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The effect of self-affirmation on stigma associated with seeking psychological help

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by

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ABSTRACT

Even though there is evidence that psychotherapy is an effective means of helping people with mental health concerns, it is underutilized, largely because of the stigma surrounding mental disorders and psychological help. The main purpose of this study was to examine the effects of self-affirmation—the process of affirming important personal characteristics—on stigma and other proximal indicators of psychological help-seeking. It was hypothesized that when compared to a control group, a self-affirming group would demonstrate decreased self-stigma associated with seeking help. It was also posited that the self-affirming group would experience an increase in intentions to seek counseling, willingness to seek psychological help, and counseling-related information-seeking. Participants were 84 undergraduates from Iowa State University who had scored above a clinical cut-off, thereby approximating a clinically distressed population. Differences in outcome measures associated with psychological help-seeking were examined in the context of an experimental manipulation wherein participants completed one of two timed writing tasks; participants were randomly assigned to either a self-affirming writing task (self-affirmation), or a personally irrelevant writing task (control). Results partially supported the hypotheses. Compared to the control group, the self-affirmation condition had decreased self-stigma, but there were no other significant differences.

Keywords: self-affirmation theory, stigma, self-stigma, help-seeking, psychotherapy

CHAPTER 1

OVERVIEW OF THE PROBLEM

Psychotherapy is an effective means of helping people with mental health concerns. Smith and Glass's (1977) meta-analysis found that the typical therapy client is better off than 75% of their untreated counterparts, and Barlow (2004) found that for some disorders specific psychological interventions are as effective, and in some cases more effective, than pharmacological alternatives. Despite the empirically validated efficacy of psychotherapy, it remains underutilized. Kessler, Demler, and colleagues (2005) found that between 2001 and 2003, 31% of the population reported having mental disorders, but less than one third of those with mental disorders sought treatment. As it stands, with nearly half of all Americans meeting the criteria of some DSM-IV disorder sometime during their lifetimes (Kessler, Burglund, et al., 2005), interventions aimed at reducing barriers to psychological help-seeking are relevant avenues of research.

Fischer, Nadler, & Whitcher-Alagna's (1982) *threat to self-esteem* model provides an overarching framework for understanding the nature of help-seeking. The model posits that seeking help involves a mixture of elements that are perceived to be supportive and threatening to the self-esteem. The threat to self-esteem model makes two important assumptions. First, it assumes that perceptions of help are determined by situational conditions and characteristics of those seeking help that are not static. Second, the model assumes that when help is experienced primarily as supportive, reactions are primarily positive and non-defensive; but when help is experienced primarily as threatening, reactions are primarily negative and defensive.

In addressing the larger problem of eschewal of psychological help-seeking, the current study focuses on elements of psychological help that may be perceived to be threatening to the self-image, and thus may result in defensive responses such as negative evaluations of helper and help, low help-seeking, high refusals of help-offers, secrecy, and withdrawal (Fischer et al., 1982; Link et al., 1989). Indeed, psychological help may be threatening to current and potential clients for good reasons. First, psychological help may appear to be in conflict with other socialized values. For example, according to Fischer and colleagues' (1982) psychological help-seeking may be threatening in part because the very act of seeking help conflicts with the dominant Western value that "people should be independent and self-reliant" (p.47). Second, psychological help may be too closely aligned with negative labels and values that people want to avoid. For example, Link, Cullen, Struening, Shrout, and Dohrenwend's (1989) *modified labeling theory* postulates that psychological help may be threatening because of its close association with negative labels that devalue and discriminate against people with mental illness. That is, psychological help may be threatening in part because people may associate psychological help with the stigma of being mentally ill or the stigma of requiring psychological services.

The Surgeon General Report on Mental Health (1999) has identified the stigma associated with mental illness as a significant barrier to seeking psychological help. Stigma can be understood as a set of deviant attributes that discredit an individual (Goffman, 1963). For example, people with mental illness have been characterized as violent, frightening, incompetent, and weak in character (Brockington, Hall, Levings, & Murphy, 1993; Corrigan, 2004; Hamre, Dahl, & Malt, 1994). Stigma marks the co-occurrence of labeling, stereotyping, separation, status loss, and discrimination (Link et al., 1989; Link & Phelan,

2001). It follows that a salient threat of stigma is ostracism from social interactions (Elliot, Ziegler, Altman, and Scott, 1982), leading stigmatized people to often avoid or withdraw from others (Link & Phelan, 2001). Fear of being stigmatized is linked with decreased likelihood of seeking psychological help, negative attitudes, and avoidance of psychological services (Corrigan, 2004; MacKenzie, Gekoski, & Knox, 2006; Yap, Wright, & Jorm, 2011, Sibicky & Dovidio, 1986; Wade, Post, Cornish, Vogel, & Tucker, 2011). Greater perceptions of stigma related to one's mental illness has been linked with poorer follow-through with therapy (Sirey et al., 2001a) and with early termination of treatment (Sirey et al., 2001b).

Corrigan (2004) distinguishes between public stigma and self-stigma of those with mental illness. Public stigma is "what a naïve public does to the stigmatized group when they endorse the prejudice about the group" and self-stigma is "what members of a stigmatized group may do to themselves if they internalize the public stigma" (p. 616). Public stigma consists of the societal stereotypes, prejudice, and discrimination against the mentally ill, such as *they are weak and unable to care for themselves*. This has led to increased barriers to obtaining desirable employment, leasing suitable housing, and obtaining general health care (Corrigan, 2004; Hinshaw & Cicchetti, 2000; Holmes, Corrigan, Williams, Canar, & Kubiak, 1999). On the other hand, self-stigma consists of internalizing and applying the prejudice of public stigma to one's self. According to Corrigan (2004), a self-stigmatizing person agrees with society's stereotypes, prejudice, and discrimination towards one's own mental illness, saying, "that's right; I am weak and unable to care for myself!" (p. 618). Self-stigmatizing people are more likely to experience shame, and thus more likely to avoid getting treatment for their mental illness (Sirey et al., 2001a).

To date, advocacy, government, and public-service groups have focused on public stigma toward mental illness due to its association with underutilization of psychological services, and its pervasive impact on society (Corrigan, 2004; Gary, 2005; Sibicky & Dovidio, 1986). Efforts have utilized three main methods to attenuate public stigma—protest, education, and promoting contact with persons who have mental illness (Corrigan & Penn, 1999; Rüsch, Angermeyer, & Corrigan, 2005). Protest refers to methods of disputing inaccurate portrayals of people with mental illness, education refers to providing the public with accurate information about mental illness, and promoting contact involves efforts to provide opportunities where the public can interact with people with mental illness. Corrigan, Morris, Michaels, Rafacz, and Rüsch's (2012) meta-analysis found that of the three methods listed, contact with people who have mental illness was the most effective intervention for reducing public stigma among adults, followed by education. The effect size of protest did not significantly differ from zero.

As it stands, public stigma interventions may be helpful but insufficient ways of fully addressing the barriers that prevent individuals from seeking psychological help. Even the most effective interventions—contact with people who have mental illness—still only provides small effects with regard to attitude change (Corrigan et al., 2012). Therefore, there may be justification for developing and validating solutions that focus less on attenuating public stigma, and more on bolstering the resilience of individuals with mental illness. One such way to directly intervene and reduce the negative impact of stigma on those with mental illness is to target self-stigma—the extent to which people with mental illnesses internalize stigmatizing messages (Corrigan, 1998, 2004; Corrigan, Larson, & Rüsch, 2009; Corrigan & Watson, 2002; Rüsch et al., 2005). One reason to focus on self-stigma is due to its

destructive effects on mental health and help-seeking outcomes for those with mental illness. Self-stigma has been shown to lead to low self-esteem, low self-efficacy, lower personal empowerment, poorer beliefs about recovery from a mental illness, higher perceived devaluation and discrimination from others, greater depressive symptoms, and failure to pursue work and independent living environments (Corrigan, 2004; Link et al., 1989; Ritsher & Otlingam, 2003; Rüsch et al., 2005; Wright, Gronfein, & Owens, 2000).

A second reason to focus on self-stigma is that it may be more predictive of relevant mental health outcomes than public stigma (Vogel, Wade, & Hackler, 2007). For example, it is possible that some people might be aware of the public stigma of help seeking, but disagree with it due to positive personal experiences in counseling (Vogel & Wade, 2009). They may, therefore, experience lower self-stigma associated with seeking help and be less likely to eschew obtaining psychological services. For these people, self-stigma but not public stigma, may be more predictive of their attitudes and intentions associated with psychological help. Corroborating this line of reasoning, researchers **(**Brown et al., 2010; Ludwikowski, Vogel, & Armstrong, 2009; Vogel, Shechtman, & Wade, 2010; Vogel et al., 2007) have recently tested models in which self-stigma of seeking psychological help was found to fully mediate the relationship between public stigma and attitudes towards counseling and intentions to seek counseling, in both individual and group settings.

Many attempts to understand and mitigate the problem of underutilized psychological services have focused on the self-stigma related to mental illness (Brohan, Slade, Clement, & Thornicroft, 2010; Corrigan, 1998; Corrigan, 2004; Corrigan & Penn, 1999; Corrigan & Watson, 2002; Corrigan et al., 2009; Ritsher & Otilingam, 2003). Yet, self-stigma of seeking psychological help may be more relevant for predicting help-seeking behavior in non-

psychiatric populations, for whom psychiatric mental illnesses may not be as personally relevant. While self-stigma of seeking psychological help may overlap with aspects of self-stigma of mental illness, its focus may capture more relevant barriers to the help-seeking process itself (Vogel, Wade, & Ascheman, 2009; Vogel, Wade, & Haake, 2006; Tucker, 2012; Vogel et al., 2007; Wade et al., 2011).

Fischer and colleagues' (1982) threat to self-esteem model may gain more predictive capabilities from incorporating self-stigma of seeking psychological help as a measure of how threatening to self-esteem seeking psychological help is perceived to be. It stands to reason that greater endorsement of self-stigma of seeking psychological help might predict both increased perceptions that seeking psychological help would be threatening to the self-esteem, as well as increased enactment of self-protective behaviors that correspond to perceptions that the self-esteem is threatened. It should be noted, however, that this augmented threat to self-esteem model does not identify psychological processes that influence the endorsement of self-stigma. Because endorsing self-stigma involves applying public stigma to one's self, it is likely that perceptions of self-image may be salient for self-stigmatizing individuals. Therefore, in order to identify the psychological processes that influence the internalization of stigmatic attitudes, it may be particularly useful to incorporate relevant self-theories that examine processes related to the maintenance of self-image in response to threat. One theory with promise for understanding the dynamics associated with threat to self-image is self-affirmation theory (Steele, 1988; Steele & Liu, 1983).

CHAPTER 2

SELF-AFFIRMATION PROCESSES AND PSYOCHOLOGICAL HELP-SEEKING

In self-affirmation theory, self-worth[1] refers to a natural state where one holds favorable self-conceptions that reinforce beliefs that one is competent, adequate, and stable (Steele, 1988). These self-conceptions can be threatened when evidence calls into question the favorable self-images that inform conceptions of a person's self-worth, such as information that suggests one is incompetent, inadequate, unstable, or inconsistent. When self-worth is threatened, people will typically exhibit defensive responses to repair or protect their self-conception (Sherman & Cohen, 2006). These defensive responses may protect the self against threat by either protecting or rejecting possible images of the self (Baumeister, Dale, and Sommer, 1998).

Even though Steele (1988) considered defensiveness to be the default response to threat, he suggested that there is an alternative response to threat that can also occur. He posited that if people are somehow able to bolster their sense of self-worth prior to being exposed to threatening information, they would be less likely to engage in self-protective, defensive responding because their self-worth would not be perceived to be in jeopardy. Specifically, Steele and Liu (1983) suggested that by bolstering one's self-worth in a domain unrelated to the threat, self-affirmation may allow people to more objectively react to information that threatens self-worth. Self-affirmation has already been shown to reduce defensiveness in a host of domains including political attitudes, perceptions of racism, negotiations, and health-risk information (Adams, Tormala, & O'Brien, 2006; Cohen,

[1] Steele (1988) originally used the term self-integrity, emphasizing the importance that people's self-perceptions remained competent, adequate and stable; whereas Sherman and Cohen (2002, 2006) use the term self-worth to emphasize the importance that people's self-perceptions identify the self as positive and competent.

Aronson, & Steele, 2000; Cohen et al., 2007; Harris, Mayle, Mabbott, & Napper, 2007; Koningsbruggen, Das, & Roskos-Ewoldsen, 2009; McQueen & Klein, 2006; Reed & Aspinwall, 1998; Sherman & Cohen, 2002, 2006); however, to date, no studies have tested the potential link between self-affirmation and the relevant attitudes and behaviors related to psychological help-seeking.

Reducing Defensiveness Related to Seeking Psychological Help

Self-affirmation theory may be a viable framework for conceptualizing some of the psychological processes that occur in the context of help-seeking. Insofar as psychological help is perceived to be threatening (Fischer et al., 1982), self-affirmation theory predicts that people, being motivated to repair self-worth, would by default tend to resort to the biased cognitions and behaviors that are markers of defensiveness. Still, an alternative set of psychological processes may also be available. That is, engaging in self-affirming activities, or reminding people of personal characteristics[2] that help define them (Sherman & Cohen, 2002, 2006), may allow people to more objectively evaluate information about psychological help without resorting to defensiveness.

In this regard, self-stigma of seeking psychological help may be a relevant construct to self-affirmation theory because self-stigma may capture elements of defensiveness that occurs in help-seeking contexts. Given that self-stigma is internalized public stigma, it may be useful to conceptualize self-stigma in a framework that can incorporate the expectations of others. Brown (1998) suggests that the concept of *possible selves* might provide an appropriate framework. Possible selves (Markus and Nurius, 1986; Norman & Aron, 2003)

[2] Reviews of self-affirmation studies (Sherman & Cohen, 2002, 2006) and self-affirmation manipulations (McQueen & Klein, 2006) note that the most common self-affirmation manipulation in the literature involves reminding individuals of personal characteristics and personally relevant values. The current study uses the term *personal characteristics* to emphasize that an individual's personal traits are being made salient.

are individuals' ideas of what they might become, what they would like to become, and what they are afraid of becoming in specific contexts, such as when seeking psychological help. Markus and Nurius suggested that a possible self represents the cognitive components of "hopes, fears, goals, and threats" (p. 42), guiding future behavior and providing an evaluative context for current self-reflection. One possible self that may be salient to the self-stigma of seeking psychological help is the *feared self*. Carver, Lawrence, & Scheier (1999) describe the feared self as "the kind of person you fear being or worry about being. It's defined by the personality traits you think you might become in the future but that you'd rather not become" (p. 786). When the perceived discrepancy between the feared self and the actual self is not sufficiently large, individuals experience anxiety and are motivated to increase this discrepancy (Carver et al., 1999; Higgins, Bond, Klein, & Strauman, 1986; Markus & Nurius, 1986; Norman, 2002; Oyserman & Markus, 1990).

It is possible that seeking psychological help may be threatening because a possible *self-in-therapy* may, due to stigma, engender similar aversive personality traits as the feared self. In other words, for some individuals, envisioning themselves in therapy might engender a feared self-in-therapy. This feared self-in-therapy can be conceptualized as a contextualized feared self—a future version of the self that one fears being or worries about being, specifically, if one is to receive psychological help. To the extent that the feared self-in-therapy functions as a type of feared self in contexts where seeking psychological help is salient, individuals may be motivated to increase the discrepancy between the feared self-in-therapy and the actual self. Specifically, self-protective processes might be motivated to increase the discrepancy between the feared self-in-therapy and the actual self, in order to reduce experiencing aversive, threat-related emotions such as anxiety.

As Steele (1988) noted, there are two pathways by which the motivation to maintain a sense of self-worth may be satisfied when exposed to threatening information. The first pathway is the *default and defensive response to threat*, which occurs when one responds defensively in such a way as to restore self-worth after a perceived threat. On the other hand, the *self-affirmation pathway* occurs if one is somehow able to bolster self-worth in a domain unrelated to the threat prior to being exposed to threatening information. Regulating discrepancies between competing possible selves may offer one conceptualization of how the two pathways predicted by self-affirmation theory may occur in the self-system.

The default and defensive response to threat may involve protecting perceptions of the actual self by derogating a competing self-state representation such as the feared self-in-therapy. Specifically, derogating the feared self-in-therapy may be protective because it increases the discrepancy between the feared self-in-therapy and the actual self. In a help-seeking context this derogation of the feared self-in-therapy might be evidenced by a higher endorsement of self-stigma of seeking psychological help, corresponding to a greater internalization and application of public stigma to this feared self-in-therapy. This derogation of a possible self may be a self-protective, defensive way to bolster self-worth because it causes perceptions of the actual self to be more discrepant from the feared self-in-therapy.

Alternatively, the self-affirmation pathway may occur if one is somehow able—prior to being exposed to threatening information—to bolster perceptions of the actual self in a domain unrelated to the threat, through engaging in self-affirming activity. Specifically, directly bolstering the actual self in a domain unrelated to a threat may increase the discrepancy between the actual self and the feared self-in-therapy. Having thereby increased

the discrepancy between the actual self and feared self-in-therapy prior to the introduction of threatening information, there may be less motivation to utilize the defensive pathway described above. That is to say, because the discrepancy between the feared self-in-therapy and the actual self is already salient there would be less motivation to increase the discrepancy by self-stigmatizing.

Self-affirmation theory has shown that reflecting upon an important personal characteristic that both helps to define one's self while also being irrelevant to subsequent threatening information can reduce defensiveness in a host of domains (for reviews see McQueen & Klein, 2006; Sherman & Cohen, 2002; Sherman & Cohen, 2006); however, no studies to date have examined self-affirmation's effect on the self-stigma of seeking psychological help. It stands to reason that Steele's (1988) predictions regarding self-affirmation processes may suggest one pathway—self-affirmation—with the potential to reduce individuals' tendency to endorse self-stigma in help-seeking contexts.

Current Study

The current study tested the effects of self-affirmation on the self-stigma of seeking psychological help on a sample that approximated a clinical population that would benefit from psychological services. The study's main purpose was to empirically test whether a causal relation exists between the process of self-affirming a relevant personal characteristic and self-stigma of seeking psychological help. The rationale for this examination is that if seeking psychological help is perceived as a threat to global self-worth that prompts defensiveness, and if endorsing self-stigma of seeking psychological help can be considered a type of defensiveness; then, it is possible that self-affirmation may reduce the tendency to endorse self-stigma of seeking psychological help. Additionally, the study examined

whether self-affirmation would—by attenuating self-stigma—also increase relevant help-seeking variables such as intention to seek counseling (Ajzen, 1991; Cash, Begley, McCown, & Weise, 1975; Godin & Kok, 1996), willingness to seek psychological help (Cohen, 1999; Gerrard, Gibbons, Houlihan, Stock, & Pomery, 2008; Hammer, 2012), and counseling-related information-seeking (Lambert & Loiselle, 2007).

Research Hypotheses

The current study was designed to examine whether self-affirmation theory could be brought to bear on psychological mechanisms present in help-seeking contexts, and specifically, whether self-affirmation causes a decrease in self-stigma of seeking psychological help.

Hypothesis one. It was predicted that people who self-affirmed would exhibit greater decreases in self-stigma of seeking psychological help than those who did not self-affirm.

Hypothesis two. It was expected that people who self-affirmed would report greater intentions to seek counseling, greater willingness to seek psychological help, and greater counseling-related information-seeking than those who did not self-affirm. The rationale for this hypothesis was that, if self-affirming attenuated self-stigma, it might also reduce defensiveness related to other proximal indicators of help-seeking: self-reported intentions to seek counseling, self-reported willingness to seek psychological help, and observed behaviors of counseling-related information-seeking.

Variables to be explored. Although self-affirmation theory is well established (Sherman & Cohen, 2002, 2006), it is less certain whether or not self-affirmation's effect on self-stigma is influenced by changes in mood as opposed to cognitive biases as Steele and

Liu (1983) have argued. In their review of the relevant literature, McQueen and Klein (2006) noted that some researchers have reported a positive effect of self-affirmation on mood relative to comparison conditions, but other studies have reported no significant effects. Accordingly, positive and negative affect's relations to the experimental manipulation of self-affirmation and to self-stigma were explored in order to begin disentangling the psychological mechanisms present when personal characteristics are affirmed. It is conceivable that the experimental manipulation used to invoke self-affirmation processes—affirming personal characteristics—may increase positive affect, and that positive affect, and not self-affirmation processes by themselves, may be responsible for decreases in self-stigma.

Secondly, given that there are gender differences in health-care utilization rates (Owens, 2008) and attitudes towards psychotherapy (Leong & Zachar, 1999), it is possible that self-affirmation may interact with gender. Consequently, the interactive relationships between the genders of both the experimenter and of the participant, experimental manipulation of self-affirmation, and self-stigma were explored.

Finally, given that people who have previously sought psychological help may have lower self-stigma of seeking psychological help (Kaplan, Vogel, Gentile, & Wade, 2012); it is conceivable that they may respond differently to self-affirmation than people who have never sought psychological help. Therefore, a possible interaction between previous psychological help-seeking and self-affirmation on self-stigma of seeking psychological help was explored.

CHAPTER 3

METHOD

Study Design

This study featured a two group between-subjects design, in which an experimental manipulation of self-affirmation was the between-subjects factor. Measures of self-stigma of seeking psychological help, intentions to seek counseling, and willingness to seek psychological help were administered prior to the self-affirmation manipulation to control for pre-existing differences between groups. These same measures were again administered following the self-affirmation manipulation to assess between group differences due to the experimental manipulation of self-affirmation. Self-affirmation was manipulated by having participants either write about an important personal characteristic (self-affirmation condition) or a benign impersonal topic (control condition).

Participants

Participants were screened from a research pool of 1428 students enrolled in introductory psychology courses who completed a screening questionnaire during the first three weeks of classes. To ensure a final sample that approximated a clinically distressed population, 467 (33%) participants who met the clinical cutoff point for psychological distress as assessed by the *Clinical Outcomes in Routine Evaluation for the General Population* measure (>1.49 for males, >1.69 for females; Sinclair, Barkham, Evans, Connell, & Audin, 2005) received an email inviting them to participate in the research study. Of the 467 students invited to participate, 92 completed the laboratory study, corresponding to 20% of the clinical distressed population. Of the 92 participants who completed the laboratory study, four were excluded because of experimenter error, two were excluded because they

did not complete the required pretest measures, one was excluded due to lack of English fluency, and one was excluded due to completing the experiment twice. As shown in figure 1, a total of 84 participants (Female = 60%; Age, *M* = 20.7, *SD* = 4.2; Caucasian = 71%, Asian American/Pacific Islander = 11%, Latino American = 6%, Multi-racial American = 5%, African American/Black = 4%, International Student= 2%, Native American = 1%) were included in the analyses.

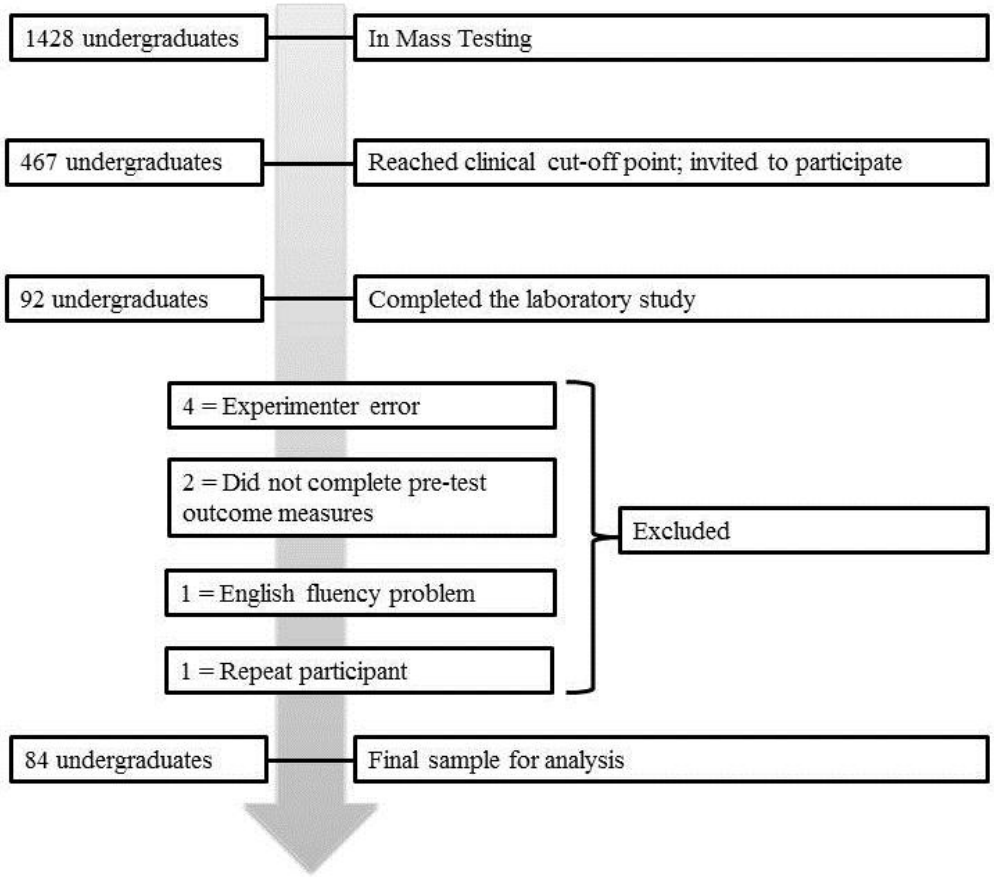

Figure 1. Experimental flow of participants from mass testing sample to final analysis.

Measures

Psychological distress. The Clinical Outcomes in Routine Evaluation for the General Population (Sinclair et al., 2005) was employed to screen participants for

psychological problems and decreased functioning in order to identify for recruitment a pool of participants that approximated a clinical population. This 14-item measure was adapted for use with the general public from the widely used Clinical Outcomes in Routine Evaluation Outcome Measure (Evans et al., 2000), and covers the domains of well-being, problems/symptoms, and functioning. Items are rated on a 5-point Likert scale where 0 = *not at all* and 4 = *most or all of the time*. Eight items are reverse scored. A clinical score is calculated as the mean of all completed items, providing a possible range from 0-4 (Barkham, Mellow-Clark, Connell, & Cahill, 2006; Leach et al., 2006). Support for the Clinical Outcomes in Routine Evaluation for the General Population's internal consistency was good with Cronbach's alpha values ranging from .82 to 90, and support for the measure's validity has been reported previously (Sinclair et al., 2005). Internal reliability for the Clinical Outcomes in Routine Evaluation for the General Population in the current study was assessed during mass testing, and was good, with a Cronbach's alpha equal to .86. Appendix B provides the full Clinical Outcomes in Routine Evaluation for the General Population measure.

Personally important characteristics. An adaptation of Harber's (1995) Sources of Validation Scale (as cited in Cohen et al., 2000) was used to assess the importance of several personal characteristics. Cohen and colleagues' (2000) version lists 11 characteristics: artistic skills/aesthetic appreciation, sense of humor, relations with friends/family, spontaneity/living life in the moment, social skills, athletics, musical ability/appreciation, physical attractiveness, creativity, business/managerial skills, and having romantic values. The version administered in the current study was adapted by the addition of two items for a total of 13. Specifically, in this study, the adapted list also included *religion* and a *blank line*;

the latter providing participants the option of generating their own personal characteristic if so desired. Participants were asked to rank the characteristics in order of their importance from 1-13, using each number only once. Appendix B provides the full Adapted Sources of Validation measure.

Jellybean flavor scale. In line with the control condition from Critcher and colleagues' (2010) study, participants were asked to rank jellybean flavors in order of tastiness from 1-12, using each number once, where 1 = most tasty jellybean flavor, 12 = least tasty jellybean flavor. Appendix B provides the full Jellybean Flavor Scale.

Self-stigma of seeking psychological help. The Self-Stigma of Seeking Help Scale (Vogel et al., 2006) assessed participants' self-stigma of seeking psychological help. The 10-item scale includes items such as "I would feel inadequate if I went to a therapist for psychological help", "Seeking psychological help would make me feel less intelligent", and "If I went to a therapist, I would be less satisfied with myself" (Vogel et al., 2006, p. 328). Five items are reversed scored. Items are rated on a 5-point Likert scale where 1 = *strongly disagree* and 5 = *strongly agree* with higher scores corresponding to higher self-stigma related to seeking psychological help. Internal reliability was good for both pretest and posttest, with respective Cronbach's alphas equal to .86 and .88. Appendix B provides the full Self-stigma of Seeking Psychological Help measure.

Intentions to seek counseling. The Intentions to Seek Counseling Inventory (Cash et al., 1975; Cepeda-Benito & Short, 1998) assessed participants' intentions to seek psychological help for a variety of specific problems. The 17-item scale measures help-seeking intentions with regards to problems such as choosing a major, weight control, relationship difficulties, self-confidence problems, and depression. Participants are asked to

rate how likely they would be to seek help from the university counseling center if they were experiencing each problem. No items are reverse scored. Items are rated on a 6-point Likert scale where 1 = *very unlikely* to 6 = *very likely*, with higher scores indicating greater likelihood of seeking psychological help for the issues listed. Internal reliability was good at both pretest and posttest, with both Cronbach's alphas equal to .88. Appendix B provides the full Intentions to Seek Counseling Inventory.

Willingness to seek psychological help. The Willingness to Seek Help Scale (Hammer, 2012) provided an indication of participants' willingness to seek psychological help given specific scenarios presented in four vignettes. Participants rated items on a 7-point Likert scale where 1 = *not at all willing* to 7 = *very willing*, with higher scores indicating greater willingness to seek psychological help. Internal reliability was good at both pretest and posttest, with respective Cronbach's alphas equal to .89 and .86. Appendix B provides the full Willingness to Seek Help Scale.

Counseling-related information-seeking. Participants were given the opportunity to obtain information about university counseling services by anonymously taking a brochure when experimenters were temporarily absent from the laboratory. The context was constructed such that participants' decisions to seek or not seek counseling-related information would not be affected by any perceived requirements or obligations. Specifically, taking a brochure was not presented as being associated with the requirements of the study, and participants were instructed not to take a brochure if they were going to "throw it out" because the brochures could be reused. Participants' dichotomous decision to take a brochure or not constituted the counseling-related information-seeking measure.

Mood. The Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) assessed state pretest and posttest mood during the experimental session. The 20-item scale measures positive and negative affect with emotional labels such as "distressed, excited, upset, strong, guilty, scared, and afraid," (Watson et al., 1988, p. 1070). Items are rated on a 5-point Likert scale where 1 = *very slightly or not at all* and 5 = *extremely,* with higher scores indicating greater experience of the corresponding affect. Internal reliability for positive affect was good at both pretest and posttest, and internal reliability for negative affect was acceptable at both pretest and posttest. Cronbach's alphas for positive affect for pretest and posttest were respectively equal to .86 and .88. Cronbach's alphas for negative affect for pretest and posttest were respectively equal to .78 and .79. Appendix B provides the full Positive and Negative Affect Schedule.

Procedure

Sample identification and selection. Mass testing sessions are a routine aspect of the psychology department's procedures, wherein participants receive class credit for completing a number of measures for a variety of unrelated research projects. Mass testing was used in the current study to identify eligible participants for the laboratory portion of research study, and took place a minimum of three weeks prior to laboratory sessions. Relevant to the current study, mass testing participants completed a screening measure of psychological distress, the Self-Stigma of Seeking Psychological Help scale, the Intentions to Seek Counseling Inventory, the Willingness to Seek Help Scale, and one question assessing whether they had previously sought psychological help. Participants also provided demographic information.

Laboratory session. Participants meeting the clinical cut-off criterion were contacted by email and invited to participate in the laboratory portion of the study. Invited participants enrolled themselves in the study on a first-come, first-serve basis and were randomly assigned to either the self-affirmation condition or the control condition. In line with procedures by Cohen et al. (2000), participants were invited to participate in a study that ostensibly investigated memory. It was necessary to employ this deception because self-affirmation effects have been shown to be reduced when people are aware of the expected reduction in defensiveness caused by self-affirmation (Sherman et al., 2009).

In preparing the room for each laboratory session, the experimenter placed 12 informational brochures from Student Counseling Services at Iowa State University on a table next to a chair where participants would sit. Upon arriving at the experiment, participants read and signed an informed consent document wherein they were assured of the confidentiality of their responses. Next, participants completed the Positive and Negative Affect Schedule (Watson et al., 1988) to assess mood prior to the experimental manipulation.

Experimental manipulation of self-affirmation. In the self-affirmation condition, participants completed the adapted Sources of Validation Scale, ranking 13 personal characteristics from 1-13 where 1 = *most important* and 13 = *least important*. The rating exercise was completed to ensure that participants would later write about a personal characteristic that was central to how they view themselves (Sherman & Cohen, 2006). Participants then received a "personal recall exercise" form with instructions telling them to describe three or four personal experiences in which their most important characteristic had been important to them and had made them feel good about themselves. This self-affirmation writing exercise was intended to make salient and affirm a positive core

characteristic that informed self-worth. For example, participants who had rated sense of humor most highly on the adapted Sources of Validation scale were instructed to describe three to four experiences in which their sense of humor had been important to them and had made them feel good about themselves. Participants performed this task for 5 min.

In the control condition, participants received the Jellybean Flavor Scale—a list of jellybean flavors with instructions telling them to rank the flavors according to how tasty they believe the flavors would be. Participants were then told to write a paragraph describing the flavor of the jellybean they ranked as the fourth tastiest. For example, participants who ranked watermelon jellybeans as fourth tastiest were instructed to write a paragraph describing the flavor of a watermelon jellybean. This jellybean control condition was used in Critcher, Dunning, and Armor's (2010) study as a content-unrelated control that would serve neither as a threat nor as a self-affirmation of relevant personal characteristics.

After the experimental manipulation of self-affirmation, psychological help was made salient in order to introduce a potential threat to self-worth. Participants read an article that promoted psychological help, and were instructed to try to remember as much content as possible, on which they would be subsequently quizzed. The quiz was cited to maintain the premise that the study concerned memory. The wording for the article promoting psychological help was adapted from the Levine, Stolz, and Lacks' (1992) article, which provides a template for preparatory information that could be given to beginning psychotherapy clients. The article administered in the current study is provided in Appendix C.

Following procedures to make psychological help salient, posttest measures of the dependent variables were assessed. Participants completed three self-report measures related

to seeking psychological help: the Self-stigma of Seeking Psychological Help scale to assess self-stigma, the Intentions of Seeking Counseling Inventory to measure their intentions to seek counseling, and the Willingness to Seek Help Scale to assess their willingness to seek psychological help.

After completing the self-report measures, participants' counseling-related information-seeking behavior was observed. Participants were handed a brochure that provided information about how to receive psychological help at Iowa State University. Participants were told that the experimenter needed to step out of the room, and that participants could keep the brochure if desired, but if the they did not want the brochure to "please put it back because the brochures can be reused." The experimenter left the room for 2 min to ensure that participants would not experience undue social pressure to either take or not take a brochure.

Participants were next given a quiz, ostensibly to test their recall of information from the article about psychological help they had previously read. In addition to maintaining the premise of the study as an examination of memory, the quiz served to check that participants had comprehended the article. This quiz is provided in Appendix B. Next, participants completed the Positive and Negative Affect Schedule to assess posttest mood. Finally, participants were probed for suspicion, debriefed, asked to maintain confidentiality regarding the true nature of the study, and dismissed.

CHAPTER 4

RESULTS

Descriptive and Preliminary Analyses

Included in the final analyses were a total of 84 participants (Female = 60%; Caucasian = 71%, Asian American/Pacific Islander = 11%, Latino American = 6%, Multi-racial American = 5%, African American/Black = 4%, International Student = 2%, Native American = 1%). The mean age of the sample was 20.7, (*SD* = 4.2). Thirty one percent of the final sample had previously sought psychological help, which was slightly higher than the psychological help-seeking rate for the larger mass testing sample (25%). Table 1 displays demographic descriptive statistics of participants by condition of the experimental manipulation of self-affirmation.

Three separate Chi-square tests were conducted to test whether there were differences in number of participants, gender, and previously psychological help-seeking between experimental conditions. Neither the Chi-square test for number of participants, $\chi^2(1) = .43$, $p = .513$, for gender, $\chi^2(1) = 1.54$, $p = .214$, nor for previous psychological help-seeking, $\chi^2(1) = 0.19$, $p = .660$, was significant, suggesting that there were not significant differences in number of participants, gender, or previous psychological help-seeking between experimental conditions. An independent samples *t*-test was conducted to test whether there were significant differences in age between experimental conditions. A Levene's test for equality of variance was violated, $F(1, 82) = 4.07$, $p = .047$, and therefore, equal variances were not assumed for this *t*-test. A Welch's *t*-test, which relaxes equal variance assumptions, was not significant, $t(55.6) = -1.29$, $p = .203$, suggesting that there was not a significant mean difference in age between experimental conditions.

Table 1

Descriptive Demographic Statistics by Experimental Manipulation of Self-affirmation

	Control (n = 39)	**Self-Affirmation** (n = 45)	**Total Sample** (n = 84)
Age			
Mean	19.9	21.0	20.7
SD	1.9	5.5	4.2
Min/Max	18/30	19/46	18/46
Previously Sought Psychological Help			
Yes	13 (33%)	13 (29%)	26 (31%)
No	26 (67%)	32 (71%)	58 (69%)
Gender			
Male	13 (33%)	21 (47%)	34 (40%)
Female	26 (67%)	24 (53%)	50 (60%)
Race and Ethnicity			
European American/White	33 (85%)	27 (60%)	60 (71%)
Asian American/ Pacific Islander	3 (8%)	6 (13%)	9 (11%)
Latino American	2 (5%)	3 (7%)	5 (6%)
Multi-racial American	0	4 (9%)	4 (5%)
African American/Black	0 (0%)	3 (7%)	3 (4%)
International Student[a]	1 (2%)	1 (2%)	2 (2%)
Native American	0	1 (2%)	1 (1%)

Note: Frequencies are presented with percentages in parentheses when applicable.

[a]Although not a race or ethnicity, "International Student" was a mutually exclusive demographic choice provided in mass testing.

Table 2 displays descriptive statistics of all measures used by experimental condition.

Table 2

Descriptive Statistics of all Measures by Experimental Manipulation of Self-affirmation

	Measure	Control	Self-affirmation	Total Sample
Prior to Experimental Manipulation	Clinical Outcomes in Routine Evaluation for the General Population	1.97 (0.33)	2.00 (0.42)	1.99 (0.37)
	Pretest Self-stigma of Seeking Psychological Help	2.98 (0.65)	2.87 (0.57)	2.92 (0.61)
	Pretest Intentions to Seek Counseling	2.12 (0.54)	2.14 (0.55)	2.13 (0.54)
	Pretest Willingness to Seek Psychological Help	4.62 (1.30)	4.46 (1.38)	5.44(1.34)
	Pretest Positive Affect	25.74 (6.83)	24.42 (6.45)	25.03 (6.62)
	Pretest Negative Affect	14.02 (4.07)	13.76 (3.44)	13.88 (3.72)
Subsequent to Experimental Manipulation	Posttest Positive Affect	23.46 (6.43)	22.35 (7.44)	22.87 (6.97)
	Posttest Negative Affect	11.92 (2.72)	12.29 (3.20)	12.12 (2.97)
	Posttest Clinical Outcomes in Routine Evaluation for the General Population	2.84 (0.74)	2.50 (0.61)	2.66 (0.69)
	Posttest Intentions to Seek Counseling	3.08 (0.98)	2.88 (0.91)	2.97 (0.94)
	Posttest Willingness to Seek Psychological Help	4.10 (1.19)	4.02 (1.07)	4.06 (1.12)
	Brochure Taken[a]	21 (54%)	20 (44%)	41 (49%)

Note: Means are presented with standard deviations in parentheses.

[a]Brochure Taken reports the number of participants who took a brochure with percentage per condition in parentheses, N = 83. One participant's brochure data was missing in the self-affirmation condition.

Table 3 displays a correlation matrix of demographic, pretest, and posttest measures.

Table 3

Correlation Matrix of Demographic, Pretest, and Posttest Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Demographic Variables														
1. Gender	--													
2. Age	-.16	--												
3. Prev. Help-Seeking	-.03	-.32**	--											
4. Distress	.25*	-.02	-.04	--										
Pretest Assessments														
5. Stigma	-.03	-.06	-.23*	.14	--									
6. Intentions	-.02	.23*	.16	-.12	-.43***	--								
7. Willingness	.22*	.04	.10	.16	-.25*	.29**	--							
8. Positive Affect	-.15	.17	-.02	-.21	.03	-.01	.06	--						
9. Negative Affect	.17	-.04	.11	.22*	.13	-.09	.07	.10	--					
Posttest Assessments														
10. Stigma	-.08	-.03	-.19	.03	.70***	-.33**	-.23*	.04	.24*	--				
11. Intentions	.04	-.06	.04	-.17	-.34**	.50***	.36**	.08	-.03	-.28*	--			
12. Willingness	.07	-.02	-.04	-.13	.41***	.44***	.57***	.20	-.20	-.45***	.62***	--		
13. Positive Affect	-.08	.08	.06	-.13	.01	-.00	.08	.84***	.14	-.06	.15	.25*	--	
14. Negative Affect	.14	-.02	.08	.29**	.04	-.05	.10	-.09	.75***	.21	-.05	-.18	-.00	--
15. Information-seeking	.16	-.06	-.04	.10	.00	.13	.18	.03	.19	-.01	.18	.22*	.15	.13
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**

Note for Table 3: Prev. Help-Seeking = whether or not participants had previously sought psychological help; Distress = Clinical Outcomes in Routine Evaluation for the General Population; Stigma = Self-stigma of Seeking Psychological Help; Intentions = Intentions to Seek Counseling; Willingness = Willingness to Seek Help Scale; Information-seeking = whether or not participants took a brochure about Student Counseling Services at Iowa State University.

Gender is coded such that 0 = *male*, 1= *female*; Prev. Help-Seeking is coded such that 0 = *no*, 1 = *yes*; Information-seeking is coded such that 0 = *brochure not taken*, 1 = *brochure taken*.

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

Primary Analyses

Hypothesis one. To test the hypothesis that self-affirmation decreases self-stigma of seeking psychological help, an ANCOVA analysis was performed with pretest self-stigma as the covariate. The independent variable was the experimental manipulation of self-affirmation (self-affirmation vs. control), the dependent variable was posttest self-stigma, and the covariate was pretest self-stigma. The ANCOVA was chosen over the repeated measures ANOVA for two reasons. First, the repeated measures ANOVA treats both the pretest and the posttest values as dependent measures that have been affected by an experimental manipulation, but in the current study only the posttest measure was affected by the experimental manipulation. In-line with the current study's experimental design, the ANCOVA appropriately specifies the posttest value as the only dependent variable that has been affected by the experimental manipulation. Second, when the correlation between the covariate and posttest outcome measure is greater than .60, the ANCOVA provides greater statistical power than the repeated measure ANOVA (Shavelson, 1996). The correlation

between pretest self-stigma and posttest self-stigma was .70 in the current study. As shown in table 4, the ANCOVA indicated a significant main effect for the self-affirmation manipulation, F (1,81) = 6.31, p = .014, η^2 = .07.

Table 4

ANCOVA of Between-Subject Effects on posttest Self-stigma of Seeking Psychological Help

Source	**df**	***F*-value**	**Sig.**	**Partial η^2**
Corrected Model	2	10.45	.000	.53
Intercept	1	2.27	.136	.03
Pretest Self-stigma	1	80.61	.000	.50
Self-affirmation Manipulation	1	6.31	.014	.07
Error	81			

Overall, the results of the ANCOVA test supported the hypothesis that people who self-affirmed would show greater decreases in self-stigma of seeking psychological help than those who did not self-affirm. As presented in figure 2, an examination of the adjusted means pertaining to this significant main effect indicated that after controlling for pretest self-stigma participants had lower mean posttest self-stigma in the self-affirmation condition (M_{adj} = 2.46, SD = 0.63) than in the control condition (M_{adj} = 2.83, SD = 0.74). The adjusted mean difference corresponded to -0.37, 95% CI [-0.06, -0.47].

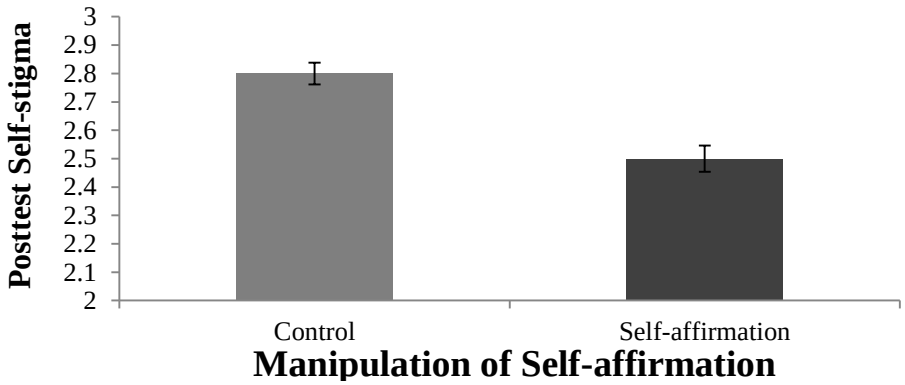

Figure 2. Estimated marginal mean posttest self-stigma by experimental manipulation of self-affirmation.

A hierarchical regression analysis was conducted to test whether there was a significant interaction effect between pretest self-stigma and the experimental manipulation of self-affirmation. Pretest self-stigma, self-affirmation manipulation, and an interaction term Pretest self-stigma × Self-affirmation manipulation were predictors of posttest self-stigma, regressed in two steps. The results indicated there was not a significant interaction effect, $\Delta F = 1.19$, $\Delta R^2 = .01$, $p = .279$.

Hypothesis two. To test the hypothesis that self-affirmation would increase intentions to seek counseling and willingness to seek psychological help, 2 one-way ANCOVA analyses were performed. In these two analyses, the independent variable was the experimental manipulation of self-affirmation (self-affirmation vs. control), the dependent variables were respectively intentions to seek counseling and willingness to seek psychological help. Pretest intentions to seek counseling and willingness to seek psychological help were entered as respective covariates as appropriate for the corresponding analysis.

Intentions to seek counseling. The ANCOVA test did not indicate a significant main effect for the experimental manipulation of self-affirmation on intentions to seek counseling, $F(1,81) = 1.52$, $p = .222$, $\eta^2 = .02$. A hierarchical regression analysis was conducted to test whether there was a significant interaction effect between pretest intentions to seek counseling and the self-affirmation manipulation. Pretest intentions to seek counseling, self-affirmation manipulation, and an interaction term Pretest intentions to seek counseling × Self-affirmation manipulation were specified as predictors of posttest intentions to seek counseling, and were regressed in two steps. The results indicated there was not a significant interaction effect, $\Delta F = 0.74$, $\Delta R^2 = .01$, $p = .394$. Overall, the results did not support the

hypothesis that people who self-affirmed would report greater intentions to seek counseling than those who did not self-affirm.

Willingness to seek psychological help. The ANCOVA test did not indicate a significant main effect for the experimental manipulation of self-affirmation on willingness to seek psychological help, F (1,81) < 0.01, p = .993, η^2 < .01. A hierarchical regression analysis was conducted to test whether there was a significant interaction effect between pretest willingness to seek help and the self-affirmation manipulation. Pretest willingness to seek psychological help, self-affirmation manipulation, and an interaction term Pretest willingness to seek psychological help × Self-affirmation manipulation were specified as predictors of posttest willingness to seek psychological help, and were regressed in two steps. The results indicated there was not a significant interaction effect, ΔF = 0.39, ΔR^2 = .00, p = .536. Overall, the results did not support the hypothesis that people who self-affirmed would report greater willingness to seek counseling than those who did not self-affirm.

Counseling-related information-seeking. To test the hypothesis with regards to counseling-related information seeking, a logistic regression model was specified wherein the dichotomous variable of brochure-taking was regressed on the experimental manipulation of self-affirmation. Brochure taking was coded such that 0 = *did not take brochure* and 1 = *did take brochure*, and the experimental manipulation of self-affirmation was coded such that 0 = *control* and 1 = *self-affirmation*. The experimental manipulation of self-affirmation did not significantly predict rates at which participants took brochures, B = -.34, SE = .44, p = .446, 95% CI for Odds Ratio = [0.30, 1.70]. Overall, the results did not support the hypothesis that people who self-affirmed would exhibit greater counseling-related information-seeking than people who did not self-affirm

Exploratory analysis one. Because any hypothesized effects of the self-affirmation manipulation on self-stigma could potentially be due to the effect of the self-affirmation manipulation's effect on mood—analyses were conducted to assess whether mood mediated self-affirmation's effect on self-stigma. Mediation analyses followed Baron and Kenny's (1986) recommendations to establish mediation, utilizing three regressions to determine whether a variable functions as a mediator. Separate mediation analyses were conducted for both posttest positive affect and posttest negative affect.

Positive affect. First, a regression was conducted with the experimental manipulation of self-affirmation predicting self-stigma of seeking psychological help. The results of the regression indicated that self-affirmation was a significant predictor of self-stigma, β = -0.25, p = .022. Second, a regression was conducted with the experimental manipulation of self-affirmation predicting positive affect. The results of the second regression indicated that self-affirmation was not a significant predictor of positive affect, β = -.08, p = .469. Third, a regression was conducted with both the experimental manipulation of self-affirmation and positive affect simultaneously predicting self-stigma. The results of this third regression indicated that self-affirmation remained a significant predictor of self-stigma, β = -0.26, p = .020, but positive affect was not a significant predictor of self-stigma, β = -0.08, p = .485. The results of the mediation analysis do not support that positive affect mediated the self-affirmation manipulation's effect on self-stigma.

Negative affect. The results of the regression analysis above indicated that self-affirmation was a significant predictor of self-stigma of seeking psychological help, β = -.25, p = .022. Therefore, a regression was conducted with the experimental manipulation of self-affirmation predicting negative affect. The results of this regression indicated that self-

affirmation was not a significant predictor of negative affect, $\beta = 0.06$, $p = .577$. Next, a regression was conducted with both the experimental manipulation of self-affirmation and negative affect simultaneously predicting self-stigma. The results of this regression indicated that both self-affirmation, $\beta = -0.26$, $p = .014$, and negative affect, $\beta = 0.22$, $p = .036$, were significant predictors of self-stigma. The results suggest that negative affect was a unique predictor of self-stigma, but did not mediate the effect of the self-affirmation manipulation because the self-affirmation manipulation did not influence negative affect. Moreover, when controlling for the effects of negative affect, self-affirmation's effect on self-stigma was not attenuated, but actually increased.

Exploratory analysis two. To explore the relationships of gender and the self-affirmation manipulation on self-stigma, a 2 × 2 × 2 ANCOVA was conducted with two levels of experimental manipulation (self-affirmation and control), two levels of participant gender (male and female), and two levels of experimenter gender (male and female), and pretest self-stigma as a covariate. The ANCOVA test yielded a significant main effect for the self-affirmation manipulation, F (1, 75) = 8.39, $p = .005$, $\eta^2 = .10$, but did not reveal significant main effects for either participant gender, F (1, 75) = 1.61, $p = .208$, or for experimenter gender, F (1, 75) = 0.01, $p = .938$, $\eta^2 < .01$. There were also no significant interaction effects for Participant gender × Self-affirmation manipulation, F (1, 75) = 0.50, $p = .482$, or for Participant gender × Experimenter gender, F (1, 75) = 0.29, $p = .592$. There was a significant interaction effect for Self-affirmation manipulation × Experimenter gender, F (1, 75) = 5.05, $p = .028$, $\eta^2 = .06$.

To determine the nature of the significant Self-affirmation manipulation × Experimenter gender interaction effect on posttest self-stigma, a hierarchical multiple

regression was conducted. As shown in table 5, this hierarchical regression was conducted in two steps; in step one, pretest self-stigma, the self-affirmation manipulation, and experimenter gender were entered. In step two, the interaction term Self-affirmation manipulation × Experimenter gender was entered. Next, least square means were calculated to estimate posttest self-stigma for the interaction between self-affirmation manipulation and experimenter gender. As shown in figure 3, the nature of the interaction effect was such that when compared with female experimenters, male experimenters facilitating the control group had participants with higher posttest self-stigma, while male experimenters facilitating the self-affirmation group had participants with lower posttest self-stigma. That is to say, the self-affirmation manipulation had a greater effect when males were experimenters.

Table 5

A Moderated Hierarchical Regression of Gender and Self-affirmation Manipulation with Posttest Self-stigma as the Criterion Variable

Step	**Variable added**	**B**	**SE**	**β**	***t***
	Intercept	2.79	0.10	--	28.65***
	Pretest Self-stigma	0.78	0.09	0.69	8.92***
1	Self-affirmation Manipulation	-0.26	0.11	-0.19	-2.49*
	Experimenter Gender	0.01	0.11	0.00	0.05
2	Self-affirmation Manipulation × Experimenter Gender	0.46	0.21	0.30	2.21*

Note: Self-affirmation Manipulation is coded such that 0 = *control* and 1 = *self-affirmation*. Experimenter Gender is coded such that 0 = *male* and 1 = *female*.

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

Figure 3. Estimated least square mean posttest self-stigma by self-affirmation manipulation and experimenter gender.

Exploratory analysis three. To test whether there was an interaction between previous psychological help-seeking and the experimental manipulation of self-affirmation on posttest self-stigma of seeking psychological help, a hierarchical regression was conducted in two steps, with the dependent variable being self-stigma as assessed by posttest self-stigma. In step one, pretest self-stigma—to control for differences in pretest responding, previous psychological help-seeking, and the self-affirmation manipulation were entered as predictors. In step two, the interaction term of Previous help-seeking × Self-affirmation manipulation was entered as a predictor. Previous psychological help-seeking was not a significant predictor of posttest self-stigma, β = -0.03, t = -.313, p = .755. The experimental manipulation of self-affirmation remained a significant predictor of posttest self-stigma, β = -0.20, t = -2.53, p = .034, but the interaction between previous psychological help-seeking and

the self-affirmation manipulation was not a significant predictor of posttest self-stigma, β = 0.06, t = 0.49, p = .628. The results provided no support for the hypothesis that people who have previously sought psychological help may have reported different changes in self-stigma in response to the self-affirmation manipulation than people who have not previously sought psychological help.

CHAPTER 5

DISCUSSION

The current study examined whether self-affirming personal characteristics would reduce self-stigma of seeking psychological help, as well as increase other proximal indicators of help-seeking such as intentions to seek counseling, willingness to seek psychological help, and counseling-related information-seeking. The results partially supported the hypotheses. Specifically, the study found that participants who self-affirmed prior to exposure to information about psychotherapy had significantly lower self-stigma than a control group who did not self-affirm, but self-affirmation had no significant effects on the other relevant help-seeking variables.

Self-affirmation theory (Steele, 1988) posits that self-affirming may provide an indirect method of bolstering self-worth, thereby reducing the need to exhibit defensiveness as a means of protecting one's feelings of self-worth. In the current study, self-stigma of seeking psychological help was reduced by self-affirmation, suggesting that self-affirmation had a similar effect on self-stigma as it had been demonstrated previously to have on variables related to defensiveness (see McQueen & Klein, 2006 for review). Considering that self-stigma is perceived to be a barrier to psychological help-seeking, it was expected that by reducing self-stigma, other proximal indicators of help-seeking might also increase, but this was not observed. It is possible that reminding people of positive self-characteristics, insofar as this bolsters their self-worth, may have also reduced the salience of their respective psychopathological symptoms. In other words, self-affirmation may have decreased the urgency participants experienced with regard to seeking help for their problems.

It is also likely that the psychological processes that reduce perceived barriers to seeking psychological help may be different from the psychological processes that increase volitional help-seeking behaviors. Even though self-affirmation processes may reduce perceived barriers to seeking psychological help, these processes may not, in and of themselves, directly increase motivation to seek psychological help. Results of the current study lend some support to this idea. In the current study, self-affirmation decreased barriers to seeking psychological help, but did not increase variables proximally related to help-seeking behavior, such as intentions to seek counseling, willingness to seek psychological help, and counseling-related information-seeking.

The results of the current study provide initial empirical justification for translating self-affirmation processes into clinical interventions aimed to reduce barriers to seeking psychological help. Given that seeking psychological help involves a mixture of elements that are perceived to be supportive and threatening (Fischer et al., 1982), the utility of self-affirmation may be in its ability to diminish perceived barriers to seeking psychological help, and not in its ability to increase positive perceptions of psychological help. It stands to reason, then, that a combination of intervention strategies that include both reducing the perceived threat and increasing the perceived benefits of psychological help may be effective in addressing the eschewal of psychological help-seeking. For example, while self-affirmation processes may potentially be utilized to reduce defensiveness and diminish psychological barriers related to psychological help-seeking, interventions derived from the theory of planned behavior (Ajzen, 1991) may be utilized to increase actual help-seeking behaviors by increasing positive attitudes about psychological help, increasing perceptions

that psychological help is a socially normative behavior, and increasing self-efficacy associated with specific help-seeking activities.

In applying self-affirmation theory's principles to help-seeking contexts, it is important to consider several factors. First, engaging in self-affirmation in the same domain as threatening information may actually intensify defensiveness (Blanton, Cooper, Skurnik, & Aronson, 1997). In other words, a clinical self-affirmation intervention may not be effective if the self-affirmation activity reminds a person of characteristics too closely associated with issues for which they need therapy. This psychological dynamic is in line with evidence that direct approaches to allay people's fears about mental illness often experience what Corrigan and Penn (1999) refer to as a "rebound effect", wherein direct attempts to dispute negative stereotypes often result in greater activation and recall of those negative stereotypes (Macrae, Bodenhausen, Milne, & Jetten, 1994).

Second, self-affirmation processes appear to work outside of conscious awareness (Sherman & Cohen, 2006). Effects are diminished when people are aware of self-affirmation's purpose of either boosting self-worth or mitigating evaluations of threatening information (Sherman et al., 2009). This fact highlights the importance of carefully designing self-affirmation interventions for applied settings; recipients of self-affirmation interventions must necessarily be unaware of the benefits of self-affirmation, lest its positive effects be attenuated.

Finally, the timing of self-affirmation is important, as self-affirmation is only effective when it occurs prior to the initiation of a defensive response to threat (Critcher et al., 2010). Therefore, the utility of potential self-affirmation interventions in clinical settings may primarily be as activities that *prepare individuals* for subsequent presentation of

information that may be threatening to self-worth. For example, activating self-affirmation processes in first contact with potential clients might reduce the extent to which they are subsequently threatened by the prospect of obtaining psychological help. Nevertheless, because of the importance of temporal sequencing, it may be challenging to apply self-affirmation techniques in the context of large scale outreach campaigns.

Exploratory analyses in the present study tested whether mood mediated the self-affirmation manipulation's effect on self-stigma of seeking psychological help because McQueen and Klein's (2006) systematic review of self-affirmation manipulations prompted doubt on whether the effects of self-affirmation on attitude change may be due to changes in mood rather than to cognitive processes specifically associated with self-affirmation. Results of the present study suggested that self-affirmation's effect on self-stigma was not due to changes in mood, as mood did not mediate self-affirmation's effect on self-stigma.

Additional exploratory analyses tested whether either previous psychological help-seeking or gender moderated the self-affirmation manipulation's effect on self-stigma. There was no evidence to suggest that the self-affirmation manipulation differentially affected individuals who had previously sought psychological help as compared to individuals who had never previously sought psychological help. With regards to gender, the self-affirmation manipulation had a greater effect when males were experimenters. Sherman and Cohen (2006) proposed that self-affirmation induced openness to information is only effective when there is evidence against one's position. Therefore, it is possible that self-affirmation effects were amplified in the presence of male experimenters because their presence made masculine-gendered stereotypes salient, and these stereotypes may have conflicted with the tasks and values associated with help-seeking (Addis & Mahalik, 2003). Although, given

that experimenter gender was not randomly assigned, there may be other relevant explanations for this result. Moreover, given that there were multiple exploratory analyses conducted, type I error cannot be ruled out.

Limitations and Future Directions

This study had several limitations. First, it is possible that a longer, more extensive writing intervention may have produced greater self-affirmation effects. While the power of the study was sufficient to attain statistical significance for one outcome measure, it is possible that statistical power would have been increased through use of a different experimental manipulation. Even though there is no consensus as to the "best" way to manipulate self-affirmation processes, it is conceivable that other methods—such as self-imagery techniques, positive feedback, completion of self-esteem scales, priming, and expectations that one might perform a positive behavior in the future—might provide stronger effects (McQueen & Klein, 2006).

Second, in order to make psychological help salient as a means of inducing a potential threat to self-worth, all participants read an article that promoted psychotherapy after the experimental manipulation but before assessment of the dependent variables at posttest. This may not have been necessary. The outcome measures, which all mentioned psychotherapy, may have induced enough salience of psychotherapy by themselves to produce the required threat response. Including the article may have decreased the experimental effect because it presented psychotherapy in a positive light, and thus may have caused all participants to acknowledge the supportive aspects of therapy. Specifically, this could also have lessened the defensiveness that participants in the control group experienced, and therefore reducing the effect of the experimental manipulation. Though, because the

article was a constant in both experimental conditions, it was not a confound, and therefore does not affect the interpretation of the self-affirmation processes that occurred.

The current study provides initial evidence that self-affirmation processes are capable of reducing self-stigma of seeking psychological help, and suggest several directions for future research. First, future studies could continue to explore the relationship between self-affirmation processes and stigma. Even though the current study assessed the relationship between self-affirmation and self-stigma, future studies could include public stigma measures to examine if public stigma can also be reduced via self-affirmation processes. Given that out-group derogation can serve to enhance self-image (Fein & Spencer, 1997), endorsement of public stigma, may involve derogating an out-group such as the mentally ill, may be related to self-protective, defensive processes that can be reduced by self-affirmation. Second, as a way of translating self-affirmation processes into clinical interventions, future studies could identify alternative ways to invoke self-affirmation by means that could be applied in actual clinical contexts. These might include enabling the client to succeed in some personally relevant activity, or being reminded of previous success in another domain, thereby decreasing their defensiveness to subsequent information that might otherwise threaten their self-worth (Sherman & Cohen, 2006). Third, future research could explore other clinical constructs related to defensiveness, other than self-stigma, for which the dynamics of self-affirmation processes may apply. For example, potential clinical areas that might invoke defensiveness could include altering negative health behaviors, acknowledging personal responsibility, and attending to—rather than avoiding—aversive emotional experiences.

Conclusion

Evidence from this current study indicates that self-affirmation theory (Steele & Liu, 1983) may offer promise in conceptualizing psychological mechanisms related to self-stigma of seeking psychological help. The results suggest that if people are able bolster their global sense of self-worth by affirming important personal characteristics they may be less likely to internalize public stigma associated with seeking psychological help. Results of the current study demonstrated not only that self-affirmation processes can decrease self-stigma, but that they could be translated into clinical applications to increase the likelihood that clinically distressed individuals will seek and receive the services they require.

Given that the Surgeon General's Report on Mental Health (1999) identified stigma as an important barrier to help-seeking, there is some justification for conducting translational research focused on applying self-affirmation processes in clinical applications. Previous attempts to mitigate stigma have focused on decreasing public stigma (Cf. Corrigan et al., 2012; Corrigan, 2004), but fewer have focused on treatments designed to attenuate self-stigma, the psychological internalization of public stigma (Wade et al., 2011). The current study constitutes an initial step in determining how psychological mechanisms can function to reduce the extent to which people perceive psychological help to be threatening and internalize stigmatic beliefs regarding the receipt of psychological services.

Steele's (1988) self-affirmation theory asserts that the motivation to maintain a global sense of self-worth is a primary force in people's lives, and which can lead to defensiveness when that sense of self-worth is threatened. Even though defensiveness may help protect perceptions of self-worth, in some cases it may also reduce the ability to most appropriately adapt to the environment (Festinger, 1957). Self-affirmation theory suggests a means of

reducing this defensiveness through the indirect bolstering of global self-worth via self-affirmation in a domain unrelated to a subsequent threat. As shown in the current study, the tendency for people to apply stigmatic beliefs to a possible self-in-therapy is decreased if they first engage in self-affirmation in a domain unrelated to psychological help. If translated into clinical applications, techniques based on self-affirmation theory could be employed to reduce individuals' resistance to seeking psychological help, and thereby contribute to addressing the underutilization of mental health services.

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APPENDIX A

IRB APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

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

Date: 8/22/2011

To: Daniel Lannin
112W Lagomarcino Hall

CC: Dr. Max Guyll
W112 Lagomarcino

From: Office for Responsible Research

Title: Subjective and Objective Memory Study

IRB Num: 11-316

Approval Date:	8/22/2011	**Continuing Review Date:**	8/15/2012
Submission Type:	New	**Review Type:**	Full Committee

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

Your study has been approved according to the dates shown above. To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

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

Research investigators are expected to comply with the principles of the Belmont Report, and state and federal regulations regarding the involvement of humans in research. These documents are located on the Office for Responsible Research website http://www.compliance.iastate.edu/irb/forms/ or available by calling (515) 294-4566.

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

APPENDIX B

EXPERIMENTAL MEASURES

Clinical Outcomes in Routine Evaluation Outcome Measure for the General Population

GP-CORE: Clinical Outcomes in Routine Evaluation This form has 14 statements about how you have been OVER THE LAST WEEK. Please read each statement and think about how often you felt that way last week. Then tick the box which is closest to this.

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

Adapted Sources of Validation Scale

SVS

RANKING OF PERSONAL CHARACTERISTICS AND VALUES

Below is a list of characteristics and values, some of which may be important to you, some of which may be unimportant. Please rank these values and qualities in order of their importance to you, from 1-13 (1 = most important item, 13 = least important item). Use each number only once.

_____Artistic skills/aesthetic appreciation

_____Sense of humor

_____Relationships with friends/family

_____Spontaneity/living life in the moment

_____Social skills

_____Athletics

_____Musical ability/appreciation

_____Physical attractiveness

_____Creativity

_____academic skills

_____Romance

_____Religion

_____Other (please list:_____)

Jellybean Flavor Scale

Jellybean Flavor Scale

RANKING OF JELLYBEAN FLAVORS

Below is a list of jellybean flavors, some of which may seem tasty to you, some of which may not seem tasty. Please rank these jellybeans in order of tastiness, from 1-12 (1 = most tasty jellybean flavor, 12 = least tasty jellybean flavor). Use each number only once.

_____Blueberry/Vanilla Swirl

_____Buttered Popcorn

_____Peppermint Tea

_____Caribbean Punch

_____Pink Lemonade

_____Peanut Butter& Jelly

_____Watermelon

_____Caramel Apple

_____Saltine Cracker

_____Tartar Sauce

_____Strawberry

_____Mango

Self-Stigma of Seeking Psychological Help Scale

SSOSH

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

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

Intentions to Seek Counseling Inventory

ISCI

Below are a number of issues that college students commonly bring to counseling. Please rate how likely you would be to seek help at the university counseling center if you were experiencing the problem.

	Very Unlikely	**Unlikely**	**A little Unlikely**	**A little Likely**	**Likely**	**Very Likely**
Weight control	1	2	3	4	5	6
Excessive alcohol use	1	2	3	4	5	6
Relationship difficulties	1	2	3	4	5	6
Concerns about sexuality	1	2	3	4	5	6
Depression	1	2	3	4	5	6
Conflicts with parents	1	2	3	4	5	6
Speech anxiety	1	2	3	4	5	6
Difficulties dating	1	2	3	4	5	6
Choosing a major	1	2	3	4	5	6
Difficulty in sleeping	1	2	3	4	5	6
Drug problems	1	2	3	4	5	6
Inferiority feelings	1	2	3	4	5	6
Test anxiety	1	2	3	4	5	6
Difficulties with friends	1	2	3	4	5	6
Academic work procrastination	1	2	3	4	5	6
Self-understanding	1	2	3	4	5	6
Loneliness	1	2	3	4	5	6

APPENDIX G

Willingness to Seek Help Scale

WSHS

Suppose you were walking through the Student Services Building sometime in the next 3 months and you see a National Mental Health Screening Day booth set up in one of the private offices, where psychologists are doing confidential, free on-the-spot mental health screenings. You have two hours before your next class, so you have plenty of time available. *Please circle the response that describes how you might react in this situation.*

	Not at all willing			Maybe willing			Very willing
1. How willing would you be to walk over to the booth to learn more about the mental health screenings?	1	2	3	4	5	6	7
2. How willing would you be to participate in a mental health screening?	1	2	3	4	5	6	7

Suppose you stop by the campus counseling center sometime in the next 3 months to get advice on how to help a friend of yours who is feeling really depressed about a recent breakup. While you are there, you find out that you can confidentially meet with one of the psychologists (for free), who happens to have an opening that hour. No one will know you met with the psychologist. You have two hours before your next class, so you have plenty of time available.

	Not at all willing			Maybe willing			Very willing
3. How willing would you be to meet with the psychologist for a one-time session to speak about the issue you're dealing with?	1	2	3	4	5	6	7
4. How willing would you be to return in subsequent weeks for additional sessions to continue speaking about the issue you're dealing with?	1	2	3	4	5	6	7

Suppose you are at the Memorial Union sometime in the next 3 months and find out that a 30-minute mental health workshop relevant to the issue you're dealing with is about to start. You have two hours before your next class, so you have plenty of time available. No one, except the fellow attendees, will know you attended the workshop.

	Not at all willing			Maybe willing			Very willing
5. How willing would you be to ask the workshop facilitator, who is available to answer questions before the workshop, for additional information about the workshop?	1	2	3	4	5	6	7
6. How willing would you be to attend the workshop?	1	2	3	4	5	6	7

Suppose you go to visit your new academic advisor sometime in the next 3 months to talk about academic concerns. The advisor seems like a kind and trustworthy person. After talking about your career plans, you tell your advisor that an issue (you don't go into details) you've been struggling with has been impacting your academic performance. The advisor tells you that seeking help from a psychologist may be a good idea, and gives you the number for the campus counseling center.

	Not at all willing			Maybe willing			Very willing
7. How willing would you be to call the counseling center right after your meeting to set up an appointment with a psychologist?	1	2	3	4	5	6	7

Positive and Negative Affect Schedule

PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the appropriate answer in the space next to that word.
Indicate the extent to which you feel each emotion right now.

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Interest	1	2	3	4	5
Distressed	1	2	3	4	5
Excited	1	2	3	4	5
Upset	1	2	3	4	5
Strong	1	2	3	4	5
Guilty	1	2	3	4	5
Scared	1	2	3	4	5
Hostile	1	2	3	4	5
Enthusiastic	1	2	3	4	5
Proud	1	2	3	4	5
Irritable	1	2	3	4	5
Alert	1	2	3	4	5
Ashamed	1	2	3	4	5
Inspired	1	2	3	4	5
Nervous	1	2	3	4	5
Determined	1	2	3	4	5
Attentive	1	2	3	4	5
Jittery	1	2	3	4	5
Active	1	2	3	4	5
Afraid	1	2	3	4	5

Quiz on Psychotherapy Article

ORI

Multiple Choice:

Circle the letter of the choice that best completes the statement or answers the question.

1. Psychotherapy consists mostly of what?

a. "Talk therapy," talking about issues with a therapist
b. Analyzing dreams and engaging the unconscious
c. Psycho-analgesic cognitive training
d. Confessing problems to a trained professional

2. How long do most therapy sessions last?

a. 1-2 hours
b. 30 minutes
c. 45-50 minutes
d. until problems are solved

3. According to a study by Smith and Glass (1975), the typical therapy client is better off than _____% of people who go untreated.

a. 20%
b. 75%
c. 100%
d. 0%
e. 50%

4. Psychotherapy has been linked to

a. improved emotions
b. improved behaviors
c. positive changes in the body
d. positive changes in the brain
e. all of the above

5. Benefits of psychotherapy include

a. fewer medical problems
b. heightened sense of hearing
c. fewer medical problems
d. more job stability
e. all of the above
f. a, c, and d

6. The goal of psychotherapy is to

a. make people less nuts
b. eliminate or reduce troubling symptoms so a client can function better
c. make people feel like they don't have problems
d. make sure people are on their medication

7. TRUE or FALSE. For some problems psychotherapy may be as effective, or even more effective, than pharmaceutical (drug) therapies.

a. TRUE
b. FALSE

8. _____ is required by the profession of psychotherapy, ensuring that clients remain safe while sharing personal feelings and thoughts.

a. confidentiality
b. secrecy
c. anonymity
d. a weekly progress report
e. classification

APPENDIX C

PSYCHOTHERAPY ARTICLE

Psychotherapy

What is Psychotherapy? Psychotherapy is a treatment that involves a relationship between a therapist and a client. It can be used to treat a variety of mental health problems and emotional difficulties. The goal of psychotherapy is to eliminate or reduce troubling symptoms so a client can function better and experience healing.

What happens in psychotherapy? Most of the time spent in therapy consists of talking about issues with a therapy. Yet, along with "talk" therapy there are a number of other methods such as relaxation and assertiveness training, and role-playing. Treatment can involve one person, a couple, a family, or a group depending on the nature of the problem. Some therapists focus on past to help clients gain insight into their problems, while others will focus on the present to work for direct behavior changes using specific techniques.

What are the benefits? Research shows that most clients who receive psychotherapy experience relief from symptoms and function better. Smith and Glass (1975) found that the typical therapy client is better off than 75% of people who go untreated. For some problems psychotherapy may be as effective, or even more effective, than pharmaceutical (drug) therapies. Psychotherapy has been linked with improved emotions, behaviors, and positive changes in the body and brain. Other benefits include fewer sick days, fewer medical problems, and more job stability.

What is in a therapy session? Most therapy sessions are 45-50 minutes long. They can address both immediate issues and more long-term complicated issues. Confidentiality is required by the profession of psychotherapy, ensuring that clients remain safe while sharing personal feelings and thoughts.