

5-2015

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## Recommended Citation

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Explaining the Negative Effects of Stigma Through Sense of Mastery

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# EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

## Abstract

Previous research on stigma has identified many negative outcomes associated with its experience. These often include decreased affect and decreased life satisfaction. The present study examined sense of mastery - the sense of control one feels they have over the events in their life - as a moderator or mediator for these negative effects of stigma. To examine this, the Life Evaluations Survey was distributed to psychology students at a Southeastern university ( $N = 392$ ). Participants completed measures of public stigma, self-stigma, sense of mastery, positive and negative affect, and life satisfaction. Results revealed experiences of public and self-stigma were associated with a decreased sense of mastery. In addition, sense of mastery was found to partially explain the relationship between stigma and quality of life. By contrast, results did not support a moderating role of mastery. Findings suggests that stigmatized individuals experience a sense of diminished control over their lives, which translates into decreased positive affect and life satisfaction.

### Keywords:

Public Stigma

Self-Stigma

Positive Affect

Life Satisfaction

Mastery

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

### **Explaining the Negative Effects of Stigma Through Sense of Mastery**

An early conceptualization of stigma by Goffman (1963) defined stigma as the process by which an individual with an undesirable or discrediting attribute is reduced to a tainted or discounted person. Later definitions of stigma by Link and Phelan (2001) conceptualize stigma as the "labeling, stereotyping, separation, status loss, and discrimination" (p.377) of a group in a power situation in which this can occur. Stigma presents issues which affect many marginalized groups including racial minorities, sexual minorities, individuals with mental health issues, individuals with physical diseases, and several others. A large body of research has shown that stigma can lead to harmful effects on individual's self-concept and mental health (Livingston & Boyd, 2010; Mak, Poon, Pun, & Cheung, 2007). In addition, having a stigmatized status has been associated with poor health outcomes such as increased symptom severity and duration (Hatzenbuehler, Phelan, & Link, 2013). However, less research has examined the relationship between stigma and sense of mastery, which is the sense of control an individual feels they have over the events in their life. Sense of mastery, which is an aspect of self-concept, has been proposed to play a role in the ways that individuals engage with and manages stress (Pearlin, Menaghan, Lieberman, & Mullan, 1981). The aim of the current research is to examine the role of mastery in relation to types of stigma and associated adjustment outcomes. Specifically, this paper will discuss the role of mastery in explaining the relationship between stigma and adjustment outcomes.

### **Stigma: Distinctions and Outcomes**

There are two distinct types of stigma: public stigma and self-stigma. In the context of the definition provided by Link and Phelan (2001), public stigma is defined as the public invoking labeling, stereotyping, separation, status loss, and discrimination upon a target group.

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

Essentially, public stigma is the public's endorsement of a prejudice or bias against stigmatized groups (Corrigan, 2004; Link & Phelan, 2001). This form of stigma is often manifested as acts of discrimination which can range from subtle actions to very apparent and outward acts of bigotry.

In addition to stigma being perpetuated and endorsed by the public, stigmas can be turned toward the self. Over extended periods of time, exposure to public stigma can negatively impact a stigmatized individual's sense of self (Vogel, Bitman, Hammer, & Wade, 2013). In other words, individuals with stigmatized characteristics can internalize these prejudices and biases, integrating them with their self-concept (Corrigan, 1998; Corrigan & Shapiro, 2010). This type of stigma is often referred to as self-stigma or internalized stigma.

Both public stigma and self-stigma have been associated with negative outcomes such as lowered life-satisfaction and increased negative affect. Exemplifying this, Greef et al. (2010) performed a longitudinal study examining the impact of HIV stigma on life satisfaction. 1,457 participants were selected from five African countries and were followed for one year. Measures of HIV/AIDS stigma and quality of life were administered three times. The measure used to examine HIV/AIDS stigma contained items that assessed both public and self-stigma. The results revealed that as HIV stigma increased over time, the life satisfaction of people living with HIV decreased proportionally.

El-Badri and Mellsoop (2007) have reported similar findings for groups with mental illnesses. In a sample of 100 New Zealand residents with mental illnesses, El-Badri and Mellsoop administered the stigma and discrimination questionnaire (a measure of public stigma) and the quality of life self-assessment inventory. Analysis suggested that mental illness stigma is frequently associated with decreased quality of life. The most commonly cited reasons were decreased relationship quality, decreased enjoyment from life, and decreased self-fulfillment.

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

In a study of adolescents with lesbian parents, van Gelderen and colleagues (2013) found that the stigma associated with having lesbian parents was sufficient to decrease the life satisfaction of these adolescents. In this study, 78 adolescents completed online measures of psychological health problems, stigmatizing experiences (public stigma), and life satisfaction. The results of this study revealed that experienced stigmatization was associated with increased psychological health problems and decreased life satisfaction.

In addition to being associated with decreased life satisfaction, experiences of stigma have been associated with negative affect, typically in the form of increased depressive symptoms (Herek, Cogan, Gillis, & Glunt, 1998; Link, 1987; Markowitz, 1998). Exemplifying this are the results of a study which investigated the correlates of internalized homophobia in a sample of lesbians and gay men (Herek, Cogan, Gillis, & Glunt, 1998). In this study, 75 lesbians and 75 gay men were asked to complete measures of internalized homophobia (a type of self-stigma) and three measures of psychological well-being (depressive symptoms, self-esteem, and demoralization). Upon analysis, it was revealed that gay men and lesbians with high internalized homophobia displayed significantly more depressive symptoms, suggesting that self-stigma is associated with decreased psychological well-being.

### **The Role of Mastery in Stigma**

Important to the discussion of stigma is the concept of mastery. Mastery is used to describe the extent to which individuals feel they have control over events in their lives (Pearlin, Menaghan, Lieberman, & Mullan, 1981). Thus far, findings linking stigma and mastery have been mixed. On one hand, experiences of stigma have been associated with an attenuated sense of mastery. In support of this, Marcussen, Ritter, and Munetz (2010) performed a study examining the effects of stigma on self-concept and quality of life among individuals with

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

mental illness. The 188 participants were asked to complete measures of public stigma, self-esteem, and mastery. The results revealed that perceived stigma had a negative impact on sense of mastery. In a similar study, Sanjuán and colleagues (2013) found the same to be true for individuals experiencing HIV related stigma. While these studies do suggest that experiences of public stigma are linked to a decreased sense of mastery, none have examined self-stigma in particular.

On the other hand, there have been findings which do not support a relation between stigma and mastery. In a sample of adolescents receiving mental health services, neither public nor self-stigma was found to be linked with a decreased sense of mastery (Moses, 2009). These mixed findings suggest that perhaps specific types of stigma have more of an impact on mastery than others or that some target groups are more resistant to the effects of stigma on mastery. Indeed, the authors of this study admit that these findings defied expectation, and that perhaps the effects of stigmatization on adolescents differ from other groups.

While examining public stigma as a factor influencing sense of mastery has received some attention, the findings are few and mixed. This highlights the need for more detailed inquiry into this relationship. Additionally, while the relationship between public stigma and mastery has been touched on, very little research thus far has examined the interaction of self-stigma and mastery. The inconsistent relation between stigma and mastery may suggest that mastery instead serves to moderate the impact of stigma on outcomes, rather than serving as a direct link.

Indeed, it is important to note that while some researchers suggest that the negative effects of stigma are mediated by mastery, other researchers posit that the negative effects of stigma are instead moderated by mastery. Under a mediation model, the negative effects of

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

stigma would be explained as a result of a decreased sense of mastery. Under a moderation model, the strength of the relationship between stigma and negative outcomes would be adjusted by sense of mastery. (see Appendix A)

First, we will examine evidence that suggests that the negative effects of stigma are moderated by mastery (Rueda et al., 2012). Rueda and colleagues (2012) conducted a study examining the role of mastery in the relationship between stigma and depressive symptoms. In a sample of 825 participants experiencing HIV stigma, researchers administered measures of HIV stigma (included public and self), mastery, and depressive symptoms. Analysis revealed that those individuals high in sense of mastery displayed fewer depressive symptoms, indicating that mastery could act as a buffer or moderator for the depressive symptoms associated with stigma. In fact, regardless of the amount of perceived stigma, individuals high in mastery displayed less depressive symptoms than all other groups. The authors of this paper suggest that perhaps individuals high in mastery are more able to reframe stigmatizing experiences, regulate emotional responses, or confront such adversity with a higher sense of control and critical thinking.

In another study conducted by Gibson and colleagues (2011) 758 individuals with HIV completed measures of life stressors, psychosocial resources (mastery, coping, social support), and quality of life. Unsurprisingly, high amounts of life stressors were associated with decreased physical and mental quality of life. However, the study notes the sense of mastery had a direct positive association with mental health related quality of life, regardless of life stressors. Indeed, these findings indicate that a high sense of mastery reduces the negative impacts of life stressors on quality of life. The authors explain this by suggesting that individuals with a high sense of



## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

mastery have an increased ability to reframe negative experiences, use problem solving skills, and regulate emotional responses.

Contrary to those in support of the moderation model, some researchers have suggested that mastery instead mediates the negative effects of public stigma. Hsiung and colleagues (2010) conducted a study of 199 schizophrenia patients. Subjects completed measures of self-stigma, social support, mastery, and quality of life. As expected, self-stigma was found to be negatively associated with quality of life. However, the authors found that this association was mediated by sense of mastery, such that the negative impacts of public stigma on quality of life are partially explainable by the decreased mastery associated with self-stigma. The authors suggest that “patient’s with schizophrenia who have a higher sense of mastery may be capable of taking charge of their lives and engaging in those things that are important to them; this will, in turn, affect their overall QOL” (Hsiung et al., 2010, p.498). With this in mind, it becomes easy to see how a decreased sense of mastery as a result of stigma could be harmful.

A similar study examined quality of life in patients with major depression (Chung, Pan, Hsiung, 2009). In this study 237 participants were given measures of quality of life, depression, self-stigma, and mastery. This study reports that stigma had an indirect effect on quality of life, being mediated by mastery and social support. Again, the authors suggest that patients should focus on increasing their sense of mastery in an effort to become more resilient against perceived stigma and depressive symptoms.

In conclusion, public stigma has been shown to lead to slight decreases in sense of mastery (Marcussen et al., 2010; Sanjuán et al., 2013) as well as lower life satisfaction (El-Badri & Mellsop, 2007; Greef et al., 2010; van Gelderen et al., 2013) and increases negative affect (Link, 1987; Markowitz, 1998). Additionally, mastery has been hypothesized to have a

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

mediating or moderating role with respect to stigma and negative outcomes (Chung, Pan, Hsiung, 2009; Gibson et al., 2011; Hsiung et al., 2010; Rueda. et al, 2012). Due to this incongruence, the present study seeks to examine the role of mastery in the relationship between types of stigma and negative outcomes. Identifying the role of mastery in the relationship between stigma and its negative impacts could have implications for helping stigmatized individuals overcome the negative effects of stigma. Based on the previous literature, the present study proposes six separate hypotheses to examine:

H1: public stigma will be negatively correlated with sense of mastery

H2: self-stigma will be negatively correlated with sense of mastery

H3: sense of mastery will be found to be a moderator or mediator for the relationship between public stigma and positive affect

H4: sense of mastery will be found to be a moderator or mediator for the relationship between public stigma and life satisfaction

H5: sense of mastery will be found to be a moderator or mediator for the relationship between self-stigma and positive affect

H6: sense of mastery will be found to be a moderator or mediator for the relationship between self-stigma and life satisfaction

Identifying the role of mastery in the relationship between stigma and adjustment outcomes could have benefits for those who are affected by it. Indeed, interventions aimed at increasing sense of mastery could prove to be an effective method for protecting stigmatized individual's well-being. Having a complete understanding of stigma, its associated outcomes, and protective factors is an important step in ameliorating its effects.

# EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

## Methods

### Participants

Participants were recruited from a public university in the Southeastern United States. Measures were distributed to participants via the online service SurveyMonkey. Participants were recruited through classes, flyers, and the online tool Sona Systems. Using the statistics calculator GPower, it was determined that to reach an appropriate level of power this study would need to obtain data from 98 participants ( $\alpha = .05$ , effect size estimate = .2). In total, data was collected from 420 participants. However, some surveys were not fully completed and this data was discarded ( $N=28$ ), leaving 392 to be analyzed. The characteristics of this sample are presented in table 1. The mean age of participants was 20.35 ( $SD = 4.35$ ) with 60.9% of participants being female and 38.6% of participants being male. The majority of participants were white (80.8%) and heterosexual (91.8%).

*Table 1: Demographic Information*

Variable		%	Mean $\pm$ SD	Range
Gender				
	Female	60.9%		
	Male	38.6%		
	Transgender	0.5%		
Sexual Orientation				
	Bisexual	3.3%		
	Heterosexual	91.8%		
	Homosexual	3.1%		
	Other	1.3%		

# EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

*Table 1: Demographic Information (continued)*

Variable			Mean±SD	Range
Age			20.35±4.35	18-47
Ethnicity				
	Asian/Pacific Islander	2.6%		
	African American	10.2%		
	Hispanic/Latino	2.8%		
	Native American	0.5%		
	Other	2.6%		
	White	80.8%		
Employment Status				
	Employed for Wages	31.5%		
	Military	0.8%		
	Out of work and looking for work	3.3%		
	Out of work but not looking for work	2.3%		
	Self-employed	0.3%		
	Student	60.9%		
	Retired	0.3%		
	Unable to work	0.5%		

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

### **Materials**

Data was gathered from participants using the Stigma and Life Evaluations Survey. The Stigma and Life Evaluations Survey was comprised of five separate measures, as well as a measure of demographic information. The measures used were the Williams (1997) Everyday Discrimination Scale (Original Version), the Mak and Cheung (2010) Self Stigma Scale, the Pearlman, Meneghan, Lieberman, and Mullan (1981) Mastery Scale, the Watson, Clark, & Tellegen (1988) Positive and Negative Affect Schedule, and the Diener, Emmons, Larsen and Griffin (1985) Satisfaction with Life Scale. The demographic information collected included age, ethnicity, sexual orientation, sex, employment status, and types of stigma the participants experience.

**Everyday Discrimination Scale.** The Williams (1997) Everyday Discrimination Scale (Original Version) is a nine item scale designed to measure the frequency of discriminating events. This scale was found to have a Cronbach's Alpha of .881. Each of the nine items on this survey could be ranked from 0 to 5, with 0 indicating "never" and 5 indicating "almost every day". Possible scores range from 0 to 45, with higher scores indicating more frequent experiences of discrimination. In the present study, this measure will be used as an assessment of public stigma. This is due to the fact that public stigma is commonly expressed in the form of discriminating experiences. (Example item: \_\_\_ You are treated with less courtesy than other people are)

**Self-Stigma Scale.** The Mak and Cheung (2010) Self Stigma Scale(Short Form) is designed to specifically measure self-stigma. This survey consists of nine items aimed at assessing the cognitive, affective, and behavioral components of self-stigma. responses range

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

from 1 to 4, with 1 indicating "strongly disagree" and 4 indicating "strongly agree". Possible scores range from 9 to 36, with higher numbers indicating higher self-stigma. This scale was found to have a Chronbach's Alpha of .947. This measure was chosen for the present study due to its versatility in assessing self-stigma among various stigmatized groups. (Example item: I feel uncomfortable because I am a \_\_\_\_\_)

**Mastery Scale.** The Pearlin et al. (1981) Mastery Scale is a seven item questionnaire designed to assess mastery. Items are in the form of statements regarding the subjects sense of control over their lives. Possible responses to these items range from 1 to 4, with 1 indicating strongly disagree and 4 indicating strongly agree. It should be noted that the majority of items on this questionnaire are reverse coded. Scores on this assessment can range from 7 to 28, with higher numbers indicating a higher sense of mastery. Typically, a score above 23 is considered a good sense of mastery (Stephens, Dulberg, & Joubert, 1999). This scale was found to have a Chronbach's Alpha of .809. (Example item: \_\_\_I have little control over the things that happen to me)

**Positive and Negative Affect Schedule.** The Watson, Clark, & Tellegen (1988) Positive and Negative Affect Schedule is a 20 item survey designed to measure subjects levels of positive and negative affect. Scores on this assessment can range from 10 to 0 for both positive and negative affect. A higher score on the positive affect items indicates more positive affect, while a higher score on the negative affect items indicates more negative affect. The reliability for the positive affect items has a Cronbach's alpha of .887. The reliability for the negative affect items has a Cronbach's alpha of .898 This measure was selected for the present study due to its good reliability in measuring affect. (Example item: \_\_\_distressed \_\_\_excited \_\_\_upset \_\_\_strong \_\_\_guilty)

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

**Satisfaction with Life Scale.** The Diener et al. (1985) Satisfaction with Life Scale is a five item Likert-type survey. The items are designed to assess the subjects satisfaction with life. Possible responses range from 1 to 7, with 1 indicating strong disagreement and 7 indicating strong agreement. Scores on this assessment can range from 7 to 35, with higher numbers representing more satisfaction with life. This scale was found to have a Cronbach's alpha of .902, showing that it passes reliability tests. (Example item: \_\_\_ I am satisfied with my life)

### Results

The present study sought to examine six separate hypotheses. The first two hypotheses were examined using correlations between public stigma, self-stigma, and sense of mastery. Analysis revealed that sense of mastery was negatively correlated with both public stigma (-.47,  $p < .01$ ) and self-stigma (-.50,  $p < .01$ ), thus confirming what was expected. This suggests that experiences of stigma are associated with attenuated sense of mastery. In addition, experiences of both self and public stigma were negatively correlated with positive affect and life satisfaction. Detailed correlations are presented in Table 2.

Table 2: Descriptives and correlations of main variables (n=392)

	1	2	3	4	5	6	Mean	SD	Min-Max
1. Public Stigma	---	.468***	-.465***	-.221***	.373***	-.351***	2.04	0.65	1.00-3.89
2. Self-Stigma	---	---	-.504***	-.294***	.314***	-.299***	1.61	0.65	1.00-3.78
3. Mastery	---	---	---	.550***	-.479***	.490***	3.08	0.51	1.43-4.00
4. Positive Affect	---	---	---	---	-.296***	.512***	3.42	0.70	1.60-5.00
5. Negative Affect	---	---	---	---	---	-.519***	2.22	0.75	1.00-4.80
6. Life Satisfaction	---	---	---	---	---	---	4.58	1.37	1.00-7.00

Note. \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

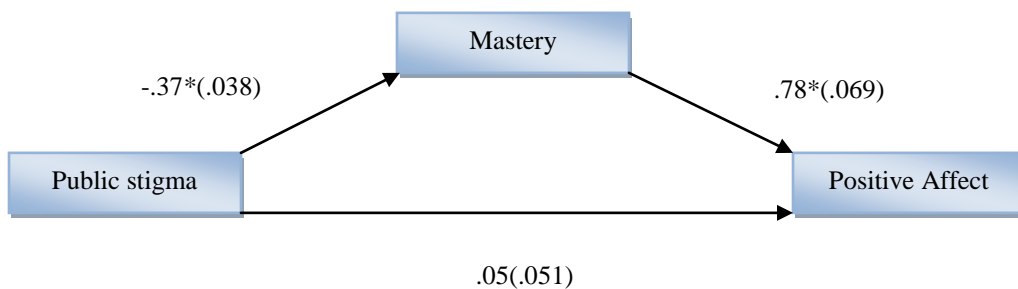
## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

Hypotheses three through six attempted to examine the either moderating or mediating role of mastery in the relationship between stigma and adjustment outcomes. As such, both tests of moderation and mediation were conducted. This was performed using PROCESS (Hayes, 2012). The test of moderation was conducted first. Results revealed a non-significant moderating effect of mastery. Next, mediation was conducted. Results revealed one significant mediating effect and three significant indirect effects.

First, it was found that there was an indirect effect between public stigma and positive affect working through sense of mastery. While a significant indirect effect was found, this is not mediation because the initial direct effect from stigma to positive affect was not significant. The bootstrapped indirect effect of public stigma on positive affect was  $-.29$ , and the 95% confidence interval ranged from  $-.37$  to  $-.22$ . This suggests that the indirect effect was statistically significant. Figure 1 displays the regression coefficients for this model.

*Figure 1: Indirect Effect of Public Stigma on Positive Affect Working Through Mastery*

Note: \* $p < .05$



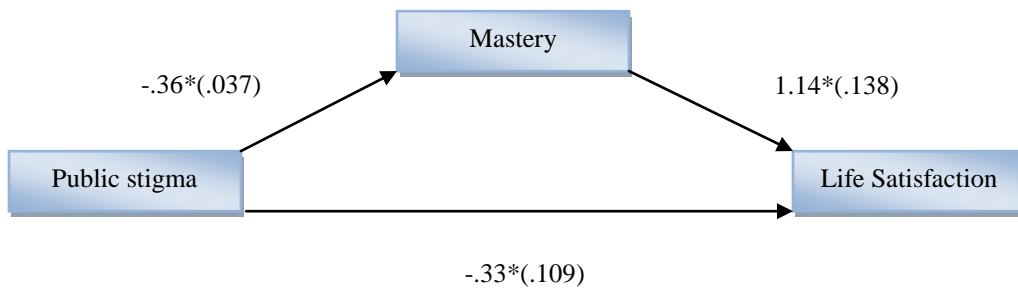


## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

Second, it was found that the relationship between public stigma and life satisfaction was mediated by sense of mastery. The bootstrapped indirect effect of public stigma on life satisfaction was  $-.41$ , and the 95% confidence interval ranged from  $-.56$  to  $-.29$ . Thus, the indirect effect was statistically significant. Figure 2 displays the regression coefficients for this model.

Figure 2: Mediation Model for Public Stigma, Mastery, and Life Satisfaction

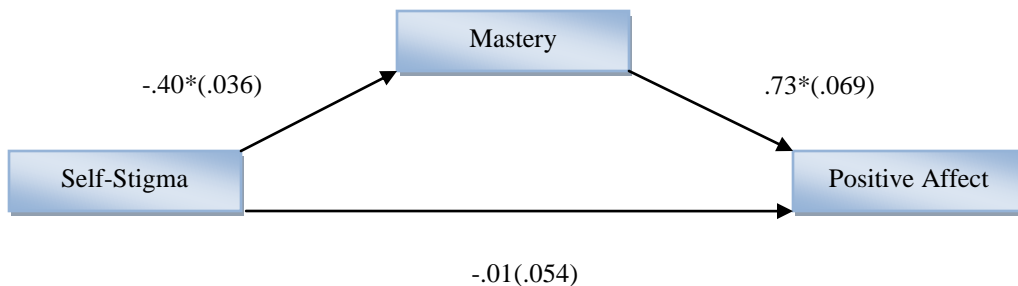
Note: \* $p < .05$



Third, it was found that there was an indirect effect of self-stigma on positive affect working through sense of mastery. Similar to the first case, this is not mediation as the initial direct effect of self-stigma on positive affect was not significant. The bootstrapped indirect effect of self-stigma on positive affect was  $-.30$ , and the 95% confidence interval ranged from  $-.38$  to  $-.23$ , indicating that the indirect effect was statistically significant.

Figure 3: Indirect Effect of Self-Stigma on Positive Affect Working Through Mastery

Note: \* $p < .05$

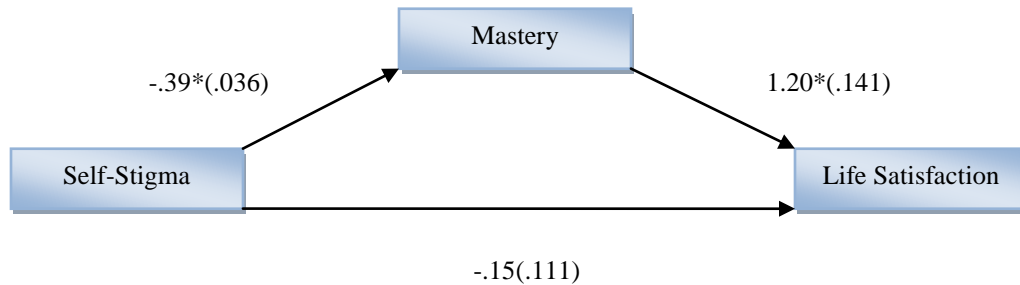


## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

Finally, an indirect effect was found between self-stigma and life satisfaction working through sense of mastery. The bootstrapped indirect effect of self-stigma on life satisfaction was  $-.47$ , and the 95% confidence interval ranged from  $-.62$  to  $-.34$ . Thus, the indirect effect was statistically significant. Figure 4 displays the regression coefficients for this model.

*Figure 4: Indirect Effect of Self-Stigma on Life Satisfaction Working Through Mastery*

Note: \* $p < .05$



## DISCUSSION:

In summary, research into stigma and mastery has been divided. Some researchers have noted that experiences of stigma are associated with decreased sense of mastery (Marcussen, Ritter, & Munetz, 2010; Sanjuán et al., 2013), while others have not been able to find this relationship (Moses, 2009). Furthermore, there is a division in the research as to whether sense of mastery moderates (Gibson et al., 2011; Rueda. et al, 2012) or mediates (Chung, Pan, Hsiung, 2009; Hsiung et al., 2010) the effects of stigma on well-being. Because of these discrepancies, the present study sought to do two things. The first aim of this study was to examine the relationship between types of stigma and sense of mastery in order to determine if there is an

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

association between the two. Second, the present study sought to examine sense of mastery as a mechanism which could partially explain the relationship between stigma and well-being outcomes.

To examine the role of mastery in this relationship, the present study began by examining correlations between public stigma, self-stigma, and sense of mastery. The results of this analysis revealed moderate to large negative correlations between experiences of stigma and sense of mastery. While causal inferences cannot be drawn from correlational evidence alone, one possible explanation is that experiences of stigma result in the target experiencing a loss of control over their lives.

To further examine the role of mastery in this relationship, Hayes PROCESS (Hayes, 2012) was used. The results of this analysis revealed that sense of mastery plays a mediating role in the relationship between public stigma and life satisfaction. Furthermore, sense of mastery explains the indirect effects of public stigma on affect, as well as the indirect effects of self-stigma on affect and life satisfaction. One possible way to interpret these results is to suggest experiences of stigma decrease an individual's sense of control which thus leads to decrements in affect and life satisfaction.

It makes sense to suggest that individuals who experience a loss of control will feel less able to regulate their own well being. For example, individuals with a low sense of control may be less likely to seek out coping resources that could be beneficial to them. In another study of mastery, an association was found between sense of coherence and sense of mastery, such that those with lower mastery were less likely to cohere with a treatment program (Hildingh, Fridlund, & Baigi, 2008), which could indeed lead to poorer adjustment outcomes. Conversely, a high sense of mastery has been associated with effective coping strategies. In a study of mothers

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

with depression, it was found that those with high sense of mastery were more likely to engage in problem-focused coping as well as were more likely to expand their social support networks (Kobayashi & Kitagawa, 2009). Studies such these as highlight exactly how sense of mastery translates into well-being outcomes. As such, a suggestion for future research might be to examine sense of mastery as a predictor for an individual's willingness to seek out various coping resources.

While the results of this study are somewhat in support of those studies that found mastery as a mediator (Chung, Pan, Hsiung, 2009; Hsiung et al., 2010), our findings run contrary to research that identified mastery as a moderator (Gibson et al., 2011; Rueda. et al, 2012). The first place to begin in assessing these differences is to look at the methodology. Interestingly, both of the studies that suggest moderation were examining individuals with HIV/AIDS stigma. The studies that suggested mediation, on the other hand, were examining schizophrenia and depression stigma. While there are other differences between these studies, the most apparent differences appeared to be that they were examining different types of stigma. This distinction between different types of stigma could explain the inconsistent results of these studies. It could be that case that different types of stigma attack different aspects of self-concept, which in turn affect mastery differently. Perhaps certain types of stigma (i.e. depression stigma vs. HIV/AIDS stigma) are more likely to result in decreased mastery, and thus give rise to a mediation effect. On the other hand, if a particular type of stigma does not affect mastery, mastery will remain stable and can thus act more as a buffer (moderator). Because of this, another suggestion for future research is to examine the role of mastery with respect to specific types of stigma to see if the effects differ.

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

Another possibility is that the effects of stigma on mastery vary depending on whether the stigma is concealable or visible. With respect to concealing a stigmatized status, Pachankis (2007) notes that situational factors such as salience of the stigma, threat of discovery, and consequences of discovery interact to influence cognitive, affective, and behavioral outcomes. A great deal of cognitive resources are consumed in the process of hiding a stigma. It has also been noted that possessing a concealable stigma is linked with diminished self-efficacy (Kalichman & Nachimson, 1999). Perhaps the effort used in concealing a stigma also leads to decrements in sense of mastery.

While concealable stigmas have a number of harmful psychological effects, it is also the case that visible stigmas do too. The psychological consequences of possessing a visible stigmatized status have been well documented (Schmitt, Branscombe, Postmes, & Garcia, 2014). One study of individuals living with HIV found that for those individuals whose illness had reached the point of becoming visible, psychological problems resulting from stigma were more pronounced than for those who could keep their status hidden (Brener, Callander, Slavin, & de Wit, 2013). Perhaps individuals with a visible stigmatized status recognize that others perceive them in a devaluing way and that this, in actuality, limits their opportunities. For example, a person of a stigmatized ethnicity may recognize that their ethnicity does indeed make it more difficult for them to get a job. As a result of realizing this, they may feel less in control regarding their ability to secure a job. On the other hand, a person with a stigmatized sexual orientation may be able to conceal this when looking for jobs, and thus do not feel that it limits their opportunity as much. Currently, it is still unknown if there are differences in mastery attenuation based on whether a stigma is visible or concealable, so future research should examine this distinction.

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

### **Limitations**

It is also important to note some of the limitations of the present study. First and foremost, the population sampled consisted of undergraduate students at a southeastern public university. While it is likely that these results are widespread, a national or international sample would be needed in order to confirm that this effect is present on a larger scale. Second, this study examined public stigma and self-stigma very broadly. The relationships between stigma and adjustment outcomes were not examined with respect to particular types of stigma (say, for example, mental health stigma vs. racial stigma). As such it is unknown if the mediating role of mastery is more or less present in particular types of stigma or if these effects are present in all types of stigma. A more detailed look at this relationship with respect to particular types of stigma could prove beneficial and help to address some of the discrepancies in the literature. Third, this study was cross-sectional in nature. Therefore, the causal linkages between stigma, mastery, and negative outcomes cannot be determined. Future studies must employ longitudinal or experimental study designs in order to elucidate the causal linkages.

As noted above, possessing a complete understanding of how stigma affects the lives targeted groups will aid in the reduction of its negative effects. The present study revealed that a decreased sense of mastery mediates the relationship between experiences of stigma and reductions in life satisfaction and positive affect. This knowledge may inform future interventions aimed at helping stigmatized individuals cope with their status. Specifically, interventions aimed at restoring this lost sense of control could help improve quality of life. While the ideal situation is still to eliminate experiences of stigma in the first place, this information could prove valuable for those currently affected by it.

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# EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

## Appendix A

### General Demographic Information

Age: \_\_\_\_

Gender:

Female

Male

Transgender

Other

Sexual Orientation:

Bisexual

Gay

Lesbian

Other

Relationship Status

Single

In a relationship

Married

Partners Gender (if applicable)

Female

Male

Transgender

N/A

Ethnicity:

Asian / Pacific Islander

Black or African American

Hispanic or Latino

Native American

Other

White

Employment Status:

Employed for wages

Military

Out of work and looking for work

Out of work but not currently looking for work

Self-employed

Student

Retired

Unable to work

# EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

## Appendix B

### Status Survey

If you feel that you have a status that is discriminated against or devalued by society (stigmatized), please indicate below which status you experience in your own life:

- \_\_\_\_\_ Abuse background (discrimination resulting from experiences of abuse)
- \_\_\_\_\_ Appearance discrimination (discrimination as a result of having a certain appearance, i.e. overweight/underweight, height, physical abnormalities, etc...)
- \_\_\_\_\_ Behavioral discrimination (as a result of behavior, i.e. sexual promiscuity, criminal behavior, or other social behavior that is devalued)
- \_\_\_\_\_ Disability background (discrimination as a result of having a disability, i.e. deafness, blindness, paralysis, etc...)
- \_\_\_\_\_ Disease/Infection background (discrimination as a result of having an illness, i.e. cancer, HIV/AIDS, other STD's, etc...)
- \_\_\_\_\_ Gender discrimination (discrimination based on one's gender – transgender, intersex, etc.)
- \_\_\_\_\_ Infertility experience (discrimination as a result of having complications with pregnancy or birth, i.e. miscarriage or infant mortality)
- \_\_\_\_\_ Mental Health background (discrimination as a result of mental health status, i.e. depression, drug addiction, PTSD, etc...)
- \_\_\_\_\_ None (no devalued status)
- \_\_\_\_\_ Racial/Ethnic background (discrimination as a result of belonging to a certain racial or ethnic group)
- \_\_\_\_\_ SES discrimination (discrimination resulting from low socioeconomic status or poverty)
- \_\_\_\_\_ Sexual Orientation background (discrimination as a result of being gay, lesbian, bisexual, etc.)

# EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

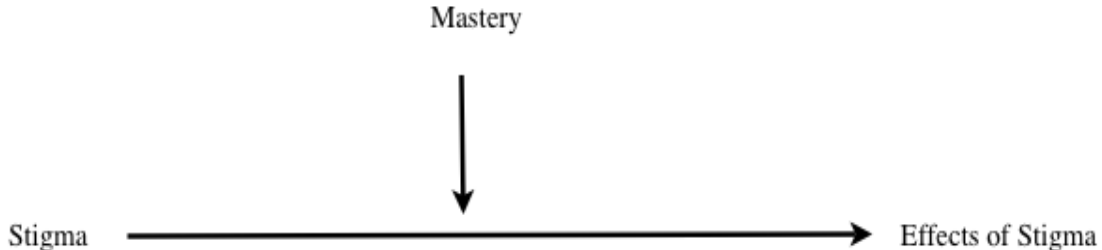
## Appendix C

### Mediation vs Moderation

Mediation- Changes in mastery responsible for negative effects of stigma



Moderation- Mastery adjusts strength of relationship between stigma and outcomes



## Appendix D

### Williams (1997) Everyday Discrimination Scale (Original Version)

In your day-to-day life, how often do any of the following things happen to you?

- 0= Never
- 1= Less than once a year
- 2= A few times a year
- 3= A few times a month
- 4= At least once a week
- 5= Almost every day

- \_\_\_ You are treated with less courtesy than other people are.
- \_\_\_ You are treated with less respect than other people are.
- \_\_\_ You receive poorer service than other people at restaurants or stores.
- \_\_\_ People act as if they think you are not smart.
- \_\_\_ People act as if they are afraid of you.
- \_\_\_ People act as if they think you are dishonest.
- \_\_\_ People act as if they're better than you are.
- \_\_\_ You are called names or insulted.
- \_\_\_ You are threatened or harassed.

## EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

### Appendix E

#### **Mak and Cheung (2010) Self Stigma Scale-Short form**

How much do you agree or disagree with each of the following statements?

(In the blank areas, please insert a stigmatized status that you have experienced. If you have no stigmatized status, please respond with "strongly disagree" to the following.)

1= Strongly disagree

2= Disagree

3= Agree

4= Strongly Agree

\_\_\_ My identity as a \_\_\_\_\_ is a burden to me.

\_\_\_ My identity as a \_\_\_\_\_ incurs inconvenience in my daily life.

\_\_\_ The identity of being a \_\_\_\_\_ taints my life.

\_\_\_ I feel uncomfortable because I am a \_\_\_\_\_.

\_\_\_ I fear that others would know that I am a \_\_\_\_\_.

\_\_\_ I feel like I cannot do anything about my \_\_\_\_\_ status.

\_\_\_ I estrange myself from others because I am a \_\_\_\_\_.

\_\_\_ I avoid interacting with others because I am a \_\_\_\_\_.

\_\_\_ I avoid making new friends lest they find out that I am a \_\_\_\_\_.

### Appendix F

#### **Pearlin, Meneghan, Lieberman, and Mullan (1981) Mastery Scale**

How much do you agree or disagree with each of the following statements?

1= Strongly disagree

2= Disagree

3= Agree

4= Strongly Agree

\*indicates reverse coded

\* \_\_\_ There is really no way I can solve some of the problems I have.

\* \_\_\_ Sometimes I feel that I am being pushed around in life.

\* \_\_\_ I have little control over the things that happen to me.

\_\_\_ I can do just about anything I really set my mind to.

\* \_\_\_ I often feel helpless in dealing with the problems of life.

\_\_\_ What happens to me in the future mostly depends on me.

\* \_\_\_ There is little I can do to change many of the important things in my life.

# EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

## Appendix G

### **Watson, Clark, & Tellegen (1988) Positive and Negative Affect Schedule**

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you generally feel this way, that is, how you feel on the average. Use the following scale to record your answers.

1= Very slightly or not at all

2= A little

3= Moderately

4= Quite a bit

5= Extremely

\_\_\_interested (PA)

\_\_\_distressed (NA)

\_\_\_excited (PA)

\_\_\_upset (NA)

\_\_\_strong (PA)

\_\_\_guilty (NA)

\_\_\_scared (NA)

\_\_\_hostile (NA)

\_\_\_enthusiastic (PA)

\_\_\_proud (PA)

\_\_\_irritable (NA)

\_\_\_alert (PA)

\_\_\_ashamed (NA)

\_\_\_inspired (PA)

\_\_\_nervous (NA)

\_\_\_determined (PA)

\_\_\_attentive (PA)

\_\_\_jittery (NA)

\_\_\_active (PA)

\_\_\_afraid (NA)



# EXPLAINING NEGATIVE EFFECTS OF STIGMA THROUGH MASTERY

## Appendix H

### **Diener et al. (1985) Satisfaction with Life Scale**

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item.

7 = Strongly agree

6 = Agree

5 = Slightly agree

4 = Neither agree nor disagree

3 = Slightly disagree

2 = Disagree

1 = Strongly disagree

\_\_\_ In most ways my life is close to my ideal.

\_\_\_ The conditions of my life are excellent.

\_\_\_ I am satisfied with my life.

\_\_\_ So far I have gotten the important things I want in life.

\_\_\_ If I could live my life over, I would change almost nothing.