Development of the Help-Seeker Stereotype Scale

by

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ABSTRACT

The factor structure, reliability, and validity of the Help-Seeker Stereotype Scale (HSSS), an instrument measuring the strength of respondents' endorsement of negative stereotypes about people who seek help from a psychologist, was explored over the course of three studies. In Study 1, 50 items designed to capture negative, self-esteem harming stereotypes of help seekers were generated. Pilot testing and expert feedback led to a revised item pool of 30 items, which were administered to 587 college students enrolled at a large Midwestern University. A series of initial Exploratory Factor Analyses (EFAs) led to the identification of a two-factor structure and selection of six items for each of the two subscales, entitled Deficient and Unstable. Study 2 used follow-up EFAs on one half ($n = 297$) of a large, randomly split college student sample to provide further support for the anticipated two-factor structure and allow the trimming of problematic items, which resulted in the establishment of the final version of the HSSS. The factor structure of this final version was then explored via Confirmatory Factor Analysis in the other half ($n = 297$) of the sample, leading to the identification of a model that best captured the covariance of the HSSS items: a bifactor model. The HSSS total score demonstrated sufficient reliability ($\omega_H = .70$) to warrant its calculation and interpretation; the Deficient ($\omega_S = .36$) and Unstable subscales ($\omega_S = .30$) failed to demonstrate sufficient reliability, suggesting that only the HSSS total score should be used in future research. In Study 3, analysis of the responses of 225 college students provided support for the convergent validity of the HSSS via theoretically-expected correlations with self-stigma of seeking help, public stigma of seeking help, attitudes toward seeking professional psychological help, and mental illness stereotype endorsement. In support of its incremental validity, the HSSS explained additional variance in the self-stigma of

seeking help beyond the variance accounted for by public stigma of seeking help. The model-based internal consistency (ω_H = .86) of the HSSS' total score received further support in Study 3.

CHAPTER 1

OVERVIEW

Less than 40% of individuals with diagnosable mental disorders seek any type of professional help (Andrews, Issakidis, & Carter, 2001). To reduce this "service gap" (Kushner & Sher, 1991), it is necessary to identify factors that influence professional psychological help-seeking behavior among individuals experiencing mental health concerns (Vogel, Wade, & Haake, 2006) so that counseling psychologists and allied mental health professionals can develop better prevention and intervention programs to increase service utilization among those in need. While a variety of factors have been identified (e.g., treatment fears, comfort with self-disclosure; Vogel, Wester, & Larson, 2006), the most cited reason people avoid mental health services is stigma.

Stigma is the perception of being flawed because of a socially unacceptable personal characteristic (Blaine, 2000). Greater mental health stigma has been linked with decreased initial intention to seek therapy (Cooper, Corrigan, and Watson, 2003; Vogel, Wade, & Hackler, 2007), decreased recognition of mental health problems (Alvidrez, Snowden, & Kaiser, 2008; Mishra, Lucksted, Gioia, Barnet, & Baquet, 2009), and, once in therapy, to decreased compliance with therapeutic interventions (Fung, Tsang, Corrigan, Lam, & Cheung, 2007; Sirey et al., 2001), missed appointments (Vega, Rodriguez, & Ang, 2010), early termination of treatment (Sirey et al., 2001), and decreased intention to return for subsequent sessions (Wade, Post, Cornish, Vogel, & Tucker, 2011). Mental health stigma has further been directly linked to decreased well-being such as lowered self-esteem (Bos, Kanner, Muris, Janssen, & Mayer, 2009; Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001), depression (Manos, Rusch, Kanter, &

Clifford, 2009), greater feelings of shame, and fewer social interactions (Kranke, Floersch, Townsend, & Munson, 2009).

Corrigan and colleagues (Corrigan, Watson, & Barr, 2006) proposed the progressive model of self-stigma to explain how the stigma of mental illness may explain the above findings (see Figure 1). People who grow up in a cultural context in which people with mental illness are stigmatized gradually become aware of the negative stereotypes attributed to people with mental illness. For some individuals, this initial stereotype "awareness" (i.e., perception of public stigma of mental illness) may lead to the first step of self-stigma (i.e., "agreement"), in which these individuals believe that negative stereotypes about people with mental illness are true (i.e., stereotype endorsement). This represents the beginning of the internalization of public stigma into self-stigma. In the second step (i.e., "application"), individuals who identify as being a mentally-ill person come to believe that these stereotypes apply to them. In the third step (i.e., "harm"), these individuals' self-esteem is diminished due to believing these stereotypes apply to them. Thus, according to this model, self-stigma of mental illness begins with stereotype endorsement. Furthermore, while stereotype awareness (i.e., public stigma) may be outside of an individual's control, stereotype endorsement is an internal belief that can be modified with counseling interventions. Thus, focusing on a person's endorsement of mental health stereotypes can be a key focus for therapists and researchers.

Fortunately, Corrigan and colleagues (2006) created an instrument to assess mental illness stereotype endorsement. As a result, researchers have been able to identify mental illness stereotype endorsement as an important barrier to seeking help. For example, greater stereotype endorsement has been linked with more negative attitudes towards seeking treatment, lesser likelihood of perceiving a need for professional help when suffering from a mental illness, less

likelihood of seeking treatment, and poorer treatment adherence (Leaf, Bruce, Tischler, & Holzer, 1987; Brown et al., 2010; Fung, Tsang, & Corrigan, 2008; Loya, Reddy, & Hinshaw, 2010; Coppens et al., 2013; Cooper, Corrigan, & Watson, 2003; Penn et al,. 2005; Eisenburg, Downs, Golberstein, & Zivin, 2009; Schomerus et al., 2012; Griffiths, Crips, Jorm, & Christensen, 2011; Raue & Sirey, 2011). Furthermore, researchers have started to develop interventions to reduce mental illness stereotype endorsement (Chung, & Chan, 2004; Corrigan, Watson, Warpinski, & Gracia, 2004; Pinfold, Huxley, Thornicroft, Toulmin, & Graham, 2003).

However, empirical research has recently established that there are multiple types of stigma that can impair treatment seeking. Specifically, the stigma of seeking help has been found to be parallel to—and independent from—the self-stigma of mental illness and in fact provides superior power in predicting help-seeking outcomes (Tucker et al., 2013). Tucker and colleagues found that (a) a measure of the self-stigma of mental illness and a measure of the self-stigma of seeking help formed related but independent factors and (b) the measure of the self-stigma of seeking help predicted unique variance in attitudes toward seeking professional psychological help and intentions to seek professional psychological help beyond the self-stigma of mental illness.

Yet, while the presence of these unique stigmas has been shown, researchers have not examined whether the progressive model of self-stigma holds for the stigma of seeking help in the same fashion as it does for mental illness. According to this model, awareness (i.e., perception of public stigma of seeking help) of the negative stereotypical characteristics of someone who seek helps (e.g., weak, incompetent, whiny; Fuller, Edwards, Proctor, & Moss, 2000; King, Newton, Osterlund, & Baber, 1973; Visco, 2009) may lead to the first step of self-stigma of seeking help, help-seeker stereotype endorsement (i.e., "agreement"). Individuals who

come to believe they need help to deal with a current concern that they cannot resolve on their own and therefore choose to seek professional help may come to believe that these help-seeker stereotypes apply to them (i.e., "application"). Self-application of these stereotypes then leads to "harm" in the form of decreased self-esteem.

The reason that this model has not been examined is that no help-seeking stereotype endorsement instrument in line with Corrigan and colleagues' (2006) mental illness stereotype endorsement instrument currently exists. This is an important omission, as the self-stigma of seeking help (of which help-seeker stereotype endorsement constitutes the first step) has demonstrated stronger ties with help-seeking outcomes than has the self-stigma of mental illness. As a result, the endorsement of help-seeker stereotypes could be a larger barrier to seeking help than the endorsement of mental illness stereotypes. Therefore, the specific aim of this investigation was to develop an instrument that measures the strength of respondents' endorsement of negative stereotypes about people who seek help from a psychologist.

The Help-Seeker Stereotype Scale (HSSS), as this instrument is known, was developed over the course of three studies. Study 1 involved item development and the initial exploration of the HSSS's factor structure. Study 2 involved additional exploration and confirmation of the HSSS's factor structure. Study 3 examined the convergent and incremental validity of the HSSS. It was anticipated that the results of the three studies would provide initial support for the HSSS' reliability and validity.
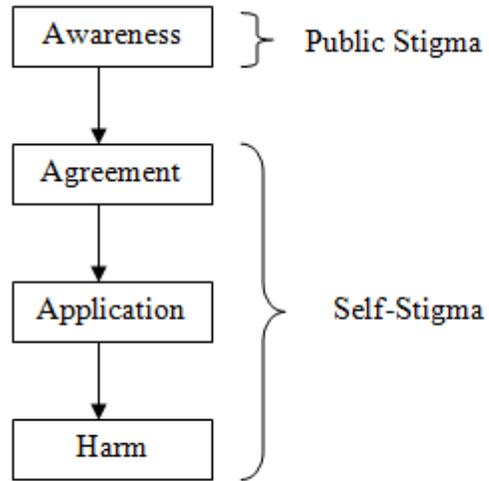
Figure 1. The progressive model of self-stigma of mental illness.

CHAPTER 2

LITERATURE REVIEW

Mental illness is a significant contributor to the global burden of disease (Lopez, Mathers, Ezzati, Jamison, & Murray, 2006). However, despite the burden many people experience from mental health concerns (e.g. psychological suffering, functional impairment, enhanced risk of premature death), only about 11% seek help from a mental health professional in a given year (Andrews et al., 2001). Furthermore, while the effectiveness of psychotherapy has been well established (Wampold, 2001), less than half of all individuals experiencing mental health problems seek any type of professional treatment over the course their lifetime (U.S. Department of Health and Human Services, 2002). For the purposes of the present investigation, help seeking is defined as "an adaptive coping process that is the attempt to obtain external assistance to deal with a mental health concern" (Rickwood & Thomas, 2012, p. 180). This divide between service need and service use is traditionally known as the "service gap" (Kushner & Sher, 1991). To reduce the service gap, it is necessary to identify factors that influence professional psychological help-seeking behavior among individuals experiencing mental health concerns (Vogel, Wade, & Haake, 2006) so that counseling psychologists and allied mental health professionals can develop better prevention and intervention programs to increase service utilization among these individuals. While a variety of factors have been identified (e.g., treatment fears, comfort with self-disclosure; Vogel, Wester, & Larson, 2006), the most cited barrier to treatment is stigma.

Stigma

Stigma is the perception of being flawed because of a socially unacceptable personal characteristic (Blaine, 2000). In the domain of mental health, a distinction between public stigma and self-stigma has been made. Vogel and colleagues (2006) defines public stigma as "the perception held by a group or society that an individual is socially unacceptable and often leads to negative reactions toward them" and self stigma as "the reduction of an individual's self-esteem or self-worth caused by the individual self-labeling herself or himself as someone who is socially unacceptable" (p. 325).

Public stigma related to mental health has been linked to a host of negative help-seeking-related outcomes. Komiya, Good, and Sherrod (2000) found that greater perceptions of stigma associated with counseling among 311 college students was a significant predictor of poorer attitudes towards seeking counseling beyond current emotional distress, emotional openness, and participant gender. Likewise, Vogel, Wester, Wei, and Boysen (2005) found that perceptions of greater stigma associated with seeking professional help was a unique predictor of poorer attitudes toward seeking professional help among 254 college students. Public stigma related to mental health has also been linked to earlier treatment discontinuation and reduced treatment adherence among 92 elderly patients with major depression (Sirey et al., 2001). In a nationally-representative study of 8,098 respondents, concerns about what others might think were mentioned by 14% of the respondents as a reason they did not seek treatment for their serious mental illness (Kessler et al., 2001). Similarly, a nationally-representative sample of adults with neurotic disorder in Great Britain (N = 1,387) found that 4% of respondents stated that a reason for not seeking professional help was their fear of what others would think.

Likewise, self-stigma related to mental health has been linked to a variety of help-seeking-related outcomes. In a nationally-representative sample of 248 African American and White older adults with depression, greater internalized stigma accounted for significant variance in poorer attitudes towards seeking help (Conner et al., 2010). Furthermore, Vogel, Wade, and Haake (2006) demonstrated that the self-stigma of seeking help was positively correlated with poorer attitudes towards seeking professional psychological help, lesser intentions to seek help, and a smaller likelihood of seeking help two months after initial assessment among college students. Similarly, Vogel, Wade, and Hackler (2007) demonstrated that self-stigma fully mediated the relationship between public stigma and attitudes toward seeking professional psychological help among 680 college students. Self-stigma was also found to be a stronger unique predictor of help-seeking attitudes than anticipated risks and benefits of seeking help and gender, among 145 students currently at risk for an eating disorder (Hackler, Vogel, & Wade, 2010). In a study of the factors influencing students' decision to engage in career counseling, Ludwikowski, Vogel, and Armstrong (2009) found that self-stigma accounted for 42% of the variance in attitudes toward career counseling. Likewise, in a study of public and self-stigma on attitudes toward group counseling of 491 college students, self-stigma accounted for 52% of the variance in attitudes toward seeking group counseling, fully mediating the relationship between public stigma and attitudes (Vogel, Shechtman, & Wade, 2010). Among 263 undergraduate students with clinically-significant levels of distress, self-stigma was found to predict interest in continuing versus prematurely terminating counseling (Wade, Post, Cornish, Vogel, & Tucker, 2011). Lastly, Fung, Tsang, Corrigan, Lam, and Cheng (2007) found that greater self-stigma among 108 Chinese individuals with severe mental illness in psychiatric treatment predicted

poorer psychosocial treatment attendance and participation. In summary, both public stigma and self-stigma have been linked to a variety of negative outcomes in the help-seeking context.

Research suggests that self-stigma is a more proximal determinant of help-seeking outcomes than public stigma (i.e., self-stigma mediates the relationship between public stigma and help-seeking outcomes; Ludwikowski, Vogel, & Armstrong, 2009; Vogel, Shechtman, & Wade, 2010; Vogel, Wade, & Hackler, 2007). Building upon Link's Modified Labeling Theory (Link, 1987, Link & Phelan, 2001), Corrigan and colleagues (Corrigan et al., 2006) outlined a progressive model of self-stigma that explains this sequential relationship between the public stigma of mental illness and self-stigma of mental illness. People who grow up in a cultural context in which people with mental illness are stigmatized gradually become aware of the negative stereotypes attributed to people with mental illness (see below for discussion of these negative stereotypes). For some individuals, this initial stereotype "awareness" (i.e., perception of public stigma of mental illness) may lead to the first step of self-stigma (i.e., "agreement"), in which these individuals believe that negative stereotypes about people with mental illness are true (i.e., stereotype endorsement). This represents the beginning of the internalization of public stigma into self-stigma. In the second step (i.e., "application"), individuals who identify as being a mentally-ill person come to believe that these stereotypes apply to them. In the third step (i.e., "harm"), these individuals' self-esteem is diminished due to believing these stereotypes apply to them. Of particular importance in the present investigation, self-stigma of mental illness begins with stereotype endorsement. Furthermore, while stereotype awareness (i.e., public stigma) may be outside of an individual's control, stereotype endorsement is an internal belief that can be modified with counseling interventions. Thus, focusing on a person's endorsement of mental health stereotypes can be a key focus for therapists and researchers.

Mental Illness Stereotypes

Contemporary theorists define stereotypes as "characteristics that are *descriptive of*, *attributed to*, or *associated with* members of social groups or categories" (Stangor & Lange, 1994; p.361; italics original). Negative stereotypical traits of people with mental illness include a variety of characteristics. For example, Olmsted and Durham (1976) reported that college students rated people with mental illness as more worthless, dangerous, dirty, cold, unpredictable and insincere, than people without mental illness. Likewise, Nunnaly (1961) found that people with mental illness were, compared to the average person, considered more dangerous, cold, dirty, worthless, bad, ignorant, and weak.

Cohen and Struening's (1962) Opinions about Mental Illness (OMI) scale was developed by drawing from the expressed opinions of psychiatric hospital workers. Stereotypes about people with mental illness embedded in these items include characteristics such as: weird, childlike, dangerous, unpredictable, inhuman, failures, fragile, untrustworthy, unkempt, and neglected as a child. Subsequent instruments assessing endorsement of stereotypes about people with mental illness (e.g., Taylor and Dear's (1981) Inventory of Community Attitudes to the Mentally Ill; Brockington, Hall, Levings, and Murphy's (1993) attitudes measure; Link's (1987) Perceived Devaluation-Discrimination measure) have drawn directly from these same themes embedded in the OMI's items.

More recently, Butler (1993) stated that common stereotypes include pathetic, sad, incoherent, impoverished, talk loudly in public places, lonely, cut of from society, dangerous, and volatile (Butler, 1993, p. ix). In reviewing the mental illness stigma literature, Corrigan and Rusch (2002) argued that there are four primary sets of stereotypes about people with mental illness: dangerous, blameworthy, weak character, and incompetent. Regarding stereotypes in the

media, Stout, Villegas, and Jennings (2004) summarized research published on the stereotypes of mental illness communicated in U.S. mass media. These researchers summarized that people with mental illness have been portrayed as inadequate, unlikeable, dangerous, lacking social identity, unemployable, failures, violent, simple, childlike, unpredictable, aggressive, failure-prone, unproductive, asocial, vulnerable, incompetent, untrustworthy, socially outcast, crazy, mad, and as having lost their mind. In summary, there are a variety of stereotypical characteristics which have been popularly attributed to people with mental illness.

<div align="center">Mental Illness Stereotype Endorsement</div>

To facilitate the study of how personal agreement with these stereotypes influences the attitudes and behavior of individuals, several mental illness stereotype endorsement instruments have been developed and validated, such as the stereotype agreement subscale of the Self-Stigma of Mental Illness Scale (Corrigan et al., 2006) and the stereotype endorsement subscale of the Internalized Stigma of Mental Illness Scale (Ritsher et al., 2003). Researchers utilizing these instruments have found that mental illness stereotype endorsement is related to a variety of negative outcomes. In regards to general outcomes, greater stereotype endorsement has been linked with lower self-efficacy (Corrigan et al., 2006), lower self-esteem (Corrigan et al., 2006; Corrigan et al., 2011; Fung, Tsang, Corrigan, Lam, & Cheng, 2007; Ritsher & Otilingam, 2003; Rusch et al., 2006), greater depression severity (Ritscher & Otilingam, 2003; Ritscher 04), less hope (Corrigan et al., 2011), less perceived social support (Aromaa, Tolvanen, Tuulari, & Wahlbeck, 2011), lower self-mastery (Aromaa et al., 2011), lower empowerment (Rusch et al., 2006), greater experiential avoidance (Rusch et al., 2006), and a stronger desire for social distance from people with mental illness (Schomerus et al., 2011); Lysacker, Davis, Warman, Strasburger, & Beattie, 2007). For example, Fung, Tsang, and Corrigan (2008) found that

greater stereotype endorsement predicted lower self-esteem among 108 Chinese individuals residing in psychiatric settings.

Greater stereotype endorsement has also been linked with a variety of help-seeking outcomes. In regards to attitudes towards seeking professional psychological help, mental illness stereotype endorsement was found to be associated with poorer attitudes toward seeking help among a community sample of 449 African Americans (Brown et al., 2010). Likewise, the endorsement of stigmatizing beliefs regarding mental illness was found to account for unique variance in attitudes toward seeking help among 128 Caucasian and South Asian students (Loya, Reddy, & Hinshaw, 2010). In a representative sample of the German population (N = 4,011), holding personally stigmatizing attitudes towards depression was related to less openness to, and less perceived value of, seeking professional treatment (Coppens et al., 2013). Similarly, Cooper, Corrigan, and Watson (2003) found that mental illness stereotype endorsement was linked to more negative attitudes toward seeking help among 79 community college students. In regards to help-seeking behavior, Fung, Tsang, and Corrigan (2008) discovered that greater stereotype endorsement was a significant predictor of poor psychosocial treatment attendance among 86 Chinese individuals with schizophrenia.

In a few studies, personal stigma (which includes stereotype endorsement as a primary part of its content domain) has also been linked to help-seeking outcomes. Personal stigma was found to predict a belief in the helpfulness of dealing with depression by oneself without seeking help among a nationally-representative sample of 2,000 Australian adults (Griffiths, Crisp, Jorm, & Christensen, 2011). Similarly, less personal stigma about depression was independently associated with a preference for an active rather than passive treatment approach among 256 patients living in a home for the elderly (Raue & Sirey, 2011). Finally, personal stigma was

associated with a lesser likelihood of having sought mental health treatment in the past among a random sample of 8,487 undergraduate and graduate students from 15 universities (Downs & Eisenburg, 2012).

Thus, extant research suggests that the endorsement of negative stereotypes about people with mental illness (i.e., the first step of the self-stigma of mental illness) is an important factor that can influence professional psychological help-seeking behavior. However, recent research suggests that the self-stigma of mental illness is not the only form of self-stigma that influences help seeking.

<div align="center">Self-Stigma of Seeking Help</div>

Whereas having a mental illness is stigmatized in mainstream American culture, it is also true that the act of seeking external assistance to deal with one's mental illness is itself a stigmatized behavior. Early conceptualizations, such as Link's (1987) Modified Labeling Theory, treated the stigma associated with the act of seeking help as a subset of the broader construct of mental illness stigma. However, more recent investigations have supported the independence and incremental validity of the two constructs (e.g., Ben-Porath, 2002; Tucker et al., 2013). In particular, Tucker and colleagues found that (a) a measure of the self-stigma of mental illness and a measure of the self-stigma of seeking help formed related but independent factors and (b) the measure of the self-stigma of seeking help predicted unique variance in attitudes toward seeking professional psychological help and intentions to seek professional psychological help beyond the self-stigma of mental illness. In fact, the self-stigma of seeking help accounted was the much stronger predictor of these outcomes (e.g., self-stigma of seeking help explained 36% of the variance in attitudes while self-stigma of mental illness only explained 1% of the variance within a sample of community members with a history of mental illness).

Given its superior predictive power and construct independence from the self-stigma of mental illness, it seems important for counseling psychologists to utilize instruments that specifically measure the self-stigma of seeking help.

Furthermore, though the progressive model of self-stigma was originally developed with the broader construct of mental illness stigma in mind, due to the parallel (but independent) structure of help-seeker stigma, this conceptualization appears equally applicable to the self-stigma of seeking help. Therefore, according to the progressive model, the self-stigma of seeking help begins stereotype endorsement (i.e., agreement with negative stereotypes about people who seek professional mental health treatment).

<div align="center">Help-Seeker Stereotypes</div>

Several scholars have previously documented the negative attributes that some people believe characterize those who seek professional psychological help. King, Newton, Osterlund, and Baber (1973) surveyed 1,537 students from a Midwestern university and asked them to describe the typical client coming in for counseling who has a personal/emotional problem compared to a client coming in for counseling who has a educational/vocational problem. Results indicated that the emotional client was more often described as weak or disturbed. Oppenheimer and Miller (1988) reported that a sample of 523 training directors of graduate medical training programs tended to perceive students who received psychological counseling as less competent, less reliable, less of a leader, more dependent, more indecisive, and more emotional when compared with students who had not sought help.

Sibicky and Dovidio (1986) recruited 136 undergraduates for an experiment in which participants were asked to rate a conversational partner (whom they were told had been recruited either from among students seeking psychological therapy or from students in an introductory

psychology course, the independent variable) on 38 bipolar scales (e.g., shy-bold, friendly-unfriendly). Results indicated that the clients were rated as more shy, reserved, unenthusiastic, defensive, dull, awkward, physically unattractive, insecure, egoistic, cruel, cold, unsociable, unconventional, sad, and unsuccessful. Ben-Porath (2002) presented one of four case vignettes that were identical except for the description of the target's treatment history (sought treatment at university health center vs. not sought treatment) and type of problem (depression vs. back pain) to 380 undergraduates, who were asked to rate the target on 32 personality dimensions. Results indicated that help-seekers were rated as more emotionally unstable and less competent than those who did not seek help.

Nunnaly & Kittros (1958) surveyed 207 adults residing in the Midwest and asked them to rate "mental patient" (among other titles) on 19 semantic differential personality scales (e.g., insincere-sincere, unpredictable-predictable). Mental patient was rated as particularly unpredictable, weak, dangerous, tense, complicated, undependable, excitable, emotional, and twisted. Venner and colleagues (2012) interviewed 56 adult American Indians with alcohol dependence regarding barriers to help seeking. The researchers reported that many participants felt that seeking help meant being seen as weak, a wimp, and crazy.

Two studies have also examined perceptions of those who seek help using qualitative approaches. Fuller, Edwards, Proctor, and Moss (2000) interviewed 22 individuals who were knowledgeable about mental health problems in their rural Australian communities regarding how people in rural communities conceptualize mental health problems and treatment. Participants indicated that mental health problems and treatment has a high degree of stigma; a participant poignantly stated that community members think mental health services are only for "weirdos, people who are mad" (p.151). Timlin-Scalera, Ponterotto, Blumbgerg, and Jackson

(2003) used grounded theory methodology to understand the barriers preventing white male adolescents from seeking help for mental health stressors. Semistructured interviews with 22 male adolescents revealed that participants believed that they would be perceived as weak, troubled, a failure, a loser, unable to handle things, and dependent.

A few studies have also looked at stereotypes of those who seek mental health services from the perspective of the person who has or might seek help. For example, Rokke and Klenow (1998) obtained a regionally representative random sample of 1,724 older adults living independently in North Dakota. Of those who had not sought mental health treatment despite a recognized need, 11% indicated that a reason they would not seek help was that "People might think I'm weak, feeble, incompetent, or crazy" (p.553). Gilchrist and Sullivan (2006) also interviewed 21 Australian adolescents as well as 20 parents and service providers regarding their attitudes toward psychological help-seeking, and reported that the adolescent participants commonly suggested that they would be perceived as uncool, weak, pathetic, dependent, inadequate, or inferior if they were to seek help.

In summary, the extant literature suggests that help-seeker stereotypes include a variety of stigmatic attributes such as weak, weird, and cowardly. In line with the previously discussed related-but-independent natures of the self-stigma of seeking help and self-stigma of mental illness, the stereotypes attributed to help seekers include terms that are likewise attributed to people with mental illness (e.g., incompetent) and terms that are applied to help seekers in particular (e.g., cowardly).

In light of the literature discussed in this review, two facts bear consideration. First, research suggests that the endorsement of negative stereotypes about people with mental illness (i.e., the first step of the self-stigma of mental illness) is an important factor that can influence

professional psychological help-seeking behavior. Second, the self-stigma of seeking help (of which help-seeker stereotype endorsement constitutes the first step) has demonstrated stronger ties with help-seeking outcomes than has the self-stigma of mental illness. Considered together, these facts suggest that help-seeker stereotype endorsement could be just as, if not more, important of a factor than mental illness stereotype endorsement in influencing help-seeking outcomes. Furthermore, given the parallel but independent structure of the stigmas of mental illness and help seeking, the progressive model of self-stigma may hold utility for conceptualizing and studying the self-stigma of seeking help. Unfortunately, there exists no published, validated measure of help-seeker stereotype endorsement (akin to Corrigan and colleagues' [2006] mental illness stereotype endorsement instrument) that can be used to examine these possibilities. Therefore, the specific aim of this investigation is to develop an instrument that measures the strength of respondents' endorsement of negative stereotypes about people who seek help from a psychologist.

<div align="center">Help-Seeker Stereotypes and Prototypes</div>

Another construct, which is related to stereotypes and could also add to the potential importance of developing a help seeker stereotype scale, is the prototype. Prototypes have recently been identified as playing an important role in a variety of health behaviors such as smoking, drug use, and condom use (see Gibbons et al., 2009). Hammer and Vogel (2013) found that prototypes played a role in professional psychological help-seeking decisions for 182 undergraduate participants reporting clinical levels of psychological distress. While the prototype construct has been defined and studied by cognitive psychologists since the 1970's (see Rosch, 1973; Fehr, 1988), modern-day researchers specifically define prototype as a mental representation of the characteristics of the "type of person" who engages in a given behavior

(Gibbons & Gerrard, 1995). More specifically, a prototype is an ordered list of features (Horowitz & Turan, 2008), stored in long-term memory (Skowronski & Carlston, 1989), that capture the most common and socially-agreed upon characteristics ascribed to members of a given category (Snortum, Kremer, & Berger, 1987).

Theories involving prototypes such as the Prototype-Willingness Model (Gerrard, Gibbons, Houlihan, Stock, & Pomery, 2008) state that people perceive that they will acquire, in others' and their own eyes, the image (i.e., the characteristics) associated with the behavior if they perform that behavior (Gerrard, Gibbons, Stock, Vande Lune, & Cleveland, 2005). For this reason, people will be motivated to either distance themselves from the prototype or match the prototype, depending on the perceived favorability of the prototype. In other words, favorable prototypes should increase a behavior and unfavorable prototypes should decrease a behavior. This motivation is theorized to stem from self-consistency and self-enhancement reasons (Dunning, Perie, & Story, 1991; Niedenthal, Cantor, & Kihlstrom, 1985). Prototypes provide information about the favorability of the possible selves that an individual may want to avoid or adopt (Markus & Nurius, 1986).

Importantly, the prototype does not have to be favorable in an absolute sense to make someone willing to perform the associated behavior. Instead, the *relative* favorability of the prototype is what determines willingness (Gibbons & Gerrard, 1997; Gibbons, Gerrard, & Boney-McCoy, 1995). Therefore, in theory, the more negative people's help-seeker prototype is, the less willing they will be to seek help in a conducive situation. In fact, several studies have demonstrated that more negative prototypes predict less willingness to engage in the corresponding behavior (e.g., Gibbons & Gerrard, 1995; Gerrard et al., 2002; Blanton, Gibbons, Gerrard, Conger, & Smith, 1997) and that manipulating the favorability of a person's prototype

to make it more negative results in less willingness to engage in the corresponding behavior (Blanton et al., 2001; Gibbons, Gerrard, Lane, Mahler, & Kulik, 2005).

In line with this prior research, Hammer and Vogel (2013) found that help-seeker prototype favorability did account for unique variance in willingness to seek therapy. Interestingly, contrary to published PWM theory and empirical findings, help-seeker prototype favorability demonstrated an *inverse* relationship with willingness to seek therapy. Those who scored higher on prototype favorability (i.e., who believe the typical help seeker is not stressed, depressed, etc.) were actually less willing to seek help. In seeking to explain this unexpected finding, Hammer and Vogel suggested that the unique nature of the specific items composing the prototype favorability instrument they used was likely accounted for this finding. They noted that, while the valence of the 10 adjectives they developed for the study (i.e., stressed, troubled, depressed, upset, struggling, unhappy, emotional, worried, distressed, anxious) is technically unfavorable/negative, these adjectives are generally factually accurate descriptors of individuals who seek professional psychological help. These adjectives describe symptoms of mental illness that people who seek help report experiencing (Kessler, Chiu, Demler, Merikangas, & Walters, 2005). Thus, when respondents indicate that they believe help seekers are stressed and troubled, this can be reasonably interpreted as a stated acknowledgement that help seekers do have genuine psychological problems. In contrast, respondents who indicate that they believe help seekers are NOT stressed, troubled, etc., may effectively be denying that help seekers have genuine psychological problems. Given that the purpose of therapy is to help people with psychological problems, and that people who are not stressed and troubled are unlikely to desire or require therapy, it makes sense that the group of respondents who do believe help seekers have genuine psychological problems would be more willing to seek help themselves while the

group of respondents who do not believe help seekers have genuine psychological problems would be less willing to seek help themselves.

However, one critique of prototype favorability measures is that the adjectives included in the instrument may not capture important characteristics of a prototype from a particular individual's perspective (Zimmerman, 2011). While context-specific prototype favorability measures, such as the one used by Hammer and Vogel (2013), tend to use the characteristics most frequently mentioned and rated as descriptive by the target population, these specific characteristics may not be the same characteristics that a particular individual conceives as central to that prototype. As noted previously, extant theory and research on the stigma associated with seeking psychological help suggests that people's mental representation of the characteristics of the typical person who seeks help from a psychologist can include more than just mental illness symptoms (Corrigan, 2004); they can also include stereotypical attributes that are highly unfavorable (e.g., weak, incompetent, whiny). Thus, while Hammer and Vogel unexpectedly found an *inverse* relationship between prototype favorability and willingness to seek therapy when prototype was operationalized by mental illness symptom terms, one could anticipate that a *positive* relationship between prototype favorability and willingness could arise—consistent with published PWM theory and empirical findings—when prototype is instead operationalized by highly unfavorable help-seeker stereotype attributes. In other words, it is possible that those respondents who disagreed that the typical help seeker is characterized by mental illness symptoms would have agreed, had they been presented with a prototype favorability instrument composed of highly unfavorable help-seeker stereotype attributes, that the typical help seeker is weak, incompetent, etc.

However, the potential existence of a positive relationship between the favorability of people's mental image of the typical help seeker and willingness cannot be tested without first developing a new instrument that could account for the highly unfavorable stereotype attributes that some people attribute to those who seek help from a psychologist. These stereotype attributes are not necessarily the most common and socially agreed upon characteristics ascribed to help-seekers, yet they would assess components of respondents' mental image of the typical person who seeks help from a psychologist, and therefore may function in a similar manner as a prototype favorability instrument within the help-seeking context. Thus, the new help-seeker stereotype scale could allow researchers to better verify the utility of measuring respondents' mental image of the typical help seeker when trying to understand and predict willingness to seek professional help.

Proposed Investigation

In summary, measuring negative help-seeker stereotype endorsement could allow researchers to (a) investigate the potential influence of negative help-seeker stereotype endorsement on help-seeking-related constructs, (b) examine the utility of applying Corrigan and colleagues' (2006) progressive model of self-stigma to the parallel but independent stigma of seeking help from a psychologist, and (c) facilitate the investigation of the potential existence of a positive relationship between the favorability of people's mental image of the typical help seeker and their willingness to seek professional psychological help. Because no such instrument in line with Corrigan and colleagues' (2006) mental illness stereotype endorsement instrument currently exists, the specific aim of this investigation is to develop an instrument that measures the strength of respondents' endorsement of negative stereotypes about people who

seek help from a psychologist. This instrument is known as the Help-Seeker Stereotype Scale (HSSS).

The HSSS was developed over the course of three studies. Study 1 involved the development of an initial item pool, refinement of the item pool, examination of the initial factor structure of the Help-Seeker Stereotype Scale (HSSS) using Exploratory Factor Analysis (EFA), and selection of items for the initial version of the HSSS. Study 2 used a series of follow-up Exploratory Factor Analyses (EFAs) and then a series of Confirmatory Factor Analyses (CFAs) on independent samples to confirm the final items and factor structure of the HSSS and to investigate the model-based reliability of the HSSS. Study 3 examined the convergent and incremental validity of the HSSS.

CHAPTER THREE

STUDY 1: ITEM DEVELOPMENT AND INITIAL EXPLORATORY FACTOR ANALYSIS

Study 1 involved the development of an initial item pool, examination of the initial factor structure of the Help-Seeker Stereotype Scale (HSSS) using Exploratory Factor Analysis (EFA), and selection of items for the HSSS.

Method

Instrument Development

According to the progressive model of self-stigma (Corrigan et al., 2006), individuals who agree with negative mental illness stereotypes and come to believe that these stereotypes apply to themselves will experience diminished self-esteem. Thus, these stereotypes are inherently self-esteem-reducing when applied to oneself. It follows that an instrument designed to assess stereotype agreement must assess negative stereotypes that have the potential to diminish self-esteem. Thus, for the purposes of the present investigation, the construct of help-seeker stereotype endorsement is defined as the strength of respondents' endorsement of negative, self-esteem harming stereotypes about people who seek help from a psychologist.

To identify the construct's content domain, I reviewed the published social science literature (a) that empirically assessed research participants' perceptions of individuals who seek professional psychological help (e.g., Nunnaly & Kittros, 1958; Sibicky & Dovidio, 1986; Timlin-Scalera et al., 2003) and (b) focused on the stigma surrounding the act of seeking professional psychological help (e.g.,Corrigan, 2004; Schomerus, Matschinger, & Angermeyer, 2009; Vogel et al., 2006). In addition, undergraduate students ($N = 71$) and adults from a community sample ($N = 107$) were asked to freely generate characteristics of the typical help

seeker. Drawing upon these two sources, I generated an initial set of 50 items designed to capture negative, self-esteem harming stereotypes of help seekers (e.g., pitiful, selfish); see Appendix A for the full item list. Adopting the instructions and response format from Hammer and Vogel's (2013) help-seeker prototype favorability instrument, the instructions state:

> "Some of the questions below concern your images of particular people. What we are interested in here are your ideas about typical members of a particular group. For example we all have ideas about what typical movie stars are like or what the typical grandmother is like. When asked if we could describe one of these images, we might say that we think the typical movie star is pretty or rich, or that the typical grandmother is sweet and frail. We are not saying that all movie stars or all grandmothers are exactly alike, but rather that many of them share certain characteristics. Imagine the typical person who seeks help from a psychologist. How would you describe this person using the following characteristics?"

After reading the instructions, respondents indicate the strength of their endorsement of each stereotype (e.g., weak) on a Likert scale from 1 (*not at all*) to 7 (*extremely*).

Review of the 50 items revealed three American English slang terms (clueless, loser, wimp) that, while reported in prior literature, may be unfamiliar to certain participants (Clark & Watson, 1995). These three items were removed from the item pool, resulting in a revised item pool of 47 items. In order to ensure the comprehensibility and readability of the instructions and the 47 items, the instructions and items were then reviewed by 20 university students. Their feedback indicated that they found the instructions clear and comprehensible. However, participants indicated that they were unfamiliar with the meaning of six items (inferior,

irresponsible, neurotic, stoic, submissive, weak-willed). Removal of these items resulted in a revised item pool of 41 items.

Next, I asked six experts who have published in the area of stigma of seeking help to evaluate the clarity of the HSSS's instructions and content validity of the items. The definition of the construct (i.e., the strength of respondents' endorsement of negative, self-esteem harming stereotypes about people who seek help from a psychologist) was provided and the experts were asked to rate each item on a scale ranging from 1 (*does not fit all*) to 5 (*fits very well*) on how well it fits the stereotypes of people who seek help from a psychologist. I removed seven items (detached, inexperienced, lazy, morally weak, paranoid, pessimistic, odd) that achieved a mean score of less than three (i.e., items which, according to the expert reviewers, did not adequately fit the stereotype). This resulted in a revised item pool of 34 items.

Based on expert feedback, instructions and rating scale anchors received minor word changes to enhance clarity. Specifically, the instructions now state:

"We are interested in your ideas about typical members of a particular group. For example, we all have ideas about what the typical movie star or the typical grandmother is like. When asked if we could describe one of these images, we might say that we think the typical movie star is pretty or rich, or that the typical grandmother is sweet and frail. We are not saying that all movie stars or all grandmothers are exactly alike, but rather that many of them share certain characteristics. Take a moment to imagine the typical person who seeks help from a psychologist. To what extent does each of the following characteristics describe the typical person who seeks help from a psychologist?"

In addition, based on expert feedback, the anchor for 7 was changed from *extremely* to *very much*. Thus, the rating scale is 1 (*not at all*) to 7 (*very much*).

Next, to verify that the stereotypes embedded in each of the 34 items has the potential to diminish respondents' self-esteem, I asked 25 university students to indicate the extent to which their self-esteem would decrease if they came to believe that they were accurately described by the stereotype embedded in each item, using a 1 (*not at all*) to 5 (*a very great extent*) scale. I removed four items (feminine, indecisive, vulnerable, weird) that had a mean score of less than three (i.e., items that would not consistently reduce self-esteem across respondents). This resulted in a revised item pool of 30 items, which were administered to Study 1 participants.

Participants and Procedure

Study 1 participants were recruited by sending an email invitation to all registered fourth-year students at the university. Participants were invited to confidentially complete the survey online, which was described as a study of the factors influencing opinions about seeking help. After completing informed consent, participants were presented with the HSSS and demographic items, in addition to other items unrelated to the present investigation. Participants were not compensated. Demographics for the sample are provided in Table 1.

<p align="center">Results and Discussion</p>

Preliminary Data Screening

Data were screened prior to all analyses. The initial dataset contained 680 individuals. To reduce threats to the validity of individuals' responses due to random or inattentive responding (Kurtz & Parish, 2001), throughout the survey I interspersed items asking participants to select a certain response (e.g., "Please select 'strongly agree' for this item"). Data from those individuals (n = 46) who failed to complete more than one of these items correctly was removed. All cases (n = 31) that were found to be missing data on at least one of the 30 items and were also removed (i.e., listwise deletion), as data imputation is not appropriate prior

to the development of the final version of the instrument (Robitscheck et al. 2012). As a result of this data cleaning, 587 cases were retained for subsequent analysis. In regards to normality, no variables exceeded the cutoffs of 3 and 10 for high skewness and kurtosis values, respectively (Kline, 2005; Weston & Gore, 2006). Prior to conducting the Exploratory Factor Analyses (EFAs), the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to evaluate the factorability of the data. The KMO was found to be .98, which is higher than the value of .60 recommended by Tabachnick and Fidell (2001).

Initial Exploratory Factor Analysis

SPSS (Version 20) was used to conduct a series of EFAs to explore the initial factor structure of the instrument. An EFA using principal axis factor (PAF) extraction and direct oblimin (oblique) rotation was first conducted because I anticipated that the extracted factors would likely be correlated (Worthington & Whittaker, 2006), which subsequent analyses confirmed (see end of this section). Worthington and Whittaker (2006) note that there are a variety of criteria researchers can use for factor retention. Parallel Analysis (PA; Horn, 1965), review of the scree plot (Cattell, 1966), approximating simple structure (McDonald, 1985), and conceptual interpretability of the factors were used to determine the number of factors to retain in the present investigation.

The rationale underlying PA is that factors underlying the items should account for more variance than is expected by chance, based on factor extractions using multiple sets of random data. One thousand random PA data sets were computed. Results supported a two-factor solution: eigenvalues for the first three factors were higher in the actual data set (i.e., 16.52, 1.92, 1.15; see Table 2) than in the parallel analysis (i.e., 1.44, 1.40, 1.35). A review of the scree plot

indicated that two factors preceded the elbow, providing further support for a two-factor solution (see Figure 2).

Approximate simple structure is demonstrated when each proposed factor is composed of several (i.e., ≥ 3) items which meet established item retention criteria—items which load strongly (i.e., ≥ .50) but not too strongly (i.e., ≤ .90; to avoid retaining grammatically redundant items that create within-factor correlated measurement error; Bagozzi & Yi, 1988) on that factor and load weakly (i.e., < .32) on the other factors (Brown, 2006; Netemeyer, Bearden, & Sharma, 2003; Tabachnick & Fidell, 2007; Worthington & Whittaker, 2006). An examination of the pattern coefficients for the three-factor solution (see Table 3) revealed that the third factor consisted of three items which met established item retention criteria: self-centered, selfish, and attention seeking. Strong grammatical redundancy among items on a final instrument is undesirable because of the attenuation paradox: "once one [redundant item] is included in the scale, the other(s) contribute virtually no incremental information" (p. 316) and this reduces the validity of the instrument (Clark & Watson, 1995). Therefore, the strong grammatical redundancy of self-centered and selfish means that only one of those two items could feasibly be retained for use in the final scale. This would result in a third factor consisting of only two non-redundant items. Because statisticians recommend against retaining factors with fewer than three items (Tabachnick & Fidell, 2001), the three-factor solution was deemed inappropriate.

In contrast, an examination of the pattern coefficients for the two-factor solution (see Table 4) revealed that 15 items for the first factor and seven items for the second factor met item retention criteria, suggesting the presence of approximate simple structure. The first factor accounted for 55.06% of the initial variance (53.72% once extracted) and the second factor accounted for 6.39% of the initial variance (5.13% once extracted), for a total of 61.45%

(58.85% once extracted) cumulative variance accounted for. Importantly, both factors were conceptually interpretable, in that the first factor consisted of adjectives denoting generally deficient character (e.g., cowardly, untrustworthy, inadequate) while the second factor consisted of adjectives denoting emotional instability (e.g., insecure, not in control of his/her emotions, unstable).

Furthermore, when an EFA using PAF extraction and varimax (orthogonal) rotation was conducted, results once again supported a two-factor solution but not a three-factor solution. Specifically, the same items loaded on the same factors whether an oblique or orthogonal rotation was used, and the third factor once again had only two non-redundant items which met established item retention criteria. In summary, the two-factor solution seems to offer the best fit to the data.

Therefore, the next step was to select appropriate items for each subscale of the HSSS. In regards to the number of items to retain for each factor, certain scholars have recommended a minimum of three (Comrey, 1988; Jackson, 2003; Tabachnick & Fidell, 2001) or four (Clark & Watson, 1995; Harvey, Billings, & Nilan, 1985; Neteymeyer, Bearden, & Sharma, 2003; Raubenheimer, 2004; Russell, 2002). Swanson and Holton (2005) stated that "a quality scale composed of four to six items could be developed for most constructs" (p. 166). In light of these guidelines, I sought to retain for each factor the six highest-loading items that met the established item retention criteria described previously.

On the basis of these criteria, 12 items out of the original 30 items were retained for the initial version of the HSSS. A new EFA using PAF extraction and direct oblimin (oblique) rotation was conducted on this set of 12 items. The first factor accounted for 55.40% of the initial variance (52.01% once extracted) and the second factor accounted for 9.80% of the initial

variance (6.31% once extracted), for a total of 65.21% (58.32% once extracted) cumulative

variance accounted for. Examination of the pattern coefficients indicated that all items loaded on

their respective factors and met established item retention criteria. Based on review of the

meaning of the items with the highest structure coefficients on each factor (Kahn, 2006), the first

factor was labeled Deficient ($\alpha = .90$; $M = 2.08$, $SD = 1.12$) and the second factor was labeled

Unstable ($\alpha = .88$; $M = 3.54$, $SD = 1.33$). Table 5 presents the two factors and their respective

items, factor loadings, initial communality estimates, corrected item-total correlations, means,

and standard deviations. The mean and standard deviation of the HSSS total score based on all

12 items was 2.81 and 1.14, respectively.

A Pearson product-moment correlation indicated that the two factors correlated at .71 (p

$< .001$). This strong correlation between the two factors, each of which demonstrates factorial

independence and the ability to account for unique variance across the 12 items, suggested that a

hierarchical or bifactor model may best account for HSSS' factor structure. These possibilities

were explored in Study 2.

Table 1

Participant Demographics for Studies 1 - 3

Characteristic	Study 1		Study 2: Sample A		Study 2: Sample B		Study 3	
	n	%	*n*	%	*n*	%	*n*	%
Gender								
Male	283	48.1	109	36.7	86	29.0	103	45.8
Female	301	51.2	188	63.3	211	71.0	121	53.8
Other	0	0.0	0	0.0	0	0.0	1	0.4
Did not respond	1	0.2	0	0.0	0	0.0	0	0.0
Race								
Asian American or Pacific Islander	34	5.8	13	4.4	11	3.7	9	4.0
Black or African-American	33	5.6	11	3.7	8	2.7	4	1.8
Latino/a or Hispanic	22	3.7	8	2.7	5	1.7	6	2.7
Multiracial	22	3.7	3	1.0	5	1.7	9	4.0
Non-Hispanic White	476	81.0	241	81.1	258	86.9	186	82.7
Other	N/A	N/A	5	1.7	4	1.3	11	4.9
International student	N/A	N/A	15	5.1	6	2.0	N/A	N/A
Did not respond	1	0.2	1	0.3	0	0.0	0	0.0
Year								
First year student	0	0.0	133	44.8	168	56.6	107	47.6
Sophomore	0	0.0	93	31.3	72	24.2	68	30.2
Junior	0	0.0	43	14.5	39	13.1	18	8.0
Senior	587	100.0	26	8.8	18	6.1	26	11.6
Other	0	0.0	1	0.3	0	0.0	6	2.7
Did not respond	0	0.0	1	0.3	0	0.0	0	0.0
Total *N*	587		297		297		225	

Note. N/A = this response option was not available to participants in this study.

Table 2

Eigenvalues for Initial Exploratory Factor Analysis

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	**16.52**	55.06	55.06	16.14	53.80	53.80	14.54
2	**1.92**	6.39	61.45	1.55	5.18	58.98	11.38
3	1.15	3.84	65.29	.77	2.58	61.55	9.73
4	.85	2.83	68.11				
5	.64	2.13	70.25				
6	.64	2.12	72.36				
7	.58	1.95	74.31				
8	.50	1.68	75.99				
9	.49	1.62	77.61				
10	.46	1.52	79.13				
11	.45	1.49	80.62				
12	.42	1.40	82.02				
13	.41	1.38	83.40				
14	.41	1.36	84.77				
15	.38	1.26	86.02				
16	.37	1.23	87.26				
17	.36	1.21	88.46				
18	.34	1.15	89.61				
19	.33	1.11	90.72				
20	.33	1.08	91.81				
21	.30	1.00	92.80				
22	.28	.95	93.75				
23	.27	.90	94.65				
24	.26	.86	95.51				
25	.26	.86	96.37				
26	.24	.81	97.18				
27	.23	.75	97.93				
28	.22	.74	98.67				
29	.21	.68	99.35				
30	.19	.65	100.00				

Note. Results of initial Exploratory Factor Analysis using principal axis factor extraction and direct oblimin (oblique) rotation. N = 587. Bold factor eigenvalues are those which were higher than the corresponding factor eigenvalues generated by the Parallel Analysis.

Table 3
Factor Loadings for Initial Exploratory Factor Analysis

	Factor		
	1	2	3
A failure	**.91**	-.13	.04
Pathetic	**.87**	-.07	.05
Worthless	**.87**	-.21	.12
Insane	**.78**	.06	-.08
Inadequate	**.76**	.07	.00
Crazy	**.69**	.12	-.01
Incompetent	**.66**	.14	.09
Incapable	**.66**	.20	.02
Pitiful	**.63**	.09	.13
Cowardly	**.60**	.04	.23
Untrustworthy	**.60**	-.02	.22
Weak	**.57**	.28	.05
Powerless	**.51**	.35	-.03
Helpless	**.51**	.41	-.14
Unreliable	**.44**	.19	.25
Lacks willpower	**.38**	.28	.26
Emotionally-unstable	-.01	**.88**	-.02
Insecure	-.12	**.76**	.13
Not in control of his/her emotions	.07	**.75**	.02
Unstable	.17	**.69**	-.04
Dependent	.01	**.54**	.14
Needy	.12	**.50**	.28
Incapable of solving his/her own problems	.30	**.50**	-.02
Oversensitive	.13	**.48**	.27
Out of control	.37	**.39**	.06
Self-centered	.05	.11	**.69**
Selfish	.27	-.03	**.64**
Attention-seeking	.02	.31	**.57**
Ignorant	.37	.01	**.45**
Whiny	.29	.25	**.40**

Note. Results of initial Exploratory Factor Analysis using principal axis factor extraction and direct oblimin (oblique) rotation . N = 587. Bold indicates the strongest factor loading for each item.

Table 4

Factor Loadings for Two-Factor Exploratory Factor Analysis

	Factor	
	1	2
Worthless	.99	-.25
A failure	.95	-.16
Pathetic	.92	-.10
Cowardly	**.78**	.02
Untrustworthy	**.77**	-.03
Inadequate	**.75**	.05
Selfish	**.73**	.00
Incompetent	**.73**	.12
Pitiful	**.73**	.07
Insane	**.72**	.04
Ignorant	**.71**	.02
Crazy	**.67**	.10
Incapable	**.67**	.18
Unreliable	**.62**	.19
Weak	**.60**	.27
Whiny	**.58**	.26
Lacks willpower	**.56**	.29
Self-centered	**.55**	.15
Powerless	.47	.34
Attention-seeking	.44	.34
Out of control	.40	.39
Emotionally-unstable	-.08	.91
Insecure	-.06	**.80**
Not in control of his/her emotions	.04	**.78**
Unstable	.10	**.71**
Dependent	.08	**.56**
Needy	.31	**.52**
Oversensitive	.31	**.51**
Incapable of solving his/her own problems	.26	**.50**
Helpless	.38	.40

Note: Results of Exploratory Factor Analysis using principal axis factor extraction with oblique rotation (direct oblimin) when two factors were specified for extraction. N = 587. Bold indicates the strongest factor loadings for each item that met established item retention criteria.

Table 5

Items, Factor Loadings, Initial Communality Estimates, Corrected Item-Total Correlations, Means, and Standard Deviations for the Initial Version of the Help Seeker Stereotypes Scale

Item	F1: Deficient	F2: Unstable	h2	Item-total r	M	SD
Cowardly	**.82**	-.02	.59	.76	2.00	1.34
Pitiful	**.79**	.02	.59	.75	2.14	1.41
Untrustworthy	**.77**	-.04	.51	.70	1.94	1.26
Incompetent	**.76**	.08	.63	.77	2.20	1.43
Inadequate	**.76**	.03	.57	.73	2.14	1.41
Selfish	**.71**	.00	.49	.67	2.05	1.36
Not in control of his/her emotions	-.04	**.83**	.56	.73	3.82	1.71
Insecure	-.10	**.83**	.49	.69	4.00	1.75
Unstable	.06	**.73**	.55	.71	3.50	1.67
Dependent	.04	**.59**	.35	.58	3.58	1.59
Needy	.29	**.53**	.56	.71	3.09	1.66
Oversensitive	.30	**.51**	.53	.68	3.26	1.77

Note: Results of Exploratory Factor Analysis using principal axis factor extraction with oblique rotation (direct oblimin). N = 587. Bold indicates the strongest factor loadings for each item that met established item retention criteria.
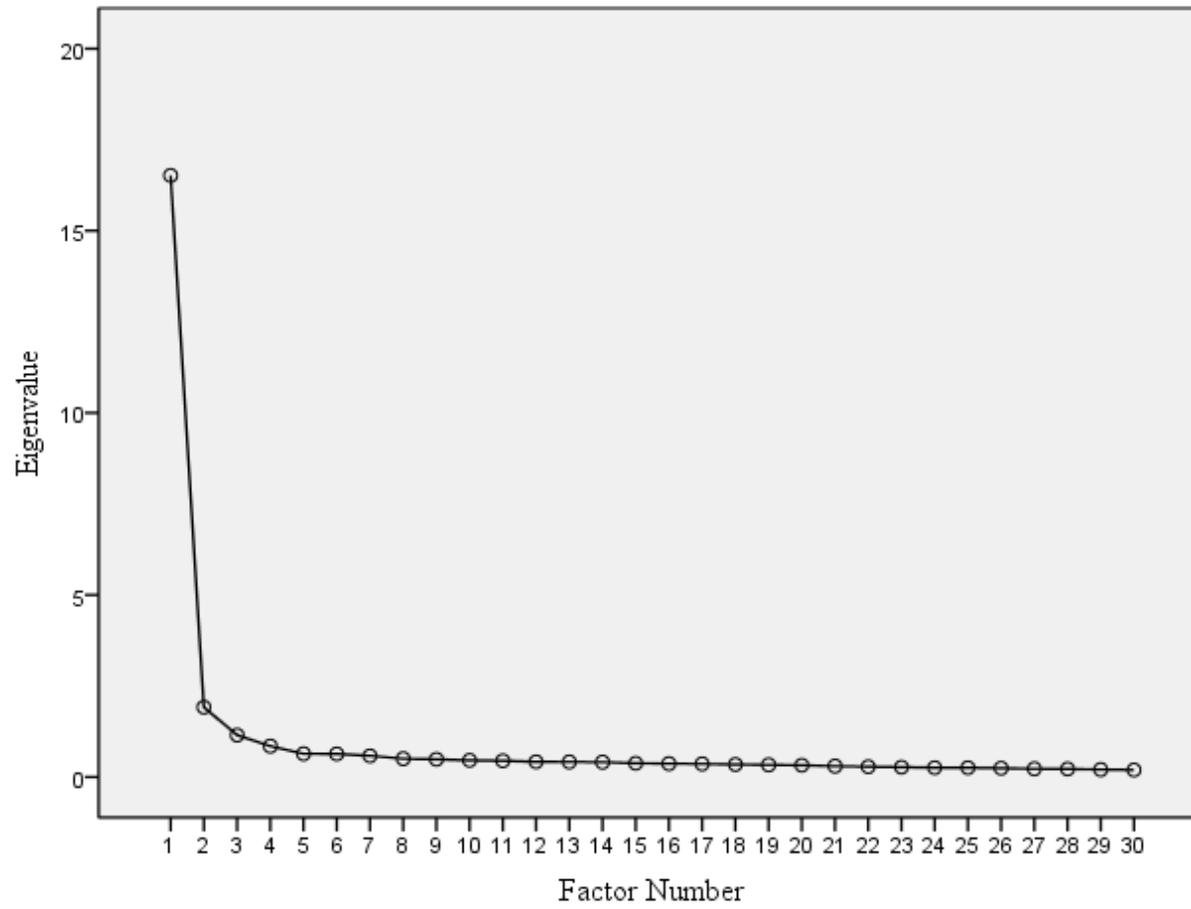
Figure 2. Scree plot for initial Exploratory Factor Analysis.

CHAPTER FOUR

STUDY 2: FOLLOW-UP EXPLORATORY FACTOR ANALYSIS AND CONFIRMATORY
FACTOR ANALYSIS

Study 2 sought to use a series of follow-up Exploratory Factor Analyses (EFAs) and then

a series of Confirmatory Factor Analyses (CFAs) on independent samples to confirm the final

items and factor structure of the HSSS. Participants' responses to individual scale items can be

affected by the nature, number, and order of surrounding items (Weinberger, Darkes, Del Boca,

Greenbaum, & Goldman, 2010). It follows that the factor structure of the 12 HSSS items may

differ whether these items are embedded within a larger set of 30 items (as in Study 1) or

standing alone as just 12 items (as in Study 2). Given the importance of replicable factor

structure for instrument quality and usefulness (Reise, Waller, & Comrey, 2000), a follow-up

EFA was first performed in Study 2 to determine whether the 12 HSSS items continued to (a)

meet item retention criteria and (b) approximate the two-factor simple structure identified in

Study 1. Once the items retained for the final version of the HSSS were confirmed through this

follow-up EFA, a CFA was then used on an independent sample to confirm the factor structure

of the HSSS, per scale development best practices (Worthington & Whittaker, 2006). This

approach allowed for the detection and trimming of potentially problematic items using one

dataset and the subsequent confirmation of the factor structure of the trimmed instrument in a

second, independent dataset (Anderson & Gerbing, 1991). Thus, a large sample that could be

randomly split into two independent sub-samples was collected for Study 2. Sample A ($n = 297$)

was utilized for the follow-up EFA and any necessary item trimming. Sample B ($n = 297$) was

used to confirm the factor model suggested by Sample A on the trimmed version of the HSSS.

Four competing measurement models were tested via CFA to determine which best accounted for the covariation among the HSSS items in Sample B. The results from both Study 1 and Sample A of Study 2 suggested that a hierarchical model or bifactor model may best account for the factor structure of the HSSS. However, given the importance of comparing plausible alternative models, a one-factor model, two-factor oblique model, and a two-factor orthogonal model were also tested. A hierarchical model was not tested because such models generally require three or more first-order factors for the model to converge (Chen, Hayes, Carver, Laurenceau, & Zhang, 2012).

Reise (2012) states that "a bifactor model specifies that the covariance among a set of item responses can be accounted for by a single general factor that reflects the common variance running among all scale items and group factors that reflect additional common variance among clusters of items" and "the general factor represents the conceptually broad 'target' construct an instrument was designed to measure, and the group factors represent more conceptually narrow subdomain constructs" (p. 668). Given the similarities between what are known as hierarchical models (i.e., second-order models) and bifactor models (i.e., general-specific models, nested models), the distinctions will be articulated presently. The second-order factor of a hierarchical model is a superordinate dimension, whereas the general factor of a bifactor model "is on the same conceptual level as the group factors, that is, it represents another possible source of item variance" (Reise, Morizot, & Hays, 2007, p. 22). Said another way, in hierarchical models, the second-order factor is what a set of first-order factors have in common. In bifactor models, the general factor is what a set of items have in common while first-order factors are simultaneously explaining additional common variance across that set of items.

A significant advantage of the bifactor model over the hierarchical model is that the bifactor model allows examination of the group factors independent of the general factor (Chen, West, & Sousa, 2006). This allows researchers to answer two key questions when confirmatory factor analysis suggests that a given instrument is best represented by a bifactor model structure: (a) does the general factor account for sufficient reliable variance across all items to warrant calculating and interpreting the instrument's total score, and (b) do one or more of the group factors account for sufficient reliable variance across their corresponding items to warrant calculating and interpreting the subscale scores associated with those group factors? In short, is it justified to calculate, interpret, and utilize total and/or subscale scores in future research with the instrument. These questions were addressed in Study 2 through the calculation of model-based reliability coefficients.

<div align="center">Method</div>

Participants and Procedure

Participants were recruited from the psychology department's subject pool, which consisted of students majoring in various fields of study who were enrolled in an introductory psychology or communication studies course, and who were compensated with course credit. Participants who participated in the department's mass testing event completed the 12 items of the HSSS, demographic items, and items unrelated to the present investigation that were included by other departmental researchers. After preliminary data screening (see below), I randomly split the dataset in to Sample A ($n = 297$) and Sample B ($n = 297$). Demographics for each sample are provided in Table 1.

Measures

Participants completed questions regarding their gender, race/ethnicity, year in school, whether or not they had ever sought help from a mental health professional (yes/no), an attention check item, and the 12 HSSS items. All items used in Study 2 are provided in Appendix B.

Results and Discussion

Preliminary Data Screening

Data were screened prior to all analyses. The initial dataset contained 627 individuals. To reduce threats to the validity of individuals' responses due to random or inattentive responding (Kurtz & Parish, 2001), an item requesting a certain response was included. Data from those individuals (n = 12) who failed to complete the attention check item was removed. All cases (n = 21) that were found to be missing data on at least one of the 12 items were also removed (i.e., listwise deletion). As a result of this data cleaning, 594 cases were retained for subsequent analysis. In regards to normality, no variables exceeded the cutoffs of 3 and 10 for high skewness and kurtosis values, respectively (Kline, 2005; Weston & Gore, 2006).

Sample A: Follow-Up EFA and Item Trimming of the HSSS

Two EFAs were conducted to determine whether the 12 HSSS items continued to (a) meet item retention criteria and (b) approximate the two-factor simple structure identified in Study 1. The first EFA used principal axis factor (PAF) extraction and direct oblimin (oblique) rotation. Consistent with Study 1, examination of factor retention criteria demonstrated that a two-factor solution was most defensible. After computation of 1,000 random Parallel Analysis data sets, eigenvalues for the first two factors were higher in the actual data set (i.e., 6.57, 1.39, .77; see Table 6) than in the parallel analysis (i.e., 1.32, 1.24, 1.17). A review of the scree plot indicated that two factors preceded the elbow, providing further support for a two-factor solution

(see Figure 3). An examination of the pattern coefficients for the two-factor solution (see Table 7) revealed that 3 items (i.e., oversensitive, needy, dependent) that loaded on the second Unstable factor in Study 1 EFAs failed to load simply on the Unstable factor in the present analysis. Thus, it appears that these three items are not reliable indicators of the second Unstable factor and were trimmed from the HSSS. The remaining nine items loaded on their original factors, met established item retention criteria (see Study 1), and were retained for the final version of the HSSS.

The second EFA used PAF extraction and direct oblimin (oblique) rotation on this final set of 9 items. The first factor accounted for 57.03% of the initial variance (53.15% once extracted) and the second factor accounted for 15.26% of the initial variance (11.35% once extracted), for a total of 72.28% (64.50% once extracted) cumulative variance accounted for. Examination of the pattern coefficients indicated that all items loaded on their respective factors and met established item retention criteria. Table 8 presents the two factors and their respective items, factor loadings, initial communality estimates, corrected item-total correlations, means, and standard deviations. Descriptive statistics for the HSSS total score and subscale scores were as follows: total score ($\alpha = .90$; $M = 3.27$, $SD = 1.26$), Deficient ($\alpha = .91$; $M = 2.54$, $SD = 1.36$), and Unstable ($\alpha = .84$; $M = 4.75$, $SD = 1.50$).

Consistent with Study 1, a Pearson product-moment correlation indicated that the two factors correlated at .55 ($p < .001$). This strong correlation between the two factors once again suggested that a bifactor model may best account for HSSS' factor structure. This possibility was explored via Confirmatory Factor Analysis with data from Sample B.

Sample B: Confirmatory Factor Analysis of the HSSS

To examine the factor structure of the HSSS, a series of CFAs on the correlation matrix using Full Information Maximum Likelihood (FIML) estimation in MPLUS (Version 6.11) on data from Sample B (see Table 9 for inter-item correlations, means, and standard deviations) was conducted. Because the multivariate data were not normal (Scaling Correction Factor = 1.26), Mplus' MLM option for maximum likelihood estimation was used, which calculates a corrected/scaled chi-square test statistic (S-R χ^2; Satorra & Bentler, 1988). Model fit was evaluated using the Satorra-Bentler scaled chi-square goodness-of-fit test (S-B $\chi2$), Root Mean Square Error of Approximation (RMSEA; $< .06$), Comparative Fit Index (CFI; $> .95$), Tucker-Lewis Index (TLI; $> .95$) and Standard Root Mean Square Residual (SRMR; $< .08$; Martens, 2005). The one-factor model, two-factor orthogonal model, and two-factor oblique model were all nested within the bifactor model. Thus, scaled chi-square difference tests (ΔS-Rχ^2) and Bayesian information criterion (BIC) values were used to compare the fit of each model. A BIC value difference exceeding 10 provides strong evidence of model fit difference (Kass & Raftery, 1995): the model with the lower BIC value is considered to have superior model fit.

The fit indices of the four models are presented in Table 10. Notably, only the bifactor model demonstrated an acceptable degree of fit according to all fit indices calculated. Also, scaled chi-square difference tests and examination of BIC value difference revealed that the bifactor model fit better than the: (a) one-factor model, ΔS-Rχ^2 (9) = 193.20, $p < .001$, ΔBIC = 230.69; (b) two-factor orthogonal model, ΔS-Rχ^2 (9) = 143.51, $p < .001$, ΔBIC = 119.10; and (c) two-factor oblique model, ΔS-Rχ^2 (8) = 59.79, $p < .001$, ΔBIC = 59.79. In summary, the results suggest that among the models considered, the bifactor model had the best fit to the data. The item loadings for the bifactor model are displayed in Table 11. Descriptive statistics for the

HSSS total score and subscale scores were as follows: total score (α = .92; M = 3.22, SD = 1.25), Deficient (α = .92; M = 2.53, SD = 1.38), and Unstable (α = .80; M = 4.59, SD = 1.54).

To determine whether it is justified to calculate, interpret, and utilize total and/or subscale scores for the HSSS, it is necessary to determine if the general factor (i.e., the total score), Deficient factor, and/or Unstable factor account for sufficient reliable variance in their constituent items to warrant interpretation. The coefficient omega hierarchical (ω_H; McDonald, 1999) quantifies this form of model-based reliability when the data in question are consistent with a bifactor structure. It can range from 0 (no reliability) to 1 (perfect reliability)—the same metric as Cronbach alpha, which is an inappropriate measure of reliability when constructs conform to a bifactor structure. If ω_H is adequate, the HSSS total score "predominantly reflects a single common source even when the data are multidimensional" (Reise, 2012, p. 689). Similarly, the coefficient omega subscale (ω_S) is a version of ω_H that estimates the reliability for a given subscale while controlling (i.e., partialling out) the part of the reliability due to the general factor. If ω_S is adequate for a given HSSS subscale, the subscale score for that subscale can be treated as a reliable indicator of the construct embodied by that subscale.

The three coefficients were calculated by hand (Brunner, Nagy, & Wilhelm, 2012). The value of ω_H = .70 indicated adequate reliability of the general HSSS factor and thus calculation and interpretation of the HSSS total score is permissible. It should be noted that, when a traditional Cronbach alpha is calculated for the HSSS total score, the value is .91. In contrast, the value of ω_S = .36 for the Deficient subscale and ω_S = .30 for the Unstable subscale indicates inadequate reliability of these group factors and thus calculation and interpretation of these subscale scores is not permissible. In summary, the present results suggest that (a) the HSSS total score may be considered an internally consistent measure of the general construct of help-

seeker stereotype endorsement and (b) the Deficient and Unstable subscales should not be used

in future research for any purpose.

Table 6

Eigenvalues for Follow-Up Exploratory Factor Analysis

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	**6.57**	54.76	54.76	6.19	51.56	51.56	5.85
2	**1.39**	11.58	66.34	1.03	8.59	60.15	4.01
3	.78	6.47	72.81				
4	.60	4.98	77.80				
5	.55	4.62	82.42				
6	.46	3.80	86.21				
7	.39	3.26	89.47				
8	.30	2.52	91.99				
9	.28	2.31	94.30				
10	.25	2.08	96.38				
11	.24	2.00	98.38				
12	.19	1.62	100.00				

Note. Results of initial Exploratory Factor Analysis using principal axis factor extraction and direct oblimin (oblique) rotation. N = 297. Bold factor eigenvalues are those which were higher than the corresponding factor eigenvalues generated by the Parallel Analysis.

Table 7

Factor Loadings for Follow-Up Exploratory Factor Analysis

Item	F1: Deficient	F2: Unstable
Selfish	**.89**	-.15
Untrustworthy	**.88**	-.12
Cowardly	**.86**	-.04
Inadequate	**.79**	-.01
Incompetent	**.66**	.18
Pitiful	**.62**	.25
Needy	.61	.21
Oversensitive	.58	.25
Dependent	.53	.04
Unstable	.01	**.86**
Insecure	-.02	**.72**
Not in control of his/her emotions	.15	**.72**

Note: Results of Exploratory Factor Analysis using principal axis factor extraction with oblique rotation (direct oblimin). N = 297. Bold indicates the strongest factor loadings for each item that met established item retention criteria and loaded on its intended factor.

Table 8

Items, Factor Loadings, Initial Communality Estimates, Corrected Item-Total Correlations, Means, and Standard Deviations for the Final Version of the Help Seeker Stereotypes Scale (Sample A)

Item	F1: Deficient	F2: Unstable	h2	Item-total r	M	SD
Untrustworthy	**.86**	-.07	.68	.70	2.26	1.54
Cowardly	**.84**	.00	.65	.74	2.30	1.71
Selfish	**.83**	-.09	.64	.66	2.24	1.39
Inadequate	**.78**	.02	.61	.70	2.58	1.68
Incompetent	**.65**	.21	.62	.75	2.78	1.73
Pitiful	**.60**	.29	.63	.76	3.06	1.78
Unstable	-.01	**.89**	.62	.64	4.70	1.73
Insecure	-.04	**.73**	.44	.51	4.92	1.65
Not in control of his/her emotions	.12	**.71**	.59	.64	4.62	1.82

Note: Results of Exploratory Factor Analysis using principal axis factor extraction with oblique rotation (direct oblimin). N = 297. Bold indicates the strongest factor loadings for each item that met established item retention criteria.

Table 9

Inter-Item Correlations, Means, and Standard Deviations for the Final Version of the Help-Seeker Stereotype Scale (Sample B)

Item	1	2	3	4	5	6	7	8	9	*M*	*SD*
1. Untrustworthy										2.16	1.45
2. Selfish	.79									2.42	1.51
3. Cowardly	.67	.71								2.19	1.60
4. Inadequate	.69	.74	.76							2.58	1.72
5. Pitiful	.63	.64	.60	.66						2.96	1.66
6. Incompetent	.62	.62	.62	.67	.66					2.86	1.75
7. Unstable	.35	.34	.33	.41	.49	.49				4.57	1.73
8. Not in control of his/her emotions	.37	.41	.37	.45	.45	.48	.75			4.66	1.77
9. Insecure	.31	.31	.35	.40	.49	.43	.51	.45		4.53	1.59

Note. n = 297.

Table 10

Goodness-of-Fit Indicators for Competing Measurement Models of the Help-Seeker Stereotype Scale

Model	*df*	*S-R χ2*	RMSEA	90% CI	CFI	SRMR	BIC
One-Factor	27	241.66*	.16	[.15, .18]	.83	.09	8889.41
Two-Factor Orthogonal	27	169.74*	.13	[.12, .15]	.89	.24	8777.82
Two-Factor Oblique	26	93.37*	.09	[.07, .11]	.95	.06	8692.56
Bifactor	18	32.33*	.05	[.02, .08]	.99	.02	8658.72

Note. n = 297. S-R χ2 = Satorra and Bentler's (2001) adjusted chi-square; RMSEA = root-mean-square error of approximation; CI = confidence interval for RMSEA; CFI = comparative fit index; SRMR = standardized root-mean-square residual; BIC = Bayesian information criterion

* $p < .01$

Table 11

Confirmatory Factor Analysis Loadings for the Help Seeker Stereotypes Scale

Parameter	Unstandardized	*SE*	Standardized
Deficient factor			
Untrustworthy	1.00	—†	.67*
Selfish	1.12	.10	.72*
Cowardly	.90	.15	.55*
Inadequate	.91	.16	.51*
Pitiful	.54	.12	.31*
Incompetent	.56	.17	.31*
Unstable factor			
Unstable	1.00	—†	.73*
Not in control of his/her emotions	.71	.34	.51*
Insecure	.21	.15	.16
General factor			
Untrustworthy	1.00	—†	.54*
Selfish	1.05	.10	.55*
Cowardly	1.22	.16	.60*
Inadequate	1.50	.18	.68*
Pitiful	1.60	.22	.76*
Incompetent	1.68	.20	.75*
Unstable	1.40	.33	.64*
Not in control of his/her emotions	1.37	.30	.61*
Insecure	1.25	.31	.62*

Note. n = 297.

† Not tested for statistical significance because these values were scaling constants.
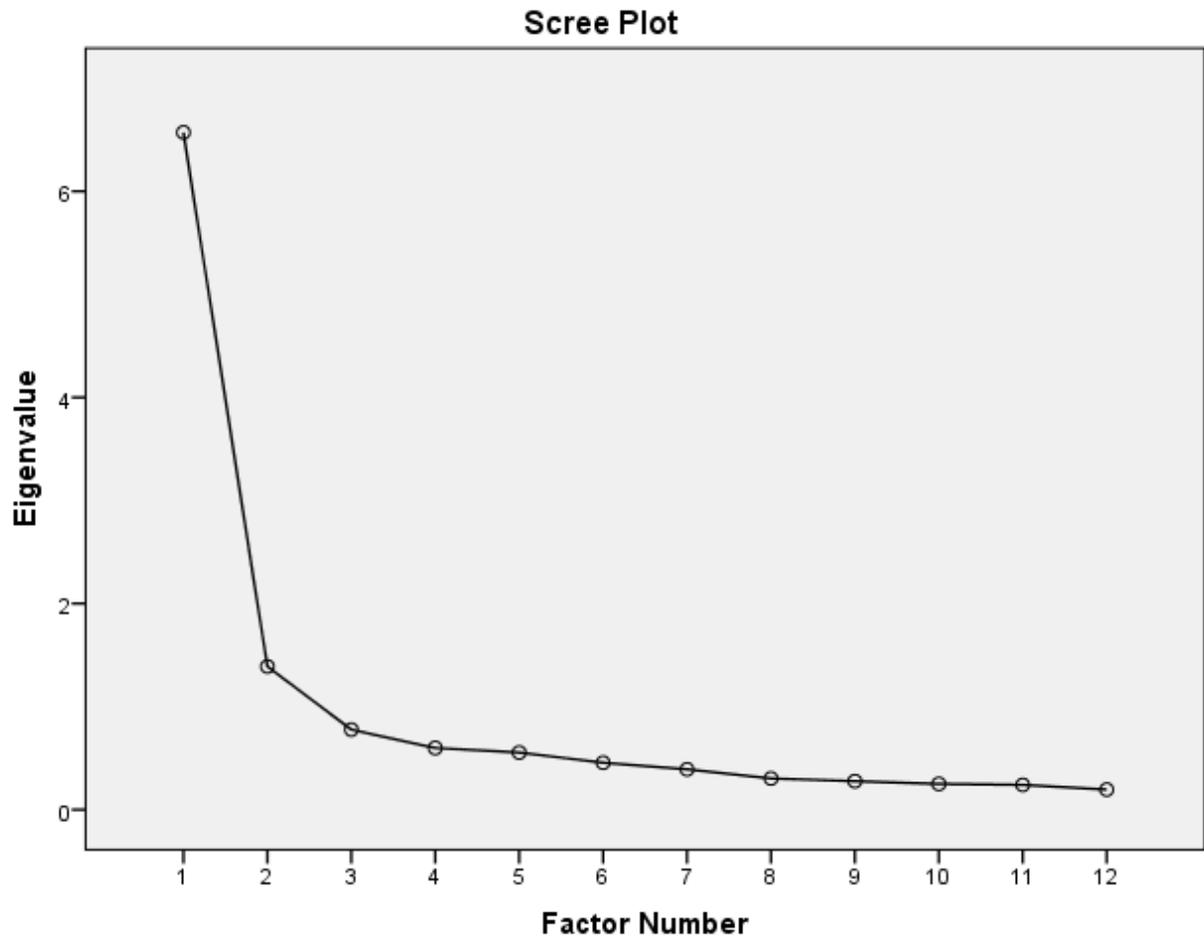
* Significant at *p* < .001

Figure 3. Scree plot for follow-up Exploratory Factor Analysis.

CHAPTER FIVE

STUDY 3: CONVERGENT AND INCREMENTAL VALIDITY

Study 3 examined the convergent and incremental validity of the Help-Seeker Stereotype

Scale (HSSS), with particular attention to the HSSS's associations with established help-seeking

and stigma-related constructs.

Convergent Validity

Given that stereotype endorsement is conceptualized by stigma scholars as one

component of a larger stigma process, it is important to determine whether or not HSSS relates to

other stigma constructs in theoretically-expected ways. The HSSS was designed to measure the

strength of respondents' endorsement of stereotypes about people who seek help from a

psychologist. Thus, the HSSS can be considered an operationalization of the first step of self-

stigma (i.e., "agreement"). Given that the first step of self-stigma been found to positively

correlate with the second and third steps of self-stigma among people with mental illness

(Corrigan et al., 2006; Corrigan, Rafacz, & Rusch, 2011), the HSSS should demonstrate a

positive relationship with a measure that operationalizes the second and third steps of stigma in

the help-seeking context, such as Vogel et al.'s (2006) *Self-Stigma of Seeking Help scale*

(SSOSH). In other words, individuals who believe that people who seek help are pitiful,

unstable, and needy should be more likely to derogate themselves if they were to seek help.

Therefore, I anticipated that stronger help-seeker stereotype endorsement would be associated

with greater self-stigma of seeking help. Second, public stigma of seeking help is thought to be

the primary precursor to self-stigma of seeking help, due to gradual internalization of society's

negative messages about people who seek help (Vogel et al., 2006). Therefore, I anticipated that

stronger help-seeker stereotype endorsement, as the first step of self-stigma, would be associated with greater public stigma of seeking help. Third, self-stigma of seeking help has been shown to be a strong inverse predictor of attitudes toward seeking professional psychological help (Vogel et al., 2006). Therefore, I anticipated that stronger help-seeker stereotype endorsement, as the first step of self-stigma, would be associated with more negative attitudes toward seeking professional psychological help. Fourth, because the stigma of seeking help is closely related to, yet independent from, the stigma of mental illness (Tucker et al., 2013), I anticipated that stronger help-seeker stereotype endorsement would be positively associated with stronger mental illness stereotype endorsement.

<div align="center">Incremental Validity</div>

Support for the incremental validity of an instrument is demonstrated when the instrument demonstrates the ability to account for unique variance in theoretically relevant criterion variables above and beyond the variance accounted for by competing theoretically-relevant predictors (Hoyt, Warbasse, & Chu., 2006). It was noted previously that stereotype agreement/endorsement is considered by some scholars (Corrigan et al., 2006) to be the primary antecedent to the second and third steps of self-stigma, labeled application (i.e., "These stereotypes apply to me because I have sought help") and harm to self-esteem (i.e.," I currently respect myself less because there stereotypes apply to me"), respectively. However, empirical research has previously suggested that the public stigma of seeking help is the primary antecedent to the self-stigma of seeking help (Vogel, Wade, & Ascheman, 2009). Therefore, to demonstrate the incremental validity of the HSSS, it is necessary to demonstrate that the HSSS accounts for unique variance in self-stigma of seeking help beyond the variance accounted for by

public stigma. I anticipated that help-seeker stereotype endorsement would account for unique variance in the self-stigma of seeking help when controlling for public stigma.

<div align="center">Method</div>

Participants and Procedure

Participants were recruited from the psychology department's subject pool, which consisted of students majoring in various fields of study who were enrolled in an introductory psychology or communication studies course, and who were compensated with course credit. The study was described as a study of the factors influencing opinions about seeking help. After indicating their informed consent, participants were presented with the survey measures. Lastly, participants were presented with the debriefing script. Demographics are provided in Table 1.

Measures

All instruments used in Study 3 are provided in Appendix C.

Help-Seeker Stereotype Scale (HSSS). The 9-item HSSS was designed to measure the strength of respondents' endorsement of negative, self-esteem harming stereotypes about people who seek help from a psychologist. The instructions, noted previously, can be viewed in Appendix B. Items are answered on a 7-point scale, from 1 (*not at all*) to 7 (*very much*), with higher scores indicating stronger stereotype agreement. The internal consistency of the HSSS was .90 (per Cronbach alpha) and .86 (per Omega Hierarchical) in the present sample, while the mean was 3.25 ($SD = 1.18$).

Self-Stigma of Seeking Help. The 10-item Self-stigma of Seeking Help scale (SSOSH; Vogel et al., 2006) was used to measure to what degree participants feel their self-esteem would be threatened if they sought professional psychological help. An example item is "I would feel inadequate if I went to a therapist for psychological help." Participants respond using a 5-point

scale 1 (*strongly disagree*) to 5 (*strongly agree*), with higher scores indicating greater self-stigma. Five items are reverse-coded. The SSOSH demonstrated through correlations with attitudes toward counseling ($r = -.63$), intentions to seek counseling ($r = -.38$), and the public stigma of seeking help ($r = .48$; Vogel et al., 2006). The SSOSH has demonstrated adequate test-retest reliability over a period of 2 months ($\alpha = .72$) and adequate internal consistency ($\alpha = .89$), and had an internal consistency of .89 in the current sample.

Public Stigma of Seeking Help. The 5-item Social Stigma of Receiving Psychological Help scale (SSRPH; Komiya, Good, & Sherod, 2000) assesses perceived public stigma of seeking help. An example item is "People will see a person in a less favorable way if they come to know that he/she has seen a psychologist." Participants respond using a 4-point Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*), with higher scores indicating greater public stigma. The SSRPH has demonstrated concurrent validity through correlations with attitudes toward seeking professional psychological help ($r = -.40$; Komiya, Good, & Sherrod, 2000). The SSRPH has demonstrated adequate internal consistency (α's > .71), and had an internal consistency of .75 in the current sample.

Attitudes Toward Seeking Professional Psychological Help. The 10-item Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPH; Fischer & Farina, 1995) assesses attitudes toward seeking professional psychological help. An example item is "The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts." Participants respond using a 4-point scale ranging from 0 (disagree) to 3 (agree), with higher scores indicating more positive attitudes toward seeking help. The ATSPPH has demonstrated concurrent validity through associations with intentions to seek help ($r = .50$; Vogel, Wade, & Hackler, 2007) and past psychological help seeking ($r = .39$; Fischer & Farina,

1995). The ATSPPH has demonstrated adequate internal consistency ($\alpha = .84$), and had an internal consistency of .82 in the current sample.

Mental Illness Stereotype Endorsement. The 10-item stereotype agreement subscale of the Self-Stigma of Mental Illness Scale (SSMIS-SA; Corrigan et al., 2006) assesses degree of endorsement of stereotypes about people with mental illness. An example item is "I think most persons with mental illness are to blame for their problems." Participants respond using a 9-point scale from 1 (*I strongly disagree*) to 9 (*I strongly agree*), with higher scores indicating greater mental illness stereotype endorsement. The stereotypes assessed were adapted from the Devaluation-Discrimination subscale of Link's (1982) perceived stigma measure. The stereotype agreement subscale has demonstrated concurrent validity through associations with self-concurrence ($r = .55$) and self-esteem decrement ($r = .47$). The stereotype agreement subscale has demonstrated adequate internal consistency ($\alpha = .72$) and adequate test-retest reliability ($r = .68$), and had an internal consistency of .91 in the current sample.

Demographics. Participant gender, race/ethnicity, and year in school were also assessed.

Results and Discussion

Data Analysis Plan

Preliminary Data Screening. Data were screened prior to analysis. The initial dataset contained 238 individuals. First, all cases ($n = 7$) missing substantial data (i.e., > 20% missingness on items on any given instrument) were removed. To reduce threats to the validity of individuals' responses due to random or inattentive responding (Kurtz & Parish, 2001), items asking participants to select a certain response (e.g., "Please select 'strongly agree' for this item") were interspersed throughout the survey. Data from those individuals ($n = 5$) who failed more than once to respond accurately was removed. In the retained sample ($n = 226$), missing

data ranged from a low of 0% for several scales to a high of 3.1% for the ATSPPH. Little's

missing completely at random (MCAR) test was performed and found to be non-significant ($p =$

.06), indicating the missing cases were not significantly different from the non-missing cases.

Parent (2013) provided empirical evidence for the equivalent performance of multiple

imputation and available case analysis (i.e., pair-wise deletion in SPSS) when the following

criteria are met: (a) data is not MNAR, (b) less than 10% of all data on each scale is missing, (c)

sample size is not small (i.e., significantly larger than 50 participants), (d) instruments

demonstrate adequate internal reliability, and (e) instruments contain more than four items.

These criteria were met for all planned convergent and incremental validity analyses that

involved the use of a variable with at least one instance of missing data. Therefore, pairwise

deletion was used for all Study 3 analyses.

In regards to normality, no variables exceeded the cutoffs of 3 and 10 for high skewness

and kurtosis values, respectively (Kline, 2005; Weston & Gore, 2006). To check for univariate

outliers I examined the z-scores for each of the measures (Tabachnick & Fidell, 2001). No

outliers were found for the HSSS, self-stigma of seeking help, attitudes toward seeking

professional psychological help, and mental illness stereotype endorsement instruments. There

were five outlier cases at $p < .001$ (i.e. z-scores above 3.29) on the public stigma of seeking help

instrument. Upon further examination, these cases were found to be a legitimate case rather than

a product of a coding error or sampling error. Therefore, winsorization (i.e. changing outliers to

the next most extreme score) rather than removal was chosen as the most appropriate method of

addressing these outliers (Barnett & Lewis, 1994; Erceg-Hurn & Mirosevich, 2008; Weston &

Gore, 2006). Winsorization "preserves the information that a case had among the highest (or

lowest) values in a distribution but protects against some of the harmful effects of outliers"
(Reifman & Keyton, 2010, p. 1637).

To check for multivariate outliers, I examined Mahalanobis distances among the
variables (Tabachnick & Fidell, 2001). One multivariate outlier case was detected at $p < .001$
and subsequently removed. After all data screening procedures were completed, the final sample
size used in subsequent analyses was $N = 225$.

Convergent Validity

To investigate the convergent validity of the HSSS, a series of bivariate Pearson
correlations between the HSSS and each of the criterion measures was conducted (see Table 12).
In support of the HSSS' convergent validity, the HSSS demonstrated the theoretically-expected
correlations with self-stigma of seeking help ($r = .35$, $p < .001$), public stigma of seeking help ($r
= .19$, $p = .004$), attitudes toward seeking professional psychological help ($r = -.23$, $p = .001$),
and mental illness stereotype endorsement ($r = .51$, $p < .001$).

Incremental Validity

To investigate the incremental validity of the HSSS, a hierarchical linear regression
analysis was conducted wherein public stigma of seeking help was entered at Step 1, the HSSS
was entered at Step 2, and self-stigma of seeking help was entered as the criterion variable. In
Step 1, public stigma of seeking help ($\beta = .34$, $p < .001$) explained 11% of the variance in self-
stigma of seeking help. In Step 2, the HSSS ($\beta = .30$, $p < .001$) explained an additional 8% of
the variance in self-stigma of seeking help, supporting the incremental validity of the HSSS (ΔR^2
$= .09$, $p < .001$).

Table 12

Correlations, Means, and Standard Deviations for Study 3 Instruments

Item	1		2		3		4		5	*M*	*SD*
1. HSSS										3.24	1.18
2. SSOSH	.35	**								2.69	.70
3. SSRPH	.19	*	.34	**						2.39	.43
4. ATSPPH	-.23	*	-.68	**	-.21	*				1.64	.48
5. SSMIS-SA	.51	**	.36	**	.19	*	-.32	**		3.13	1.29

Note. n = 225. HSSS = Help-Seeker Stereotype Scale; SSOSH = Self-Stigma of Seeking Help; SSRPH = Public Stigma of Seeking Help; ATSPPH = Attitudes Toward Seeking Professional Psychological Help; SSMIS-SA = Mental Illness Stereotype Endorsement

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

CHAPTER EIGHT

GENERAL DISCUSSION

The purpose of the present investigation was to develop an instrument that measures the strength of respondents' endorsement of negative, self-esteem harming stereotypes about people who seek help from a psychologist. After describing how the results of this investigation provide evidence in support of the reliability and validity of the Help-Seeker Stereotype Scale (HSSS), I will then describe on how the HSSS can be used in to address unanswered questions raised in the help seeking literature. Before concluding, I will discuss how future research can address the limitations of the present investigation as well as the clinical implications of the present investigation.

Evidence for the Reliability and Validity of the Help-Seeker Stereotype Scale

Results from this investigation's three studies provide initial support for the reliability and validity of the HSSS. Study 1 involved the Exploratory Factor Analysis (EFA) of a revised item pool of 30 items, resulting in the identification of a possible two-factor structure for the HSSS. Six items per factor were then selected to form the initial version of the HSSS.

Study 2 used follow-up EFAs to provide further support for the anticipated two-factor structure and allow the trimming of problematic items from the Unstable subscale, resulting in the final nine-item version of the HSSS. The factor structure of this final version was then explored via Confirmatory Factor Analysis (CFA) in an independent sample, leading to the identification of a model that best captured the covariance of the HSSS items: a bifactor model. Calculation of omega hierarchical and omega subscale reliability coefficients revealed that the HSSS total score predominantly reflects a single common source of variance despite the

presence of multidimensionality represented by the two subscales. Importantly, these statistics suggest that the HSSS total score may be considered an internally consistent measure of the general construct of help-seeker stereotype endorsement, whereas the Deficient and Unstable subscales scores may not be considered internally consistent measures of those narrower subdomain constructs (Reise, 2012). The finding that the subscales of popular, multidimensional instruments (e.g., Beck Depression Inventory-II; Toronto Alexithymia Scale-20; Wechsler Adult Intelligence Scale-IV; Posttraumatic Growth Inventory) are insufficiently reliable—once the reliability due to the general factor is accounted for—to warrant calculations and interpretation is a common outcome of studies that subject instruments to bifactor modeling analysis (see Brouwer, Meijer, Zevalkink, 2012; Gignac, Palmer, & Stough, 2007; Gignac & Watkins, 2013; Thege, Kovacs, & Balog, 2014; respectively). Thus, as with these instruments, the HSSS total score, but not its subscale scores, can be used in future research. In summary, Study 2 provided evidence for the HSSS's bifactor structure and the internal consistency of the HSSS total score.

Study 3 examined the validity of the HSSS. In regards to convergent validity, I investigated whether or not the HSSS correlates with other help seeking and stigma-related constructs in theoretically-expected ways. In each case, the HSSS demonstrated the theoretically-expected correlation with each criterion variable. First, the progressive model of self-stigma and empirical findings suggest that stereotype endorsement should correlate positively with the later stages of self-stigma. Given the parallel natures of mental illness stigma and help seeking stigma, it was expected that the HSSS should demonstrate a positive association with the self-stigma of seeking help, which the results found to be the case. Second, given that public stigma is theorized to be the primary precursor to self-stigma (Vogel et al., 2006) and that stereotype endorsement is the first step of self-stigma, it was expected that the

HSSS should demonstrate a positive relationship with public stigma of seeking help. Results supported this hypothesis. Third, given that self-stigma of seeking help has been shown to be a strong inverse predictor of attitudes toward seeking professional psychological help (Vogel et al., 2006) and that stereotype endorsement is the first step of self-stigma, it was expected that the HSSS should demonstrate a negative association with attitudes toward seeking professional psychological help, which was found to be the case. Fourth, consistent with research establishing the close parallel between mental illness stigma and help seeking stigma (Tucker et al., 2013), the HSSS positively correlated with mental illness stereotype endorsement. In support of the HSSS' incremental validity, the HSSS explained additional variance in the self-stigma of seeking help beyond the variance accounted for by public stigma of seeking help and. This suggests that the HSSS captures a construct which holds independent explanatory power in predicting relevant help seeking variables. Taken together, Study 3 analyses provided initial support for the validity of the HSSS. Furthermore, similar to Study 2, the Omega Hierarchical reliability coefficient was calculated in Study 3 and provides additional support for the internal consistency of the HSSS's total score. In summary, the results of this three-study, four-sample investigation suggest that the HSSS is a promising measure of help-seeker stereotype endorsement.

<div align="center">Addressing Limitations through Future Research</div>

The psychometric strengths of the HSSS outlined above should be considered in light of the limitations of the present investigation. First, these studies relied on majority-Caucasian samples drawn from a University population at one Midwestern university. Thus, further examination of the cross-cultural reliability and validity of the HSSS among diverse groups (e.g., race/ethnicity, geographic location, college vs. community vs. inpatient) is recommended. This

is particularly true, given that the self-stigma of seeking help—of which stereotype endorsement

is the first step—has been found to vary across cultures (e.g., Vogel et al., 2013).

Second, as with all cross-sectional research, the correlations reported in Study 3 do not

offer evidence regarding the temporal causality of these constructs. For this reason,

experimental (e.g., in which participants in the experimental condition are primed with help-

seeker stereotypes) and longitudinal (e.g., examination of the internalization of public stigma

into self-stigma via stereotype endorsement) research is encouraged to gain a clearer

understanding of the causal relationships between stereotype endorsement and other theoretically

relevant constructs.

Third, the test-retest reliability of the HSSS was not examined in the present

investigation. Examination of the HSSS' temporal stability is a worthwhile next step. Fourth,

the mental health of participants in these studies was not assessed. Because people with mental

illness is one population of particular interest in stigma of seeking help research, future

researchers may want to specifically examine the psychometric properties of the HSSS within

this population. Fifth, because participants in Studies 1 and 3 were initially informed that the

questions would be about help seeking, participants could have self-selected based on their

interest in and comfort with the topic; those who chose not to participate may have been different

than those who did. Sixth, participants may have found it socially desirable to underreport their

endorsement of help seeker stereotypes. Therefore, examination of the relationship between the

HSSS and instruments that assess the tendency to respond in a socially desirable manner could

help provide support for the discriminant validity of the HSSS.

Finally, participants' mean scores on the final version of the HSSS ranged from 3.22 to

3.27 across the three samples. These scores are all lower than the HSSS' response scale (i.e., 1

[not at all] to 7 [very much]) midpoint of 4. While the positive skew of the HSSS mean score within these samples is less than ideal from a measurement perspective, this suggests that participants from the college population may genuinely tend to see these negative stereotypical attributes as only somewhat descriptive of help seekers. It should also be noted that this degree of positive skew is consistent with the skew of Corrigan and colleagues' (2011) measure of mental illness stereotype endorsement ($M = 30$ on a 10 to 90 score range).

Implications for Research

Results suggest that help-seeker stereotype endorsement, like mental illness stereotype endorsement, is significantly related to various help seeking and stigma-related outcomes. For example, the HSSS demonstrated a negative association with attitudes toward seeking professional psychological help ($r = -.23$). Interestingly, the strengths of this association parallel the strength of published associations between mental illness stereotype endorsement and professional psychological help-seeking attitudes (e.g., $r = .13$ to $-.41$; Brown et al., 2010; Coppens et al., 2013; Cooper, Corrigan, & Watson, 2003; Loya et al., 2010). Thus, the present data suggest that help-seeker stereotype endorsement may be just as important of a factor as mental illness stereotype endorsement in influencing help-seeking outcomes. However, future research is needed to determine whether these two constructs are independent, additive, and/or interactive predictors of key help-seeking outcomes.

Results also indicate that help-seeker stereotype endorsement correlates with both stereotype awareness (i.e., public stigma of seeking help) and a combined measure of stereotype application and harm to self-esteem (i.e., the Self-Stigma of Seeking Help scale), in line with the theoretical tenets of Corrigan and colleagues' (2006) progressive model of self-stigma. These findings provide initial support for the utility of the progressive model in the context of help-

seeking stigma. However, to fully investigate this issue, it will be first necessary to use Corrigan

and colleagues' (2006) procedure to adapt the HSSS, which measures only the second construct

in the model (i.e., stereotype endorsements), to create parallel subscales for the three other

constructs in the model. Then, by expanding upon the testing procedures used by Corrigan and

colleagues (2006; 2011), the validity and utility of the model for help-seeking self-stigma can be

formally investigated.

Lastly, now that an instrument (i.e., the HSSS) exists that can account for highly

unfavorable stereotype attributes that some people attribute to those who seek help from a

psychologist, researchers can proceed to clarify the role of help-seeker prototypes in influencing

people's willingness to seek professional psychological help (Hammer & Vogel, 2013).

Operationalizing the favorability of respondents' mental images of the typical help seeker via the

HSSS may offer utility for improving prediction of respondents' willingness to seek help. Future

research, in which the HSSS is used to operationalize help seeker prototype favorability, is

needed to formally investigate this possibility.

<div align="center">Implications for Prevention and Practice</div>

The present data suggest that greater help-seeker stereotype endorsement is associated

with poorer attitudes towards seeking professional psychological help. The progressive model of

self-stigma (Corrigan et al., 2006) also suggests that help-seeker stereotype endorsement is the

first step towards applying these self-esteem-harming stereotypes to oneself. Therefore,

reducing people's endorsement of these negative stereotypes about help seekers could help

prevent people who have mental health concerns from avoiding treatment, for fear of being

forced to apply these degrading stereotypes to themselves and experiencing decreased self-

esteem as a result. In addition to this reduction in internalized stigma, reducing the public's level

of stereotype endorsement may also reduce the likelihood that people will discriminate against those within their communities who choose to seek help. Public workshops, informational websites, and public service announcements are all potential ways of addressing these attitudes at the community and national levels. Within the clinical context, counselors could administer the HSSS during client intakes to determine the degree to which a given client negatively stereotypes help seekers, which can provide counselors with a sense of how important of a role these stigmatized perceptions may still be playing in this client's journey to getting professional help. In fact, descriptive examination of item-level responses could provide therapists with a sense of what specific maladaptive beliefs about help seekers are most salient for a given client. For example, some clients may believe that help seekers are pitiful, while other clients may believe help seekers are selfish. The counselor could directly explore in session how the client's belief that help seekers are "pitiful" or "selfish" has impacted the client's view of him or herself, and explore ways of helping the client to challenge this maladaptive belief. In fact, challenging such beliefs is important, given that greater self-stigma has been linked to poorer treatment adherence and premature termination (Fung, Tsang, & Corrigan, 2007; Wade, Post, Cornish, Vogel, & Tucker, 2011).

Conclusion

Results from this investigation's three studies provide initial support for the reliability and validity of the HSSS when used with college students. The ability to assess help-seeker stereotype endorsement can facilitate future insight into the influence of stereotype endorsement on help-seeking outcomes, the utility of the progressive model of self-stigma in the help-seeking context, and the utility of assessing the favorability of respondents' mental image of the typical help seeker when seeking to predict willingness to seek help. It is hoped that additional research

into these topics will inform future prevention and intervention efforts aimed at increasing the

willingness of people with mental illness to seek professional psychological help.

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APPENDIX A

HELP-SEEKER STEREOTYPE SCALE ORIGINAL ITEM POOL

1. a failure
2. attention-seeking
3. clueless
4. cowardly
5. crazy
6. dependent
7. detached
8. emotionally-unstable
9. feminine
10. helpless
11. ignorant
12. inadequate
13. incapable
14. incapable of solving his/her own problems
15. incompetent
16. indecisive
17. inexperienced
18. inferior
19. insane
20. insecure
21. irresponsible
22. lacks willpower
23. lazy
24. loser
25. morally weak
26. needy
27. neurotic
28. not in control of his/her emotions
29. odd
30. out of control
31. over-sensitive
32. paranoid
33. pathetic
34. pessimistic
35. pitiful
36. powerless
37. self-centered
38. selfish
39. stoic
40. submissive
41. unreliable

42. unstable
43. untrustworthy
44. vulnerable
45. weak
46. weak-willed
47. weird
48. whiny
49. wimp
50. worthless

APPENDIX B

STUDY 2 INSTRUMENTS

Help-Seeker Stereotype Scale

We are interested in your ideas about typical members of a particular group. For example, we all have ideas about what typical movie stars are like or what the typical grandmother is like. When asked if we could describe one of these images, we might say that we think the typical movie star is pretty or rich, or that the typical grandmother is sweet and frail. We are not saying that all movie stars or all grandmothers are exactly alike, but rather that many of them share certain characteristics.

Take a moment to imagine the typical person who seeks help from a psychologist. To what extent does each of the following characteristics describe the typical person who seeks help from a psychologist?

1 (*not at all*) to 7 (*very much*)

Insecure
Pitiful
Unstable
Incompetent
Needy
Not in control of his/her emotions
Selfish
Untrustworthy
Dependent
Inadequate
Cowardly
Oversensitive

Past HS

Have you ever sought help from a mental health professional (e.g., psychologist, psychiatrist, social worker, or counselor)?
No
Yes

Gender

Male
Female
Other

Ethnicity/Race

White (Non-Hispanic)
African American or Black

Asian American or Pacific Islander
Hispanic or Latino/a
Native American or Alaskan Native
Other

What year in school are you?
First
Second
Third
Fourth
Other

Attention Check Item
While watching television have you ever had a fatal heart attack?
1 (Never)
2
3
4
5
6
7 (Often)

APPENDIX C

STUDY 3 INSTRUMENTS

Help-Seeker Stereotype Scale (see APPENDIX B)

Self-Stigma of Seeking Help - SSOSH
> *Directions: 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*
>> I would feel inadequate if I went to a therapist for psychological help.
>> My self-confidence would NOT be threatened if I sought professional help.
>> Seeking psychological help would make me feel less intelligent.
>> My self-esteem would increase if I talked to a therapist.
>> My view of myself would not change just because I made the choice to see a therapist.
>> It would make me feel inferior to ask a therapist for help.
>> I would feel okay about myself if I made the choice to seek professional help.
>> If I went to a therapist, I would be less satisfied with myself.
>> My self-confidence would remain the same if I sought professional help for a problem I could not solve.
>> I would feel worse about myself if I could not solve my own problems.

Stigma Scale for Receiving Psychological Help - SSRPH
> *Directions: Please read each statement and check the circle corresponding to the scale number that indicates how much you agree or disagree with the statement.*
> *1 = Strongly Disagree   2 = Disagree   3 = Agree   4 = Strongly Agree*
>> Seeing a psychologist for emotional or interpersonal problems carries social stigma.
>> It is a sign of personal weakness or inadequacy to see a psychologist for emotional or interpersonal problems.
>> People will see a person in a less favorable way if they come to know that he/she has seen a psychologist.
>> It is advisable for a person to hide from people that he/she has seen a psychologist.
>> People tend to like less those who are receiving professional psychological help.

Attitudes Toward Seeking Professional Psychological Help - ATSPPH
> *Directions: Please read each statement and check the circle corresponding to the scale number that indicates how much you agree or disagree with the statement.*
> *0 = Strongly Disagree   1 = Disagree   2 = Agree   3 = Strongly Agree*

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

The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.

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.

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.

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

I might want to have psychological counseling in the future.

A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.

Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.

A person should work out his or her own problems; getting psychological counseling would be a last resort.

Personal and emotional troubles, like many things, tend to work out by themselves.

Self-Stigma in Mental Illness Scale's subscale of Stereotype Agreement (SSMIS-SA)

Please answer the following items using the 9-point scale below.

I strongly   neither agree   I strongly
Disagree   nor disagree   agree

_____

1   2   3   4   5   6   7   8   9

1 (I strongly disagree) 2 3 4 5 (I neither agree nor disagree) 6 7 8 9 (I strongly agree)

I think most persons with mental illness…

   are to blame for their problems.
   are unpredictable.
   will not recover or get better.
   are unable to get or keep a regular job.
   are dirty and unkempt.
   are dangerous.
   cannot be trusted.
   are below average in intelligence.
   are unable to take care of themselves.
   are disgusting.

Gender

   Male

Female
Other

Ethnicity/Race
    White (Non-Hispanic)
    African American or Black
    Asian American or Pacific Islander
    Hispanic or Latino/a
    Native American or Alaskan Native
    Other

What year in school are you?
    First
    Second
    Third
    Fourth
    Other

Attention Check Items

Please select _____ for this item.

For this question, please select the circle labeled _____, as this helps us make sure that you are paying careful attention to the survey.