sources (informal and formal). The rationale for assessing attitudes is based on Ajzen and Fishbein's (1973) Theory of Reasoned Action which suggests

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that behavioral intentions are predicted by attitudes towards a behavior. Attitudes towards psychological help-seeking are also related to reported willingness to seek help (Vogel et al., 2008). Vogel et al. found a significant moderate correlation of 0.45 between attitudes towards therapy and willingness to seek therapy in a sample of undergraduate students at a Midwestern university, suggesting that attitudes are somewhat predictive of intentions to seek help in the future.

Another important reason for measuring attitudes and intentions is rooted in Prochaska's and DiClemente's (1992) Transtheoretical Model of Behavior Change which provides a rationale for measuring attitudes and intentions in the process of understanding psychological help-seeking behavior. This rationale is discussed in the following section.

Transtheoretical Model of Behavior Change

The Transtheoretical Model of behavior change (Prochaska & DiClemente, 1992) may serve as a useful model for understanding psychological help-seeking. According to this model, behavior change occurs in five stages: precontemplation, contemplation, preparation for action, action, and maintenance. At the precontemplation stage, individuals have no recognition that their behaviors may be problematic and therefore they have no intention to change any behaviors. At the contemplation stage, individuals have gained recognition of behaviors as problematic and have serious thoughts about changing their behavior. In the preparation for action stage, individuals continue to realize the problematic nature of their behaviors and express intentions to change behaviors within the next month. There may be intermittent efforts to change behavior during this stage as well. In the action stage, individuals demonstrate behavior change and this stage may last up for up to 6 months. When behavior has been maintained for more than this 6 month period, maintenance has been achieved.

The Transtheoretical Model (Prochaska & DiClemente, 1992) has been proposed as a useful model for conceptualizing health behavior and lifestyle change (Stoltz & Kern, 2007). Psychological help-seeking may be conceptualized as health behavior that can occur in five stages. Given the barriers that exist to psychological help-seeking, it makes sense that initiating help-seeking will follow a certain trajectory. At the precontemplation stage, individuals may deny the need for and value of psychological services, due to mental illness stigma, limited mental health literacy, restrictive cultural values, etc. At the contemplation stage, individuals may recognize that psychological disorders are real and treatable with professional psychological services. Such a stage may be reached through education about the symptoms, treatment, and prognoses of mental illness. In other words, improving mental health literacy would produce the recognition that is important at this stage of the model. Reaching a contemplation stage may then lead to favorable attitudes towards psychological help-seeking and intentions to help-seek. These favorable attitudes and intentions may continue in to the preparation for action stage. The actual seeking of services may then occur in the action stage. Finally, when behaviors of psychological help-seeking continue or are accompanied by positive attitudes, the maintenance stage may be achieved. This model offers a useful way to think about the process of psychological help-seeking as one in which mental illness stigma is reduced and mental health literacy is increased.

Mental Illness Stigma

The US Surgeon's General Report on Mental Health (USDHHS, 1999) stated that stigma surrounding mental disorders serves as a barrier to mental health treatment. Mental illness stigma is among the most commonly cited reasons for inhibition of treatment-seeking (Corrigan, 2004). Corrigan (2004) defined mental illness stigma in terms of public and private stigma. Public stigma refers to the negative perceptions held by society against people and the resulting

negative reactions towards them. Thus, negative attitudes, beliefs, and thoughts, may lead to negative reaction such as fear, rejection, avoidance, prejudice, and discrimination against people who have mental disorders. Public stigma, thus, refers to the negative stereotypes and judgments placed by a society on stigmatized individuals within that society.

When individuals internalize public stigma and subsequently conceal their psychological concerns and avoid seeking treatment, private stigma results (Corrigan & Matthews, 2003). Corrigan has termed this behavior as 'label avoidance' since individuals attempt to avoid the negative evaluation they think they will face. That internalized or private stigma plays a more significant role than public stigma in affecting attitudes towards help-seeking, has been well-documented (Brown et al., 2010; Vogel, Wade & Haake, 2006).

A third level of stigma discussed in the literature is structural stigma and this refers to the discrimination that is inherent in and perpetuated by societal institutions (Link, Yang, Phelan & Collins, 2004). An example of this is the lack of mental health parity in health insurance plans and the lack of funding for mental health research relative to other health research. Although an important topic for research, policy, and practice, this was not addressed in this study.

For the purposes of this study, public and private stigma were considered. While it was known that private stigma predicts help-seeking attitudes over and above public stigma for certain populations (Brown et al., 2010; Vogel et al., 2006), it was not clear whether this was the case for people living in a rural area.

Causes of Mental Illness Stigma

Mental illness stigma may result from a number of factors. While most studies emphasize individual factors (Link et al., 2004) such as the pressure to conform to peer group norms, fear of

being judged, and fear of losing confidentiality, there are structural factors that perpetuate stigma and serve as barriers to mental health. For instance, the negative portrayal of mental illness in the media and lack of insurance coverage for mental health compared to physical health, serve as institutional barriers to mental health treatment (Scott & Chur-Hansen, 2008).

The hypothesized cause of mental illness may also affect stigma. In some studies, biomedical explanations of mental illness have been linked with a desire for greater social distance from individuals who have mental illness (Kermode, Bowen, Arole, Pathare & Jorm, 2009) whereas in others, genetic attributions are associated with more favorable attitudes towards help-seeking for mental illness (Wrigley et al., 2005). Thus, mental illness stigma may result from social norms, fears about treatment (Vogel et al., 2007), misconceptions about individuals who have mental illness, and specific attributions about the cause of mental illness.

Despite the above factors that may result in mental illness stigma, it must be noted that mental illness stigma is a complex phenomenon. Therefore, it may be best understood more in terms of what exacerbates or attenuates it rather than in terms of causal factors. The next section considers factors that influence mental illness stigma, particularly in reducing it.

Factors that Influence Mental Illness Stigma

Contact with individuals who have mental illness is related to mental illness stigma reduction (Boyd, Katz, Link & Phelan, 2010; Corrigan et al., 2001). Boyd et al. (2010) measured the relationship between contact with individuals who had been hospitalized for mental illness and three outcome measures of mental illness stigma. Boyd et al. conceptualized mental illness stigma as having emotional, cognitive, and behavioral components in this study. They measured blame and anger to capture the emotional dimension, perceived seriousness of mental illness in a vignette character to capture cognitive aspects, and desire for social distance from the vignette

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character to reflect behavioral dimensions. While this study's findings have important implications for the role of contact with mental illness in changing mental illness stigma, some limitations of the study must be noted. Actual behavior was not measured; the reported likelihood of engaging in socially-distancing behaviors was assessed. Also, the relationships found between variables were of small to moderate strength. Further, contact was measured in terms of whether hospitalization for mental illness had occurred among family members or for the individuals themselves. Individuals are likely to respond differently to strangers who have mental illness, possibly with greater mental illness stigma.

Corrigan et al. (2001) also found that education and contact with individuals who have had mental illness may help in stigma reduction. In this study, the effects of three interventions were measured using the Psychiatric Disability Questionnaire and Life Story Memory Test as pre and post-test measures. The four conditions in the study included exposure to education, a condition in which negative attributions were protested, a condition in which contact with people who had had mental illness occurred, and a control condition in which no contact, education, or protest occurred. Results showed that contact and education had a positive impact on attributions towards people with mental illness whereas protest did not.

Other studies show that contact might be associated with short-term changes in mental illness stigma. Conrad et al. (2009) conducted a school-based study involving contact and sharing with peers who had experienced mental illness, in the hope that it would lead to changes in the desire for social distance. At a three-month follow-up, students reported a greater willingness to seek help from teachers for a mental health issue. The desire for social distance from individuals who have mental illness reduced right after the intervention but did not change from pre-test levels at the three-month follow-up. This study's applicability for mental illness

stigma reduction may be limited by the short-term nature of the group intervention, and insignificant findings. However, it offers support for the role of contact with individuals who have mental illness and the role of education in changing help-seeking behavior, particularly at a young age.

Education and contact with individuals who have mental illness seem to be two important approaches that may help in mental illness stigma reduction (Boyd et al., 2010 ;Corrigan et al., 2001) and in increasing help-seeking behavior for psychological distress (Conrad et al., 2009). This is an important argument for the role of mental health literacy in changing societal attitudes towards people with mental illness and in changing attitudes and intentions surrounding psychological help-seeking. Mental health literacy will be discussed in depth in a subsequent section.

Demographic Differences in Mental Illness Stigma

Demographic differences in self-stigma have been documented. Males tend to endorse higher self-stigma (Vogel et al., 2006) and public stigma than females (Cook & Wang, 2010; Have et al., 2010). Older adults tend to endorse greater levels of mental illness stigma compared to younger adults (Conner, Koeske & Brown, 2009; Smith et al., 2004; Have et al.) and racial differences have also been noted (Harewood, 2010) as well. Conner et al. observed that older African Americans had greater stigma than their White counterparts.

Mental illness stigma may also differ by community or social groups. Norman, Sorrentino, Windell and Manchanda (2008) found that socially normative beliefs about people with mental illness predicted individuals' desire for social distance from people with mental illness, over and above their own beliefs about mental illness. This suggests that individuals' mental illness stigma may be affected more by normative beliefs than their own beliefs. This has

implications for the provision of corrective feedback to societies or groups in changing individual mental illness stigma. These findings also show that it is important to assess social and personal stigma in this study.

More relevant societal differences include those between rural and urban populations. While differences in psychological service utilization between rural and urban areas exist (Hauenstein et al., 2007), mental illness stigma has not been systematically compared. It is known however that mental illness stigma does significantly impact rural populations (Komiti et al. 2006). This is due to the greater 'visibility' and lower sense of confidentiality that is likely to occur in areas with smaller populations.

Effects of Mental Illness Stigma

Mental illness stigma has detrimental effects on society, and in particular for individuals who have mental illness. Not being hired by a potential employer, not being approved for housing, and being unnecessarily and unjustly incarcerated are some of the discriminatory acts committed against individuals with mental illness (Corrigan, 2004; NAMI, 2006). Perceiving individuals who have depression as being unpredictable and dangerous (Cook & Wang, 2010) is one example of prejudice that can lead to such discrimination.

In addition to the injustice against individuals with mental illness, mental illness stigma has adverse effects on health and economic costs. This occurs through unfavorable attitudes towards psychological help-seeking and lower intentions and willingness to seek help. Vogel et al. (2006) found that self-stigma predicted negative attitudes towards psychological service seeking over and above other factors such as sex of participant, previous use of counseling, self-disclosure preference (ranging from low to high), anticipated risks and benefits of psychological services, and desire for self-concealment (ranging from low to high). In another study, Vogel et

al. (2005) found that stigma was correlated at 0.23 with attitudes toward seeking professional

psychological help, which although a much smaller effect compared to the other factors that

influenced attitudes towards help-seeking in this study, is important to note.

Measuring Mental Illness Stigma

Mental illness stigma has often been measured through surveys that capture different

constructs related to mental illness stigma. Public stigma and private stigma have been

distinguished in the research as separate constructs and separate instruments exist for these two

constructs. The Perceived Stigma Scale (PSS) (Wrigley et al., 2005) and Perceived Stigma of

Seeking Help Scale (PSOSH) (Vogel, Wade & Ascheman, 2009) have been used to measure

public stigma. The Self-Stigma of Seeking Help (SSOSH) (Vogel et al., 2006) scale on the other

hand is used to measure internalized or private stigma.

Mental illness stigma has also been measured as the desire for social distance from

individuals who have mental illness (Angermeyer et al., 2009; Norman, Sorrentino, Windell &

Manchanda, 2008; Conrad et al., 2009). Angermeyer et al. used Bogardus' (1925) Social

Distance Scale to measure the eastern German public's attitudes towards people with mental

illness while Conrad et al. measured changes in social distance after an intervention that involved

contact with an individual who had mental illness. Social distance is conceptualized as the desire

to maintain distance from individuals who have mental illness, in a number of different

relationships or contexts: as a tenant, a coworker, a neighbor, a person one would recommend for

a job, a person of the same social circle, an in-law, and a child-caregiver. Participants are asked

to rate the likelihood of engaging in a social relationships with people who have mental illness in

each of these contexts on a five-point Likert-type scale ranging from "in any case" to "in no case

at all". Such measures of social distance may be a useful measure of stigmatizing attitudes towards people with mental illness as social desirability tends to be low.

For the purposes of this study, private and public stigma were measured. The PSOSH (Vogel et al., 2009) was used to measure public stigma while private stigma was measured by using Vogel et al.'s (2006) SSOSH. These scales capture the two main components of mental illness stigma that affect individuals' decisions to seek psychological help and have strong psychometric properties that have been recently tested on other populations.

Mental Health Literacy

The lack of knowledge about mental illness and mental health also play a pivotal role in the underutilization of psychological help. The term mental health literacy was originally coined by an Australian researcher, Anthony Jorm, to refer to the level of knowledge about mental illness (Jorm et al., 1997; Olsson & Kennedy, 2010). More specifically, mental health literacy refers to the knowledge and beliefs about mental disorders that facilitate the recognition, management, and prevention of these disorders (Jorm et al.). It also includes knowledge and beliefs pertaining risk factors, self-help, and professional intervention for mental disorders.

Benefits of Mental Health Literacy

Mental health literacy plays an important role in psychological help-seeking and the utilization of psychological services. There is evidence that correct identification of a set of depression- or psychosis-related criteria predicts reports of timely and appropriate sources of psychological help (Wright et al., 2007; Olsson & Kennedy, 2010). In an Australian study by Wright et al., people aged 12-25 were interviewed by telephone to assess their recognition and labeling of mental disorder symptoms, and their endorsements of help-seeking and treatment

options. Participants were read vignettes (Jorm et al., 1997) describing an individual with depression or psychoses symptoms. Participants were then asked open-ended questions as well as questions with multiple response options related to problem recognition, time to help, and best form of help. Participants were also asked about whether they had seen mental health-related advertising in the past six months, and experienced mental illness themselves or through family or friends. The outcome variables in this study were providing a label of depression, recommending help-seeking within one week, and rating treatment options such as general practitioner, psychiatrist, psychologist, social worker, antidepressant or antipsychotic (depending on the vignette), and counseling or psychotherapy. Multiple logistic regression analyses showed that correct labeling of the disorder most frequently predicted appropriate choice of help for both vignettes. The findings of this study suggest that knowledge of labels for mental disorders may be associated with higher mental health literacy as it relates to knowledge of treatment sources and appropriate time to seek help. This provided an important rationale for the moderating role of mental health literacy in this study's analyses. The main limitation of the above study however, is that case vignettes rather than actual instances of mental illness were used to assess recognition and labeling of symptoms, and preferences for help-seeking and treatment. Individuals are likely to report differently when they have mental illness themselves and therefore it is hard to generalize the results of this study to actual help-seeking behavior.

Vogel et al. (2005) found that the anticipated utility of psychological services is moderately and positively correlated with attitudes towards professional psychological help-seeking. This suggests that when individuals expect benefits from psychological services, they may have more favorable attitudes towards help-seeking and therefore may be more likely to seek help despite factors such as mental illness stigma. This suggests that mental health literacy

about the potential benefits of psychological services is fundamental to the problem of underutilization. A limitation of Vogel et al.'s study is that only undergraduates from a Midwestern university participated in the study. This sample does not represent people who are not enrolled in a university, which is a large segment of the population. University students may receive more information about psychological services through their universities and have inclusive access to services, whereas a rural adult population is not usually in close proximity to services.

Despite the importance of mental health literacy to overall health and well-being, there is low level of mental health literacy in the general population (Jorm & Wright, 2007). Farberman (1997) concluded from their study that there is gap in knowledge about treatment for mental illness between professionals and the public. Their study found that the highest likelihood of consulting a mental health professional was for schizophrenia (83%), the next highest for suicidal feelings (72%), and the third highest was for drug or alcohol dependency (64%). For depression or anxiety, 46% of the population stated that they would be very likely to consult a mental health professional. While this study reflects one aspect of the mental health literacy in the US population, it does not reflect other important aspects such as symptom identification and appropriate treatment. Moreover, majority of the focus groups in this study included individuals from major cities such as Houston and Atlanta, with the exception of one rural community in Minnesota. Given these limitations, this study measured symptom recognition as one indicator or mental health literacy. To address a broader definition of mental health literacy, an existing scale designed by Epps et al. was also used. This will be described in detail in the next section and in Methods section.

Effects of Low Mental Health Literacy

Just as low health literacy is a risk factor for outcomes such as hospital admissions (Baker et al. 2002), low mental health literacy has negative effects.

In a study of adults with addictions, lower health literacy as measured by REALM, was associated with higher depressive symptoms over a longitudinal course (Lincoln et al., 2006). In this study, however, low health literacy was not associated with poor mental health overall, but only with depressive symptoms. This finding is important for many reasons. It suggests that depression may be a mental disorder that is easily overlooked compared to other mental disorders such as psychoses or addiction. The same might hold true for anxiety. Coles and Coleman (2010) also found that one reason individuals with anxiety do not seek professional help is because they are unable to label their symptoms and identify them as impediments to health functioning. These studies emphasize how low mental health literacy is associated with an ignorance of symptoms, particularly for mental health disturbances with subtle expressions. Untreated or incorrectly treated mental illness may then be a grave consequence resulting from negative effects of low mental health literacy, an argument favoring the importance of mental health literacy in a study about psychological help-seeking.

Measurement of Mental Health Literacy

Two forms of measurement that have been commonly used in literature include Jorm et al.'s (1997) vignettes and the MHLS designed by Epps et al. (2007). Mental health literacy has also been measured by comparing the responses of the public to those of mental health professionals on a number of items that are related to mental disorders (Farberman, 1997). Lauber et al. (2005) asked participants to identify a number of depression and schizophrenia symptoms as true or false symptoms in their study. They used ICD-10 criteria to select

symptoms for inclusion and used non-technical language. Each measure is described in detail below.

The vignette measure (Jorm et al.) describes a male, John, or a female, Mary who is experiencing symptoms of depression, anxiety or psychoses. Participants either read the vignettes or have the vignettes read to them. Following this, they are to select an answer from multiple-choice options that follow. The questions asked of participants include, "What, if anything, do you think is wrong with [character name]? , "Who do you think can best help [character name] with his/ her problems?", "If [character name] were a friend or family member of yours, would you talk to him/ her and recommend that he/ she get help for his/ her problems?", "In your opinion, is there professional help in your community (in or around [town name]) for adults who are having emotional or mental health problems? By professional help, we mean someone who is paid to help people", "Can you name where this kind of professional help is available? Write your answer in the space below. If you don't know, write "I don't know" or leave it blank," The responses are scored so that endorsement of a mental illness, choice of formal psychological help, and provision of places that offer help will reflect higher mental literacy scores.

While Jorm et al.'s vignette has been widely used, it does not capture behaviors that individuals may engage in if they had mental illness themselves. Rather, it captures behaviors or courses of action that individuals may recommend for someone dealing with symptoms of depression and schizophrenia only, and in particular, for someone other than themselves. Also, there are too few items to reflect the concept of mental health literacy which encompasses more than just symptom recognition and identification of appropriate provider to treat symptoms. Moreover, factual knowledge about one issue may not be related to knowledge about another

issue (Davis et al., 2008), making symptom recognition of a few specific disorders, inadequate as a measure of mental health literacy. To this extent, the external validity of the vignette approach for understating help-seeking behavior is limited. There is also limited to no information about the reliability of this vignette measure although it has been used widely in Australian research.

Another mental health literacy measure (MHL) was initially designed by Epps' et al. (2007) to capture the mental health literacy of caregivers and parents of children with severe emotional disturbances (SED). The MHL was initially designed to have six subscales: Belief in Own Value, Functional Behaviors, Critical Behaviors, Communication Behaviors, Knowledge/ Understanding, and Factual Knowledge. Sample items on the Communication Behaviors subscale included: "I am capable of describing symptoms with our mental/ emotional/ behavioral service providers" and "I am capable of expressing concerns to our service providers".

The MHL (Epps et al.) was validated with providers and caregivers by Davis et al. (2008). A 28-item measure (Cronbach's alpha = 0.921) was administered to caregivers and the reliability estimated for subscales were as follows: Belief in Value and Capabilities .66, Belief in Rights .78, Knowledge/Understanding .85, Functional Behaviors .86, Critical Behaviors .85, Communication Behaviors .85, and Factual Knowledge scale, .56. A 39-item version of the MHL was used with providers in this same study and internal reliability for the overall instrument was 0.91. The subscales had the following reliabilities: Belief in Values and Capabilities .61, Belief in Rights .80, Functional Behavior .86, Critical Behavior .85, Communication Behavior .61, Communication Assistance .65, and Factual Knowledge .53. These items were condensed to create shorter versions of the MHL scale (called the MHLQ) so that a three-factor scale emerged including subscales of Knowledge and Competency (Cronbach's alpha=0.88), Family Agency (Cronbach's alpha=0.73), and Belief in Control

(Cronbach's alpha=0.63). This 15-item measure had a Cronbach's alpha of 0.80. The Family Agency and Belief in Control subscales were found to have statistically significant positive correlations with the length of time caregivers had been receiving services for their children. Educational level of caregivers was also positively correlated with the Belief in Control subscale. Overall, there was evidence in support of using the MHL and MHLQ survey items as reliable items in this study. Although this survey was designed to assess the mental health literacy of caregivers/ parents for the SED of children, it contained useful items that were incorporated in this study.

Lauber et al. (2005)'s symptom recognition approach to mental health literacy was also adapted for use in creating a symptom recognition scale. In their study, a sample of university students were provided with 5 symptoms that were indicative of depression and schizophrenia as per the ICD-10 and 5 symptoms each that were not indicative of these disorders. Participants could answer the items by identifying them as either a main symptom of the disorder, an additional symptom of the disorder, or as a false symptom of the disorder. Literacy scores were calculated by adding up answers of main symptom and additional symptom, to items that were intended to be true symptoms. Correct identification of false symptoms also received a score by summing correct identification of those false symptoms. An overall score was calculated by using the true symptoms and false symptoms score.

Summary of Psychological Help-Seeking, Mental Illness Stigma, and Mental Health Literacy

Psychological help-seeking is a complex process affected by multiple individual, cultural, and systemic barriers. The process of seeking psychological help, for this reason, may be well-

understood by using the Transtheoretical Model of Behavior Change (Prochaska & DiClemente, 1992) which is used to explain change in resistant behaviors such as smoking, littering, etc.

Among the many barriers that impede psychological help-seeking, mental illness stigma (Corrigan, 2004) and low mental health literacy (Jorm et al., 1997) may serve to slow the process of change towards engaging in psychological help-seeking behavior. Mental illness stigma has detrimental effects through its associations with low psychological help-seeking and negative attitudes towards people with mental illness. Mental health literacy is important in the early detection and timely treatment of mental, emotional, and behavioral disorders (Olsson & Kennedy, 2010). Given that mental health literacy may be easier to improve that reducing mental illness stigma, increasing research on mental health literacy is necessary so that appropriate interventions may be designed (Lincoln et al.) to improve psychological help-seeking and reduce mental illness stigma.

The development of such interventions requires an assessment of the relationships between variables for the communities in which interventions are targeted. The target population of this study will be rural Midwestern people. The rationale for assessing mental illness stigma, mental health literacy, and psychological help-seeking in a rural population is provided through the section on rural issues below.

Rural Context

The underutilization of mental health services is a problem that extends to rural populations as well. Rural areas face an underutilization of mental health services that supersedes that of metropolitan areas (Hauenstein et al., 2007). They also encounter a lack of mental health providers compared to urban settings (Komiti, Judd & Jackson, 2006; Johnson et al., 2006) and face several barriers that are unique to their geographic location (Fuller, Edwards, Procter &

Moss, 2000). This lack of psychological help-seeking has the same detrimental consequences

(Jorm et al, 2006; Coles & Coleman, 2010) as for any other population (Corrigan et al, 2003).

Barriers to psychological help-seeking in rural areas include the cost of services, lack of

knowledge about mental health (Jorm & Wright, 2007), and stigma associated with seeking-help

(Fox et al., 2001; Jameson & Blank, 2007). Further, agrarian values such as stoicism (Judd et al.,

2006) and the culture of self-reliance (Fuller et al., 2000), have also emerged as barriers to

psychological help-seeking. It must be noted that the strong sense of community and extended

social networks in rural areas may lead to an easier loss of privacy for individuals who have to

seek services from someone in their network (Jameson & Blank, 2007).

At a systemic level, certain factors worsen the mental health crisis (Jameson & Blank,

2007) in rural areas. These include the unwillingness of mental health providers to practice in

rural areas. As a result, informal sources of care such as religious organization, family, spouses

etc. are often used in rural areas (Jorm & Wright, 2007).

Thus far, it is known that psychological help-seeking may be significantly affected by

mental illness stigma (Judd et al., 2006) and mental health literacy (Jorm & Wright, 2007;

Jameson & Blank, 2007). Attributions about the cause of mental illness, higher levels of

psychological distress and self-efficacy, and lower levels of stoicism are also associated with

more positive attitudes towards help-seeking (Wrigley et al.). It is also known that favorable

attitudes may lead to favorable help-seeking behavior from general practitioners if not mental

health professionals (Komiti et al., 2006).

While the research above sheds some light on the state of mental health service use in

rural areas, much is unknown about levels of mental health literacy and how it interacts with the

mental illness stigma that exists. The lower likelihood of receiving specialized mental health

treatment in rural compared to metropolitan areas (Hauenstein et al., 2007), suggests lower

psychological help-seeking, which then warrants research on mental illness stigma and mental

health literacy as well. Expanding research on the mental health issues of rural populations is an

important step in social justice for psychologists who are researchers, practitioners, and policy

makers (Jameson & Blank, 2007). For these important reasons, the relationship between mental

illness stigma, mental health literacy, and psychological help-seeking in a rural population will

be addressed.

Purpose of the Study

This study assessed relationships between mental illness stigma, mental health literacy,

and psychological help-seeking in a rural population. The Transtheoretical Model of Behavior

Change (Prochaska & DiClemente, 1992) was used as the theoretical basis for measuring mental

illness stigma, mental health literacy, and psychological help-seeking.

Many of the psychological help-seeking studies conducted in the past primarily had a

traditional college-age university sample, a White population, and urban individuals. These

sample characteristics led to limited applicability of research findings to people in non-urban

areas, who often have limited access to services. Previous research also lacks external validity

because college students differ from adults in their attitudes and behaviors based on generational

and developmental aspects.

No previous studies had looked at how mental illness stigma and mental health literacy

together affected psychological help-seeking attitudes and intentions, in a rural or non-urban

population. Moreover, the level of mental health literacy and its relationship to mental illness

stigma, help-seeking attitudes, and help-seeking intentions, had not been assessed in a rural US

population before this. The under-utilization of mental health services in rural compared to urban

areas (Jameson & Blank, 2007; Hauenstein et al., 2007), also compelled research on stigma, literacy, and psychological help-seeking within a rural population.

Based on the literature, it appeared that a reduction in mental illness stigma was likely to be associated with more favorable attitudes towards professional psychological help-seeking, which in turn could result in better outcomes for individuals and societies. While favorable changes in mental illness stigma may be ideal, some studies suggest that mental health literacy does not necessarily change help-seeking attitudes (Farberman, 1997) and mental illness stigma (Conrad et al., 2009) but only levels of mental health literacy. Since the findings on how mental health literacy influences mental illness stigma were unclear from a review of the literature, one goal in this study was to assess the moderating role of mental health literacy between mental illness stigma and psychological help-seeking attitudes and intentions. By assessing whether mental health literacy moderated the relationship between mental illness stigma and psychological help-seeking attitudes and intentions, support could be garnered for community interventions that attempt to increase mental health literacy.

Based on the above purpose, a model for help-seeking behavior was designed. This model included the variables of public stigma, private stigma, mental health literacy (Epps et al. 2007), and symptom recognition in predicting attitudes towards help-seeking, and thereafter, intentions towards help-seeking. The initial hypothesized model is depicted in Figure 1.
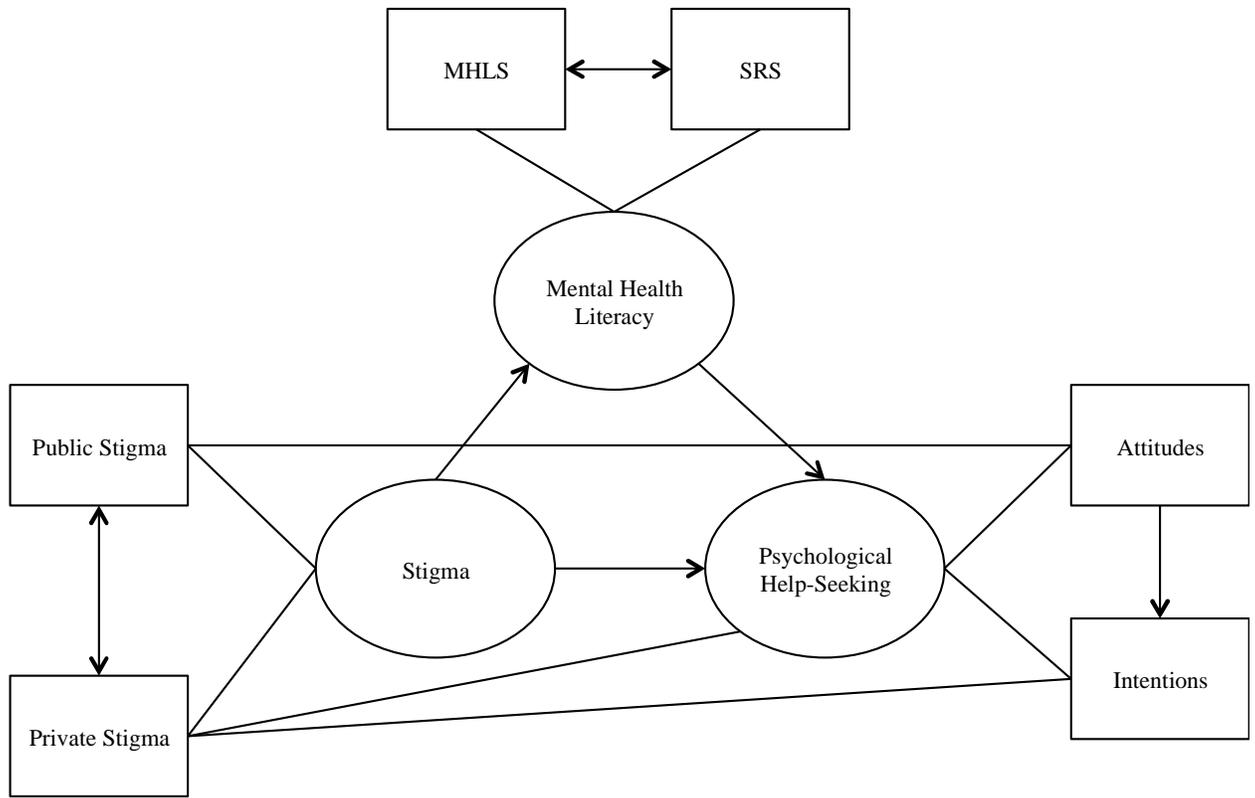
Figure 1. Hypothesized relationships among stigma, mental health literacy, and psychological help-seeking

CHAPTER II

METHOD

Participants

A total of 203 adult participants living in rural and urbanized counties within a rural Midwestern state, participated in the study (52.7% paper surveys). Those who identified living within a rural area or provided zip codes that were of rural towns totaled 23.1% of the sample. Participants ranged in age from 18 to 76 years and the mean age (N=201) was 36.38 years (SD=13.19). Female participants consisted of 75.4% of the total sample. The ethnic identification of the participants was primarily White (83.7%), followed by Other (4.9%), Native-American (3.4%), Asian-American (3.4%), African-American (2.5%), and Latin-American/ Hispanic (1%). The average income group (range from $0-$25,000 to $100,000 or more) was closer to the equivalent of an annual household income of $50,000 to $75,000 per year. The most frequently endorsed education level was a master's degree (27.6%), followed by a bachelor's degree (24.6%), some college but no degree (17.2%), and associate's degree (12.8%).

Participants who reported having children constituted 46.3% of the sample and 12.3% of these people had reported seeking psychological help for their children. As far as help-seeking behaviors were concerned, 55.7% of the sample had endorsed seeking some form of professional psychological help (seeing a psychiatrist, counselor, psychologist, etc.) in the past.

Measures

The survey packets handed out and emailed to participants consisted of six scales and a demographic survey. Two scales were used to measure each construct and these are described in detail under the three main constructs of mental illness stigma, mental health literacy, and psychological help-seeking.

Mental Illness Stigma. Stigma was measured by using two separate scales, one to capture perceptions of public stigma, or social stigma, and another to capture personal stigma. Public stigma was measured by using the Perceptions of Stigmatization by Others for Seeking Help (PSOSH) scale designed by Vogel et al (2009). This scale captures the distinct aspects of public stigma that differ from private stigma by using five items. Items are rated on a 5-point Likert-type scale, with 1 being "Not at all" and 5 being "A great deal". Items are listed in the following order with the stem, "Imagine you had an academic or vocational issue that you could not solve on your own. If you sought counseling services for this issue, to what degree do you believe that the people you interact with would __" listed before it: React negatively to you, think bad things of you, see you as seriously disturbed, think of you in a less favorable way, and think you posed a risk to others. Higher scores indicate greater perceptions of public stigmatization. The internal reliability estimate cited by Vogel et al. is 0.91 and test-retest reliability is 0.82. The scale is negatively correlated with the Attitudes Towards Seeking Professional Psychological Help Scale ($r = -0.66$, $p < 0.001$). The PSOSH had an internal reliability of 0.92 in the current study. 'Public stigma' is synonymous with PSOSH hereafter.

Private stigma towards receiving psychological help was measured using Vogel et al.'s (2006) Self-Stigma of Seeking Help Scale (SSOSH). This 10-item scale includes item such as, "If I went to a therapist, I would be less satisfied with myself." Responses are scored on a five-

point Likert-type scale ranging from 1(strongly disagree) to 3(agree and disagree equally) to 5 (strongly agree). Higher total scores indicate higher levels of private stigma or stigma that is internalized. Half of the items on this scale are reverse-keyed. This scale not only has high predictive validity for reports of intentions to help-seek but can distinguish those individuals who seek help at a future time from those who do not. Cronbach's alpha reliability estimates for a college undergraduate sample varied from 0.86 to 0.91 and test-retest reliability has been reported to be 0.72 (Vogel et al., 2006)**.** In the current study, this reliability was at 0.85. Hereafter, the terms 'private stigma' will be synonymous with SSOSH scale scores.

Mental Health Literacy. Two measurements of mental health literacy were used in this study. The first measure of mental health literacy was an adaptation of 14 items from two subscales of the MHLS (Davis et al. 2008). This scale was designed to measure the mental health literacy of caregivers/ parents of children with severe emotional disturbances, and its items were easily adapted for use with an adult population. Items are listed in Appendix A.

The subscales that were primarily used in this study were the Communication Behaviors subscale and Knowledge/ Understanding subscale with some items from the following subscales as well: Belief in Capabilities, Belief in Rights, and Belief in Own Value (Epps et al., 2007). An example of an item from the Communication Behaviors subscale includes: "I am capable of describing symptoms with our MEB service providers". This was reworded to: "I am capable of describing symptoms with mental health providers". An example of an item from the second subscale includes: "There are options other than medications that are available to us". This item was used in its same form. Items were rated on a 5-point Likert-type scale ranging from 1 (Strongly Agree) to 5 (Strongly Disagree) and these items were recoded prior to data analysis so that higher values represented agreement. A maximum score of 70 was possible on this scale and

the mean score in our study was 56.64. The Cronbach's alpha for the total scale of the adapted set of items used in the current study was 0.81. In Epps et al.'s (2007) original study, the Cronbach's alpha for the Communication Behaviors subscale ranged from 0.80 to 0.83, and for the Knowledge/ Understanding subscale from 0.85 to 0.90. In a validation study of the MHLQ (Davis et al., 2008) on caregivers, the Cronbach's alphas for shortened versions of the subscales were: Communication Behaviors: 0.85 and Knowledge/ Understanding: 0.85.

The second measure was created by the principal investigator based on Lauber et al.'s (2005) approach. Many previous studies have relied on the vignettes used by Jorm and colleagues (1997) to measure people's mental health literacy and the MHLS and MHLQ have more recently been used to assess caregiver and provider literacy. Given the limitations of the vignette measure, and in order to address the symptom recognition aspect of mental health literacy, a new scale consisting of 10 items was created. This scale was labeled as Symptom Recognition Scale (SRS) was used as a second measure of mental health literacy, to be used with the MHLS items.

Participants were asked to indicate their level of agreement with each of ten items being a symptom of mental illness. To have a mix of items including some that did not indicate mental illness, six items were designed to be symptoms of mental illness while the other four were symptoms of medical illness or definitely not symptoms of mental illness. The six items that described mental health/ psychological symptoms were related to symptoms which are common in the general population, using descriptive language that is used in the DSM-IV-TR. The mental health symptoms were worded in the following manner: "Excessive sweating and a fast heart rate in social situations", "Avoiding important life activities due to fear of specific things/ situations", "Excessive crying and feelings of worthlessness about oneself", "Consuming alcohol to a point

of hangovers more than once per week", "An upset stomach with no medical cause", and "Excessive hair pulling due to stress or anxiety". These items were generated by the principal investigator based on DSM-IV-TR diagnostic categories and symptoms and consensus was sought with three other mental health professionals. These items were scored on a 5-point Likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). A pilot study conducted with 30 participants showed that SRS items (all symptoms) had a moderate internal reliability estimate (Cronbach's alpha 0.62). To obtain a total score for symptom recognition, items that addressed mental health symptoms (Items 2, 4, 6, 7, 8, and 10) were summed. The Cronbach's alpha for this subset of items in the study was 0.90. Since there were six items related to mental illness symptoms, a maximum score of 30 could be obtained on this scale and the mean score in this study was 25.78. Appendix C shows items on the SRS.

The four physical health symptoms listed in the SRS were: "A broken toe from running in to a chair", "Itchy eyes and a runny nose due to Spring allergies", "Lower back pain from improper posture and improper bending", and "Watery eyes from being around pets". These items were alternated with the mental illness symptoms described above and participants rated them on the same 5-point Likert-type scale that was used to denote level of agreement about whether the symptom is psychological in nature. Cronbach's alpha was 0.87 for these physical symptoms. These items were negatively correlated with the mental illness symptoms (r= - 0.28, p<0.01) adding support to the validity of mental illness symptoms as separate from physical illness symptoms. Scores from this subscale of physical symptoms were not used in further analyses.

Psychological Help-Seeking. Psychological help-seeking was measured using two separate instruments, one measuring attitudes towards professional psychological help-seeking

and another measuring intentions to seek psychological help in the future, for a number of specific symptoms. To measure the first, the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS) developed by Fischer and Farina (1995) was used. This is a 10-item scale that consists of items such as, "If I believed I was having a mental breakdown, my first inclination would be to get professional attention." Respondents are to rate items on a 4-point Likert-type scale from 0 (disagree) to 3 (agree). A total score is obtained by reverse scoring certain items and then summing all ten items. Higher scores, with 30 being the maximum score, indicate more positive attitudes towards seeking professional psychological help. This test has a 1-month test-retest reliability of 0.80 and an internal-consistency of 0.84 (Vogel et al., 2005). Cronbach's alpha for the ATSPPHS in this study was 0.829. The ATSPPHS was negatively correlated with the SSOSH scale (r=-0.641, p=0.000) and PSOSH scale (-0.319, p=0.000) suggesting significant divergent validity.

Since a limited number of scales were available to measure intentions to seek psychological help, a short 10-item scale labeled as the Likelihood of Seeking Help Scale (LSHS) was designed for this purpose. This scale included the same symptoms used in the SRS and assessed people's self-reported likelihood of seeking help from a mental health professional (psychologist, psychiatrist, social worker, counselor, etc.) for each of those symptoms. Participants were instructed to answer questions from the viewpoint that they were experiencing these symptoms, and that time, money, transportation, insurance, and access to services were not barriers to seeking help. Participants rated their likelihood of seeking help on a 6-point Likert-type scale ranging from 1 (Very Unlikely) to 6 (Very Likely), with higher scores indicating higher intentions to seek help. To obtain a total score for intentions to seek help for psychological/ mental health symptoms, items that addressed mental health symptoms (Items 2, 4, 6, 7, 8, and 10) were summed. The Cronbach's alpha for this subset of items in the final study

was 0.869 and in the pilot study was 0.85. The intentions subscale was positively correlated with the mental illness recognition subscale (r=0.465, p<0.01) suggesting that participants were likely to seek help for symptoms they recognized as mental illness. The mean score for these six items across participants was 4.19, suggesting that participants reported being somewhat likely to seek help as a group. Since there were six items asking about intentions to seek help for mental health symptoms, a maximum score of 30 could be obtained on this scale. Items are listed in Appendix D.

Demographic information was collected at the end of the surveys and participants could check off from the following options and write in information as relevant: gender (male, female, or other, with a space provided for description of other), age, zip code (in the paper version of the survey only), geographic location (rural, urbanized, or metro area), ethnicity (US Census Bureau's classification), level of education, and total household income category. Previous help-seeking behaviors were also asked about within this form by giving participants five different categories to choose form. Participants could select as many categories as applied to them from this list: "I have never sought help for a mental health/ psychological problem", "I have sought help from a counselor, psychologist or social worker before", "I have sought help from a psychiatrist", "I have sought help from my GP or medical doctor", and "I have sought help from friends and family". Appendix H contains the demographics survey.

Procedure

Surveys were administered between October 2012 and February 2013. Paper surveys were administered within an integrated health care clinic and at a public library in a rural Midwestern state. Potential participants were invited to fill out surveys while they waited for their appointments in the waiting room of the integrated health care clinic and while they were

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within the public library engaged in their activities. Appropriate Institutional Review Board procedures were completed for the clinic process and permission was obtained for data collection at the library. Participants were told to read and sign the consent form and return this with the completed survey if they chose to participate. Participants did not receive reimbursement for their participation although they had the option of entering in to a raffle drawing to win one of four $25 gift cards. These raffle slips were kept separate from the completed surveys to ensure that no identifying information became linked to survey responses. Participants were notified about this.

Online surveys were administered after most paper surveys had been completed. People living within these same areas as the clinic and library were invited to participate via email and a social networking site. They were sent a link to the online version of the survey and were given the option of entering in to the raffle drawing following completion of the survey.

Data Analysis

The original dataset was inspected for missing values and it appeared that data was missing completely at random (MCAR). This classification was assigned based on recommendations from Sterner (2011) about different types of missing data. Since data were MCAR, data from participants who had more than two data values missing on the non-demographic variables and data from those who had not indicated previous help-seeking behavior were excluded from analysis. This was because data related to previous help-seeking behavior was non-ignorable given that this was a study on psychological help-seeking behavior, attitudes and intentions.

Missing values were filled in using the expectation-maximization algorithm, in particular, the multiple-imputation approach in SPSS 20. This method was close to the regression

imputation method discussed by Sterner (2011) as one of the ways in which to handle missing data. The advantage of this method over using means of scores was that its predictive capacity would allow new data points to be inserted and it would be more powerful for the data set rather than using average values or eliminating valuable data (Sterner, 2011).

Although participants were allowed to select one of three options to identify their residential geographic location (Rural, Urbanized, or Metro area), for the purposes of analyses, this data was classified as either rural or urbanized. The US Census Bureau's (2010) definition of rural as areas with less than 25000 people was used to classify towns as rural. For paper data, zip codes were used to ensure that participants had identified their geographic location as per the definition of rural used in this study. Those who identified as living within a rural area and those whose zip codes matched those of a rural area were classified as rural. When no zip codes were provided, participants' endorsements of one of the three areas were used. However, if people had identified themselves as living within a metro area, this data was put in to the urbanized category, given that there is no metro area in proximity of where data was collected or where participants could realistically have come from. The rationale for this included the fact that surveys were distributed and emailed to people who live within known urbanized areas in a larger geographic area that is predominantly rural. Some people may have classified their geographic locations as metro as this was an option, although their zip codes did not fit within the definition of metro area used in this study. The same categorization was used for online data as well since zip codes were unintentionally not collected here.

CHAPTER III

RESULTS

Preliminary Analyses

Table 1 shows the means, standard deviations, and correlations between the different stigma, literacy, and outcome variables as well as age, gender (male=0, female=1), and previous help-seeking behavior (0=Never sought help before, 1=Sought help before). Significant correlations ranging in size from small to moderate were observed between a several variables in the study.

As expected, a small but significant positive correlation of .39 was noted between public stigma and private stigma. Public stigma was negatively correlated with attitudes at -.32 ($p<.01$) as expected and private stigma measured by the SSOSH was correlated at a moderate -.64 ($p<.01$) with attitudes.

A small positive correlation of .17 was observed between the two literacy measures (MHLS and SRS) and this was significant at the .05 level, lower than the significance level of other correlations; this was a much smaller relationship than was hypothesized as well. The MHLS was positively correlated at .31 ($p<.01$) with LSHS while the SRS was correlated at .47 ($p<.01$) with LSHS. The two literacy scales (MHLS and SRS) were correlated at .40 ($p<.01$) and .32 ($p<.01$) with ATSPPHS. Attitudes (ATSPPHS) were correlated with LSHS at .47 ($p<.01$) as expected.

Table 1. Correlations, Means, and Standard Deviations for Predictor and Outcome Variables

Variable	1	2	3	4	5	6	7	8
1. PSOSH-public stigma	-	-	-	-	-	-	-	-
2. SSOSH-private stigma	.39**	-	-	-	-	-	-	-
3. MHLS-literacy measure	-.42**	-.25**	-	-	-	-	-	-
4. SRS-literacy measure	-.10	-.15*	.17*	-	-	-	-	-
5. LSHS-intentions	-.19**	-.33**	.31**	.47**	-	-	-	-
6. ATSPPHS-attitudes	-.32**	-.64**	.40**	.32**	.47**	-	-	-
7. Age	-.11	-.08	.08	-.09	-.00	.12	-	-
8. Previous help-seeking behavior	.01	-.31**	.12	.20**	.32**	.37**	-.04	-
M	7.84	23.07	56.64	25.78	25.15	20.40	36.38	
SD	3.95	6.48	7.34	4.97	6.68	5.61	13.20	

Note ** $p < 0.01$, * $p < 0.05$

To test for differences in levels of stigma, literacy, and help-seeking variables based on previous professional psychological help-seeking behavior, survey type (paper versus online survey), and demographic factors (gender, rural or urbanized location, income bracket, highest education level), a series of ANOVA analyses were run with one dependent variable at time. Dependent variables included public stigma, private stigma, MHLS, SRS, attitudes (ATSPPHS) and intentions (LSHS). Independent variables entered in to each ANOVA analysis were previous help-seeking behavior (yes or no), survey type (paper versus online survey), and demographic factors (gender, rural or urbanized location, income bracket, highest education level). Since there were some differences based on the ANOVAs, MANCOVAs were also computed to assess for differences by group, while controlling for the independent variables that differed significantly in the ANOVAs. Results of the ANOVA and MANCOVA analyses are discussed below for each independent variable.

Differences based on Survey Type

There was a difference in MHLS scores based on which survey was taken, according to the ANOVA, $F(1,77) = 17.61$, $p = 0.00$, partial $\eta2 = .19$. Those who completed paper surveys had higher perceptions of their mental health literacy on the MHLS (M=58.35, SE=.72) relative to those who completed online surveys (M=53.91, SD=.78). Although the MANCOVA showed a main effect for survey type on public stigma, private stigma, attitudes, and MHLS, Wilk's $\Lambda =$ .87, F (4, 192) = 6.94, $p = .00$, partial $\eta2 = .13$, the assumption of equality of covariance matrices was not satisfied, Box's $M=49.23$, F(10, 185878.32)=4.82, $p=.00$, limiting conclusions about differences based on survey type. There was no main effect for survey type on symptom recognition (SRS) or intentions to seek help (LSHS), Wilk's $\Lambda = .99$, F (2, 190) = .83, p = .44, partial $\eta2 = .01$, and the assumption of equality of covariance matrices was satisfied, Box's M=2.27, F(3, 7836754.62)=.75, $p=.52$. This permits the conclusion that there were no differences in symptom recognition and intentions to seek help based on survey type taken.

Differences Based on Education Level

In order to test for education level differences, the 'Less than High School Diploma' category was excluded from analysis because there was only one participant in this category. Other categories remained separate with the exception of Master's Degree, Doctoral Degree, and Professional Degree categories that were collapsed in to a category of Advanced Degree. ANOVA analyses were run with five educational categories as independent variables. No statistically significant differences were observed in public stigma $F(5,77) = .31$, $p = .91$, private stigma $F(5,77) = .88$, $p = .50$, MHLS $F(5,77) = .71$, $p = .62$, SRS $F(5,77) = .42$, $p = .84$, attitudes $F(5,77) = 1.88$, $p = .11$, nor intentions, $F(5,77) = 1.56$, $p = .18$

Differences Based on Total Household Income Group

According to the ANOVA, there was a significant difference in LSHS scores based on income group, F (4,77) = 3.54, p =.01, partial η2 = .16.The difference between LSHS scores of people in different income groups however was not significant according to the Tukey post-hoc tests, F (4, 77) = 1.80, p =.14. No further analyses were conducted because these differences were not significant according to post-hoc tests.

Differences Based on Previous Help-Seeking Behavior

The ANOVA showed significant difference in private stigma (SSOSH) scores based on whether previous help was sought, F (1,77) = 9.52, p =.00, partial η2 = .11. The difference between scores was also significant, F (1, 77) =12.30, p = .00, partial η2 = .14. There was a significant difference in ATSPPHS scores as well, F (1,77) = 9.76, p =.00, partial η2 = .11which was found to be significant, F (1, 77)=23.08, p =.00 , partial η2 = .23.

A follow up MANCOVA showed that while there were some differences in private stigma and attitudes, Wilk's Λ = .83, F(4, 197)=10.03, p =.00, partial η2 =0.17, the assumption of equality of covariance matrices was not satisfied, Box's *M=21.59, F(10,172301.28)=2.11*, *p=.02*, warranting caution in interpretation of these differences based on previous help-seeking behavior. Similarly, while significant differences were noted in symptom recognition (SRS) and intentions to seek help (LSHS), Wilk's Λ= .90, F (2,199)=11.13, p =.00 eta η2 = .10, the assumption of equality of covariance matrices was not satisfied, Box's *M=8.96*, *F(3,10732857.02)=2.95, p=.03*, once again limiting conclusions about differences based on previous help-seeking behavior.

Differences Based on Gender

There was a significant gender difference in LSHS scores, F (1,77) = 4.19, p =.04, partial $\eta2$ = .05 according to the ANOVA test. The MANCOVA however showed that while there was a main effect of gender on SRS and LSHS, Wilk's Λ =.85, F(2,199)=17.76, p=.00, partial $\eta2$=.15, the assumption of equality of covariance matrices was not satisfied, Box's M=21.60, F(3,134106.08)=7.08, p=.00, limiting conclusions about gender differences in symptom recognition and intentions to seek help. Also, although the MANCOVA showed a main effect for gender on public stigma, attitudes, and MHLS, Wilk's Λ =.93, F (4, 197) = 4.00, p = .00, partial $\eta2$ =.08, observed power .91, the assumption of equality of covariance matrices was not satisfied, Box's M=22.17, F (10,38755.12)=2.15, p=.02, limiting conclusions about gender differences in these variables.

Internal Reliability of Symptom Recognition and Intentions scales

To assess the internal validity of the SRS and LSHS, Cronbach's alphas were computed for each scale separately. Reliability for the six items on the SRS was .90 and for the LSHS was .87. These findings support the fifth and sixth hypotheses that there would be moderate to high internal reliability within these two scales, which were developed for this study.

Predicting Attitudes and Intentions

In order to test the last three hypotheses that there would be significant models to predict attitudes and intentions related to help-seeking, hierarchical step-wise multiple regressions were conducted. It was hypothesized that public stigma, private stigma, MHLS and SRS would all significantly predict attitudes towards help-seeking (Hypothesis 7). It was also predicted that intentions would be accounted for by public stigma, private stigma, MHLS, SRS, and attitudes

towards help-seeking (Hypothesis 8). Previous help-seeking behavior and gender were dummy-coded so that data consisted of 1 and 0 values.

Predicting Attitudes Towards Professional Psychological Help-Seeking

Variables were entered in three steps using a stepwise hierarchical regression. Attitudes (ATSPPHS) were the dependent variable, public and private stigmas were entered in the first step, MHLS and SRS were entered in the second step, and previous help-seeking behavior and gender were entered in the third step. The model for attitudes (Table 2) was found to be significant F=54.76, R=.73, R^2=.53, adjusted R^2=.51, accounting for 51% of the variance in attitudes. All variables except public stigma and gender were significant and standardized coefficients were as follows: private stigma β = - .51, MHLS β = .22, symptom recognition β = .18, and previous help-seeking behavior β = .15. This supported the seventh hypothesis.

Table 2. Summary of Hierarchical Multiple Regression Predicting Attitudes Towards Professional Psychological Help-Seeking

Predictor	R^2 change	β	F Change
Step 1			
Public Stigma		-.08	
Private Stigma	.41**	-.51**	139.95**
Step 2			
MHLS	.06**	.22**	22.18**
SRS	.04**	.18**	14.50**
Step 3			
Previous help-seeking behavior		.15*	
Gender	.02*	-.02	4.18*
Total R^2	.51*		
n	203		

*Note * p <0.05. ** p < .001*

Predicting Intentions

In order to predict intentions to seek help, variables were entered in four steps. Public and private stigma were entered in the first step, MHLS and SRS were entered in the second step, previous help-seeking behavior and gender were entered in the third step, and ATSPPHS was entered in the fourth step. A model accounting for 35.00% of the variance in help-seeking intentions was found to be significant $F(5,197)=22.57$, $p=.00$, R=.60, $R^2=.36$, and adjusted $R^2=.35$. Table 8 shows the steps and variables of this model. The significant standardized coefficients were as follows: symptom recognition (SRS) $\beta = .34$, attitudes $\beta = .23$, previous help-seeking behavior $\beta = .14$, and MHLS $\beta = .13$. Thus, there was support for the eighth hypothesis. See Table 3.

Table 3. Summary of Hierarchical Multiple Regression Predicting Intentions to Seek Help for Psychological Symptoms

Predictor	R^2 change	β	F Change
Step 1			
Public Stigma (PSOSH)		-.07	
Private Stigma (SSOSH)	.11	-.05	23.79**
Step 2			
SRS	.18	.34**	49.25**
MHLS	.03	.13*	8.90**
Step 3			
Attitudes (ATSPPHS)	.03	.23**	10.34**
Step 4			
Previous help-seeking behavior	.02	.14*	5.25*
Gender		.23***	
Total R^2	.35		
N	203		

*Note * $p < 0.05$. ** $p < .001$*

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Moderation Analysis

Moderation analyses were run to test hypothesis 9 that literacy would moderate the relationship between stigma variables and outcome variables of attitudes and intentions. Since the two literacy variables, MHLS and SRS were not highly correlated with each other as expected, separate regressions were computed to calculate moderation by the MHLS and SRS on the relationship between stigma variables and outcomes variables of ATSPPHS and LSHS. Initially, it was expected that literacy variables would be moderately correlated with each other, allowing structural equation modeling to be used in the prediction of attitudes and intentions. This would then allow any moderation effect of the two literacy variables as a whole to be seen. Frazier et al.'s (2004) recommendations for conducting moderator analyses were used. Variables were standardized in SPSS to have a mean of zero and standard deviation of 1. An interaction term was then computed between variables that were expected to interact. Initial interaction terms included: SRS x private stigma and MHLS x private stigma. The reason that private stigma rather than public stigma was used is because public stigma did not significantly predict attitudes nor intentions in previous analyses while private stigma did predict attitudes and intentions; it was therefore used in testing moderation.

In the first model to test moderation, variables were entered in two steps, with ATSPPHS as the dependent variable. In the first step, private stigma, SRS, MHLS, dummy coded variables of previous help-seeking, and gender, were entered. In the second step, all these variables plus the interaction term MHLS x private stigma was added. The interaction term MHLS x private stigma was not significant in the model predicting attitudes either (beta in=.03, p=.51), and the interaction term was excluded by SPSS from the model. SRS was not tested since it shared little variance in predicting attitudes relative to MHLS.

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To assess the moderation effect of literacy variables on intentions to seek help, the above steps were repeated with the exception that the dependent variable entered was intentions (LSHS). To test the interaction of symptom recognition with private stigma, SRS x private stigma was entered as the interaction term in the third step. No moderator effects were noted (beta in = .06, p=.33), and the interaction term was excluded from the model.

To test the moderator impact of MHLS on intentions, MHLS x private stigma was entered as the interaction term. The interaction term MHLS x private stigma was not significant (beta in= -.08, p=.21) in the model predicting intentions and the interaction term was excluded by the calculator.

Mediation Analyses

The mediational analyses were conducted in order to assess whether help-seeking behavior was the mechanism by which literacy could be related to attitudes and intentions. This was important to tease apart before assessing for and making conclusions about the moderator effect of literacy variables. Since previous help-seeking behavior was highly correlated with attitudes and intentions, a test for mediator effects was considered. The mediator chosen was previous help-seeking behavior because it is known that seeking help can affect attitudes and intentions to seek help differently than if no help has been previously sought. It also seemed that help-seeking behavior could be the probable reason that symptom recognition and MHLS scores were associated with more favorable attitudes towards help-seeking and higher intentions to seek help. If mediation were to be observed, then previous help-seeking behavior would be the likely mechanism by which literacy was related to attitudes and intentions in this model.

To test for mediation effects, the steps suggested by Frazier, Tix and Barron (2004) were implemented. Table 4 shows the test for mediation within a regression analysis. First, the

mediation of previous help-seeking behavior on attitudes (ATSPPHS) was tested. The outcome variable in both steps was attitudes towards professional psychological help-seeking or ATSPPHS. In step 1, the predictor variable was symptom recognition (SRS) and in step 2, the predictor was symptom recognition (SRS) while the mediator was previous help-seeking behavior (dummy coded as 0 and 1). Significance was noted for step 1 (F=22.42, p=.00) and step 2 (F=24.92, p=.00). The beta coefficient for symptom recognition was -.32 in the first step and this fell to 0.25 in the mediated model (step 2). SPSS excluded previous help-seeking behavior in step 3 although it is listed in Table 4 below.

To test whether this change in beta coefficient was significant, Shrout and Bolger's (2002) method for calculating amount of mediation accounted for by a mediator was used. This was one method recommended by Frazier et al. for calculating the significance of mediation. In this study, the amount of variance mediated by previous-help-seeking behavior in the relationship between symptom recognition and attitudes towards help-seeking was 22%. This was not significant (p>0.05) according to the test suggested by Kenny and colleagues (Frazier et al.). The significant test was conducted by dividing the product of paths a and b (0.07234) by a standard error term determined by Kenny and colleagues. The standard error term was described to be: the square root of $b^2sa^2+a^2sb^2+sa^2sb^2$, wherein a and b are the unstandardized regression coefficients and sa and sb are their standard errors.

Table 4. Testing Mediator Effects on Attitudes Using Multiple Regression

Testing Steps in Mediational Model (Frazier et al., 2004)	*B*	*SE B*	*β*	*t*
Testing Step 1 (path c)				
Outcome: Attitudes (ATSPPHS)				
Predictor: Symptom Recognition	.36	.08	.32**	4.74
Testing Step 2 (path a)				
Outcome: Previous help-seeking behavior (yes vs. no)				
Predictor: Symptom Recognition	.02	.01	.20*	2.85
Testing Step 3 (paths b and c')				
Outcome: Attitudes (ATSPPHS)				
Mediator: Previous help-seeking behavior (yes vs. no)	.62	.73	.32**	4.98
Predictor: Symptom Recognition	.29	.07	.25**	3.93

*Note * $p < 0.05.$ ** $p < .001$*

Just as previous help-seeking behavior was tested for mediating the link between

symptom recognition and attitudes, a test of mediation on intentions to seek help was conducted.

The steps used were as above and Table 5 shows each step. In step 1, the predictor variable was

symptom recognition (SRS). In step 2, the predictor variable was symptom recognition (SRS),

while the mediator variable was previous help-seeking behavior (dummy-coded as 0 and 1).

Significance was noted for step 1 (F=55.49, p=.00) and step 2 (F=8.10, p=.05). The beta

coefficient for symptom recognition was 0.47 in the first step and this fell to 0.42 in the mediated

model (step 3). The mediator, previous help-seeking behavior, was excluded from step 3 by

SPSS, although it is listed in the table below. The decrease in the beta coefficient for symptom

recognition, from Step 1 to Step 3, was not significant (not greater than 1.96) according to the

test suggested by Kenny and colleagues (Frazier et al.). Shrout and Bolger's (2002) test for

amount of mediation, although not significant, showed that 26.84% of the total effect of

symptom recognition on attitudes was mediated by previous help-seeking behavior.

Table 5. Testing Mediator Effects on Intentions Using Multiple Regression

Testing Steps in Mediational Model (Frazier et al., 2004)	*B*	*SE B*	*β*	*t*
Testing Step 1 (path c)				
Outcome: Intentions (LSHS)				
Predictor: Symptom Recognition	.63	.08	.47**	7.45
Testing Step 2 (path a)				
Outcome: Previous help-seeking behavior (yes vs. no)				
Predictor: Symptom Recognition	.02	.01	.20*	2.85
Testing Step 3 (paths b and c')				
Outcome: Intentions (LSHS)				
Mediator: Previous help-seeking behavior (yes vs. no)	3.24	.83	.24**	3.92
Predictor: Symptom Recognition	.56	.08	.42**	6.79

*Note * $p < 0.05$. ** $p < .001$*

Testing for Moderator Effects Between Previous Help-Seeking Behavior and Literacy Variables

To test whether previous help-seeking moderated the relationship between literacy variables and outcome variables, four separate regressions were run. The first two regressions had attitudes as the dependent variable while the last two had intentions as a dependent variable. In all cases, the variables entered in previous regressions were entered in two steps, and the third step included one of these two interaction terms: MHLS (Z-score) X previous help-seeking (dummy coded 1 or zero) or SRS (Z-score) x previous help-seeking (dummy coded 1 or zero).

No moderator effect of previous help-seeking was found on the relationship between MHLS and attitudes ($β$ in=-.13, *p*= .09) nor MHLS and intentions ($β$ in= -.01, *p*= .89). In fact, the interaction terms were excluded by the regression calculator, possibly due to collinearity. Previous help-seeking behavior did not moderate the relationship between the SRS and attitudes, ($β$= -.06, *p*= .37) and the interaction term was excluded from the model. There was a small

significant moderator effect of previous help-seeking behavior on the relationship between

symptom recognition and intentions to seek help β= -.18, *p*= .03 although this term was excluded

by the regression calculator.

CHAPTER IV

DISCUSSION

The purpose of this study was to assess how mental illness stigma and mental health literacy are related to psychological help-seeking attitudes and intentions within a rural population, as well as to test the moderating role of mental health literacy in the relationships between stigma and outcome variables (attitudes and intentions). A number of significant relationships were noted between variables and significant models for the prediction of attitudes and intentions emerged. Some of these relationships have been demonstrated previously with college undergraduate samples (Vogel et al. 2005, Vogel et al., 2006 & Vogel et al., 2007) and the current findings provide estimates for a rural population. The construction of the SRS and LSHS are also important contributions of this study given the scale reliabilities and convergent validity estimates observed. The importance of symptom recognition in predicting help-seeking intentions is also another important finding that will add to the existing research.

As expected, bidirectional correlations were found between variables that were hypothesized to be related to each other. The positive and small to moderate correlation between public stigma and private stigma is one that has been consistently demonstrated in previous research (Vogel et al., 2007; Kujawa et al. 2013). Public-stigma was noted to be negatively correlated with attitudes as expected. It also predicted attitudes when it was regressed although it did not predict intentions. Kujawa et al. (2013) noted that public stigma did not share a direct path with intentions to seek help in their study and multiple regressions in this study showed that

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public stigma did not contribute significant variance to attitudes and intentions. Together, it appears that public stigma does not weigh heavily in to people's attitudes towards help-seeking, and intentions to seek help, compared to other variables, particularly private stigma.

The positive correlation between the MHLS and SRS was smaller than expected. The items within the two scales addressed different aspects of mental health literacy and this is more than likely the reason for the strength of correlation noted. The items from the MHLS were related to knowledge of mental health services, capability of accessing mental health services, one's self/ family having a right to services that are beneficial for them, and people's beliefs about their ability to control their mental health. This was different from the items on the SRS which asked people to rate specific symptoms related to anxiety, depression, and substance abuse. The MHLS items measured self-reported literacy whereas the SRS items measured a more objective form of literacy regarding whether people recognized more widely accepted symptoms of mental illness as such. The lower than expected correlation between the two literacy variables was one of the reasons that a structural equation model was not used for analyses. High covariance between the two literacy measures would have been required in order to facilitate this. The advantage of having two scales that addressed different aspects of mental health literacy in this study was that more diverse relationships could be explored with stigma and outcome variables. Also, few to no previous studies had used multiple measures of mental health literacy within a single study. This is the first study, to the best of the author's knowledge that has compared two measures of mental health literacy with each other. The findings on the relationship between the MHLS and SRS are therefore an important addition to the existing literature.

The hypothesized positive correlations between literacy measures and outcome variables of attitudes and intentions lend support to the construct of mental health literacy as a variable that is convergent with positive attitudes towards help-seeking and higher intentions to seek professional help. Also, the strength and significance of the correlations between MHLS and SRS, SRS and ATSPPHS, and SRS and LSHS, shows that the SRS designed for this study has strong convergent validity. This was bolstered by the high internal reliability estimate as well, ultimately making these scale items a valuable addition to future research on mental health literacy.

Attitudes and intentions were significantly and moderately correlated in this study as hypothesized. Vogel et al. (2007) also found a moderate relationship between attitudes and intentions to seek help in their study with college students, which shows that our findings are comparable to previous findings. Vogel et al. (2005) noted small to moderate relationships between attitudes and intentions to seek help for different types of problems (interpersonal issues, academic issues, and drug/ alcohol issues).

No hypotheses had been articulated for previous help-seeking behavior in this study. Nevertheless, it was important to analyze the role of this variable given its salience to mental illness stigma, mental health literacy, professional help-seeking attitudes, and intentions to seek help. Within this study, although previous help-seeking behavior predicted attitudes towards professional psychological help-seeking and intentions to seek help in multiple regression analyses, it did not weigh as heavily as other variables. Previous help-seeking behavior contributed as much variance as symptom recognition in predicting attitudes towards professional psychological help-seeking, after the contributions of private stigma and MHLS. Further, in predicting intentions to seek help, previous help-seeking behavior contributed a much

lower proportion of variance relative to its contribution to attitudes. This finding is surprising given that previous research has indicated help-seeking as having an important role in reducing future private stigma (Wade et al., 2011), leading one to think that help-seeking behavior may have been a more important predictor of attitudes and intentions. Although Wade et al. suggested that help-seeking behavior weighs heavily in predicting attitudes and intentions, this was not the case in this study. A likely reason is that people may not necessarily have a positive experience when they engage in help-seeking behavior or other factors such as literacy may contribute more heavily relative to previous help-seeking.

There was some support for the seventh and eight hypotheses that stigma and literacy variables would significantly predict attitudes and intentions. Aspects of these hypotheses that were not supported include the fact that public stigma did not predict attitudes nor intentions significantly. This is congruent with previous findings that show that private stigma rather than social or public stigma plays a more direct role in an individual's attitudes (Vogel et al., 2007). Overall, it was found that private stigma plays a more important role in predicting attitudes towards help-seeking, while symptom recognition plays a more important role in predicting intentions, relative to other factors such as previous help-seeking behavior and attitudes towards help-seeking. A discussion on these important findings follows.

Variables that predicted attitudes in this study were private stigma, MHLS and SRS, and previous help-seeking behavior. Variables that more heavily predicted attitudes towards psychological help-seeking were private stigma and mental health literacy measured by the MHLS. It makes sense that the MHLS rather than the SRS more heavily predicted attitudes; items on the MHLS addressed people's agency, belief in control, and capabilities, as it related to seeking mental health services for themselves and their family members. These items did not

have specific objective answers as did the SRS, and in this way the MHLS scale tapped in to attitudinal aspects of mental health literacy; the ATSPPHS also addressed attitudes. The relationship between mental health literacy and attitudes had not been demonstrated by previous research and this study showed that literacy related to people's beliefs about being able to obtain mental health services and controlling their mental health (as measured by the MHLS) is more closely related to favorable attitudes towards help-seeking relative to literacy related to symptom recognition (as measured by the SRS).

In the prediction of attitudes, private stigma (SSOSH) seemed to weigh more heavily than each literacy variable on its own. However, the literacy variables as a whole played an important role in predicting attitudes, in the direction that was hypothesized, i.e. greater literacy would predict more favorable attitudes towards help-seeking. While the role of private stigma had been previously demonstrated in intentions to seek help (Vogel at al., 2006), its role in attitudes had not been directly demonstrated, and these findings add information about the link between private stigma and attitudes, to the existing literature. Also, the finding that each literacy variable contributes greater variance than previous help-seeking-behavior, lends increased support to the role of mental health literacy in attitudes.

Variables that predicted intentions to seek help in order of their weights were: symptom recognition (SRS), attitudes (ATSPPHS), previous help-seeking behavior, and MHLS. This finding lends support to the argument that symptom recognition is an important predictor of intentions to seek help, and that symptom recognition regardless of previous help-seeking behavior, may have an important effect in improving intentions. This provides support for the role of mental health literacy, in particular, symptom recognition, in people's intentions to seek help. While attitudes have been shown to be related to intentions to seek help in previous studies

(Vogel et al., 2007; Vogel et al., 2005), mental health literacy, in particular, symptom recognition was not studied in the context of intentions to seek help. The finding that symptom recognition contributes important variance to help-seeking intentions is therefore an important addition to the existing literature.

Initially, it was hypothesized that literacy would moderate the relationship between stigma variables and outcome variables of attitudes and intentions. However, during analysis, it seemed plausible that previous help-seeking behavior might be the reason for higher literacy having the expected moderator effect. Prior to testing for moderation effects of literacy therefore, mediation analyses were conducted to assess for the mediating role of previous help-seeking behavior in the relationship between literacy variables and outcome variables (attitudes and intentions). The mediation analyses were not significant, indicating that previous help-seeking was not the potential reason for the strong relationship between symptom recognition and attitudes, and symptom recognition and intentions. This finding again is an important contribution to the existing research on the importance of mental health literacy, specifically symptom recognition.

There was no support for the hypothesized model (Hypothesis 9) in which mental health literacy variables would moderate the relationship between stigma variables and attitudes, and stigma variables and intentions. The lack of support for these moderators led to a test of MHLS and SRS as moderators between previous help-seeking behavior and the outcome variables of attitudes and intentions. Although a small moderator effect was noted between symptom recognition (SRS) and previous help-seeking behavior on intentions to seek help, the term was excluded by the regression calculator, suggesting collinearity problems and limiting conclusions

about previous help-seeking behavior moderating the relationship between symptom recognition and intentions.

The gender differences observed in public stigma, private stigma, symptom recognition, mental health literacy (MHLS), attitudes towards help-seeking, and intentions to seek help, although congruent with most previous research (Barry, Doherty, Hope, Sixsmith & Kelleher, 2000; Smith, Peck & McGovern, 2004; Mansfield, Addis & Courtenay, 2005) must be interpreted with caution since there was a large difference in the numbers of female and male participants as well as the covariances in their scores. Nevertheless, the results of this study indicate new directions about gender differences in mental health literacy, which was previously limited in the literature. They indicate that females may generally have more favorable attitudes and lower stigma relative to males, as well as higher levels of symptom recognition and mental health literacy (MHLS) than males, which is congruent with some previous research (Lauber et al., 2005). This has implications for gender-specific mental health literacy programs that take in to account the differing knowledge females and males may have about mental health as well as their differing levels of stigma. Hammer and Vogel (2007) demonstrated that gender-sensitive brochures may improve attitudes towards professional help-seeking and lower stigma, much more than gender-neutral materials.

The differences observed based on survey type must be interpreted with caution since there were unequal variances between dependent variables. Those who completed paper surveys had lower levels of stigma, higher levels of literacy as measured by the MHLS, and more favorable attitudes than people who completed online surveys. It may be possible that people who filled out paper surveys were more conscious about presenting themselves as having higher levels of public stigma, given that they filled out their surveys in public spaces with the principal

investigator at the location. This could have led to lower reports of public stigma than for people who completed surveys online in the potential privacy of a non-public space. It was also thought that a large number of people who filled out paper surveys may have already sought psychological help as well, leading to differences in these variables, based on survey type. This may have been likely given that a number of paper surveys were administered to people at the integrated care clinic, suggesting that they had more than likely sought help already; their previous help-seeking may have been associated with lower levels of stigma, more favorable attitudes, and higher mental health literacy as measured by the MHLS. This hypothesis was tested by evaluating the correlations between previous help-seeking and by survey type completed. The low positive correlation suggested that there might not have been an overlap in this population. A more plausible reason for survey type differences may be that help-seeking for medical issues is associated with more favorable attitudes, intentions, literacy, and lower stigma for mental health issues as well.

Although no specific hypotheses were made regarding differences based on people's geographic location, it is surprising that no significant differences were noted in stigma, literacy, attitudes, and intentions based on whether people identified with or were classified as living within a rural or urbanized area. This may be the case because people living within a rural area expect that they will have to travel to urbanized locations to obtain certain services and they adjust their attitudes and intentions accordingly. This may mean that although the lack of services in close proximity negatively affects people in rural areas (long travel time, cost of travel, etc.), their stigma, literacy, attitudes, and intentions are similar to those living within an urbanized area. Also, there may have been differences if participants came from rural areas that were located in more remote parts of the state rather than from rural areas with close proximity to urbanized parts of the state.

Limitations

The sample in this study included a range of educational backgrounds, but the average education level of this sample was equivalent to that of a Bachelor's degree and a significant portion of the population had advanced degrees. Since the sample has higher educational achievement than the general population, observed measurements are likely to be somewhat inflated or not completely representative of people with lower levels of formal education. While no significant differences were noted in stigma, literacy, attitudes, and intentions, based on education level, it would be important for future studies to incorporate participants with more diverse educational backgrounds.

Although the study showed important links between variables, predictive modeling does not demonstrate causation. Also, it is difficult to make conclusions about what factors mediated some of the relationships that were observed in this study given that only a limited number of variables could be studied. In the case of the relationship between literacy and intentions for instance, there could be a number of significant mediators, but since they could not all be studied, conclusions about the role of literacy must be drawn carefully. Only experimental studies may be able to address the true impact of mental health literacy on stigma, help-seeking behavior, attitudes, and intentions to seek help.

Most of the measures utilized had strong internal and test-retest reliability estimates, but some of the measures may have been limited in their ability to measure the constructs they claimed to measure. Having two different measures each for stigma, literacy, and help-seeking, may have added variability and group differences that made the findings less robust. Finally, since zip codes were not tracked for online surveys, it was difficult to accurately classify people's geographic locations. No definitions of rural, urbanized, and metro were provided on the

demographics form, leaving it up to people to select their location, based on their own definitions of these terms. This may have limited the ability to detect differences based on location, if these were to exist.

Also, although attitudes and intentions are considered to be important indicators of help-seeking behavior, next to actual behavior, these variables may not be adequate predictors. Longitudinal tracking of help-seeking behavior may allow for a more stringent test of how attitudes affect behavior in the future rather than how attitudes and intentions are related to previous help-seeking behavior. Hammer and Vogel (2013) assert that intentions, in the sense of reasoned actions, are not always the mechanism by which people choose to make decisions. They suggest that there may be an alternative decision making path guided by a social reaction process. These assertions argue that intentions at a given point in time may not be adequate predictors of future behavior and therefore limited conclusions may be drawn from measuring intentions in study.

Implications

This research has direct implications for practice and research purposes. It appears that a number of variables predict the professional psychological help-seeking attitudes and intentions of people within a rural and an urbanized area. Private stigma, but not public stigma, seems to be an important variable contributing to attitudes among a rural population, just as is the case within a college student sample (Vogel et al. 2006). This suggests that any interventions aimed at reducing stigma must focus on an individual's internalized stigma rather than their perceptions of stigma prevalent in society.

Results also suggest that mental health literacy, particularly symptom recognition, may impact attitudes and intentions. This finding is particularly promising because the benefits of mental health literacy may extend to social attitudes and the larger culture while potentially facilitating individuals' intentions and behaviors to seek help. Although attitudes may be hard to change, in the case of mental health, help-seeking intentions may be more important to affect rather than attitudes. The findings of this study lend support to target both variables. Davis et al. (2008) have suggested that research on mental health literacy and its various components may be used in health service policy and planning, particularly in devising methods to increase service utilization, compliance towards treatment and services, and from the stand point of consumer-driven services. The findings related to gender show that gender-specific mental health literacy interventions must be used in order to address the differences in stigma, literacy (Lauber et al. 2005), attitudes, intentions, and behaviors of males and females.

The reliability of the SRS shows that there is some consensus and awareness of what constitutes mental illness symptoms among rural and urbanized populations. The reliability of the LSHS further shows that there is some understanding among this population of what symptoms may be treated by medical interventions in comparison to those that may be treated specifically by a trained mental health professional. Given the strong internal reliability and convergent validity of the SRS and LSHS, these scales may be used for further research in the area of mental health literacy and intentions to seek help. A particular instance in which they may be useful is to measure the outcomes of a mental health literacy program, particularly one that educates people on specific mental health symptoms.

The roles of previous help-seeking behavior in predicting attitudes and intentions are evident in this study. This compels future research on the factors that have led people to seek

help in the past. These factors may provide greater insight in to what leads people to seek help over and above the factors explored in this study and other similar studies. Previous studies have measured the role of emotional expressiveness, stigma tolerance (Kujawa et al., 2013), and anticipated risks and benefits of counseling (Vogel et al., 2005) among many others, in predicting help-seeking attitudes, intentions, and behavior. It would also make sense to investigate facilitative factors from the perspective of people who have sought help.

Conclusion

The findings of this study demonstrate that private stigma, MHLS, previous help-seeking behavior, and symptom recognition, together play an important role in people's attitudes towards professional psychological help-seeking. Results also show that people's intentions to seek professional help are influenced significantly and more heavily by their recognition of specific mental health symptoms and their gender, relative to their previous help-seeking behavior and attitudes. It is clear that stigma and literacy are important variables affecting attitudes and intentions pertaining to psychological help-seeking.

Professional psychological help-seeking behavior may be promoted through interventions that reduce private stigma and improve mental health literacy, particularly symptom recognition. Since intentions to seek help may be more predictive of help-seeking behavior, relative to attitudes, factors that shape intentions to seek help, such as mental health literacy, must be the focus of future research and public health educational interventions.

APPENDIX A

Consent Form

You are invited to participate in a study exploring aspects that affect psychological help-seeking. People have different attitudes towards seeking psychological services and you are encouraged to provide your honest attitudes/ opinions. I would like to see how different attitudes and opinions affect the decision to seek psychological help. **(If you are under 18 years of age, please do not proceed with the rest of this study.)**

The study is being conducted by Astrid D'Cunha, a graduate student at the Department of Counseling Psychology and Community Services at the University of North Dakota, as part of her dissertation process. Questions about the study may be directed to my advisor, Dr. Cindy Juntunen, at 701-777-0410. For other questions or concerns, please call the office of Research Development and Compliance at the University of North Dakota, at 701-777-4279.

If you decide to participate, you can complete the survey provided to you. The survey consists of questions regarding attitudes and a short demographics section. This should take about 10 minutes of your time and is a one-time commitment. You will not be asked to provide any additional information once you turn in the survey to the person who gave you this survey. You will not be asked to provide any identifying information such as your name, date of birth, or place of employment on this survey. The information you provide will therefore be completely anonymous.

Your participation in this study is on a voluntary basis. If you decide not to participate, there is no penalty or loss of benefits to which you are otherwise entitled to. Your decision to participate or not participate will not affect your relationship with the University of North Dakota.

All information collected will be kept private to the extent permitted by law. In any report about this study that might be published, you will not be identified. The surveys will be stored in a secure envelope until Astrid D'Cunha brings them to the Department of Counseling Psychology and Community Services at UND. After data entry, and a period of three years, the surveys will be destroyed by shredding. Only the researchers and people who audit Institutional Review Board procedures (these are the people who assure compliance with research rules) will have access to this data. Results will be reported in aggregate form only, meaning that there will be no way to connect your answers to your individual identity.

While there is no direct benefit to you from your participation, your participation in this study will help us understand the factors that affect psychological help-seeking. We can then use this information to design community specific interventions that will benefit societal mental health. No risks are expected to result from participation in this study. If completing this survey leads to distress or discomfort for you, you are encouraged to take advantage of

counseling or support services in your community. Neither the researchers, the University of North Dakota, or this event's organizers are responsible for the expense of those services.

If you choose to participate, you have the option of entering in to a raffle drawing for one of four gift cards worth $25 each. The information provided for the raffle will be kept separate from the surveys so that your identity on surveys is protected.

Please save a copy of this Informed Consent for your records.

By signing below, you are agreeing to the above information and to participating in this study.

IRB APPROVED

JUN 5 2012

Participant Signature   Investigator Signature

University of North Dakota Research Development & Compliance

Adaptation of Mental Health Literacy Subscale (MHLS; Epps et al.)

Below are a number of statements related to mental health/ psychological/ behavioral services for yourself, your family, or your child. For certain items, you may need to imagine yourself considering obtaining services, in order to rate the item. Please rate each statement based on your level of agreement.

1. I know what some of the risks are to the mental health treatment recommendations by our providers.
2. I know how to find mental health treatment options for myself, my child, and my family when necessary.
3. I understand how to obtain the mental health services my family, child, or I need.
4. I understand how to obtain the information we need for our mental health care/ psychological well-being.
5. I am able to decide when I need to switch mental health providers or see an additional provider.
6. I am capable of negotiating with our mental health service providers to reach treatment or service solutions that are best for everyone
7. The mental/ emotional/ behavioral problems of my child/ family/ myself can be successfully treated.
8. My child, self, and family have the right to receive testing we need.
9. I have the right to ask for help with mental health/ psychological/ behavioral issues when I/ we need it.
10. I have the right to ask for all available mental health/ psychological/ behavioral services in the community that myself, my child, and my family needs.
11. I have the right to choose my child's, my family's and my mental health/ psychological/ behavioral services.
12. I am capable of solving my own as well as my child's and family's mental health/ psychological/ behavioral problems.
13. I can control my mental health/ psychology/ behavior.
14. Mental health/ psychological/ behavioral treatment for myself, my child, and my family is under my control.

APPENDIX C

Symptom Recognition Scale (SRS)

Below is a list of symptoms. For each symptom, please **circle** your level of agreement about whether it is symptom of psychological/ mental/ behavioral illness.

1. A broken toe from running in to a chair
2. Excessive sweating and a fast heart rate in social situations
3. Itchy eyes and runny nose due to Spring allergies
4. Avoiding important life activities due to fear of specific things/ situations
5. Lower back pain from improper posture and improper bending
6. Excessive crying and feelings of worthlessness about oneself
7. Consuming alcohol to a point of hangovers more than once per week
8. An upset stomach with no medical cause
9. Watery eyes from being around pets
10. Excessive hair pulling due to stress or anxiety

APPENDIX D

Likelihood of Seeking Help Scale (LSHS)

Please rate how likely you are to seek services from a mental health professional (psychologist, psychiatrist, social worker, counselor, etc.) when you are experiencing the following symptoms. Please assume that time, money, transportation, insurance, and access to services are not barriers to seeking help.

1. A broken toe from running in to a chair
2. Excessive sweating and a fast heart rate in social situations
3. Itchy eyes and runny nose due to Spring allergies
4. Avoiding important life activities due to fear of specific things/ situations
5. Lower back pain from improper posture and improper bending
6. Excessive crying and feelings of worthlessness about oneself
7. Consuming alcohol to a point of hangovers more than once per week
8. An upset stomach with no medical cause
9. Watery eyes from being around pets
10. Excessive hair pulling due to stress or anxiety

Self-Stigma of Seeking Help Scale (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.

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

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

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

Perceptions of Stigmatization by Others for Seeking Help (PSOSH) Scale (Vogel, Wade & Ascheman, 2009)

INSTRUCTIONS: Imagine you had an emotional or personal issue that you could not solve on your own. If you sought counseling services for this issue, to what degree do you believe that the people you interact with would _____.

1 = Not at all   2 = A little   3 = Some   4 = A lot   5 = A great deal

1. React negatively to you
2. Think bad things of you
3. See you as seriously disturbed
4. Think of you in a less favorable way
5. Think you posed a risk to others

Scoring: add items 1-5.

APPENDIX G

Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; Fischer & Farina, 1995)

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

Demographics Questionnaire

*Please do not put your name on this questionnaire.
Please check all that apply:
____ Female
____ Male
____ Other (please specify) _____

How old are you? _____

With regards to your place of residence**: Zip code_____ County_____**

What do you consider your place of residence as? ____**Rural** ____**Urbanized** ____**Metro area**

Ethnicity: Please check the race you most closely identify with.
_____ White (European American)
_____ African American
_____ Asian American
_____ Latino/Hispanic-American
_____ Native American
_____ Other (please specify) _____

Past help-seeking for a mental health/ psychological issue: Please check all that apply
_____ I have never sought help for a mental health/ psychological problem
_____ I have sought help from a counselor, psychologist or social worker before
_____ I have sought help from a psychiatrist
_____ I have sought help from my GP or medical doctor
_____ I have sought help from friends and family

Children:
Do you have children? ____ Yes ____ No
Have you sought help for your child's mental health/ psychological issue? _____Yes _____No

Total household income: Please check the most applicable
_____ $0 to $25,000
_____ $25,000 to $50,000
_____ $50,000 to $75,000
_____ $75,000 to $100,000
_____ $100,000 or more

Highest educational level completed: Please check the most applicable
_____ Less than a high school diploma
_____ High school graduate

_____ Some college, no degree
_____ Associate's degree
_____ Bachelor's degree
_____ Master's degree
_____ Doctoral degree
_____ Professional degree
_____ Technical school/ course

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