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Recommended Citation

Masuda, A., Price, M., Anderson, P., Schmertz, S. K., & Calamaras, M. (2009). The role of psychological flexibility in mental health stigma and psychological distress for the stigmatizer. *Journal of Social and Clinical Psychology, 28*(10), 1244-1262. doi: 10.1521/jscp.2009.28.10.1244

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THE ROLE OF PSYCHOLOGICAL FLEXIBILITY IN MENTAL HEALTH STIGMA AND PSYCHOLOGICAL DISTRESS FOR THE STIGMATIZER

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Although the negative consequences of stigmatization on those with psychological disorders have been well-documented, little is known about the impact of stigmatization on individuals who report having such stigmatizing attitudes. The present set of studies first investigated whether there was a link between stigmatizing attitudes toward people with psychological disorders and one's own level of psychological distress. In addition, psychological flexibility was explored as a possible facet of this relation. As predicted, results revealed that there was a significant positive correlation between mental health stigma and psychological distress. Furthermore, the results suggested that psychological flexibility may be a shared feature of mental health stigma and psychological distress. Exploring the role of psychological flexibility appears to be a promising construct for conceptualizing and treating mental health stigma.

Stigmatization has been conceptualized as the process of objectification and dehumanization of other individuals by the use of ordinary human verbal practices, such as categorization and evaluation (Hayes, Niccolls, Masuda, & Rye, 2002). As such, mental health stigma can be defined as the process of objectifying and dehumanizing a person who is categorized as mentally ill. In general, the label

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of mental illness is associated with negative images and emotional reactions, one example being that its sufferers are unpredictable, dangerous, and difficult to talk to (e.g., Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000; Link & Phelan, 2006). Once a person is labeled as having a mental illness, the person is likely to be avoided by those who hold stigmatizing beliefs (i.e., Alexander & Link, 2003; Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999). Indeed, research suggests that the judgmental aspects of stigma regulate avoidance and escape behaviors on the part of the stigmatizer (Kurzban & Leavy, 2001; Link & Phelan, 2001).

Given that stigmatization leads the stigmatizer to avoid those labeled as "mentally ill" or "having a psychological disorder," it is not surprising that mental health stigma is linked to a wide range of negative outcomes for those who are stigmatized (Corrigan & Penn, 1999; Link, 1987; Link & Phelan, 2006; Link et al., 1999). These negative outcomes include, but are not limited to, unemployment (e.g., Link, 1987), housing problems (e.g., Forchuk, Nelson, & Hall, 2006; Page, 1995; Penn & Martin, 1998), and poor social adjustment (e.g., Perlick et al., 2001). Stigmatization can also impact mental health treatment, as it has been linked to the underutilization of behavioral services (Corrigan, 2004; Kushner & Sher, 1991), treatment delay (Scambler, 1998; Starr, Campbell, & Herrick, 2002), and premature termination of treatment (Sirey et al., 2001). Furthermore, stigmatized individuals with psychological disorders tend to adopt the negative attitudes, with which they are faced, a process called self-stigma (Corrigan & Watson, 2002).

Although much is known about the negative outcomes associated with being stigmatized, little is known about whether and how people who endorse such stigmatizing beliefs are affected. This line of questioning is important because scholars have long suggested that to effectively reduce stigma and oppression, individuals must be motivated to reduce stigma not only because it helps those that are stigmatized, but also because it is in one's own self interest (Sue et al., 1982). Some researchers have suggested that stigmatizing processes are adaptive because they inform stigmatizers of potential danger and activate avoidance behaviors (Haghighat, 2001; Kurzban & Leavy, 2001). Alternatively, research on perspective-taking suggests that stigmatization can be detrimental to individuals who endorse stigmatizing beliefs (Davis, Conklin, Smith, & Luce, 1996). Perspective-taking, defined as the process of seeing the psychological point of view of others (Davis, 1983), is theorized to be in

direct contrast to the processes associated with stigmatization. For example, if a person has the ability to imagine what it is like to be depressed, that person is less likely to dehumanize the depressed person, and will thus have the choice to respond to the depressed person with empathy and compassion, rather than avoidance. Research further suggests that perspective-taking ability is inversely related to stereotypic biases and the perceived distinction between self and other, both major features of stigmatization (Davis et al., 1996; Galinsky & Moskowitz, 2000). Research also has shown that perspective-taking is negatively associated with social dysfunction and personal distress (e.g., Davis, 1983). Thus the literature on perspective-taking suggests that individuals who hold stigmatizing beliefs may experience greater psychological distress, particularly within interpersonal domains.

Psychological flexibility is a construct that is theoretically relevant for both psychological distress and stigmatization and may assist in understanding the link between the two (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). According to Hayes et al. (2006), psychological flexibility is "the ability to contact the present moment fully as a conscious human being, and to change or persist in behavior when doing so serves valued ends" (p. 7). Psychological flexibility is the process of engaging with private psychological events (e.g., thoughts, feelings) without trying to judge, evaluate, alter, fix, down-regulate, or change them. Because psychological flexibility allows one to experience even seemingly negative thoughts and feelings without judgment, it becomes possible for one to have such thoughts and feelings without experiencing the impact of those thoughts and feelings as truth (Hayes et al., 2002; Masuda, Hayes, Sackett, & Twohig, 2004; Masuda, Hayes et al., 2009). In turn, it is theorized that a person with psychological flexibility will be less likely to respond to unwanted or negative private events with control/avoidance-based behaviors and will be more likely to respond to private events in a way that is congruent with one's personal values (Hayes, 2004; Hayes et al., 2006). For example, a person low in psychological flexibility who has the thought "I am depressed" may have difficulty detaching from the thought as truth, and may then respond by choosing not to be with friends and family because they are not fit for the company of others. The person high in psychological flexibility who has the thought, "I am depressed," will be less likely to judge the thought as true and may respond by choosing to

be with friends and family because interpersonal relationships are important to the person.

Because psychological flexibility is incompatible with control- and avoidance-based coping strategies, and because the use of these strategies in response to negative psychological experiences ironically serves to increase undesired psychological experiences (e.g., Campbell-Sills, Barlow, Brown, & Hoffman, 2006; Marcks, & Woods, 2005; Wegner, 1994), it is theorized that psychological flexibility will be inversely associated with psychological distress. Indeed, the empirical literature suggests that psychological flexibility is inversely associated with various forms of psychological problems (e.g., Bond & Bunce, 2003; Chapman, Gratz, & Brown, 2006; Greco et al., 2005; Hayes et al., 2006; Kashdan, Barrios, Forsyth, & Steger, 2006). For example, among 412 nonclinical adults employed as customer service center workers in the United Kingdom (Bond & Bunce, 2003), higher degrees of psychological flexibility were associated with a lower probability of general psychological ill-health. Similarly, psychological flexibility was inversely related to negative psychological outcomes, such as anxiety, among nonclinical college populations (Kashdan et al., 2006).

The link between psychological flexibility and avoidance behaviors may also help explain the process of stigmatization. For example, when a person low in psychological flexibility has the thought "that person is depressed," he or she may be more likely to believe the thought and other thoughts associated with people with mental illness (e.g., unpredictable, out-of-control). Further, the person may be likely to respond by objectifying (e.g., that person is not like me) and avoiding the depressed individual. The empirical literature examining the relation between psychological flexibility and stigmatization is in its infancy (Hayes, Bissett, et al., 2004; Lillis & Hayes, 2007), but suggests that the two constructs are related. One recent study compared two brief stigma reduction interventions: an information-based psychoeducational workshop providing facts about psychological disorders and a workshop based on promoting acceptance, perspective-taking, and empathy (Masuda et al., 2007). At pre-intervention, stigmatizing beliefs seemed to be negatively associated with psychological flexibility. Whereas both interventions were successful in reducing stigma in those reporting high psychological flexibility, only the acceptance-based intervention significantly reduced stigma in those reporting lower levels of

psychological flexibility. These findings suggest that psychological flexibility may be a core process involved in stigmatization.

As the empirical literature suggests that psychological flexibility is inversely related to both poor psychological outcomes and stigmatizing beliefs, psychological flexibility may be a common feature of both and help explain how the two could be related. That is, the potential relation between stigmatizing beliefs and poorer psychological functioning may be accounted for by the role that psychological flexibility plays in each.

PRESENT STUDY

Whereas the negative impact of stigmatization on those who are labeled as mentally ill and having a psychological disorder is well known, existing theories and interventions of stigma seem to overlook the potential danger of stigmatization on stigmatizing individuals. However, literature from perspective-taking and contemporary behavioral models suggests that stigmatization may reflect a lack of psychological flexibility (Hayes et al., 2006), and that the cognitive processes of categorization, judgment, and avoidance-based behavior regulation relevant for stigmatization of others (e.g., Link & Phelan, 2001, 2006) are likely to be detrimental to the person who engages in the process. In other words, if there is a relation between mental health stigma and psychological distress, it is in part because low psychological flexibility is a shared feature of both.

The present investigation consisted of two studies (i.e., Study 1 & Study 2). The primary purpose was to investigate the relation between stigmatizing attitudes and psychological distress. Based on theory and prior research (e.g., Davis, 1983; Hayes et al., 2006; Link & Phelan, 2001), it was hypothesized that stigmatizing attitudes and psychological distress would be positively correlated. The second purpose was to investigate whether psychological flexibility contributes to the relation between stigmatizing attitudes and psychological distress. Based on previous literature, it was predicted that psychological flexibility would be negatively related to stigmatizing attitudes and positively related to psychological well-being. It was further hypothesized that controlling for psychological flexibility would weaken the relation between stigmatizing attitudes and psychological well-being. The hypotheses were tested in two studies, using various measures of stigmatizing attitudes toward

people with psychological disorders, psychological flexibility, and psychological distress across two different nonclinical samples.

STUDY 1

METHOD

Data for Study 1 was collected as part of a previously conducted randomized controlled project that investigated the effectiveness of stigma reduction interventions at reducing mental health stigmas among college populations (Masuda et al., 2007).

Participants

Data was collected from 139 undergraduate college students at a relatively large public 4-year university in Nevada that participated in either the pilot study ($n = 47$) or the final outcome study ($n = 92$). Participants volunteered from psychology courses and completed informed consent. The majority of participants identified as a female (69%, $n_{\text{Female}} = 96$; 31%, $n_{\text{Male}} = 43$), European American (76%, $n_{\text{European American}} = 106$; 7%, $n_{\text{Asian/Pacific Islander}} = 10$, 6%, $n_{\text{Hispanic American}} = 8$; 3%, $n_{\text{African American}} = 4$; 8%, $n_{\text{Other}} = 11$). The ages ranged from 16-61 ($M = 20.34$ years, $SD = 6.21$). The ethnic and age composition of the present participant sample was similar to the overall university population. Participants received extra credit and \$10 compensation for attendance.

Measures

The following measures were used to assess stigmatizing attitudes, psychological distress, and psychological flexibility.

Stigmatizing Attitudes-Believability (SAB). The SAB is an 8-item self-report questionnaire developed by the first author to measure stigmatizing attitudes toward people with psychological disorders (see Appendix A). These items were drawn from previous survey studies on mental health stigma (e.g., Crisp et al., 2000). Participants are asked to rate a series of a negative statements about individuals with various psychological disorders on a 7-point Likert scale ranging from 1 (not at all believable) to 7 (completely believable). Item responses are summed to an overall score ranging from 8 to 56. The

scale showed acceptable internal consistency with a Cronbach's $\alpha = .78$.

General Health Questionnaire-12 (GHQ-12; Goldberg, 1978). The GHQ-12 is a measure of overall psychological health. Participants are asked to rate the frequency with which they experience common behavioral and psychological stressors. Using a Likert-scale format (Banks et al., 1980), items are scored on a 3-point scale, ranging from 1 (not at all) to 3 (much more than usual) with a total score derived from the sum of all responses. Total scores range from 12 to 36 with higher scores indicating poorer psychological health. Previous studies conducted in a work setting reported that the GHQ-12 has good psychometric properties (Banks et al., 1980). A recent study in a worksite setting has shown adequate levels of internal consistency, ranging from .73 to .76 (Bond & Bunce, 2000). The scale in the present study also showed adequate internal consistency with a Cronbach's $\alpha = .87$.

Acceptance and Action Questionnaire (AAQ-16; Bond & Bunce, 2003). The AAQ-16 was used to measure psychological flexibility for this study. The AAQ is a 16-item questionnaire designed to assess willingness to accept undesirable thoughts and feelings (e.g., I rarely worry about getting my anxieties, worries, and feelings under control) while acting in a way that is congruent with one's values and goals (e.g., Despite doubts, I feel as though I can set a course in my life and then stick to it). The measure uses a 7-point Likert scale, ranging from 1 (Never true) to 7 (Always true). Total scores range from 16 to 112, with higher scores indicating greater psychological flexibility. Although the AAQ is a relatively new measure, research has indicated that it has good psychometric properties (see Hayes, Strosahl, et al., 2004). In a previous study conducted in a work setting with a nonclinical samples (Bond & Bunce, 2003), alpha coefficients for this measure ranged from .72 to .79. In the present study, the scale showed acceptable internal consistency with a Cronbach's $\alpha = .74$.

PROCEDURE

The measures were administered in group format in a classroom setting as part of larger assessment prior to starting treatment (see

**TABLE 1. Means, Standard Deviations, and Zero-Order Relations
Between All Variables in Study 1**

	1	2	3
1. SAB	—	-.22*	.18*
2. AAQ-16		—	-.47***
3. GHQ-12			—
<i>M</i>	23.71	72.54	12.47
<i>SD</i>	7.19	10.40	5.50

Notes. *N* = 139; SAB = Stigmatizing Attitudes-Believability; AAQ = Acceptance and Action Questionnaire; GHQ = General Health Questionnaire. **p* < .05, ****p* < .001

Masuda et al., 2007 for assessment procedure). Participants were instructed to complete the measures anonymously.

RESULTS OF STUDY 1

Based on prior research showing that gender may play a role in associations with stigmatization (e.g., Mann & Himelein, 2004), we looked at the effect of gender as a control variable and as a moderator for the correlation and regression analyses, as well as compared scores for males and females across all variables. All of these analyses yielded non-significant findings, suggesting that gender did not play an important role in the current study. Therefore, in the present study, gender was omitted from data analyses.

Descriptive statistics and correlations among the variables are shown in Table 1. Scores on the stigmatizing attitudes scale (SAB) were positively related to scores on the general health questionnaire (GHQ-12), indicating that greater stigmatizing attitudes are associated with poorer psychological health ($r = .18, p < .05$). Also, stigmatizing attitudes were negatively related to psychological flexibility (AAQ-16; $r = -.22, p < .01$).

The second hypothesis, that controlling for psychological flexibility would weaken the relation between stigmatizing attitudes and psychological well-being, was tested using a hierarchical regression in which stigmatizing attitudes (i.e., SAB scores) were entered in the first step and stigmatizing attitudes (i.e., SAB scores) and psychological flexibility (AAQ scores) were entered in the second step (see Table 2). The results indicated that stigmatizing attitudes did not account for a significant amount of variance in the general health

TABLE 2. Linear Regression Using SAB and AAQ16 Scores as Predictors of GHQ-12

$R^2\Delta$	Variables	β	b	$SE\ b$
Step 1	SAB	.18*	.14*	.07
$R^2\Delta = .03^*$				
Step 2	SAB	.08	.06	.06
$R^2\Delta = .20^{***}$	AAQ16	-.45***	-.24	.04

Note. $N = 139$. * $p < .05$, *** $p < .001$.

questionnaire above and beyond psychological flexibility, $R^2\Delta = .01$, $p = .32$. Taken together, these findings suggest that although there appears to be a relation between stigmatizing attitudes and general health, this relation is accounted for by the shared variance between stigmatizing attitudes and psychological flexibility.

A second study was conducted with a different sample and with an additional measure of mental health stigma. Furthermore, a different measure of psychological distress was used as the predicted variable.

STUDY 2

METHOD

Participants

The study was conducted at a large public 4-year university in Georgia. Participants were 297 students (74%, $n_{\text{Female}} = 220$; 26%, $n_{\text{Male}} = 77$) recruited from undergraduate psychology courses through a web-based research participant pool. The age of the participants ranged from 18-52 ($M = 20.48$, $SD = 4.07$). The ethnic composition of the sample was diverse with 44% ($n = 132$) identifying as European American, 29% ($n = 85$) identifying as African American, 16% ($n = 48$) identifying as Asian/Pacific Islander, 5% ($n = 15$) identifying as Hispanic Americans, and 6% ($n = 17$) identifying as "other."

Measures

Along with the measures used to assess stigmatizing attitudes (SAB) and psychological flexibility (AAQ-16) in Study 1, two additional measures were used in Study 2 as follows:

Day's Mental Illness Stigma Scale—Anxiety (DMISS-A; Day, Edgren, & Eshleman, 2007). The DMISS-A subscale consists of the 7 items on a 7-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree), with greater scores indicating greater degrees of stigmatizing attitudes. These items reflect the presence of anxiousness, nervousness, uneasiness, and fear of physical harm when around someone with a psychological disorder (e.g., I feel anxious and uncomfortable when I am around someone with a psychological disorder). This scale has been validated among college students and a community sample, revealing good internal consistency (Cronbach's $\alpha = .90$; Day et al., 2007). Items on the stigma subscale were modified slightly to make the stigma subscale fit to college student populations and their experiences (e.g., mental illness was replaced with psychological disorder). The measure showed excellent internal consistency with a Cronbach's $\alpha = .93$.

Interpersonal Reactivity Index—Personal Distress (IRI-PD; Davis, 1983). The 7-item subscale measures self-oriented feelings of personal anxiety and uneasiness during tense interpersonal contexts on a 5-point scale, ranging from 0 (does not describe me well) to 4 (describes me very well). Higher scores indicate greater degrees of personal distress in interpersonal and emergency situations. The IRI has good psychometric properties. All subscales of the IRI, including the IRI-PD, have satisfactory internal consistency (Cronbach's α ranging from .71 to .77) and test-retest reliabilities ranging from .62 to .71 (Davis, 1980). The measure showed acceptable internal consistency in the present sample (Cronbach's $\alpha = .75$).

Procedure

Participants who signed up for the study were asked to complete an anonymous web-based survey. Prior to beginning the survey, information relevant to the present study was presented on a computer screen explaining the purpose of the study and providing instructions regarding how to respond to the survey. Participants anonymously provided demographic information and completed the measures. Unlike Study 1, Study 2 used a web-based survey because it is the typical manner for undergraduates to complete survey studies at this university.

**TABLE 3. Means, Standard Deviations, and Zero-Order Relations
Between All Variables in Study 2**

	1	2	3	4
1. DMISS Anxiety	--	.65***	-.30***	.29***
2. SAB		--	-.24***	.13*
3. AAQ-16			--	-.43***
4. IRI Personal Distress				--
<i>M</i>	20.16	24.64	70.32	13.42
<i>SD</i>	9.25	8.17	9.71	4.42

Note. *N* = 297; DMISS = Day's Mental Illness Stigma Scale; SAB = Stigmatizing Attitudes-Believability; AAQ = Acceptance and Action Questionnaire; IRI = Interpersonal Reactivity Index.

* $p < .05$; *** $p < .001$.

RESULTS AND DISCUSSION OF STUDY 2

Descriptive statistics and a correlation matrix of all variables are presented in Table 3. Similar to study 1, gender did not impact the results and was omitted from the analyses. The relations among variables in Study 2 were similar to that of Study 1. The measures of stigmatizing attitudes (DMISS-A and SAB) were positively related to self-reports of personal distress (IRI-PD; $r = .29$, $p < .001$ and $r = .13$, $p = .03$, respectively). Both measures of stigmatizing attitudes were found to be negatively related to psychological flexibility (AAQ-16; $r = -.31$, $p < .001$ for the DMISS Anxiety and $r = -.24$, $p < .001$ for SAB). These results suggest that greater stigmatizing attitudes were associated with greater levels of personal distress and lower psychological flexibility.

To test the hypothesis that controlling for psychological flexibility would weaken the relation between stigmatizing attitudes and personal distress, a hierarchical regression analysis for each stigma measure (i.e., SAB and DMISS-A) was conducted. In both analyses, stigmatizing attitude scores were entered in the first step, and stigmatizing attitude and psychological flexibility scores (AAQ) were entered in the 2nd step (Table 4). As in Study 1, results showed that stigmatizing attitudes, as measure by the SAB, did not account for a significant amount of variability in interpersonal distress (IRI-PD) above and beyond psychological flexibility (AAQ), $R^2\Delta = < .01$, $p = .64$. Findings using a second measure of stigmatizing attitudes (DMISS-A) were similar. Although results showed that DMISS-A scores were significantly related to interpersonal distress after covarying psychological flexibility, $R^2\Delta = < .03$, $p < .01$, the strength

TABLE 4. Linear Regression Models using Psychological Flexibility as a Covariate

DV = IRI-PD	Variables	β	<i>b</i>	SE <i>b</i>
Step 1	DMISS	.29***	.14	.03
<i>R</i> ² Δ = .08***				
Step 2	AAQ16	-.45***	-.24	.04
<i>R</i> ² Δ = .13***				
Step 1	DMISS	.17**	.08	.03
Step 1	SAB	.13*	.07*	.03
<i>R</i> ² Δ = .02*				
Step 2	AAQ16	-.45***	-.24	.04
Step 2	SAB	.03	.01	.03
<i>R</i> ² Δ = .17***				

Note. *N* = 297. All *p*-values were two-tailed. **p* < .05, ***p* < .01, ****p* < .001.

of the relation between the DMISS-A and interpersonal distress (*r* = .29) became substantially weaker after psychological flexibility (β = .17) was taken into account. These results support the hypothesis that stigmatizing beliefs are related to personal distress and that the relation is somewhat accounted for by psychological flexibility.

GENERAL DISCUSSION

The present set of studies revealed that mental health stigma is positively related to negative psychological outcomes for those holding the stigmatizing attitudes, including general psychological ill-health and personal distress. Psychological flexibility was found to be inversely related to mental health stigma and negative psychological outcomes. Further analyses revealed that the relation between mental health stigma and poor psychological outcomes is partly accounted for by psychological flexibility.

Whereas there is a robust literature showing the association between stigma and negative outcomes for those who are stigmatized, the present studies are among the first to reveal that stigmatizing attitudes are also associated with negative outcomes for the stigmatizers themselves. This finding is interesting because it suggests that stigmatization directed toward other people is positively related to the stigmatizer’s own psychological distress. Furthermore, the relation between stigmatizing beliefs and negative outcomes for the stigmatizer is at least partly accounted for by psychological flexibility. More specifically, our results revealed that when the process of psychological flexibility was taken into account, the relation

was significantly weakened, suggesting that the underlying shared process of categorization, judgment, and behavior regulation (e.g., lower psychological flexibility) is important for understanding the relation between stigmatizing attitudes and psychological distress.

Conceptually speaking, the present study seems to suggest the importance of process-based understanding of stigmatization. In literature, mental health stigma is often identified based on its topographical features, such as the specific content of thoughts (e.g., they are untrustworthy; Crisp et al., 2000). The present study suggests that stigmatization is also due in part to processes associated with psychological flexibility. The rigid and judgmental process of categorization, evaluation, and avoidance-based behavior regulation theorized to be a part of low psychological flexibility may be important for understanding stigmatization, regardless of the contents of stigmatizing thoughts. The position seems to concur with the work of Link and Phelan's (2001, 2006) that stresses stigmatization as a multi-faceted dynamic process.

These findings also are relevant to stigma reduction interventions. In existing interventions, participants typically receive information on the negative consequences of stigmatization on those being stigmatized in order to undermine stigmatizing attitudes toward that group. The knowledge and awareness that stigmatizing beliefs may also have negative consequences for the stigmatizer may increase the motivation on the part of the stigmatizer to reduce prejudice (e.g., this hurts me, too). The notion that stigma hurts the stigmatized and the stigmatizer is consistent with stigma theory, which suggests that undermining the distance or distinction between self and others is an important process in stigma reduction interventions (Hayes et al., 2002; Link & Phelan, 2001; Masuda et al., 2007).

Strategically, the present findings seem to suggest that it is crucial to target psychological flexibility in order to undermine mental health stigma and related psychological distress. This line of reasoning is consistent with the recent acceptance and mindfulness movement in cognitive behavior therapy (e.g., Hayes, 2004; Linehan, 1993). Psychosocial interventions, including stigma reduction programs (e.g., Corrigan & Penn, 1999), generally focus on the content of targeted private events (e.g., attitudes, beliefs, thoughts, feelings, memories, etc.). However, recent models of psychopathology (e.g., Hayes et al., 2006) suggest that the process of how these events influence overall behavioral patterns also is important for understanding and ameliorating psychological distress. Indeed,

recent empirical literature shows that detaching from problematic thoughts and feelings and simply observing these experiences as mental events are crucial processes for psychological well-being (e.g., Longmore & Worrell, 2007; Teasdale et al., 2002).

Furthermore, findings in the present stigma study are consistent with previous literature that speculated on the importance of psychological flexibility for reducing stigmatizing attitudes (Hayes, Bissett, et al., 2004; Lillis & Hayes, 2007; Masuda et al., 2007). One of these studies (Masuda et al., 2007) revealed that challenging stigmatizing attitudes or trying to replace these attitudes with neutral or informative ones are effective only for those who were psychologically flexible. Conversely, the study also suggested that an acceptance- and mindfulness-based intervention reduced participants' mental health stigma regardless of their levels of psychological flexibility as measured at pre-intervention. In the acceptance- and mindfulness-based group, participants were taught experientially to allow their thoughts and feelings, including stigmatizing attitudes, to occur freely, without attempting to control them, and to acknowledge them mindfully and nonjudgmentally without acting on them. These alternative ways of experiencing their own private events (e.g., thoughts, feelings, attitudes, and so on) appeared to allow them to be in touch with the intrinsic rewards of acknowledging self and others nonjudgmentally and of interacting and connecting with others in this way (Masuda et al., 2007). Examining these results together, it seems worthwhile to continue to investigate the impact of psychological flexibility in the area of mental health stigma and poor psychological outcomes.

As stigma overlaps with prejudice and discrimination, it is interesting to consider whether the construct of psychological flexibility may be applied to other forms of stigmatization (e.g., racism, gender biases) and whether mindfulness- and acceptance-based approaches are consistent with efforts to increase multicultural competence among psychologists (American Psychological Association, 2003). Empirical evidence for other forms of stigmatization is promising (e.g., Devine, 1989, 1995), but evidence on their links to psychological flexibility is still limited. Research in the area of multicultural competence has focused on building awareness, knowledge, and skills, with acknowledgment that awareness is often the most difficult to develop (Arrendondo et al., 1996; Sue et al., 1982). Applying the construct of psychological flexibility and other process levels of analysis to mindfulness- and acceptance-based approaches may

be one potential avenue for bettering our understanding of various forms of stigma and multicultural competence.

The present investigation has several notable weaknesses. The study did not include other variables that also may have explained the relation between mental health stigma and poor psychological outcomes, such as perspective-taking and negative affect. Despite the inclusion of a replication study at a different site, the sample population is limited to college students, one of which was racially homogenous. Thus, generalizations beyond these populations cannot be made. Research has shown that some demographic variables, such as gender and ethnicity, may be predictors of mental health stigma, personal distress, or psychological flexibility (e.g., Davis, 1980; Hayes, Strosahl, et al., 2004; Mann & Himelein, 2004). However, a relatively small number of participants did not allow for the comprehensive examination of the relations between these demographic variables and stigma, distress, and psychological flexibility. The mode of survey varied in the two studies; paper-and-pencil in Study 1 and online survey in Study 2. This variation might have differentially generated possible biases (e.g., demand characteristics and social desirability). Furthermore, perhaps the largest limitation was the reliance on a cross-sectional and correlational design. The nature of our present investigation did not allow us to derive any causal inferences. A large-scale, longitudinal stigma reduction intervention study may reveal causal links among these variables.

Despite these limitations, the present study provides new insights for mental health stigma and stigma reduction research and practice. The present investigation suggests that mental health stigma is linked not only to negative consequences for the stigmatized group, but also to psychological distress among those who hold such stigmatizing attitudes. This study also suggests that psychological flexibility is a key construct for understanding how stigmatizing beliefs are associated with negative outcomes for the stigmatizer. Acceptance and mindfulness approaches may be useful for understanding and reducing stigma and prejudice, as well as for increasing multicultural competence among mental health professionals.

REFERENCES

- Alexander, L. A., & Link, B. G. (2003). The impact of contact on stigmatizing attitudes toward people with mental illness. *Journal of Mental Health, 12*, 271-289.
- American Psychological Association (2003). Guidelines on multicultural education, training, research, practice, and organizational change for psychologists. *American Psychologist, 58*, 377-402.
- Arrendondo, P., Toporek, R., Brown, S. P., Jones, J., Locke, D. C., Sanchez, J., et al. (1996). Operationalization of the multicultural counseling competencies. *Journal of Multicultural Counseling and Development, 24*, 42-78.
- Banks, M. H., Clegg, C. W., Jackson, P. R., Kemp, N. J., Stafford, E. M., & Wall, T. D. (1980). The use of the general health questionnaire as an indicator of mental health in occupational studies. *Journal of Occupational Psychology, 53*, 187-194.
- Bond, F. W., & Bunce, D. (2000). Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of Occupational Health Psychology, 5*, 156-163.
- Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology, 88*, 1057-1067.
- Campbell-Sills, L., Barlow, D. H., Brown, T. A., & Hofmann (2006). Effects of suppression and acceptance on emotional responses of individuals with anxiety and mood disorders. *Behaviour Research and Therapy, 44*, 1251-1263.
- Chapman, A. L., Gratz, K. L., & Brown, M. Z. (2006). Solving the puzzle of deliberate self-harm: The experiential avoidance model. *Behaviour Research and Therapy, 44*, 371-394.
- Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist, 59*, 614-625.
- Corrigan, P. W., & Penn, D. L. (1999). Lessons from social psychology on discrediting psychiatric stigma. *American Psychologists, 54*, 765-776.
- Corrigan, P. W., & Watson, A. C. (2002). The paradox of self-stigma and mental illness. *Clinical Psychology: Science and Practice, 9*, 35-53.
- Crisp, A. H., Gelder, M. G., Rix, S., Meltzer, H. I., & Rowlands, O. J. (2000). Stigmatisation of people with mental illnesses. *British Journal of Psychiatry, 177*, 4-7.
- Day, E. N., Edgren, K., & Eshleman, A. (2007). Measuring stigma toward mental illness: Development and application of the mental illness stigma scale. *Journal of Applied Social Psychology, 37*, 2191-2219.
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology, 41*, 330-339.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.
- Davis, M. H., Conklin, L., Smith, A., & Luce, C. (1996). Effect of perspective-taking on the cognitive representation of persons: A merging of self and other. *Journal of Personality and Social Psychology, 70*, 713-726.
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology, 56*, 5-18.
- Devine, P. G. (1995). Prejudice and out-group perception. In A. Tesser (Ed.), *Advanced social psychology* (pp. 467-524). New York: McGraw-Hill.

- Forchuk, C., Nelson, G., & Hall, G. B. (2006). "It's important to be proud of the place you live in": Housing problems and preferences of psychiatric survivors. *Perspectives in Psychiatric Care, 42*, 42-52.
- Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology, 78*, 7-8-724.
- Goldberg, D. (1978). *Manual of the general health questionnaire*. Windsor: National Foundation for Educational Research.
- Greco, L. A., Heffner, M., Poe, S., Ritchie, S., Polak, M., & Lynch, S. K. (2005). Maternal adjustment following preterm birth: Contributions of experiential avoidance. *Behavior Therapy, 36*, 177-184.
- Haghighat, R. (2001). A unitary theory of stigmatization: Pursuit of self-interest and routes to destigmatization. *British Journal of Psychiatry, 178*, 207-215.
- Hayes, S. C. (2004). Acceptance and Commitment Therapy and the new behavior therapies: Mindfulness, acceptance, and relationship. In S. C. Hayes, V. M. Follette, & M. M. Linehan (Eds.), *Mindfulness and acceptance: Expanding the cognitive-behavioral tradition* (pp. 1-29). New York: Guilford.
- Hayes, S. C., Bissett, R., Roget, N., Padilla, M., Kohlenberg, B. S., Fisher, G., et al. (2004). The impact of acceptance and commitment training and multicultural training on the stigmatizing attitudes and professional burnout of substance abuse counselors. *Behavior Therapy, 35*, 821-835.
- Hayes, S. C., Luoma, J., Bond, F., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes, and outcomes. *Behaviour Research and Therapy, 44*, 1-25.
- Hayes, S. C., Niccolls, R., Masuda, A., & Rye, A. K. (2002). Prejudice, terrorism, and behavior therapy. *Cognitive and Behavioral Practice, 9*, 296-301.
- Hayes, S. C., Strosahl, K. D., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., et al. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record, 54*, 553-578.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64*, 1152-1168.
- Kashdan, T. B., Barrios, V., Forsyth, J. P., & Steger, M. F. (2006). Experiential avoidance as a generalized psychological vulnerability: Comparisons with coping and emotional dysregulation strategies. *Behaviour Research and Therapy, 44*, 1301-1320.
- Kurzban, R., & Leary, M. R. (2001). Evolutionary origins of stigmatization: The functions of social exclusion. *Psychological Bulletin, 127*, 187-208.
- Kushner, M. G., & Sher, K. J. (1991). The relation of treatment fearfulness and psychological service utilization: An overview. *Professional Psychology: Research and Practice, 22*, 196-203.
- Lillis, J., & Hayes, S. C. (2007). Applying acceptance, mindfulness, and values to the reduction of prejudice: A pilot study. *Behavior Modification, 38*, 389-411.
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: The Guilford Press.
- Link, B. G. (1987). Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review, 52*, 96-112.

- Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27, 363-385.
- Link, B. G., & Phelan, J. C. (2006). Stigma and its public health implications. *Lancet*, 367, 528-529.
- Link, B. G., Phelan, J. C., Bresnahan, M., Stueve, A., & Pescosolido, A. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health*, 89, 1328-1333.
- Longmore, R. J., & Worrell, M. (2007). Do we need to challenge thoughts in cognitive behavior therapy? *Clinical Psychology Review*, 27, 971-974.
- Mann, C. E., & Himelein, M. J. (2004). Factors associated with stigmatization of persons with mental illness. *Psychiatric Services*, 55, 185-187.
- Marcks, B. A., & Woods, D. W. (2005). A comparison of thought suppression to an acceptance-based technique in the management of personal intrusive thoughts: A controlled evaluation. *Behaviour Research and Therapy*, 43, 433-445.
- Masuda, A., Hayes, S. C., Fletcher, L. B., Seignourel, P. J., Bunting, K., Herbst, S. A., et al. (2007). Impact of acceptance and commitment therapy versus education on stigma toward people with psychological disorders. *Behaviour Research and Therapy*, 44, 2764-2772.
- Masuda, A., Hayes, S. C., Sackett, C. F., & Twohig, M. P. (2004). Cognitive defusion and self-relevant negative thoughts: Examining the impact of a ninety year old technique. *Behaviour Research and Therapy*, 42, 477-485.
- Masuda, A., Hayes, S. C., Twohig, M. P., Drossel C., Lillis, J., & Washio, Y. (2009). A parametric study of cognitive defusion and the believability and discomfort of negative self-relevant thoughts. *Behavior Modification*, 33, 250-262.
- Page, S. (1995). Effect of the mental illness label in 1993: Acceptance and rejection in the community. *Journal of Health and Social Policy*, 7, 61-68.
- Penn, D. L., & Martin, J. (1998). The stigma of severe mental illness: Some potential solutions for a recalcitrant problem. *Psychiatric Quarterly. Special Issue: New frontiers in the psychiatric rehabilitation of schizophrenia*, 69, 235-247.
- Perlick, D. A., Rosenheck, R. A., Clarkin, J. F., Sirey, J. A., Salahi, J., Struening, E. L., et al. (2001). Adverse effects of perceived stigma on social adaptation of persons diagnosed with bipolar affective disorder. *Psychiatric Services*, 52, 1627-1632.
- Scambler, G. (1998). Stigma and disease: Changing paradigms. *Lancet*, 352, 1054-1055.
- Sirey, J. A., Bruce, M. L., Alexopoulos, G. S., Perokic, D. A., Raue, P., Friedman, S. T., et al. (2001). Perceived Stigma as a predictor of treatment discontinuation in young and older outpatients with depression. *The American Journal of Psychiatry*, 158, 479-481.
- Starr, S., Campbell, L. R., & Herrick, C. A., (2002). Factors affecting use of the mental health system by rural children. *Issues in Mental Health Nursing*, 23, 291-304.
- Sue, D. W., Benier, J. B., Durran, M., Feinverg, L., Pdersen, P., Smith, E., et al. (1982). Position paper: Cross-cultural counseling competencies. *Counseling Psychologist*, 10, 45-52.
- Teasdale, J. D., Moore, R. G., Hayhurst, H., Pope, M., Williams, S., & Segal, Z. V. (2002). Metacognitive awareness and prevention of relapse in depression: Empirical evidence. *Journal of Consulting and Clinical Psychology*, 70, 275-287.
- Wegner, D. M. (1994). Ironic processes of mental control. *Psychological Review*, 101, 34-52.

APPENDIX A

SAB

Imagine that the following thoughts occurred to you right now. How valid or believable would each be? Please use the following scale. For each question, please circle a number 1 through 7.

Scale

	1	2	3	4	5	6	7	
	Not at all believable					Completely believable		
1 2 3 4 5 6 7	Those with psychological disorders are dangerous to others.							
1 2 3 4 5 6 7	A person with a psychological disorder is unpredictable.							
1 2 3 4 5 6 7	Those with psychological disorders are hard to talk to.							
1 2 3 4 5 6 7	I feel that I am different from those with psychological disorders.							
1 2 3 4 5 6 7	A person with a psychological disorder is the one to be blamed for his or her problems.							
1 2 3 4 5 6 7	A person with a psychological disorder cannot pull himself/herself together in order to appropriately function in society.							
1 2 3 4 5 6 7	Those with a psychological disorder will not improve even if they are treated.							
1 2 3 4 5 6 7	Those with psychological problems will never recover.							