View metadata, citation and similar papers at core.ac.uk

brought to you by CORE

provided by Walden University

Walden University
ScholarWorks

Walden Dissertations and Doctoral Studies

Walden Dissertations and Doctoral Studies Collection

2016

Diminishing Stigma Sentiments in Individuals with Depression: Sociopsychological Predictors of Deflecting and Challenging Coping Orientations

Jennifer Marie Lee
Walden University

Follow this and additional works at: https://scholarworks.waldenu.edu/dissertations

Part of the Psychiatric and Mental Health Commons, and the Psychology Commons

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Jennifer Marie Lee

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Tom Diebold, Committee Chairperson, Psychology Faculty
Dr. Elisha Galaif, Committee Member, Psychology Faculty
Dr. Virginia Salzer, University Reviewer, Psychology Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2016

Abstract

Diminishing Stigma Sentiments in Individuals with Depression: Sociopsychological Predictors of Deflecting and Challenging Coping Orientations

by

Jennifer Marie Lee

MS, Salem State College, 2004

BS, Salem State College, 2000

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

General Psychology: Research and Evaluation

Walden University

November 2016

Abstract

Individuals who suffer from depression can be stigmatized by labeling and resort to negative stigma coping orientations such as secrecy and withdrawal, resulting in internalized self-stigma. Self-stigma can have negative effects such as low self-esteem, low self-efficacy, isolation, and feeling like a failure. Guided by modified labeling theory, the purpose of this study was to fill a gap in the literature on predictors of two orientations (challenging and deflecting) of positive stigma coping. Challenging stigma involves taking action, and deflecting is a cognitive strategy; both are used to positively cope with the stigma of mental illness. Predictors included symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in a sample of undergraduates ($N = 195$). Results from a canonical correlation found that individuals with high scores on deflecting and, simultaneously, low scores on challenging tended to have high scores on stigma sentiments and low scores on both symptom severity and treatment seeking. Analyzed in independent regressions, challenging was significantly predicted only by symptom severity (+), while deflecting was predicted by symptom severity (-), depression literacy (+), and stigma sentiments (+). These findings reinforce the potential for individuals who suffer from depression to address stigma using healthier and more affirming coping orientations. Implications for positive social change include a decrease in self-stigma regarding depression, less negative stigma coping, an increased awareness of how depression stigma affects individuals who suffer from the disorder, and a decrease in the social stigma of depression. Educators and practitioners can apply this information in academia, counseling, and clinical practice.

Diminishing Stigma Sentiments in People with Depression: Sociopsychological

Predictors of Deflecting and Challenging Coping Orientations

by

Jennifer Marie Lee

MS, Salem State College, 2004

BS, Salem State College, 2000

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology: Research and Evaluation

Walden University

November 2016

Dedication

My mom and dad have always emphasized the importance of education to me. They have continually supported and encouraged me to do my best and never give up; even when I wanted to. More importantly, my parents taught me by their words and actions what unconditional love meant. I learned more from this gift than anything I could have learned in school. It taught me to care about people. It taught me to have empathy and compassion for people. It taught me how to be kind.

My path to a career in psychology was by no means a direct one. However, the unconditional love and support from my parents offered me the space to explore, a sounding board to decide, and the confidence in myself to believe that I could affect a positive change in others.

I am now a therapist with a private practice, and have earned a PhD in psychology! For over 16 years I have used the gift my parents gave me, along with my higher education and knowledge of human nature, to understand, support, and teach others. I learned how to help people.

This dissertation is dedicated to my parents. Thank you mom and dad for the gift that made me who I am today. I thank God that you are my parents, and I love you both dearly.

Acknowledgments

I would like to thank my family and friends, who supported my efforts to complete this dissertation and earn my PhD. I would like to say a special thank you to John for all his encouragement and understanding during this long process, especially when I needed it the most.

I would also like to thank my former Chair Dr. Pamela Jennings who guided me through Chapters 1 and 2. I would especially like to thank my dissertation Chair, Dr. Thomas Diebold who helped me immensely as my methods expert, and stepped up to the plate without hesitation, when I needed a new Chair mid-dissertation. He made it possible for me to move forward and complete this research study. Thank you Dr. Diebold!!

Table of Contents

List of Tables vi

Chapter 1: Introduction to the Study 1

Introduction 1

Background 1

Problem Statement 2

Purpose of the Study 3

Research Questions 4

Theoretical Framework for the Study 5

Definitions 6

Assumptions 7

Scope and Delimitations 8

Limitations 8

Significance 10

Summary 10

Chapter 2: Literature Review 12

Introduction 12

Literature Review Search Strategies 14

The Concept of Stigma and Mental Illness 15

Perceived Stigma 16

Public and Self-Stigma 16

Public Stigma 17

Self-Stigma 17

The Consequences of Stigma 18

Models of Mental Illness Stigma 19

Cognitive 19

Motivational 20

Sociological 22

Depression Stigma 23

Stigma Coping Strategies 25

Secrecy as a Coping Strategy 26

Withdrawal as a Coping Strategy 27

Educating Others as a Coping Strategy 27

Cognitive Distancing (*Deflection*) as a Coping Strategy 29

Challenging as a Coping Strategy 30

Predictive Factors That Influence Stigma Coping Orientations in Depression 31

Symptom Severity 31

Depression Literacy 33

Stereotype Awareness 38

Treatment Seeking 40

Social Supports 43

Stigma Sentiments 45

Labeling Theory and Modified Labeling Theory 46

Summary and Conclusions 51

Chapter 3: Research Method 53
Introduction 53
Research Design and Rationale 54
Methodology 56
Population and Target Size 56
Sampling 58
Procedures for Recruitment, Participation, and Data Collection 58
Instrumentation and Operationalization of Constructs 59
Data Analysis Plan 64
Research Questions 65
Threats to Validity 65
Ethical Procedures and Consideration 65
Summary 66
Chapter 4: Results 68
Introduction 68
Research Questions Restated 68
Data Collection 69
Data Analysis 71
Descriptive Statistics 71
Consideration of Statistical Assumptions 73
Canonical Correlation Analysis 73
Multiple Regression 76

Chapter 5: Discussion, Conclusions, and Recommendations 80
Introduction 80
Purpose of Study 81
Key Findings 81
Interpretation of Findings 84
Stigma Sentiments 84
Symptom Severity 87
Treatment Seeking 88
Theoretical Framework Context 90
Limitations of the Study 91
Recommendations 91
Implications for Social Change 93
Individual Level 93
Family Level 93
Organizational Level 94
Conclusion 95
References 97
Appendix A: Attitudes toward Seeking Professional Psychological Help Scale
(ATSPPH – SF) 112
Appendix: B Depression Literacy Questionnaire (D-Lit) 114
Appendix C: Depression Stigma Scale – Personal Subscale (DSS) 116
Appendix: D Multidimensional Scale of Perceived Social Support (MSPPS) 118

Appendix E: Perceived Devaluation - Discrimination Scale - (PDDS)...........................120

Appendix F: Patient Health Questionnaire – (PHQ-8) 122

Appendix G: Stigma Coping Orientation Scale – (SCOS) Challenging and Deflecting..123

List of Tables

Table 1. Descriptive Statistics for Each of the Composite Scales 71

Table 2. Scale Reliability for Each of the Composite Scales 72

Table 3. Output for Scales Correlations.. 73

Table 4. Canonical Solution for Assessment Variables Predicting Stigma Coping Orientation for Function 1 75

Table 5. Regression: Challenging on Predictors... 77

Table 6. Regression: Deflecting on Predictors 79

Chapter 1: Introduction to the Study

Introduction

In this study, I explored the stigma coping orientations of deflecting and challenging and the factors that may predict their use by people with depression. Challenging stigma is a behavioral coping style used when a person confronts outright the negative assumptions about mental illness. When a person deflects mental illness stigma, a cognitive process, they reject the negative assumptions and do not internalize them. (Thoits, 2011). Kanter, Rusch, and Brondino (2008) suggested that stigma might in fact vary by disorder. This study focused specifically on people with depression. People with depression affected by stigma could benefit from utilizing deflecting and challenging as stigma coping orientations. By using deflection and challenging stigma coping orientations, people experiencing depression stigma may avoid the use of negative stigma coping orientations such as avoidance, secrecy, and withdrawal. These negative stigma coping orientations can result in alienation from social encounters and treatment seeking behaviors (Kleim et al., 2008). This research study has potential positive social change implications by identifying factors that influenced affirming stigma coping orientations in people with depression.

Background

Watson, Corrigan, Larson, and Sells (2007) found that stigma coping orientations empower people and positively affect their self-esteem. Thoits (2011) considered deflecting and challenging to be affirming stigma coping orientations. The stigma coping orientation of deflecting is a cognitively based process (Thoits, 2011). By utilizing

deflecting, an individual with a mental illness can conclude that their diagnosis does not define them. They can separate the social stigma aspects of mental illness from their own sense of self (Link, Struening, Neese-Todd, Asmussen, and Phelan, 2002).

In contrast to deflecting, challenging as a stigma coping orientation is a behaviorally based process (Thoits, 2011). When a person uses challenging as a stigma coping orientation, they reject the stigma sentiments as an aspect of themselves and fight back to try to change stigma. This is an active process. Link et al. (2002) found that 81% of participants felt it was better to confront stigma than to ignore it. Some factors associated with the use of stigma coping orientations are past experience with resisting stigma, familiarity of mental illness, psychosocial resources (Thoits, 2011), family status, and treatment status (Sibitz, Unger, Woppmann, Zidek, & Amering, 2011). These factors were general to people with various diagnoses, not solely depression.

While it seems evident that research on affirming stigma coping orientations is more prevalent in the literature, this research study addressed the gap in the current research on factors that predict the utilization of the stigma coping orientations of deflecting and challenging. Identifying these predictive factors would assist professionals in counseling and clinical environments teach and reinforce the use of deflecting and challenging in individuals who experience the stigmatization of depression.

Problem Statement

People with mental illness, including depression, continue to face the negative impact of stigma due to labeling. Kroska and Harkness (2006) used the term *stigma sentiments* in their research to operationalize cultural perceptions of the mentally ill. As

with many people diagnosed with a mental illness, people who have depression also face the negative impact of stigma. Stigmatization of depression can create false perceptions of the disease. Many depressed individuals internalize the stigma. According to Barney, Griffiths, Jorm, and Christensen (2006) negative stigma sentiments frequently deterred help-seeking behaviors for people with depression. Isolation, unemployment, lower income, and feeling like a failure are common side effects of stigma. Sixty-seven percent of people diagnosed with depression anticipated stigmatization from peers at their work place (Blease, 2012). People with mental illness who feel stigmatized can also feel devalued and demoralized (Kroska & Harkness, 2011). Many people diagnosed with a mental illness are aware of the stigma sentiment attached to it (Dickerson, Sommerville, & Origoni, 2002).

Research by Yanos, Roe, West, Smith, and Lysaker (2012) indicated that about one third of people with mental illness present with high levels of self-stigma. Self-stigma is the process in which an individual internalizes social stigma. This internalization is associated with low self-esteem and poor self-efficacy (Watson et al., 2007). The stigmatization of depression continues to be of concern to a person's welfare. There is a plethora of research dedicated to the stigma of mental illness. However, a gap remains in depression-specific stigma research that examines variables that predict the use of affirming stigma coping orientations.

Purpose of the Study

In this research study, I employed canonical correlational analysis to explore relationships of the predictor variables (symptom severity, depression literacy, stereotype

awareness, treatment seeking, social supports, and stigma sentiments) and the criterion variables (challenging and deflecting). I also conducted two separate regression analyses, one for each criterion variable. These two statistical methods assisted in analyzing whether there are relationships between symptom severity, depression literacy, stereotype awareness, treatment seeking, social supports, stigma sentiments, and deflection and challenging. To measure these variables, I used the Personal Health Questionnaire – 8 (PHQ-8), the Perceived Devaluation- Discrimination Scale (PDDS), the Depression Literacy Scale (D-Lit), the Attitudes Toward Seeking Professional Psychological Help – Short Form (ATSPPH –SF), the Multidimensional Survey of Perceived Social Supports (MSPSS), the Depression Stigma Scale – personal score (DSS- personal), and the deflecting and challenging subscales of the Stigma Coping Orientation Scale (SCOS), respectively. Findings from this study may add to the stigma coping research, with specific interest in depression stigma. Findings may also add to counseling and clinical practice by encouraging practitioners to foster these stigma coping orientations in treatment to combat the effects of stigma on depressed clients.

Research Questions

RQ1: What are the multivariate patterns of relationships and effect sizes between the coping orientations of challenging and deflecting, and the stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments?

RQ2: What are the combined and the relative effects of stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment

seeking, social support, and stigma sentiments in predicting stigma coping orientation challenging scores?

RQ3: What are the combined and relative effects of stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in predicting stigma coping orientation deflecting scores?

Theoretical Framework for the Study

The theoretical frameworks for this study are Scheff's (1966) labeling theory and Link's (1987) modified labeling theory. Both labeling theory and modified labeling theory address the stigmatization of mental illness. Scheff's labeling theory posits that society places labels on people who display behaviors considered *deviant*. He maintained that people's perceptions of mental illness are responses constructed from the formations by society of what having a mental illness means. A person then molds their identity to what it means to be *mentally ill* (Link, Struening, Cullen, Shrout, & Dohrenwend, 1989). As a result, the expectations of the people labeled mentally ill are a result of societal impact. Link's modified labeling theory is the internalization of the social stigmatization of mental illness. Chapter 2 explores the theoretical framework for this study in further detail.

Link et al. (2002) found correlations between societal devaluation and discrimination, reported experiences of rejection, use of stigma coping orientations to avoid rejection, with feelings of being misunderstood, different, and ashamed. The researchers also found correlations between self-esteem and depressive symptoms

highlighting a relationship between stigma and how individuals feel about themselves, and how they feel in general.

Definitions

Challenging: Stigma coping orientation in which a person is likely to point out stigmatizing behavior when it occurs, disagree with people who make stigmatizing statements, and so on (Link et al., 2002); a behavioral stigma coping orientation to highlight and change prejudice and discrimination (Thoits, 2011).

Deflection: Stigma coping orientation in which persons cognitively distance themselves from a stigmatized group – by indicating that their problems are very different from those of other people with mental illness (Link et al., 2002); a cognitive stigma coping orientation to render a person impervious to stereotype threat (Thoits, 2011) used synonymously with cognitive distancing.

Depression Literacy: Knowledge about depression (Kiropoulos, Griffith, & Blashki, 2011).

Depression Stigma: Stigma associated with depression (Griffiths, Christensen, & Jorm, 2008).

Public Stigma: According to Corrigan & Watson (2002), the reaction that the general population has to people with mental illness that incorporates (a) stereotype, a negative belief about a group (e.g. dangerousness, incompetence, character weakness); (b) prejudice, an agreement with belief and/or negative emotional reaction (e.g. anger, fear); and (c) discrimination, a behavior incited by prejudice (e.g. avoidance, withholding of employment and housing opportunities.

Self-Stigma: According to Corrigan & Watson (2002), the prejudice which people with mental illness turn against themselves that incorporates (a) stereotype, a negative belief about the self (e.g. character weakness, incompetence); (b) prejudice, an agreement with belief, negative emotional reaction (e.g. low self-esteem, low self-efficacy); and (c) discrimination, a behavior response to prejudice (e.g. failing to pursue work and housing opportunities).

Social Support: Perceived support from family, friends, and significant others (Zimet, Dahlem, Zimet, & Farley, 1988).

Stereotype: Negative belief about a group (e.g. dangerousness, incompetence, character weakness; Corrigan & Watson, 2002).

Stereotype Awareness: The awareness of the general negative beliefs about mental illness held by a person’s culture (Corrigan, Watson, & Barr, 2006).

Stigma Sentiments: The evaluation, potency, and activity (EPA) associated with the cultural category “mentally ill person” (Kroska & Harkness, 2006).

Symptom Severity: Measure of depressive symptoms as determined by scores on the PHQ-8 scale.

Assumptions

In this research study, I assumed that the participants would respond honestly to the questionnaires. I assumed that the PHQ-8, D-lit, PDDS, ATSPPH-SF, and the MSPSS are accurate measures of depression symptom severity, depression literacy, stereotype awareness, treatment seeking, and social support respectively. I assumed that the DSS chosen to measure stigma sentiment would accurately capture and measure depression

stigma as a construct. I assumed that the challenging and deflecting scales would accurately measure these two stigma coping orientations. Finally, I assumed that all measures would yield adequate variance in scores.

Scope and Delimitations

This research study looked at a sample of undergraduate college students over the age of 18 from a general college population in the southern New Hampshire area. The study was narrowed to depression stigma, although other mental illness stigma was reviewed in the literature. The variables in this study were limited to symptom severity of depression, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments. The study examined only deflection and challenging as stigma coping orientations of the participants.

The measurement tools are closed-ended, self-administered response surveys for time convenience to the participant and ease of quantitative scoring. The choice of canonical correlational analysis fit the study because there are two dependent variables being studied. Other multivariate techniques did not seem to fit the research questions I was seeking to explore. Regression analysis can look at the multiple independent variables and predict one single dependent variable, giving further insight into the predictive qualities of the variables chosen.

Limitations

Sample selection was a random, convenience sample of college students. Depression was one of the main constructs being measured, which omits other mental

disorders from being studied. The sample was taken from more than one college, which introduces different testing conditions to the study. This is not a controllable variable.

Recall bias may make information less accurate on measurement tools. Some of the measurements tools asked about past events, and therefore the accuracy of the scores depend on the accuracy of the participant's recall. This is not controllable by the researcher, but may still affect internal validity. It is not uncommon on self-report instruments for participants to give socially desirable answers. During informed consent, I reiterated that answers on all measurement tools are completely anonymous even to me as the researcher. I hoped that this would encourage participants to answer openly and honestly.

Some other threats to internal validity involved the choice of instrumentation. Measurement bias may occur if the instrument intended to measure one specific construct is not actually capturing that construct; however, the instruments in this study had acceptable internal and construct validity.

Canonical correlational analysis can maximize the correlations of variables; however, it is important to make sure when reviewing results that they make theoretical sense to the study. A correlation does not imply causation, so watching out for misinterpretation was important when reviewing the results. The eight variables were operationalized to better define the constructs chosen for this study to be quantitatively measured. The study was also limited to investigating only six variables that may predicted stigma coping orientations. Identifying other predictor variables for stigma coping is beyond the scope of this study.

Significance

The objective in conducting this study was to educate the reader about the continued societal dilemma resulting from the stigma of depression. I focused on this diagnosis to help people understand the impact that depression stigma has on individuals. I emphasized the continued need for research in this field. I also endeavored to add to the existing research on depression stigma by identifying variables that predicted the use of affirming stigma coping orientations.

In particular, through this research study I addressed specific factors separately and as a whole in an attempt to find predictors of affirming stigma coping use. Past research has been conducted that looked at individual factors as they may relate to negative stigma coping, but this study simultaneously considered six factors that may predict affirming stigma coping orientations. Educators and practitioners can apply this information in academia, counseling, and clinical practice. Future implications for positive social change consistent with the theme of this study are identifying other factors that may predict the use of affirming stigma coping orientations in other diagnoses to decrease the negative effects of stigma and labeling.

Summary

In Chapter 1, I addressed the issue of depression stigma and the need for depression-specific stigma research. I also identified six factors of interest that may predict the use of affirming stigma coping orientations, with specific attention on deflecting and challenging. I then clearly outlined the three research questions. Also addressed in this chapter were the limitations and delimitations of the study. The chapter

concluded with a reiteration of the significance of this type of research in the field of depression stigma. Chapter 2 includes a literature review of the various types of stigma, stigma coping strategies, factors that may predict stigma coping orientations, and a more detailed review of the theoretical framework used in this study.

Chapter 2: Literature Review

Introduction

The stigmatization of depression negatively affects people's lives (Griffiths et al., 2008). People with depression who encounter this stigma can face many challenges. This study aims to explore the significance of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in stigma coping. The study then seeks to evaluate whether these variables can predict the use of challenging and deflecting the stigma associated with depression. Utilizing challenging and deflecting stigma coping orientations deters people with depression from internalizing the devaluation and discrimination associated with society's perceptions of the mentally ill. Challenging and deflecting the stigma of depression can empower those suffering from depression to reject social labeling. In so doing, these coping mechanisms contest the effects of labeling.

Previous research on stigma coping orientations has focused primarily on severe mental illness and stigmatization (Thoits, 2011). Within this focus, there has been an abundance of research on negative stigma coping orientations such as secrecy, withdrawal, and educating others. These three responses are direct reactions to the stigmatizing status derived from modified labeling theory and have been evaluated in the existing research by Link et al. (1989) and Link, Mirotznik, and Cullen (1991) as having potentially negative outcomes. There is paucity of research however emphasizing how some people with mental illness stop the negative effects of stigma (Link et al., 2002) such as becoming empowered and energized by facing stigma (Thoits, 2011). For

example, unlike secrecy, withdrawal, and educating others, the stigma coping orientations of challenging and deflecting oppose the negativity of labeling. Even less is known about the extent of affirming coping strategies used to decrease depression stigma and the relationship between these strategies and variables that may predict their use. Challenging and deflecting are of particular importance to people suffering with depression because these antistigma coping strategies not only combat stigma, but they can help maintain and even improve an individual's self-esteem (Thoits, 2011).

The goal of this research study was to address the gap in the research regarding depression stigma and coping by determining if there were significant relationships between symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, stigma sentiments, and challenging and deflecting to predict the use of these two affirming stigma coping orientations. This study has potential implications for researchers and clinical practitioners to learn methods for diminishing the negative effects of depression stigma by identifying potential predictive variables. The study also increased insight into options for responding to stigma. For example, using affirming stigma coping orientations with perceived, social, or self-stigma can reduce the negative effects of stigma. Other potential future implications of this study are to identify positive stigma coping opportunities based on identified predictive variables of individuals with depression. These implications may also be important in testing modified labeling theory.

In this literature review, I examine the concept of stigma and mental illness exploring how perceived, social, and self-stigma manifests; and the consequences of these types of stigma. Next, I explore the cognitive, motivational, and sociological

models of mental illness stigma as a prelude to discussing depression stigma. I then evaluate five stigma coping orientations: secrecy, withdrawal, educating others, challenging, and cognitive distancing (termed *deflection*). Following this, I discuss six predictive variables: symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments as they relate to the use of challenging and deflecting as affirming stigma coping orientations. Lastly, I examine the theoretical foundations behind labeling and stigma.

Literature Review Search Strategies

I conducted this literature review with the use of Walden University's various search engines and databases including Ebsco Host, ProQuest, Sage Premier, Google Scholar, Thoreau, PsycINFO, PsycArticles, PstcCRITIQUES, PsycBOOKS, Academic Search Complete, and SocINDEX. The most popular key search terms used were: *mental illness, mental health, depression, stigma, perceived stigma, public stigma, self-stigma, depression stigma, coping, stigma coping scales, stigma resistance, symptom severity, depression/mental health literacy, stereotype awareness, treatment seeking, social supports, stigma sentiments, labeling theory,* and *modified labeling theory.* The literature search yielded over 150 journal articles, which I sorted by relevance and date. The majority of the literature were peer-reviewed journal articles from the past five years with the exception of some seminal literature relevant to the theoretical foundation. In addition, I reviewed some older but essential works by central researchers in the field of stigma.

The Concept of Stigma and Mental Illness

Erving Goffman was a major contributor in the field of mental illness stigma. His conceptualization of stigma is extensively acknowledged in the stigma research. Goffman uses an example to illustrate how labeling effects can become stigmatizing such as when individuals who do not adhere to the societal norms are referred to as deviants (Goffman, 1963). Goffman describes three different kinds of stigma: physical deformities, blemishes of individual character, and tribal stigma. In the second category, blemishes of individual character, he includes mental disorders. Societal discrimination can result when a person has a trait that is stigmatizing because it interferes with normal interactions. Goffman (1963) asserts that people create a stigma theory about the individual to explain the noted differences. This is similar in theme to labeling theory in that the behaviors that are outside the norm create a sense of warning to possible danger. A person can rationalize this stereotyped behavior as an "animosity based on the differences" (Goffman, 1963, p. 15) between the observed and normal behavior and stigmatize a person as mentally ill.

The concept of stigma has been widely reviewed. Link and Phelan (2001) defined stigma using five concepts: labeling, stereotyping, separation, status loss, and discrimination. Labeling is an assignment of individuals into different groups based on perceived social worth. For example, the category of mental illness is more socially relevant than the category of eye color. When someone associates negative characteristics to a relevant "labeled" social category, Link and Phelan (2001) found that stereotyping occurs. Stereotyping leads to labeling and, ultimately, to separation. According to Link

and Phelan, this type of separation creates “us” and “them” categories in which the labeled person can experience status loss and discrimination.

Perceived Stigma

Perceived stigma is a term used to highlight perceptions of devaluation and discrimination held by the public about mental illness (Link et al., 2002). Griffiths et al. (2008, p. 2) described perceived stigma as the “beliefs about the negative attitudes of others”. Kleim et al. (2008) explored perceived stigma among a sample of 127 outpatient psychiatric clients diagnosed with schizophrenia using the PDDS. The study looked at perceived stigma, secrecy, withdrawal coping orientations, symptom severity, self-efficacy, and depression. Results of a correlational and hierarchal regression analysis indicated significant relationships between perceived stigma and self-efficacy, secrecy, and withdrawal. The higher the perceived stigmatization, the lower the scores were for self-efficacy, with 48% reporting they believed former psychiatric patients would be seen as less trustworthy. Perceived stigma also resulted in an increased use of secrecy and withdrawal coping orientations. Findings in this study indicate that when a person held higher views of perceived stigma it negatively influenced their ability to maintain productive daily behaviors such as social interaction, success at work, and self-efficacy. Identifying and increasing the use of affirming stigma coping orientations to decrease the effects of perceived stigma is an important area for stigma research to address.

Public and Self-Stigma

The stigmatization of mental illness can also create a public and a self-stigma. People who suffer from mental illness and experience public and self-stigma may become

isolated, have higher rates of unemployment, lower incomes, or feel as if they are failing (Blease, 2012). These feelings can deter individuals from reaching various goals or taking advantage of opportunities (Corrigan, 2000). People with mental illness often feel devalued by stigma, as if they have suffered a loss of identity (Yanos et al., 2012). Public and self-stigma remains a serious concern for people who suffer mental illness.

Public Stigma

Public stigma results when other members of society respond to those with mental illness with stereotypes, prejudice, and discrimination (Corrigan & Watson, 2002; Corrigan, 2004; Corrigan & Kleinlein, 2005; Corrigan, Larson & Rüsch, 2009). Public stigma can also create social distance from people with mental illness. Social distance occurs when one societal group attempts to avoid interactions with another group, such as the mentally ill. Social distance is a one-dimensional component of stigma (Jorm & Oh, 2009). People who are prejudiced towards those with mental illness can induce social distance (Corrigan, Edwards, Green, Diwan, & Penn, 2001) and negatively influence those suffering from depression such that they may find it difficult to find adequate housing, jobs, or appropriate health care (Corrigan, 2004).

Self-Stigma

Self-stigma can make people feel labeled and ostracized. For many people, self-stigma can have an impact regardless of their mental diagnosis. In a study by Moses (2010), teenagers identified more self-stigma when they felt the cause of their mental illness was due to one or more of these causes: biology, family, personality, social problems, and trauma. Yanos et al. (2012) revealed that roughly one third of people with

mental illness present with high levels of self-stigma. People with mental illness who feel self-stigmatized can have low self-efficacy (Corrigan et al., 2010). This feeling can exacerbate the negative symptoms of their illness. Fear of rejection often causes those suffering from depression to internalize the societal stigma, also resulting in self-stigma. Self-stigma can deter a person with mental illness from seeking or continuing treatment (Bathje & Pryor, 2011). Feeling self-stigmatized can affect independent living and social interactions and is associated with increased hopelessness and a decreased quality of life (Corrigan et al., 2009; Mittal, Sullivan, Chekuri, Allee, & Corrigan, 2012). The overwhelming evidence from the research on self- stigma confirming its negative impact on people with mental illness only escalates an urgency for further research on how individuals can combat this type of stigma.

The Consequences of Stigma

Many people who suffer from a mental illness may avoid seeking treatment because they are afraid of public stigma. Labeling someone mentally ill can create a fear of rejection in that person (Link et al., 1991). Barney et al. (2006) found a clear link between stigma and treatment. The researchers sent questionnaires to a random sample of 1,312 adults in Australia in an attempt to gain insight into self and perceived-stigma attitudes, help-seeking intentions, depressive symptoms, depression experience, and demographics. They found the likelihood that one would seek treatment fluctuated depending on the help-source. Seventy-three percent of respondents reported that they would seek help from a general practitioner, 50% would see a counselor, 40% would see a psychologist, 34% would see a psychiatrist, and 37% would see a complementary

counselor. Respondents considered seeking treatment with a mental health counselor, especially a psychiatrist, to be more awkward. Forty-four percent of respondents felt this resulted in greater self-stigma. General practitioners (20%) and psychiatrists (17%) were also identified as professionals who maintained perceived stigma in this study. This study emphasizes how stigma can negatively affect treatment-seeking intentions. Persons experiencing depression-related stigma may avoid seeking treatment (Barney et al., 2006) or discontinue treatment prematurely (Aromaa, Tolvanen, Tuulari, & Wahlbeck, 2011). The consequences of stigma is clearly outlined in the research with specific implications for people who suffer from depression. What is not clear is evidence suggesting what predicts positive stigma coping to avoid the negative consequences of depression stigma.

Models of Mental Illness Stigma

Before addressing the specifics of depression stigma, it was first necessary to address the models of mental illness stigma. Behavioral science has given us three common explanations of mental illness stigma: cognitive, motivational, and sociological (Corrigan, Kerr, & Knudsen, 2005).

Cognitive

Corrigan et al. (2005) referred to stigma as cognitive, affective, and behavioral reactions towards those with mental illness. Corrigan (2000) and Corrigan and Kleinlein (2005) described a social-cognitive model of mental illness stigma. This model encompasses signals that lead to stereotypes and then to discrimination. Signals can be symptoms, skills deficits, a person’s appearance, and labels. Examples of this would include persons who talk to themselves, an unkempt person, or someone who does not

make good eye contact when speaking. The public can assume a person has mental illness from any of these signals. These signals can then lend themselves to stereotypes or cognitive mediators such as authoritarianism, benevolence, social restriction, and dangerousness. When people employ stereotypes, it can lead to discriminatory behaviors toward those with mental illness such as refusal of employment, housing, affiliation, and treatment.

Some unwarranted stereotypes about people with mental illness are that such persons can be dangerous, incompetent, and weak of character. Prejudice towards people with mental illness occurs when a person agrees with the damaging stereotype, and discrimination occurs when people act on the stereotypes. An example of this type of discrimination is the withholding of work or housing opportunities by employers and property owners (Corrigan, 2002; Corrigan, 2004; Corrigan & Kleinlein, 2005). This stigma process beginning with prejudice and resulting in discrimination can profoundly affect individuals with mental illness.

Motivational

A motivational model of mental illness stigma tries to understand why people stigmatize and the purpose stigma serves. To understand this better it is helpful to review three motivations and their justifications. Jost and Banaji (1994) conceptualized justification as "an idea being used to provide legitimacy or support for another idea or for some form of behavior". Previous research on justification includes ego-justification, group-justification, and system-justification.

The ego-justification model of stigmatization explained from the psychoanalytic perspective is a defense mechanism (Jost & Banaji, 1994, Corrigan et al., 2005). A person's motivation to stereotype another is a way to take advantage of the person, and protect the self from shortcomings. Therefore, stigma in essence is a way to progress individual benefits while also maintaining self-esteem (Jost & Banaji, 1994). From a sociological perspective, the concept of ego-justification is when an individual projects their own negative ideas, images, or behaviors onto the stigmatized group (Katz & Braly, 1935). According to Corrigan et al. (2005), research does not support ego-justification as a reliable model of stigma.

The group-justification model of stigmatization is the in-group versus the out-group viewpoint. In this model, the in-group creates negative stereotypes about the out-group while maintain positive ones about themselves, to protect and preserve the social identity of the group (Jost & Banaji, 1994). The group-justification model suggests that members protect the group identity by upholding the stereotypes of the other groups to solidify their concept of normal.

The system-justification model of stigmatization is an extension of the latter two models since they fall short of explaining institutional and structural models of stigma. It is the justification of exploitation of particular groups by use of stereotype in an attempt to maintain the status quo regardless of the consequences (Jost & Banaji, 1994). It is a psychological process to uphold a social system agreement regardless of whether it is positive or negative. According to Corrigan et al. (2005), this process of justifying

stereotypes can be by historical accident, biological derivation, public policy, or individual intention.

Sociological

The sociological model of mental illness stigma recognizes the historical, political, and economic influences on institutions and social groups (Corrigan et al. 2005). In their conceptualization of stigma, Link and Phelan (2001) asserted that stigmatization can occur when labeling, stereotyping, separation, status loss, and discrimination exist parallel to specific powers that stem from social, economic, and political access. The sociological model of mental illness stigma can be further broken down into institutional and structural models. Private and public organizations can institutionally discriminate when their rules, policies, and procedures limit the rights and opportunities of people with mental illness. An example of this is when individuals with mental illness are restricted from holding a public office. Specific laws can unintentionally distinguish between groups and short-change a stigmatized subgroup, resulting in structural discrimination (Corrigan et al., 2005). For example, the Mental Health Parity and Addiction Equity Act (MHPAEA) of 2008 was set into place to "provide the same level of benefits for mental and/or substance use treatment and services that they do for medical/surgical care" (Substance Abuse and Mental Health Services Administration (SAMHSA) website, 2014 para. 1), however, certain lobbyists contested the act because of the financial unease to many businesses. Structural discrimination is a key target area in social change groups.

Depression Stigma

There is still considerable stigma towards mental illness in the general population and depression is no exception (Mittal et al, 2012). Depression stigma can result from the impact that perceived, public, and self-stigma has on the disorder. Perceived stigma towards depression includes the belief that other people view the disorder as a sign of personal weakness, that people are responsible for their condition, or that they are unpredictable, dangerous, or violent (Monteith & Pettit, 2011). Link, Phelan, Bresnahan, Stueve, and Pescosolido (1999) assessed public perceptions of dangerousness among various disorders using data gathered from vignettes. Thirty-three percent of the subjects perceived depression to increase the likelihood of violence even though there was no mention of violence in the vignette. A person with depression may believe that the negative perceptions of the disorder are considered by most people, which can reinforce public-stigma, and if internalized become self-stigma of depression (Barney et al., 2006). A negative consequence of depression stigma is that when a person experiences it they may feel that others will judge or make assumptions about them if they seek help.

A lack of knowledge about depression can often produce a stigma towards the disorder, and the person suffering from the disorder. Griffiths et al. (2008) found that those who held a greater stigma towards people with depression reported less personal contact with such people. Men, younger people, and those with lower education levels had higher depression stigma (Griffiths et al., 2008; Reavley, McCann, & Jorm, 2012) suggesting demographic differences in depression stigma.

Common symptoms of depression are low self-esteem, self-doubt, and blame. When people with depression anticipate stigma it can exacerbate these feelings. Findings from a study assessing self-stigma in outpatients with depressive disorders by Yen et al. (2005) showed a correlation between severe depression symptoms and self-stigma. Blease (2012) found that 67% of primary care patients with depression-anticipated stigma directed at them at work and 33% felt ashamed of their depression. Many people with depression prescribe to the stigmatizing views of depression. They may doubt that people will believe the veracity of the illness, or blame themselves for their depression (Blease, 2012). When people with depression feel stigmatized, they are often uncomfortable discussing their illness with others, including health care providers. They may feel that the professional will view them negatively because of their depression (Barney et al., 2006). In order to feel supported or to seek appropriate treatment, a person with depression must feel comfortable discussing their disorder. Unfortunately, stigma frequently prevents this from happening.

Depression stigma can thwart help-seeking behaviors. Barney et al. (2006) examined stigmatizing beliefs about depression to understand their impact on help-seeking behaviors. Their study included a questionnaire regarding help-seeking intention, self-stigma, perceived stigma, depressive symptoms, personal experience of depression, and basic demographics of respondents. The results showed that both self-stigma and perceived stigma defined in this study as expectations of negative responses from professional help-sources (p.53) were typical in attitudes about help seeking for depression regardless of the professional help-sources (e.g., psychiatrist, counselor,

general practitioner). Overall, they found the higher the depression stigma, the lower the chances that the person with depression would seek treatment.

Depression stigma can lead to the avoidance of treatment. Manos, Rusch, Kanter, and Clifford (2009), found that the effects of depression stigma could amplify the negative symptoms of the illness, increasing avoidance. Some people with depression avoid treatment because they feel they will be labeled (Chang, 2008), while others may believe, stigmatizing attitudes like their disorder should be controllable and that the illness is their own fault. These feelings lead them to conclude that treatment will be ineffective (Bathje & Pryor, 2011). Often, the self-stigma of a person with depression can cloud their decisions to seek help for their symptoms. Many people who are depressed and experience stigma because of their disorder try to keep it from others (Kanter, Rusch, & Brondino, 2008). People who suffer from depression may have lower self-esteem common to the disorder, which may increase the likelihood that they will subscribe to negative stigma (Corrigan & Calabrese, 2005). Learning healthy stigma coping is imperative to eliminate the barriers to well-being that depression stigma generates.

Stigma Coping Strategies

There are varieties of coping strategies used by people who suffer from mental illness to manage stigma. These can range from unhealthy to healthy. Stigma coping strategies serve various purposes for people who suffer from mental illness. These strategies include keeping their mental illness a secret, withdrawing from others, educating people about mental illness, and deflecting or challenging stigma. Some people with mental illness use stigma coping strategies when they anticipate devaluation from

others, or other negative effects of stigma. Others use stigma coping strategies to contest and resist stigma (Thoits, 2011). Thoits (2011) refers to this resistance as “opposing a harmful force or influence” (p. 11). The five stigma coping strategies covered in this literature review are secrecy, withdrawal, educating others, deflecting, and challenging. These strategies all serve as protective factors against the stigma of mental illness; however, some are passive and protective while others can change general attitudes. Still others can be affirming or empowering. Each strategy will be discussed below.

Secrecy as a Coping Strategy

One way individuals try to protect themselves from self-stigma is to hide their mental illness from others. Many persons believe that keeping their mental illness a secret from others may protect them from the negative impact of stigma (Corrigan et al., 2010) while others keep their illness a secret to avoid feelings of decreased self-worth (Thoits, 2011). Corrigan et al. (2010) categorically defined secrecy as an antistigma coping strategy of shame. A negative component to keeping one’s mental illness a secret is that it has a stigma-validating effect for the individual, which reinforces the shame component (Corrigan et al., 2010). When an individual with mental illness is open about their disorder, they risk discrimination. Individuals who are secretive about their mental illness may feel that the stigma of mental illness is valid and they may react by avoiding social or important engagements, or they may go as far as quitting their job to avoid negative comments from others (Corrigan et al., 2010).

It is difficult to address self-stigma when the individual endorses the stigma and does not feel empowered. Such an individual may try to avoid anticipated rejection by

using secrecy. Kleim et al. (2008) found that persons diagnosed with schizophrenia, who felt stigmatized, had lower self-efficacy and utilized secrecy as a coping strategy to ward off the negative effects of stigma regarding their illness.

Withdrawal as a Coping Strategy

Many individuals who feel threatened by the stigma that accompanies their mental illness will protect themselves by withdrawing from interpersonal and social activities. This stigma can hinder their ability to feel connected to others because they may have internalized the stigma. They may worry that others will meet their mental illness with prejudice, so they avoid social situations (Thoits, 2011). Kroska & Harkness (2011) found that when stigma sentiments increased in individuals with affective disorders so did the use of withdrawal as a coping style. Oxman, Hegel, Hull, and Dietrich (2008) looked at the rates of minor depression in primary care and found that individuals that used a more avoidant coping style, showed the least amount of clinical improvement over time, regardless of the mode of treatment. Kleim et al. (2008) found that the effects of perceived stigma, including perceived devaluation and discrimination, in patients diagnosed with schizophrenia, resulted in low self-efficacy and increases in withdrawal as a coping strategy. Diagnosis-specific research and an exploration of the variables that mediate the use of stigma coping can be beneficial to individuals who suffer a mental illness.

Educating Others as a Coping Strategy

Individuals with mental illness often use educating others as a coping strategy to increase mental health literacy and decrease the stigma towards mental illness. Corrigan

et al. (2010) identified stigma as an external influence, that can be addressed using various strategies, such as educating the public about mental illness. In educating people about stigma, teachers, clinical professionals, and individuals can utilize the media, newsletters, and advertising to teach about mental illness and correct inaccurate information. Media programs can target the stigma of mental illness by presenting information and facts about mental illness (Corrigan & Penn, 1999; Thoits, 2011). Another important element of education is correcting the media's often-misguided information regarding mental illness (Corrigan & Penn, 1999).

In a study conducted by Corrigan et al. (2001), the education of others about mental illness as a stigma coping strategy led to improved attitudes by others. The study participants were placed into four stigma-changing groups: education, contact, protest, or control. Participants completed measures of attributions about disabilities before and after the stigma-changing condition took place. The sample used in this study consisted of 152 adults from a community college with an average age of 25.7 years. 51.3 percent were European-American, 35.3 percent were African-American, and 13.4 were labeled "other." Although specific demographics of the participants were not found to be significantly linked to a change in attribution, the effectiveness of the educator was shown to be effective (Corrigan et al., 2001). The results showed a broadened understanding of attributions about depression by the public. Education as a stigma coping strategy also increased people's opinions about the plausibility of recovery for many mental illnesses.

Kroska and Harkness (2006) found that individuals with affective disorders utilize educating others as a stigma coping strategy, equally as often as they utilize secrecy and withdrawal. Kroska and Harkness (2006) describe the manner in which individuals with mental illness use education to decrease discriminatory attitudes and behaviors as "preventative telling." They consider educating others to be a non-avoidance strategy for dealing with the stigma of mental illness. Kroska & Harkness (2011) subsequently found evidence that having an affective disorder reduces the use of educating as a stigma coping orientation.

Cognitive Distancing (*Deflection*) as a Coping Strategy

When an individual with a mental illness uses cognitive distancing or deflection as a stigma coping strategy, they are more apt to preserve their self-esteem. When an individual with mental illness uses deflection as a coping strategy, they recognize that the stigma is not germane to themselves. It is a cognitive strategy used by many suffering from mental illness. Individuals who choose deflection can identify the stigma, reject it by not applying it to themselves, decipher the difference between negative public images of mental illness and the self, and not allow mental illness to define them (Thoits, 2011). Thoits emphasized that an important piece of the deflection strategy is identifying that a mental disorder can be transient, minor, and understandable. It is also important to note that many symptoms are socially acceptable responses to our environment such as reacting to a stressful event or situation. By utilizing this coping strategy to combat mental illness stigma, individuals can reduce the negative impact of the stigma.

Challenging as a Coping Strategy

Individuals can resist the stigma of mental illness, maintain their self-esteem, and affirm their positive attitudes, by directly challenging stigma. Campbell and Deacon (2006) report that stigmatization is not always internalized and people are capable of becoming stigma resistant. Many individuals express anger towards stigma and are energized by their reaction, while others may ignore stigma altogether (Corrigan & Kleinlein, 2005). Being open about one's mental illness can be empowering and can challenge self-stigma which can lead to an increased quality of life (Corrigan et al., 2010).

Challenging stigma can take the form of confronting others about their negative attitudes towards persons with mental illness. When challenge stigma, individuals take action against discriminatory, prejudicial, or stereotypical opinions about mental illness. In order to challenge a stigma, individuals must first confront the negative beliefs and discredit them as inaccurate (Thoits, 2011).

Corrigan et al. (2010) claimed that challenging a stigma is an affirming stigma-resistant strategy because it contends with the stigma and does not negatively affect self-esteem. Individuals can challenge stigma about their own mental illness or mental illness in general, which can help to maintain and in some cases increase self-esteem. The goal is not only to correct the inaccurate viewpoint about mental illness but also to change prejudicial and stereotypical misconceptions about mental illness (Thoits, 2011).

Consumers of mental health services can oppose stigmatizing attitudes about mental illness by using a group approach to challenge social stigmas (Thoits, 2011). This

challenge by group can take three forms: contact, education, and protest (Thoits, 2011). Contact involves individuals with mental illness talking to pertinent groups about their experiences, struggles with stigma, and recovery. It is a chance to educate others, and allow them to ask questions. Protesting stigma is a way to confront it by addressing leaders, media myths, and social or industry policies that encourage stigma. One way to challenge stigma is to organize a group protest. A protest involves speaking out against the erroneous ideas about mental illness in the media and public (Corrigan & Watson, 2002). There is research to suggest that when individuals feel empowered they will experience better clinical outcomes, and be better able to challenge stigma (Corrigan, 2002).

Predictive Factors That Influence Stigma Coping Orientations in Depression

It is important to identify predictive factors that influence stigma coping, because doing so allows for a better understanding of how one might adapt the stigma coping strategy for an individual suffering from depression. If stigma coping styles are identified, and the predictive factors for such coping strategies become clear, individuals suffering from depression stigma may better be able to self-moderate their coping behaviors. They may also engage in healthier and more affirming coping strategies, as opposed to unhealthy, or destructive behaviors. Many factors may influence the use of stigma coping strategies.

Symptom Severity

Symptom severity is a predictive factor that influences stigma coping in individuals with depression because of the role it plays in different forms of stigma.

Symptom severity can fluctuate for individuals who suffer from depression, and depression stigma can increase symptom severity. This, in turn, can increase many other negative behaviors, and patterns. Manos et al. (2009) found that self-stigma could make depressive symptoms worse and could make individuals feel weak, and guilty, leading to avoidance behaviors in an attempt to hide depressive features from social groups. However, individuals who have less severe depressive symptoms will be more apt to deflect stigmatizing themes (Thoits, 2011). By using the personal and perceived stigma subscales of the Depression Stigma Scale (DSS), Griffiths et al. (2008) found that higher symptom severity in depression was related to both higher personal, and perceived stigma. A meta-analysis by Livingston and Boyd (2010) found that symptom severity had a positive, and statistically significant relationship with internalized stigma in 83.3% of the studies they reviewed. When stigma induces low self-worth, and low self-esteem, it can also increase suicide risk, and sustain symptom severity for many with a mental illness (Yanos, Roe, & Lysaker, 2010).

Gaebel, Zäske, and Baumann (2006) looked at factors that could influence a nonprofessional’s view of mental illness severity and its effect on stigma. Perception of illness-induced and related behavior of individuals with severe mental illness, for example, are disturbed communication behavior, medication side effects, and social disability. As referenced in modified labeling theory, being labeled as mentally ill can increase symptoms of the illness. Gaebel et al. (2006) found that people emphasized the visible aspects of social disability increasing stigma about diagnostic labels and treatment intensity. This public stigmatization results in a relationship between mental illness

severity and stigma. The study highlights the perception of the social disability and whether it is severe or moderate adds to the stigma of mental illness. This stigma affects both the quality of life and self-esteem of a individuals with mental illness.

Depression Literacy

Depression literacy is a predictive factor that influences stigma coping because when persons understand depression as a disorder it can decrease the negative effects of the stigma. The term *mental health literacy* was first identified by Jorm et al. (1997) and is defined as “knowledge and beliefs about mental disorders that aid in their recognition, management or prevention” (p. 182). Much of the work in this field utilizes vignettes to gauge the public’s understanding of mental illness. Mental health literacy refers to an individual’s ability to recognize and understand mental health concerns, symptoms or related stressors common to any given mental disorder, and the various resources and treatments available. It is an important and multifaceted component in detecting mental health-related illnesses, both for individuals, and in others. Besides being able to recognize and distinguish symptoms from one another, one needs to differentiate between mental health symptoms and other health or environmental issues. One must also possess at least a minimal concept of treatment options and the ability to recognize mental health symptoms in others.

Research that specifically investigates depression literacy as a predictor variable for stigma coping in stigma research also exists. Griffiths et al. (2008) reviewed depression literacy and described it as “knowledge about depression,” (para. 5). Griffiths et al. (2008) used a two-step hierarchical regression analysis to look at predictors of

personal and perceived stigma measured with the DSS. The study used three samples compiled from a group of psychologically afflicted individuals: a national sample, a local community sample, and a subset of the local sample. Depression literacy was identified as one of the possible predictors of stigma. This study was the first to use depression literacy as a predictor variable. Results indicated that higher personal stigma correlated with lower depression literacy. These results are important when thinking about depression literacy as a predictive factor in stigma coping. For example, in this study Griffiths et al. (2008) found that persons with lower knowledge about depression, seemed to have higher personal stigma (also referred to as self-stigma in the literature). It seems to reason that one could hypothesis that having a higher knowledge of depression could in fact decrease self-stigma. However, the researchers found no significant relationship between depression literacy and perceived stigma. Nevertheless, if one was looking into predictive factors to utilize stigma coping, knowledge of depression (e.g. depression literacy) could be one of them to decrease depression self-stigma. There are however, some limitations to the study including the fact that the third sample included psychologically distressed individuals, not persons specifically diagnosed with depression, and the predictors did not explain a large amount of variance. In another study, Kiropoulos, Griffiths, and Blashki, (2011) observed decreases in personal stigma with increases in depression literacy and found no significant relationship between perceived stigma and depression literacy. Stigmatization of depression can occur due to the lack of appropriate and accurate knowledge about the disorder. Depression literacy

may be a factor in an individual's ability to resist the negative effects of stigma related to the symptoms or diagnosis of depression.

Increasing depression literacy was found to be a useful self-stigma reduction strategy by Mittal, Sullivan, Chekuri, Allee, and Corrigan (2012). The researchers reviewed 14 articles after searching for research specific to "self-stigma," "internalized stigma," "perceived stigma," and "stigma interventions." Three of the articles were specific to persons diagnosed with depression. Results indicated that psychoeducation about the fabrications about mental illness, helped decrease stigma. Mittal et al. (2012) address the fact that research on stigma reduction interventions is still in the beginning stages, but looking at depression literacy as a possible predictive factor in stigma coping seems quite plausible. Identifying which stigma coping orientation is used to decrease stigma is especially important.

Some weaknesses of this study are noted. These weaknesses include the fact that effect sizes (Cohen's *d*) in the studies reviewed by Mittal et al. (2012) were mostly small (.2) to medium (.5), and sample sizes were also fairly small with only four out of the 14 articles reviewed having a sample size of more than 100 thus making interpretation less straightforward. Additionally, mediating variables such as levels of symptoms, severity of illness, functional status, and changes in self-esteem, empowerment, or coping skills are not controlled for in the studies reviewed. However, results that detail the positive impact of high depression literacy in reducing stigma, is motivating for future researchers to study depression literacy's predictive capabilities on stigma coping.

Other studies such as Chang (2008) found that high depression literacy was linked to greater empathy towards people with depression and Griffiths et al. (2008) and O'Reilly, Bell, Kelly, and Chen (2011) found less social distance and a decrease in stigmatizing attitudes towards persons with mental illness. The study conducted by O'Reilly et al. (2011) used a sample of pharmacology students and looked at how improved recognition of mental illness can support evidence-based interventions to treat individuals with mental illness. This study is significant in identifying that depression literacy can be seen as a predictive factor that can be taught to decrease stigma, by using a healthy coping orientation. Reavley and Jorm (2011) found that 75% of participants ages 15 and older showed high depression literacy by recognizing depression in a vignette of mental health literacy. Reavley et al. (2012) found that one of the factors associated with depression stigma was low depression literacy. Deen and Bridges (2011) showed that men had lower depression literacy than women even after controlling for age, education, income, and depression symptoms in the sample vignette. Griffiths et al. (2008) also reported that men showed lower depression literacy than woman. Demographic differences in depression literacy are helpful especially in treatment settings to identify potential predictive factors to stigma coping orientations.

Many people in the general public do not recognize mental illness in the community. They do not understand mental disorders, or the clinical nomenclatures used by mental health professionals (Jorm, 2000). The Tung Foundation (Chang, 2008) found that in 2003, 11.7% of the population of Taiwan suffered from depression, and only 52.5% were able to identify depression symptoms in others. In addition, 68.2% of people

in the same survey said depression could dissipate on its own. However, in 2004, 10.2% of college students in Taiwan tried to commit suicide (Chang, 2008). Many of them were female and in the top 20% of their classes. Depression literacy is imperative in increasing awareness of the disease and proper diagnosis. Doing so will allow researchers to draw comparisons between depression literacy and stigma-coping behaviors, and derive conclusions about likely behavior in those experiencing depression stigma. This information can be used to determine the predictive nature of identifying depression literacy as a factor in using an affirming and healthy stigma coping orientation to combat depression stigma, versus a negative and unhealthy one.

There are different ways to increase depression literacy. Kiropoulos et al. (2011) used an online multicultural information program on depression called (MIDonline) to see if there was an increase in knowledge of depression, or a decrease in depression stigma. The researchers sought to determine if MIDonline had any effect on depression literacy, depression stigma, and depressive symptoms in 129 Greek-born and 73 Italian-born immigrants living in Australia. The results after the online intervention showed an increase in depression literacy, both immediately following the intervention, and at the follow-up assessment. The intervention showed a decrease in mean personal stigma post-intervention, as well one week later when a follow-up questionnaire was completed. However, results did not decrease perceived stigma (Kiropoulos et al., 2011). A limitation of this particular study is the limited length of time between the post intervention and the follow-up assessment, because such a short time period does not address the sustainability of the intervention over time. O'Reilly et al. (2011) saw an

increase in depression literacy and a decrease in mental health stigma after administering a mental health first aid training to a sample of pharmacist students. Clinical professionals and educators are able to increase depression literacy, and depression awareness in the community, facilitating treatment for those in need.

High depression literacy not only will help an individual with depression understand their own disorder better, but will also be helpful in correctly identifying depression symptoms in others. Improving depression literacy will help family, friends, and community members respond adequately to those in need of mental health help, especially in younger populations who sometimes struggle to identify these needs (Mccann, Lubman, & Clark, 2012). People who may be experiencing depression but are not cognizant of the disorder will be less likely to address it. When a person with depression has low depression literacy, they may be unable to identify their symptoms, or seek treatment (Chang, 2008). According to Jorm (2013), many persons may fall back on their general belief systems of depression without an accurate understanding of mental illness. This can deter treatment seeking and increase stigma of the illness. Depression literacy remedies this and can predict the use of positive coping.

Stereotype Awareness

People with mental illness that have higher stereotype awareness may be better at using effective stigma coping orientations to diminish stigma sentiments. Stereotype awareness, also referred to as perceived stigma, occurs when a person with a mental illness understands the potential for others to discriminate against him or her based on negative and labeling beliefs regarding mental illness (Corrigan, Watson, & Barr, 2006;

Mittal et al., 2012). This can include the potential for others to label someone mentally ill and stereotype their behaviors (Thoits, 2011). Stimulating cultural stereotypes may, in fact, induce stereotype-consistent behaviors by stigmatized individuals (Major & O'Brien, 2005). Stereotype awareness predicts coping behavior in that it can initiate an individual's response to stigma. When an individual responds to stigma, they do so by selecting from a variety of stigma coping orientations. These orientations are intended to protect the individual from the negative consequences of stigma. Some coping can be avoidant, while other orientations deflect and challenge the stigma (Link et al., 2002).

Stereotype awareness does not mean one feels self-stigmatized, but is rather the knowledge of stereotypes. For self-stigma to stem out of stereotype awareness, an individual with mental illness must not only be aware of the stereotype of their mental illness, but also must agree with it, and apply it to themselves (Corrigan et al., 2009). Corrigan et al. (2006) argued that a person with mental illness can endorse public stereotypes—called stereotype agreement—that can lead to self-stigma.

When a person with mental illness has stereotype awareness, but does not endorse the stereotype and apply it to him or herself, the person may feel empowered. Through testing mediation models in a sample of 71 individuals with serious mental illness, Watson, Corrigan, Larson, and Sells (2007) found stereotype awareness did not correlate with group identification, but negatively correlated with perceived legitimacy indicating that the more cognizant a person is of public stigma, the less it is perceived as legitimate. Power and powerlessness, community activism, righteous anger about discrimination, and optimism and control over the future, can stem from empowerment about stereotype

awareness. Individuals who feel empowered can secure positive self-esteem and self-efficacy (Corrigan et al., 2009). When individuals with mental illness have stereotype awareness, disagree with the stereotypes, or refuse to apply them to themselves, they are using deflection as a stigma coping orientation (Thoits, 2011).

Treatment Seeking

Attitudes toward treatment seeking is another predictive factor that influences coping strategies in people with depression. Individuals who view treatment as a way to feel better about their disorder, and foresee relief from their symptoms, are more apt to seek services. Conversely, stigma towards treatment seeking can deter people from doing so (Bathje & Pryer, 2011). Deciding to seek treatment for a mental illness can be a difficult decision for many individuals. Such persons face conflicting issues: they want to find support for their symptoms, but they also may feel hesitant to seek treatment, due to the complex and various ways stigma is attached to treatment seeking (Corrigan, 2004). Many persons anticipate stigma about seeking help for a mental health concern (Schomerus, Matschinger, & Angermeyer, 2009; Aromaa et al., 2011; Wade, Post, Cornish, Vogel, & Tucker, 2011). Stigma may still pose a concern even after establishing a preliminary appointment with a professional (Wade et al., 2011). Public stigma and self-stigma play significant roles in the decision regarding whether to seek treatment for mental disorders.

When an individual with mental illness internalizes public stigma, it can deter treatment seeking. This self-stigma towards one's treatment can then be a deterrent for seeking and following through with treatment (Vogel, Wade, & Hackler, 2007). Each

individual considering seeking treatment for his or her mental illness will view the positive and negative effects differently. Learning healthy stigma coping orientations can decrease self-stigma. These can be taught and fostered in treatment.

Nam, Choi, Lee, Lee, Kim, and Lee (2013) looked at anticipated benefit, anticipated risks, depression, distress, self-concealment, self-disclosure, social support, public stigma, and self-stigma to see how these variables correlated with help-seeking attitudes. Nam et al. (2013) found positive relationships between anticipated benefits, self-disclosure, and social support with help-seeking attitudes, and negative relationships with stigma, anticipated risks, self-concealment, and depression. These negative relationships deterred persons from seeking help. Self-stigma and depression correlated negatively to help seeking. One possible explanation is that individuals who experience self-stigma about treatment, and suffer from depression, feel worse about themselves, thus reinforcing their negative attitude toward treatment seeking.

Manos, Rusch, Kanter, and Clifford (2009) examined self-stigma, treatment stigma, and previous stigmatizing experiences and found these variables partially mediated the relationship between depression severity and behavioral avoidance. These findings illustrate how depression self-stigma can lead to avoidance and deter individuals from seeking treatment. Avoidance is an unhealthy stigma coping strategy. Brown et al. (2010) looked at both public stigma, self-stigma, and possible corollaries to treatment behaviors and attitudes, and did not find a significant relationship between depression and intention to seek treatment with public or self-stigma. However, Brown et al. (2010) did find that having a positive attitude towards treatment was related to lower levels of

public and self-stigma. In either case, stigma plays a critical role in a person's attitude and behaviors toward treatment seeking. Brown et al. (2010) and Nam et al. (2013) also found that individuals with a history of treatment had negative opinions towards treatment. The assumption is that going to treatment may induce the public stigma for the individual, and in turn, reinforce a self-stigma about treatment. One could argue then that having a more positive view of treatment can predict using a healthy stigma coping style, which not only would make treatment seeking a helpful venture, but decrease overall stigma towards one's disorder.

Givens, Katz, Bellamy, and Holmes, (2007) conducted a cross-sectional anonymous survey, that was mailed to 490 African-American and white primary care patients, regarding their attitudes towards stigma about four different treatment modalities for depression: prescription medication, mental health counseling, herbal remedy, and spiritual counseling. Their results showed more stigma toward treatment using prescription medication and mental health counseling (72% accounting for attitudes towards mental health counseling), than herbal remedies. Their results also support the need to address stigma associated with treatment seeking. Schomerus et al. (2009) looked at anticipated discrimination by others and a desire for social distance as variables affecting help-seeking intentions for depression, and found that anticipated discrimination by others did not deter intentions, but personal discrimination against help-seeking intentions was relevant, due to the element of anticipated shame felt by some regarding treatment. Many factors seem to play key roles in whether persons decided to seek treatment for mental health disorders regardless of the disorder. Women are generally

more likely to seek treatment than men (Schomerus et al., (2009); Aromaa et al., 2011; Wade et al., 2011). Men may perceive more stigma attached to treatment seeking (Vogel et al., 2007).

Treatment seeking can occur for individuals who feel comfortable discussing their mental illness, experience lower, or no self-stigma, and who have more social support (Givens et al., 2007; Nam et al., 2013). Wade et al. (2011) found that even after one group counseling session, there was a decrease in the participant's self-stigma. Shomerus et al. (2009) and Nam et al. (2013) found no significant correlation between depression symptoms, or psychological distress and help seeking, whereas Aromaa et al. (2011) and Wade et al. (2011) found that individuals with higher levels of depression or psychological stress were more apt to seek treatment.

Social Supports

Social support is also a predictor of stigma-coping strategies because this type of psychosocial resource can decrease adverse physical and mental health stress common to those who suffer from depression (Thoits, 2011) increasing the possibility they will adopt healthier stigma coping orientations. Nam et al. (2013) found a positive relationship between social supports and help-seeking attitudes. Individuals who feel supported are more apt to seek treatment and talk about depression stigma. By doing this it opens the door to learn healthy and affirming stigma coping strategies.

Social support often plays a critical role for individuals with depression. Persons who suffer from depression can benefit from social support from friends and family. Griffiths, Crisp, Barney, and Reid (2011) determined that positive social support can take

the form of emotional, informational, companionship, instrumental, and universal support. The most important aspect of social support for individuals with depression was the understanding of family and friends, followed by empathy, sympathy, and compassion. Respondents in the study by Griffiths et al. (2011) felt that advice was the most helpful form of informational support. Love and demonstrated caring fell into the emotional support category (Griffiths et al., 2011). Persons with depression often find emotional support to be the most helpful type of support (Vollmann, Scharloo, Salewski, Dienst, Schonauer, & Renner, 2010). Privacy, confidentiality, and trust of family and friends are other key aspects of emotional support. Informational support also involves advice from family, or friends, which is of special value if someone who has previously dealt with depression offers it. Vollmann et al. (2010) found informational support to be the least helpful form of social support by both depressed and non-depressed persons. Companionship support in the form of connection helps people feel they are not alone (Griffiths et al., 2011). This can also help individuals with healthier stigma coping instead of withdrawing, or keeping depression a secret; which are unhealthy coping styles.

Social support offers other advantages to persons with depression. For example, the individual with depression has the opportunity to clarify their clinical symptoms, and to differentiate them from other characteristics that family and friends may have incorrectly attributed to the depression. Having positive social support is a way to open up communication about one's depression and symptoms. Alternatively, the negative components of discussing depression with one's social supports are feelings of being labeled, judged, lectured, or rejected by those you may have anticipated positive support

from (Fernandez Y-Garcia et al., 2012). These feelings create roadblocks to further conversations about depression. People with depression who feel labeled or judged often feel emotional pain that lingers for years (Fernandez Y-Garcia et al., 2012). Individuals who felt lectured, or rejected after they disclosed their depression, often ceased to feel comfortable talking about depression and would then avoid, or redirect future conversations on the topic (Fernandez Y-Garcia et al., 2012). These adversarial reactions from social support networks towards persons with depression can hinder helpful treatment efforts. Individuals with depression suffer the burden of the disease and may feel the negative effects of the stigma of depression in their social support group.

Having good social supports can play a role in effective stigma resistance. Stigma resistance is the method by which a person thwarts the stigma of mental illness. High stigma resistance was positively linked to having a good social network with an ample number of friends, in a population of people with schizophrenia, where internalized stigma was associated with depressive symptoms (Sibitz, Unger, Woppmann, Zidek, & Amering, 2011). One protective factor against stigma is friends. In a sample of persons with mental illness, social support in the form of clinical group intervention, was shown to reduce internalized stigma, and proven to be effective (Lucksted et al., 2011).

Stigma Sentiments

Stigma sentiment is defined by Kroska and Harkness (2006) as the “evaluation, potency, and activity associated with the cultural category ‘a mentally ill person” (p. 325). Drawing from modified labeling theory, which postulates that negative perceptions of the mentally ill become personally relevant when an individual is diagnosed with a

disorder, Kroska and Harkness (2011) investigated how an individual's stigma sentiments, and diagnosis together influence coping strategy. The researchers used information from a computer program, called *Interact*, which simulated social interactions between psychiatric patients, and a varied group of participants. The object was to obtain information about predicted stigma sentiments, and the psychiatric patient's coping styles. The patients used three types of coping strategies: secrecy, withdrawing, and educating others. These strategies helped to protect the patients' self-concepts when faced with public stigma. The researchers found that stigma sentiments could predict stigma coping orientation. Higher stigma sentiments were associated with higher rates of secrecy and withdrawal, and a decreased rate of educating others. Following this line of research on stigma sentiments, one could hypothesis that lower stigma sentiments may predict the use of more affirming stigma coping orientations, like deflection and challenging.

Labeling Theory and Modified Labeling Theory

This study was based on modified labeling theory concepts. However, to better understand modified labeling theory one must first understand how it originated. Modified labeling theory is derived out of labeling theory, which has its roots in symbolic interactionism, initiated by George Herbert Mead (Blumer, 1969). According to Herbert Blumer (1969), the nature of symbolic interactionism is based on three premises:

- Human beings act on things based on the meanings that the things have for them.

- The meaning of things in life comes from the social interactions a person has with others.
- People handle and modify the meanings of the things they encounter through an interpretive process.

Symbolic interactionism posits that the meanings that things hold for human beings are significant on their own. Blumer (1969) emphasizes that the first premise is not specific to symbolic interactionism, as a theoretical approach. However, the second premise that refers to the source of the meaning is more critical. Blumer elucidates the two conventional schools of thoughts regarding the origin of meaning. The first school of thought stems from realism, and views meaning as intrinsic and arising from the thing itself: a chair is a chair. The second school of thought regarding the origin of meaning stems from the representations of an individual's "psyche, mind, or psychological organizations" (Blumer, 1969, p. 4). The process of interactions between persons in which the meanings of these interactions develop differentiates symbolic interactionism. The third premise involves the person processing the meanings of their interactions with others by self-interpretation.

Labeling theory posits that mental illness is a societal construction to understand deviant behaviors. Scheff (1984) contends that the most essential facet of the social reaction to deviance is stigma. Labeling someone deviant segregates him or her into a special status. This special status creates stigmatization. According to Scheff (1984) a person labeled deviant may display unpredictable behavior that goes against what society defines as normal. This may lead to fear, anger, and/or embarrassment on the part of the

individual labeled a deviant. Psychiatric symptoms can be applied to behaviors and used to indicate mental illness. Such symptoms are examples of residual deviance. Scheff (1984) describes two concepts—rule breaking and deviance—when considering psychiatric symptoms from a sociological perspective. Scheff defines *residual* rule breaking, as the varied type of rule breaking that does not encompass explicit labels in our society, and that then creates the label of *mentally ill* for the rule breaker. Scheff describes four distinct sources of residual rule breaking. The first is organic—genetic, biochemical, or physiological—in origin. The second comes from psychological sources, such that may arise from “peculiarity of upbringing and training” (Scheff, 1984 p. 59). The third source is external stress. In addition, the final source is volitional acts of innovation or defiance. Scheff highlights nine explanations for different sources of deviance:

1. Residual rule breaking arises from fundamentally diverse sources.
2. Relative to the rate of treated mental illness, the rate of unrecorded rule breaking is extremely high.
3. Most rule breaking is normalized and is of transitory significance.
4. Stereotyped imagery of mental disorders is learned in early childhood.
5. The stereotypes of insanity are continually reaffirmed, inadvertently, in ordinary social interaction.
6. Labeled deviants may be rewarded for playing the stereotyped role.
7. Labeled deviants are punished when they attempt the return to conventional roles.

8. In the crisis occurring when a residual rule-breaker is publically labelled, the deviant is highly suggestible and may accept the proffered role of the insane as the only alternative.
9. Among residual rule-breakers, labeling is among the most important causes for careers of residual deviance.

Scheff continues to explain that the rule-breaker enters a social and individual system each time they take on the role of mentally ill. This happens because taking on that role increases the labelling of mentally ill by society, and the rule-breaker then fulfills that role. In essence, mental illness becomes a socially shared concept in which the deviant, so labeled, accepts the label, identifies as deviant, and conforms to the expectations of the label (Harper, 1985). Labeling theory of residual deviance posits that society has an explanation for behaviors that cannot be explained in more ways that are traditional. Labeling theory thus postulates that being labeled mentally ill causes mental illness. It is important to note that there are many critics of labeling theory; however, this is not investigated in the scope of this literature review.

In response to labeling theory, and its apparent controversial hypothesis about the origins of mental illness, Link et al. (1989) proposed a modified labeling theory. Modified labeling theory explores the ramifications for being labeled mentally ill based on society's conceptions, not that the label itself causes the mental illness. Modified labeling theory posits that these societal perceptions may create feelings of devaluation or discrimination, and can be internalized. Modified labeling theory also considers possible responses to labeling such as, secrecy, withdrawal, and educating others (Link et al.,

1989; 1991). These responses are direct reactions to the stigmatizing status derived from the labeling. Link et al. (1989) identify the potential negative outcomes from utilizing these three responses, while also guarding against the negative effects of stigma. These consequences can affect self-esteem, earning power, or social network ties. The last component of the modified labeling theory is the potential for vulnerability of future disorders. This suggests that an individual can become vulnerable to a new disorder, or repeated episodes of an existing disorder, given the other aspects of labeling are met (Link et al., 1989). Kroska and Harkness (2006) found that identifying a disorder by labeling it might increase the negative side effects of a psychiatric disorder. This supports evidence that it is not necessarily having a mental illness, but the labeling of said illness, that leads to stigmatizing outcomes, and has the potential for negative outcomes and increased psychiatric distress. The key to modified labeling theory is understanding how people with mental illness are affected by stigma due to labeling.

Wright, Gronfein, and Owens (2000) outline some key assumptions of modified labeling theory. Modified labeling theory assumes the following:

- Persons, both with and without mental illness, internalize the cultural conceptions of what it means to be mentally ill.
- Persons, with mental illness, are generally thought of poorly and most likely will be discriminated against.
- Persons, who are “officially labelled”, will have beliefs about the low status of mental patients that will become personally relevant.

- Persons, who believe most strongly in society's low opinion of mental patients, will have deficits in employment, income, or self-concept.

Wright et al., (2000) found that experiences of rejection increased and reinforced patient's feelings of self-deprecation over time in a group of patients with a long history mental illness. These patients were deinstitutionalized, which further connected social stigma with social psychological outcomes, and sustained modified labeling theory. There is evidence to support the theory that, even when a person no longer exhibits symptoms or behaviors relative to mental illness, the label of mentally ill remains (Strong, 2011). Markowitz, Angell, and Greenburg (2011) in keeping with modified labeling and reflected appraisals, found that increased stigmatizing appraisals by a mother toward family members, with mental illness, were associated with higher psychiatric symptoms, and negatively reflected appraisals. Those that were not doing as well with their treatment considered themselves to be more stigmatized.

Summary and Conclusions

This chapter explored the concept of mental illness stigma, with particular focus on depression stigma. A review of how perceived, public, and self-stigma affect the various stigma-coping orientations of individuals suffering from depression, and other mental illnesses was examined. Many persons affected by stigma utilize secrecy, withdrawal, and educating others as coping strategies. Using secrecy, and withdrawal as stigma coping strategies, can deter people from seeking treatment, and can result in a negative outcome. Manos et al. (2009) found that depression stigma could amplify the negative symptoms of depression, thus increasing avoidance behavior.

A scarcity of information was noted in the existing literature on empowering and affirming stigma-coping orientations used by persons facing depression stigma. Specifically, the use of challenging and deflecting, as factors that may predict their use. The use of challenging and deflecting as stigma-coping orientations were of particular importance to this research study. More specifically, this study examined the variables, that predicted the use of these two coping orientations. Throughout the literature review, various predictor factors were identified with regards to their influence in stigma research. However, this study considered the relationships between symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiment, as predictors for using challenging and deflecting to decrease stigma sentiments in people with depression. A key goal was to examine how the variables relate to the effects of stigma embedded in labeling and modified labeling theory.

By reviewing the variables mentioned above in the literature, and in relation to stigma and mental illness—specifically depression—there was support for further research in this area. Further research could identify the potential for these variables to predict utilization of stronger, and more affirming stigma-coping orientations, such as challenging and deflecting. This research may be used to expand the knowledge base in the fields of clinical psychology, and counseling psychology, and may be used to identify and utilize, these stigma-coping orientations for persons dealing with depression stigma, as a means of increasing their quality of life and well-being.

The next chapter described the research design and methodology that was used to measure the predictability of the six factors from the literature review.

Chapter 3: Research Method

Introduction

The purpose of this study was to explore the relationships between two sets of multiple variables. The first set of variables, the predictor variables (referred to below as stigma assessment variables), consisted of symptom severity, depression literacy, stereotype awareness, treatment seeking, social supports, and stigma sentiments. The second set of variables, the criterion variables, were challenging and deflecting. Prior research in the field of stigma coping has not examined the relationship between the set of predictor variables and criterion variables as described herein.

My goal in this research study was to answer the following three research questions: First, what are the multivariate patterns of relationships and effect sizes between the coping orientations of challenging and deflecting, and the stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiment? Second, what are the combined and relative effects of the stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in predicting stigma coping orientation challenging scores? Third, what are the combined and relative effects of stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in predicting stigma coping orientation deflecting scores?

In this chapter, I first outlined the proposed research design and rationale. I then described the target population and size, sampling procedures, and the procedures for

recruitment, participation, and data collection. Next, I described the instrumentation and operationalization of constructs, including scoring and reliability of measurement scales, and threats to validity. Lastly, ethical considerations were discussed, along with a summary of the chapter.

Research Design and Rationale

The research design in this study was a quantitative, nonexperimental, correlational design. It was a prediction study. The six independent (predictor) variables I investigated were symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments. The two dependent (criterion) variables were challenging and deflecting. The descriptive demographics used in this sample were sex, age, highest level of education, and ethnicity. The primary method of analysis I used was canonical correlation analysis and the secondary method was two separate regression analyses. Specifically, using canonical correlational analysis, helped determine how the best linear combinations of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments relate to the best linear combination of challenging and deflecting. In psychological research, it is common to study more than one variable at a time due to the interrelatedness of independent and dependent variables (Weiss, 1972). Canonical correlation analysis was a good statistical method to use when dealing with multiple independent and multiple dependent variables, (Hair, Black, Babin, & Anderson, 2010) and when one is looking to explore how two sets of variables are related (Tabachnick & Fidell, 2001).

Canonical correlation analysis can evaluate the relationship between the independent and dependent variables in a single relationship by using canonical functions for each set of variables. One canonical function is for the independent variable and one for the dependent. Unlike regression analysis, which only looks at one dependent variable at a time, canonical correlational analysis can assess relationships between the sets of variables, and can isolate two or more distinct relationships using two or more dependent variables. Canonical analysis also limits the probability of perpetrating a Type I error because this method looks at the relationships between the two sets of variables in a single relationship, as opposed to exercising separate relationships for each dependent variable (Hair et al., 2010).

Canonical correlational analysis was a sound choice for my study. It is also a wide-ranging technique to use, when assessing multivariate statistics, because of its ability to manage numerous metric, or nonmetric dependent variables (Hair et al. 2010). With that said, I also conducted two separate regressions, one for each dependent variable, to add to the strength of my study. Multiple regression was a fitting method of analysis in correlational research, as it assisted the researcher in identifying the influence of several independent variables on a dependent variable, by using a statistical equation to represent the best prediction of a dependent variable. I therefore used this analysis to predict linear relationships between my predictor and criterion variables. Researchers often use regression analysis to investigate the relationship between a dependent variable and several independent variables (Tabachnick & Fidell, 2001). By conducting two separate regression analyses, I obtained the best linear combination of the independent

variables that most accurately predicted each criterion variable. This added insight to the correlational analyses. There were no time or resource constraints using these analysis choices.

Canonical correlation analysis and regression analysis were suitable exploratory tool choices for this study, because these statistical approaches are consistent with the goal of predicting whether one set of variables will predict another set of variables, common in psychological research. Researchers in the field of counseling psychology have successfully applied canonical correlation analysis as a way to look at two sets of variables, such as a set of predictor variables, and a set of criterion variables from a research sample (Weiss, 1972).

The analyses methods selected for this study have the potential to advance the knowledge of depression stigma research by identifying specific variables that may predict positive stigma coping. Identifying variables that play a role in predicting the use of affirming stigma coping orientations, will have positive implications for persons with depression. Professionals in counseling and clinical treatment settings, who recognize the predictive nature of these variables, and their relationship to stigma coping, can nurture this behavior in clients who suffer from depression and depression stigma. This process will decrease stigma sentiments in individuals with depression.

Methodology

Population and Target Size

The target population in this study was college undergraduates at least 18 years of age. The target sample size was 198 participants. This was based on a power analysis

using G*Power for a small-to-medium individual predictor effect (i.e., squared semi partial r = .035) within an overall medium-sized squared canonical correlation of .13 with power = .80 and alpha = .05 (C. T. Diebold, personal communication, July 19, 2014).

Numerous researchers, with mixed opinions, have reviewed the use of undergraduate college students as samples for psychological research. Greenburg (1987) pointed out that the use of college sophomores, as opposed to a noncollege, yet homogenous sample, may be equally limited for generalizability to the greater population. Conversely, Peterson (2001) conducted a second-order meta-analysis evaluating the use of college students in psychological research, and found that college samples showed large effect sizes, making generalizability of the research results with college student samples equivocal to that of noncollege student samples. However, Peterson (2001), whose conclusions were much like Greenburg's (1987), advises caution when making inferences about homogeneity, and its impact on research results when using college students as samples in psychological research. Greenburg makes the point not to discredit the value of using college samples in research.

Research on college samples involving participants who are experiencing depression also raise questions of generalizability to the broader population. Barua (2012) argued that issues of generalizability often exist when using college samples, versus clinical samples, in depression research due to the differences in clinical severity, and symptomology, versus distress in college samples. Barua (2012) did note that sample access and convenience is one obvious reason for choosing to use college students as samples in depression research. Similar to Greenburg (1987), Barua (2012) suggested the

value of using college students as samples because they can provide insightful information about depression, but cautions about the qualitative differences between college samples versus clinical groups.

Sampling

For this study, I used a convenience sample of undergraduate college students from various colleges in the Southern New Hampshire area. I sent a letter of cooperation explaining my research intent and proposal to the head of the research departments of the organizations where I conducted my research. The letter described all activities of recruitment, data collection, and results dissemination. Also addressed were the details about the use of space, or any resources at the organization for my research study.

Procedures for Recruitment, Participation, and Data Collection

Participation in this study was voluntary. Since I used a convenience sample of college undergraduates, recruitment was by classroom announcement and posting and distribution of flyers around the college. The flyers contained a URL link to access the SurveyMonkey hosted survey. The survey contained the following:

- informed consent information, which addressed the nature, purpose, confidentiality, and storage of data and any risks/benefits of the study;
- demographic sheet to collect data on the sex, age, highest level of education, and ethnicity of each participant;
- eight separate measurement scales to be filled out by participant;
- researcher contact/questions information sheet; and
- mental health resources in the area with contact information.

Instrumentation and Operationalization of Constructs

This study used six instruments to measure the independent (predictor) variables. They were:

PHQ-8. The PHQ-8 is an abbreviated self-rated version of the PHQ-9 consisting of questions one through eight of the original scale (Kroenke, Spitzer, & Williams, 1999). The PHQ-8 assessed depression severity using an eight-symptom checklist reflecting the last two weeks in a general adult population. The PHQ-8 measured symptom severity as a variable. Kroenke and Spitzer (2002) analyzed data comparing the PHQ-9, and the PHQ-8, to determine their ability to classify patients into one of three groups: major depression, other depression, and no depression, and found both scales to determine a likelihood of any depressive disorder. The ninth item of the original PHQ-9 scale inquires about thoughts of suicide, or harm to self. This item was omitted in the PHQ-8. Kroenke and Spitzer (2002) indicate that when collecting data using the PHQ-8 in a self-administered manner, it is not feasible for the researcher to explore this issue further and provide the appropriate interventions. The researchers also indicate that in the general population, respondents endorsed this item the least in the original PHQ-9.

For each of the eight questions, the respondents selected a response that best typified the severity of their depressive experience in various symptom categories such as, “little interest or pleasure in doing things,” “feeling down depressed, or hopeless,” and “trouble falling or staying asleep, or sleeping too much” over the last two weeks. The 8-item scale is scored on a 4-point scale ranging from 0 (*not at all*) to 3 (*nearly all the time*). The scores were summed to produce a total score ranging from 0-24 based on

severity of symptoms. A total score between 0-4 represented no significant depression symptoms; 5-9 represented mild depression symptoms; 10-14, moderate; 15-19, moderately severe; and 20-24, severe depression symptoms (Kroenke et al., 2009). There was no reverse scoring required. In my research study, I used the participant's actual scores for analysis purposes. The scale had excellent internal reliability and test-retest reliability with a Cronbach's α of .89. Adewuya, Ola, and Afolabi (2006) in a study using the PHQ-9 to screen college students in Nigeria, found the scale had good concurrent validity ($r = .67$, $p < .001$) with the Beck's Depression Inventory (BDI) and the internal consistency reported using Cronbach's α was .85.

D-lit. The D-lit scale measure depression literacy as a variable (Griffiths et al., 2004). This scale utilizes a 22-item true or false test of knowledge of depression. For example, some of the questions are: "People with depression may feel guilty when they are not at fault"; "Loss of confidence and poor self-esteem may be a symptom of depression"; and "Counseling is as effective as cognitive behavioral therapy for depression." Response options were true, false, or do not know. Each correct score received one point. Higher scores equaled higher depression literacy, whereas lower scores reflected lower depression literacy. The alpha reliability for the D-lit scale was .88, and the internal consistency using Cronbach's α was .70

PDDS. PDDS measured stereotype awareness as a variable (Link, 1987). This instrument was a 12-item scale that assessed people's awareness of general negative beliefs about mental illness. Some examples of the scale's questions were: "Most people would accept a former mental patient as a friend," "Most people think less of a person

after he/she has been hospitalized for a mental illness," and "Most employers will not hire a person who has been hospitalized for mental illness." Response categories ranged from 4 (*strongly agree*) to 1 (*strongly disagree*). Reverse scoring was used on items 1, 2,3,4,8, and 10. Reversed items range from 1 (*strongly agree*) to 4 (*strongly disagree*). After reversing the scoring of indicated items, the researcher summed and divided the items by the number of items in the scale. Higher scores reflected more stereotype awareness. The reliability of the PDDS using Cronbach's α was .88.

Corrigan, Morris, Larson, Rafacz, Wassel, Michaels, & Rüsch (2010) used the PDDS to measure perceived level of stigma in a sample consisting of 85 people with mental illness. The reliability in this study using Cronbach's α was .85.

ATSPPH- SF. The ATSPPH-SF measured treatment seeking as a variable (Fischer & Farina, 1995). This scale was a 10- item scale. It assessed willingness to seek help from mental health professional. Some examples from this scale were, "If I believed I was having a mental breakdown, my first inclination would be to get professional attention," "I would want to get psychological help if I were worried or upset for a long period of time," and "Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me." Response categories ranged from 3 (*agree*) to 0 (*disagree*). There was reverse scoring for this scale on items 2, 4, 8, 9, and 10. Reversed items range from 0 (*agree*) to 3 (*disagree*). Decreased stigma towards treatment seeking was associated with higher scores.

Fischer and Farina (1995) developed the ATSPPH-SF, which is a unidimensional version of the original Attitudes Toward Seeking Professional Help scale developed and

standardized by Fischer and Turner (1970). Fischer and Farina (1995) developed the ATSPPH-SF using a sample of college students. The internal consistency of the scale using Cronbach's α was .84.

Elhai, Schweinle, and Anderson (2008) examined the reliability and validity of the ATSPPH-SF developed by Fischer and Farina (1995) using a sample of 296 college students and a sample of 389 health care users. The reliability coefficient alpha in the college student sample was .77. In the health care user sample, the reliability coefficient alpha was .78.

MSPSS. The MSPSS measured social support as a variable (Zimet et al., 1988). This scale was a 12-item scale. This scale looked at the subjective assessment of social support using three subscales, family, friends, and significant other. Some examples from this scale was, "There is a special person who is around when I need them," "My family really tries to help me," and "I can count on my friends when things go wrong." Response categories ranged from 1 (*very strongly disagree*) to 7 (*very strongly agree*). To identify the scores for family subscale the researcher summed across items 3, 4, 8, & 11, and then divided by 4. For the friend's subscales the researcher summed the scores across items 6, 7, 9, & 12, and then divided by 4. For the significant others subscale, the researcher summed scores across items 1, 2, 5, & 10, then divided by 4. For the total mean score the researcher summed across all 12 items, then divides by 12. The scores ranged between one and seven. Cronbach's alpha reliability for each subscale was, significant other = .87, family = .85, and friends = .91. The reliability as a whole for this scale measured by Cronbach' α was .88. I used an overall composite of the scores to measure social support.

DSS- Personal. DSS-Personal measured the variable stigma sentiment (Griffiths et al. 2004). This subscale was a 9- item scale. It measured personal attitudes toward individuals with major depression. Some examples were, “A problem like [X]’s is a sign of personal weakness”, People with a problem like [X]’s are unpredictable”, and “If I had a problem like [X]’s, I would not tell anyone”. Response categories ranged from 5 (*strongly agree*) to 1 (*strongly disagree*). Scores for this subscale ranged from 0-36. Higher scores indicated greater stigma towards depression. The reliability for this scale measured by Cronbach’s α was .76.

SCOS. Two subscales of the revised SCOS (Link et al., 2002) measured the dependent (criterion) variables challenging and deflecting. The deflecting subscale of the SCOS scale assessed the extent to which participants coped with stigma by indicating that their problems are very different from those of other people with mental illness, and that they have little in common with them. Examples included, “Most people who have been hospitalized for mental illness have very different problems than you do,” and “You are very different from most people who have mental illness.” There were three items in this subscale. Response categories ranged from 4 (*strongly agree*) to 1 (*strongly disagree*). There was no reverse scoring for items on this scale. To score the items the researcher summed the items and then divided by the number of items in the scale. Higher scores meant the participant endorsed deflecting, as a stigma coping orientation. The alpha reliability for this scale was .63. Upon completion of this study, the alpha reliability was re-evaluated using the obtained sample size, as current reliability of this scale is under .70.

The challenging subscale of the SCOS assessed the extent to which participants pointed out stigmatizing behaviors when it occurs, disagree with people who make stigmatizing statements, and so forth. Some item examples were, "When someone says something that stigmatizes people with mental illness you let them know you disagree with them," and "You have found that it is important to point out stigmatizing behavior when it occurs. It is better to confront stigmatizing behavior than to ignore it." There were four items in this subscale. Response categories ranged from 4 (*strongly agree*) to 1 (*strongly disagree*). No reverse scoring items. To score this subscale the researcher summed the items and divided by the number of items in the scale. Variable scores were a mean composite ranging from 1-5. Higher scores meant the participant endorsed challenging as a stigma coping orientation. The reliability for this scale as measured by Cronbach's α was .72.

Data Analysis Plan

IBM SPSS software was used for statistical analyses. A canonical correlation analysis was used for the following variables: symptom severity, depression literacy, stereotype awareness, treatment seeking, social supports, and stigma sentiments to predict a pattern of scores on the criterion variables, challenging and deflecting, simultaneously. Two separate regression analyses were used for the variables: symptom severity, depression literacy, stereotype awareness, treatment seeking, social supports, and stigma sentiments. One predicted challenging as a stigma coping orientation, and the other predicted deflecting as a stigma coping orientation.

Research Questions

RQ1: What were the multivariate patterns of relationships and effect sizes between the coping orientations of challenging and deflecting, and the stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments?

RQ2: What were the combined and relative effects of stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in predicting stigma coping orientation challenging scores?

RQ3: What were the combined and relative effects of stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in predicting stigma coping orientation deflecting scores?

Threats to Validity

As reviewed earlier in this chapter threats to external validity may exist when using a convenience sample of college undergraduates. In particular, are the results from the proposed study generalizable to the broad population? One way to test this would be for replication of the study to be done using a non-college sample. Threats to internal validity include inferences regarding causal relationships between the measured variables and their predictive potential.

Ethical Procedures and Consideration

A proposal for this study was submitted for review to the Institutional Review Board in order to ensure that the ethical standards of Walden University were met. The

Walden University IRB approval number for this study is 05-18-15-0130800. As mentioned previously, this study was voluntary. Each participant had the option to withdraw from the study at any given time and were notified of this in the informed consent. Data collection for this study was anonymous. Participants were informed that in order to protect their privacy, no consent signature was required, instead acknowledging the online informed consent was equivalent to their consent to participate.

Participants were informed that although there was no anticipated harm to their emotional well-being, due to some of the topic material, psychological resources were listed for them to seek out on their own should they deem it necessary. They were also informed of the benefits of the study, which was to add to the research on depression stigma, and positive coping orientations.

The researcher will keep storage of data in a locked filing cabinet during the study and for five years. Results of the study will be available by contacting the researcher upon completion of the study. Contact information was provided during informed consent.

Summary

This study was a quantitative prediction study using a nonexperimental research design. It employed canonical correlational analysis as its primary form of analysis and two separate multiple regression analyses as its secondary form of analysis, to investigate the relationships between the variables symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments with challenging and deflecting stigma coping orientations. Chapter 3 presented the research design and

rationale, methodology, threats to validity, and ethical considerations for this study. The next chapter outlined the findings from the canonical correlational and multiple regression analyses.

Chapter 4: Results

Introduction

The purpose of this study was to explore the stigma coping orientations of deflecting and challenging, and the factors that may predict their use by persons with depression. A canonical correlational analysis and two regression analyses were used to explore relationships of the predictor variables (symptom severity, depression literacy, stereotype awareness, treatment seeking, social supports, and stigma sentiments) and the criterion variables (challenging and deflecting). This chapter restated the research questions stated in Chapter 3, identified the descriptive statistics of the sample, addressed how data were collected for the study, evaluated statistical assumptions, and reported the results of the canonical correlation and regression analyses. It concluded with a summary of results and introduced a transition into chapter 5.

Research Questions Restated

RQ1: What were the multivariate patterns of relationships and effect sizes between the coping orientations of challenging and deflecting, and the stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments?

RQ2: What were the combined and the relative effects of stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in predicting stigma coping orientation challenging scores?

RQ3: What were the combined and relative effects of stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in predicting stigma coping orientation deflecting scores?

Data Collection

This study used a convenience sample of undergraduate college students. The sample was drawn from four different colleges from the Dartmouth-Lake Sunapee, Monadnock, Merrimack, and Seacoast Regions of New Hampshire. To meet criteria to participant in this study, students had to be 18 years of age or older. The study was in English only. A total of 231 participants began the study. However, data from 34 participants were removed due to substantial missing data. Data from two other participants were removed as multivariate outliers. Final data analyzed were from 195 participants (usability rate = 84%). A majority of the participants were female (135, 69.2%), then male (58, 29.7%), 1 other (1, .5%), and one not identified. The ages of the sample ranged from 18 through 49 years of age, with a mean age of 20.7. The undergraduate participants in this study consisted of freshmen (57, 29.2%), sophomores (39, 20.0%), juniors (52, 26.7%), seniors (44, 22.6%), and other (3, 1.5%). A majority of the participants were White (169, 86.7%), with Black (7, 3.6%), Asian (4, 2.1%), Hispanic (2, 1%), multiple (8, 4.1%), and other (3,1.5%) participants making up the rest of the ethnic background in the sample. Data analyzed from the 195 participants utilized IBM SPSS Version 21. This study used nonprobability sampling in the manner of a convenience sample of college undergraduates. This type of sampling may be disproportionate to the larger population of interest.

Upon IRB approval from Walden University and the four colleges, data from 195 participants were collected using the online data collection tool SurveyMonkey. Recruitment for this research study took place by way of classroom announcement, posting research flyers, and face-to-face with undergraduates in cafeterias, and common areas on each campus. A total of 850 research flyers with a link to participate in the study were handed out over the course of 6 months to anyone interested in participating. Response rates within the first week of each recruitment effort were the highest.

Canonical correlation and two multiple regression analyses were the two methods chosen to examine the three research questions. The six predictor variables selected for this research study were symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiment. The two criterion variables were challenging and deflecting. To obtain scores for the six predictor variables participants completed the PHQ-8, PDDS, D-lit scale, ATSPPH- SF, MSPSS, and DSS- Personal Scale. Symptom severity scores were measured using the PHQ-8. The PHQ-8 is an eight-symptom checklist reflecting the last two weeks. Stereotype awareness scores were measured using the PDDS. The PDDS assessed people's awareness of general negative beliefs about mental illness. Depression literacy was measured using the D-lit scale. Participants answered a 22-item true or false test of knowledge about depression. The more correct answers yielded higher scores. Treatment seeking attitudes were measured using the ATSPPH- SF. This is a 10- item scale. Decreased stigma towards treatment seeking was associated with higher scores. Social support scores were measured using the MSPSS. This 12-item scale looks at the subjective assessment of social support using

three subscales, family, friends, and significant other. Stigma sentiment scores were measured using the DSS-Personal. This scale measured personal attitudes toward individuals with major depression.

Data Analysis

Descriptive Statistics

Table 1 shows the descriptive statistics for each of the composite scales for the criterion and predictor variables. As presented in Table 1, the mean scores for the criterion variables were challenging 1.46 (SD = .92), and deflecting 1.60 (SD = 1.14). The mean scores for the predictor variables were depression literacy 12.12 (SD = 3.73), stereotype awareness 1.63 (SD = .45), treatment seeking 1.90 (SD = .59), social support 5.42 (SD = 1.28), stigma sentiments .95(SD = .56), and symptom severity .98 (SD = .66; though not pertinent to the purposes of this research, categorical severity was 30.3% none, 41.0% mild, 16.9% moderate, 7.7% moderately severe, and 4.1% severe).

Table 1

Descriptive Statistics for Each of the Composite Scales (N = 195)

Scale	Min.	Max.	Mdn.	*M*	*SD*	Skewness	Kurtosis
Challenging	.00	3.80	1.40	1.46	0.92	0.19	-0.55
Deflecting	.00	4.00	1.33	1.60	1.14	0.33	-0.73
Symptom severity	.00	2.88	0.88	0.98	0.66	0.69	0.05
Depression literacy	.00	21.00	12.00	12.12	3.73	-0.33	0.20
Stereotype awareness	.08	2.83	1.67	1.63	0.45	-0.74	1.45
Treatment seeking	.40	3.00	1.90	1.90	0.59	-0.20	-0.81
Social support	1.00	7.00	5.67	5.42	1.28	-1.37	2.14
Stigma sentiments	.00	3.11	0.89	0.95	0.56	0.73	0.82

Table 2 shows the scale reliability for each of the composite scales. Depression literacy was not represented in the reliability statistics, because it is an index, not a scale, so Cronbach's alpha did not apply (Diamantopoulos & Winklhofer, 2001). The scale reliability in this study for each of the composite scales all displayed high internal consistency. The two criterion variables challenging and deflecting had high levels of internal consistency as determined by a Cronbach's α of .89 and .82 respectively. As noted in Chapter 3, the alpha reliability reported for the deflecting scale using Cronbach's α = .63, showed lower internal consistency. In the current study, the reliability of the deflecting scale used with this sample, was Cronbach's α = .82. This showed a higher level of internal consistency.

The five predictor variables, symptom severity, stereotype awareness, treatment seeking, social support, and stigma sentiment, also had high levels of internal consistency as determined by a Cronbach's α of .87, .89, .84, .94, and .81 respectively.

Table 2

Scale Reliability for Each of the Composite Scales (N = 195)

			Inter-item correlations		
Scale	# Items	α	Min.	*M*	Max.
Challenging	5	.893	.548	.628	.739
Deflecting	3	.823	.470	.607	.716
Symptom severity	8	.870	.318	.461	.670
Stereotype awareness	12	.890	.211	.406	.617
Treatment seeking	10	.838	.118	.342	.581
Social support	12	.943	.382	.587	.899
Stigma sentiments	9	.811	.077	.337	.753

Note: Depression literacy is an index, not a scale, so reliability statistics do not apply.

Table 3 shows the output for the scales correlations.

Table 3

Output for Scales Correlations (N = 195)

Scale	1	2	3	4	5	6	7	8
1. Challenging		.005	.292	.082	.047	.190	-.009	-.127
2. Deflecting	.946		.001	.981	.250	.154	.975	.001
3. Symptom severity	< .001	.001		.051	.026	.041	.005	.058
4. Depression literacy	.252	.981	.051		.710	<.001	.300	<.001
5. Stereotype awareness	.513	.250	.026	.710		.488	.121	.429
6. Treatment seeking	.008	.154	.041	<.001	.488		<.001	<.001
7. Social support	.898	.975	.005	.300	.121	<.001		.008
8. Stigma sentiments	.076	.001	.058	<.001	.429	<.001	.008	

Note. Upper diagonal contains correlation coefficients; lower diagonal contains *p* values (2-tailed).

Consideration of Statistical Assumptions

As noted in Tables 1 and 2, all scales had adequate variance and had above average internal consistency. In addition, all scales had skewness and kurtosis values within acceptably normal range (skewness < |2| and kurtosis < |4|; West, Finch, & Curran, 1995), a necessary condition for the multivariate normality assumption for the canonical correlation and regression analyses that follow. The ratio of cases (*N* = 195) to variables (8) far exceeded the minimum 10 cases per variable for reliable coefficients (Tabachnick & Fidell, 2001).

Canonical Correlation Analysis

RQ1: In order to answer Research Question 1: What were the multivariate patterns of relationships and effect sizes between the coping orientations of challenging

and deflecting, and the stigma assessment variables symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiment, a canonical correlation analysis was conducted. The analysis yielded one function with a squared canonical correlation (R_c^2) of .21 for the first function. The (R_c^2) effect, which indicated the amount of shared variance between the variable sets, for the first function was statistically significant.

The model for the first function in the analysis was statistically significant using the Wilks's λ = .762, $F(12, 374) = 4.54$, $p < .001$, $R_c^2 = .21$. The first function accounted for 87.15% of the total variance in the canonical solution. The canonical correlation is .46 accounted for nearly 21% of the variability between the two sets of variables. This indicated a medium to large effect size.

The dimension reduction analysis tested the hierarchal organization of functions for statistical significance. The full model (Functions 1-6) was statistically significant. Functions 2 to 6, 3 to 6, 4 to 6, 5 to 6, and the last function 6 tested by itself did not yield a statistically significant amount of variance shared between the variable sets. For example, function 2 only explained 3.7% of the variance shared between the variable sets, $F(5, 188) = 1.5$, $p = .204$, which was too weak for interpretation.

Table 4 displays the standardized canonical function coefficients (i.e., the weights), canonical loadings (also called structure coefficients (r_s)), and the canonical cross loadings for Function 1. By looking at the canonical function coefficients we see that function one criterion variable deflecting was primary and challenging was the

secondary criterion variable. This was indicated by the squared structure coefficients (r_s^2 = 0.59) and (r_s^2 = 0.41) respectively.

Table 4

Canonical Solution for Assessment Variables Predicting Stigma Coping Orientation for Function 1

Variate	Standardized Coefficient	Canonical Loading	Cross Loading
Dependent			
Challenging	-.644	-.640	-.292
Deflecting	.768	.765	.349
Independent			
Symptom severity	-.797	-.815	-.372
Depression literacy	.320	-.113	-.052
Stereotype awareness	-.164	.073	.033
Treatment seeking	-.124	-.440	-.201
Social support	.021	.010	.004
Stigma sentiments	.553	.580	.265

Note. Wilks $\Lambda = .762$, $F(12, 374) = 4.54$, $p < .001$, $R_c^2 = .21$.

Function 1 scores were positively influenced by deflecting, and negatively influenced by challenging. Challenging was inversely related to deflecting.

Function 1 coefficients, symptom severity and stigma sentiments, were the primary and treatment seeking was the secondary contributor to the synthetic predictor variables. Again, this was indicated by the squared structure coefficients. Because the structure coefficient for symptom severity was negative, it was positively related to challenging, and negatively related to deflecting. Stigma sentiments was positively related to deflecting, and negatively related to challenging. Treatment seeking was negatively related to deflecting, and positively related to challenging.

In conclusion, individuals with high scores on deflecting, and simultaneously low scores on challenging, tended to have high scores on stigma sentiments, and low scores on both symptom severity, and treatment seeking. Inversely, individuals with low scores on deflecting, and simultaneously high scores on challenging, tended to have low scores on stigma sentiments, and high scores on both symptom severity, and treatment seeking.

Multiple Regression

For further analysis, two separate multivariate regression analyses were conducted to address RQ2 and RQ3, and explore the relationship between predictor, and criterion variables of interest.

RQ2: In order to assess RQ2: What are the combined and the relative effects of stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in predicting stigma coping orientation challenging scores a multiple regression was performed using challenging as the criterion and the other six variables as predictors. The multiple regression analysis for RQ2 was found to be statistically significant $R = .328$, $R^2 = .108$, $F(6, 188) = 3.78$, $p = .001$. The six predictor model accounted for 10.8% of the variance in challenging scores. Symptom severity scores were a significant predictor of challenging scores ($\beta = .273$, $p < .001$). This indicates that, after controlling for the other 5 predictor variables in the model, those with higher scores on the symptom severity scale, were expected to have higher scores on challenging. Also, symptom severity was a noteworthy predictor when the other variables were held constant, $B = .380$, $p < .001$ signifying for every one-unit increase in symptom severity, a .38-unit increase in

challenging is predicted. Depression literacy (β = .012, *p* = .884), stereotype awareness (β = -.002, p = .981), treatment seeking (β = .144, p = .096), social support (β = .008, *p* = .919), and stigma sentiments (β = -.014, .876) were not significant predictors of challenging coping orientation. Table 5 details the information for the regression of challenging on the six predictor variables. The overall model fit was R^2 = .108. This represents the proportion of variance in the criterion variable which can be explained by the six predictor variables.

Table 5

Regression: Challenging on Predictors

Variable	*B*	95% CI	β	*sr*	*p*
Constant	0.699	[-0.407, 1.805]			
Symptom severity	0.380	[0.179, 0.580]	.273	.257	< .001
Depression literacy	-0.003	[-0.042, 0.036]	-.012	-.010	.884
Stereotype awareness	-0.003	[-0.289, 0.282]	-. 002	-.002	.981
Treatment seeking	0.224	[-0.040, 0.489]	.144	.115	.096
Social support	0.005	[-0.100, 0.111]	.008	.007	.919
Stigma sentiments	-0.024	[-0.320, 0.273]	-.014	-.011	.876

Note. CI = confidence interval for *B*; *sr* = semipartial correlation (aka, part correlation). *R* = .328, R^2 = .108, $F(6, 188) = 3.78$, $p = .001$.

RQ3: In order to assess RQ3: What are the combined and the relative effects of stigma assessment variables of symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments in predicting stigma coping orientation deflecting scores a multiple regression was performed using deflecting

as the criterion, and the other six variables as predictors. The multiple regression analysis for RQ3 was found to be statistically significant $R = .371$, $F(6, 188) = 5.00$, $p < .001$. The six predictor model accounted for 13.8% of the variance in deflecting scores. Symptom severity scores had a significant negative weight (β = -.245, $p < .001$). indicating that, after controlling for the other five predictor variables scores, those with higher scores on the symptom severity were expected to have lower scores on deflecting. Also, stigma sentiments had a significant positive weight (β = .316, $p < .001$) indicating that after controlling for the other five predictor variables in the model, those with higher scores on stigma sentiments, were expected to have higher scores on deflecting. Symptom severity was a noteworthy predictor when the other variables were held constant, $B = -.422$, $p = <.001$ signifying for every one-unit increased in symptom severity, a -.422 decrease in deflecting is predicted. Stigma sentiments was also a noteworthy predictor, when the other variables were held constant, $B = .636$, $p = < .001$ indicating that for every one-unit increased in stigma sentiments, a .64 increase in deflecting is predicted.

Depression literacy (β = .180, $p = .024$), stereotype awareness (β = .096, $p = .168$), treatment seeking (β = .047, $p = .579$), and social support (β = -.006, $p = .933$), were not significant predictors of deflecting coping orientation. Table 6 details the information for the regression of deflecting on the six predictor variables. The overall model fit was $R^2 = .138$.

Table 6

Regression: Deflecting on Predictors

Variable	*B*	95% CI	β	*sr*	*p*
Constant	0.204	[-1.138, 1.546]			
Symptom severity	-0.422	[-0.665, -0.178]	-.245	-.232	.001
Depression literacy	0.055	[0.007, 0.102]	.180	.154	.024
Stereotype awareness	0.243	[-0.103, 0589]	.096	.094	.168
Treatment seeking	0.091	[-0.231, 0.412]	.047	.038	.579
Social support	-0.005	[-0.133, 0.122]	-.006	-.006	.933
Stigma sentiments	0.636	[0.276, 0.997]	.316	.236	.001

Note. CI = confidence interval for *B*; *sr* = semipartial correlation (aka, part correlation). $R = .371$, $R^2 = .138$, $F(6, 188) = 5.00$, $p < .001$

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

As previously stated in Chapter 1, the stigmatization of depression continues to be of concern in regard to an individual's welfare. This study explored the stigma coping orientations of deflecting and challenging, in order to gain insight into possible variables, that may predict their use. According to Kanter, Rusch, and Brondino (2008), stigma might vary by disorder. I was particularly interested in the use of these stigma coping orientations by persons experiencing depression symptoms. Research by Thoits (2011) considered deflecting and challenging to be affirming stigma coping orientations. The overall purpose of this study was to explore which, if any, predictor variables would indicate the use of deflecting or challenging. After delving deep into the peer-reviewed literature on stigma, I decided on six predictor variables to investigate, symptom severity, depression literacy, stereotype awareness, treatment seeking, social supports, and stigma sentiments. Manos et al. (2009) found that self-stigma could make depressive symptoms worse, and could make people feel weak and guilty, leading to avoidance behaviors in an attempt to hide depressive features from social groups. Griffiths et al. (2008) found that individuals with lower depression literacy seemed to have higher personal stigma. Link et al. (2002) found that stereotype awareness predicts coping behavior in that it can initiate a individual's response to stigma. Research by Bathje and Pryer (2011) found stigma towards treatment seeking can deter people from doing so. Social support was found to be a predictor of stigma-coping because it was found to decrease adverse physical and mental health stress, therefore increasing the likelihood that an individual would adopt

healthier stigma coping orientations (Thoits, 2011). Research by Barney et al. (2006) found that negative stigma sentiment, frequently deter help-seeking behaviors, for individuals with depression. Isolation, unemployment, lower income, and feeling like a failure are common side effects of stigma.

Purpose of Study

The purpose of this research study was to explore the relationships of predictor variables and criterion variables (challenging and deflecting) using canonical correlation analysis and two separate regression analyses, one for each of the criterion variables. These two statistical methods assisted me in analyzing whether there were relationships between symptom severity, depression literacy, stereotype awareness, treatment seeking, social supports, stigma sentiments, and deflection and challenging. The variables were measured using five measurement scales, one index, and two subscales: PHQ-8, PDDS, the D-Lit, ATSPPH –SF, MSPSS, DSS- personal, and SCOS, respectively.

This study was conducted to add insight into the affirming stigma coping orientations, deflection and challenging, used by persons with depression. By identifying certain predictors of deflecting and challenging, individuals with depression can avoid the use of negative stigma coping orientations such as avoidance, secrecy, and withdrawal.

Key Findings

Canonical correlation analysis results for the first function were statistically significant using the Wilks's $\lambda = .762$, $F(12, 374) = 4.54$, $p < .001$, $R_c^2 = .21$. The canonical correlation was .46 accounting for nearly 21% of the variability between the

two sets of variables. This accounted for 87.15% of the total variance in the canonical solution, indicating a medium to large effect size.

The key predictor variable, that indicated a multivariate pattern of relationships and effect sizes between the criterion variables, were stigma sentiments, symptom severity, and treatment seeking. As indicated in Chapter 4, individuals with high scores on deflecting, and simultaneously, low scores on challenging, tended to have high scores on stigma sentiments, and low scores on both symptom severity and treatment seeking. Inversely, individuals with low scores on deflecting, and simultaneously high scores on challenging, tended to have low scores on stigma sentiments and high scores on both symptom severity, and treatment seeking. The other three predictor variables, depression literacy, stereotype awareness, and social support were not statistically significant in this analysis.

The first regression analysis was found to be statistically significant, $R = .328$, = .108, $F(6, 188) = 3.78$, $p = .001$. Symptom severity scores were a significant predictor of challenging scores ($\beta = .273$, $p < .001$). This indicates that, after controlling for the other five predictor variables in the model, those with higher scores on the symptom severity scale were expected to have higher scores on challenging. Depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments were not significant predictors of stigma coping orientation challenging scores.

The second regression analysis was found to be statistically significant $R = .371$, $F(6, 188) = 5.00$, $p < .001$. Symptom severity scores had a significant negative weight ($\beta = -.245$, $p < .001$) indicating that, after controlling for the other five predictor variables

scores, those with higher scores on the symptom severity were expected to have lower scores on deflecting. Also, stigma sentiments had a significant positive weight ($\beta = .316$, $p < .001$) indicating that after controlling for the other five predictor variables in the model, those with higher scores on stigma sentiments were expected to have higher scores on deflecting. Depression literacy, stereotype awareness, treatment seeking, and social support were not significant predictors of deflecting coping orientation.

Results from the canonical correlation analysis found that increased scores on deflecting, and decreased scores on challenging, indicated increased scores on stigma sentiment, and decreased scores on symptom severity and treatment seeking. Also, decreased scores on deflecting, and increased scores on challenging, indicated decreased scores on stigma sentiments, and increased scores on symptom severity and treatment seeking. Although the first regression analysis did not find treatment seeking or stigma sentiments as statistically significant predictors of challenging, it did support the statistical relationship between increased scores on symptom severity with increased challenging score, as did the canonical correlation analysis. Interestingly, the second regression analysis also did not find treatment seeking to be a statistically significant predictor of deflecting. However, it did support the statistical relationship between increased scores in symptom severity, and decreased scores in deflecting and increased scores in stigma sentiments, and increased scores in deflecting. This also was represented in the canonical correlational analysis.

Interpretation of Findings

Stigma Sentiments

Results for the canonical correlational analysis revealed that participants who scored higher on the deflecting stigma coping orientation, and lower on challenging stigma coping orientation, also scored higher on stigma sentiments. These results imply that high scores on deflecting did not seem to decrease stigma sentiments, nor did lower scores on challenging. As summarized in Chapter 3, higher scores on the stigma sentiment scale represent a greater stigma towards depression. These results tend to contradict the information presented by Thoits (2011) regarding the use of deflection, as a way to decrease stigma, by identifying the stigma and rejecting it, by not applying it to the self and also challenging stigma. Stigma sentiments, which is defined by Kroska and Harkness (2006) in the literature as "evaluation, potency, and activity associated with the cultural category 'a mentally ill person" (p.325) therefore was not thwarted in this sample with the use of the deflecting and challenging stigma coping orientations. One possible interpretation may be inferred by looking at the scores for symptom severity that were also indicated from the results of the canonical correlation analysis. Participants who scored higher on the deflection scale, and lower on the challenging scale also scored lower on symptom severity. If a person has little to no symptoms of depression, the use of deflecting and challenging may not be indicated because they may not be affected by the stigma of depression. They may still score high on deflecting in that they do not identify as a "person having a mental illness," so when reading, for example, one of the questions on the scale such as, "You are very different from most people who have mental illness,"

one possibility is that they do not identify because they are not experiencing depression. This may also be why they scored lower on challenging because if they are not experiencing depression stigma, they may not feel the need to challenge it either. Further, they may even have stigma towards depression in the form of public, self, or perceived stigma, which could be why they have higher scores on the stigma sentiment scale. It is reasonable to expect that because data were not collected from a strictly clinical sample, not all participants would self-report as having depressive symptoms.

Inversely, the participants who scored lower on deflecting, and higher on challenging, scored lower on stigma sentiments. These participants also scored higher on symptom severity. So although these scores indicated that the participants with higher symptoms of depression did not score higher on the deflecting scale, their higher scores on challenging imply a stigma coping orientation that would challenge depression stigma. Their lower scores on stigma sentiments suggest that they have less stigma towards depression. To reiterate from Chapter 2, challenging stigma and being open about a person’s own mental illness can be empowering (Corrigan et al., 2010), can energize the person to get angry about stigma (Corrigan & Kleinlein, 2005), and helps a person confront negative beliefs about stigma and discredit them as inaccurate (Thoits, 2011). Individuals without any symptom severity can challenge stigma as well (Thoits, 2011). This may be indicative of individuals who would probably score lower on stigma sentiments, if they too were using challenging as a tool, to decrease depression stigma in general. The individuals in this sample who scored lower on stigma sentiments, and higher on challenging, may have a higher depression literacy, and understanding of the

negative impacts that depression stigma has on the individuals who suffer from it. Challenging stigma incorporates some aspects of deflecting in that a person can cognitively challenge stigma about that person's own mental illness as well (Corrigan et al., 2010). It seems reasonable to infer that participants who have higher scores on symptom severity (e.g., scores 10 or above), indicating that they suffer from moderate to severe depression, and lower scores on stigma sentiments, indicating they have low if any stigma towards depression, would have higher challenging scores. As noted in Chapter 2, higher stigma sentiments were associated with higher rates of negative stigma coping, therefore it makes sense that lower stigma sentiments may result in the use of more affirming stigma coping orientations, specifically challenging.

The first regression analysis using challenging as the criterion, much like the canonical correlation analysis, showed a positive correlation between higher scores on challenging, and higher symptom severity scores. This regression, however, did not result in a statistically significant correlation involving the predictor variable stigma sentiments. One possibility may be that the canonical correlation analysis, although similar to using regression to identify significant correlations between variables, yielded a stronger correlation between the predictor variable stigma sentiments, and the criterion variable challenging. The first function created the two synthetic variables, which included the predictor variable stigma sentiments, to be as strongly correlated as possible, resulting in a correlation that was statistically significant.

The second regression analysis using deflecting as the criterion also showed a positive correlation between increased deflection scores and increased stigma sentiment scores, and decreased deflecting scores with increased symptom severity.

Symptom Severity

Results for the canonical correlational analysis revealed that participants who scored high on deflecting and low on challenging also scored lower on symptom severity. The results mirror research from Thoits (2011) stating that people who have less depressive symptoms will be more apt to deflect stigma. Again, since this was not a strictly clinical sample, it was expected that there would be some scores lower on symptom severity Also, as mentioned earlier, a person may score high on deflecting because they may not have depressive symptoms, therefore agreeing with some of the scales questions, such as not identifying as mentally ill. In this case, the score does not represent a high depression stigma coping orientation. Inversely, those who scored low on deflecting, and high on challenging, scored high on symptom severity.

The first regression analysis using challenging as the criterion also resulted in a correlation between high scores on symptom severity and high scores on challenging. The second regression analysis using deflecting as criterion also complimented the canonical correlation analysis results with respect to the predictor variables symptom severity, and stigma sentiments. Results from this regression showed lower deflecting scores correlating to higher symptom severity scores, and higher deflecting scores correlating to higher stigma sentiment scores. This indicates that individuals with higher depressive symptoms use less deflecting to cope with depression stigma. It is rational to

suggest that individuals experiencing more depressive symptoms may find it difficult to cognitively separate themselves from the negative symptoms of their disorder. Also, in the sample used, individuals with higher deflecting scores also had higher stigma sentiments. Perhaps individuals who have increased stigma towards depression do not identify with the disorder, in which case it would make sense that they cognitively distance themselves through the use of deflecting. Perhaps a “them” versus “me” attitude or belief system is indicated. However, further research would be needed to infer these correlations.

Treatment Seeking

The canonical correlation results for the predicator variable treatment seeking indicated higher scores on deflecting correlated to lower scores on treatment seeking. As stated earlier, participants who scored low on symptom severity also scored high on deflecting. One possible explanation could be that participants who scored low on symptom severity may have mild depressive symptoms, which Thoits (2011) acknowledged, may indicate using deflecting as a stigma coping. Also, as stated previously results from this analysis also indicated that higher deflecting scores correlated with higher stigma sentiments. Higher scores on this variable suggest higher stigma towards depression. This may result in lower treatment seeking scores, due to higher stigma sentiment towards treatment.

Canonical correlation results also indicated lower scores on deflecting, but higher scores on challenging, correlated to higher treatment scores. Also, as stated earlier, higher challenging scores also correlated to lower stigma sentiment scores. Since high sores on

challenging reflect positive stigma coping, and low scores on stigma sentiment represent lower depression stigma, it makes sense that the analysis resulted in higher treatment scores, indicating decreased stigma towards seeking help for depression.

Results from the first and the second regression analyses using challenging and deflecting respectfully as criterion, did not indicate a statistical significance with treatment seeking as a predictor variable. As mentioned previously, the results from the canonical correlation analysis using treatment seeking as a predictor variable, may have resulted in a stronger, and statistically significant correlation, because of the statistical method used versus the regression analyses.

Depression literacy, stereotype awareness, and social support, as predictor variables, did not yield statistical significance in either of the methods applied. As noted previously, depression literacy was treated as an index and not a scale, therefore reliability statistics did not apply. In chapter 2 it was reported that the most important aspect of social support for people with depression was the understanding of family and friends, followed by empathy, sympathy, and compassion (Griffiths, Crisp, Barney, & Reid, 2011). One possible interpretation of why social support, as a predictor variable resulted in nonsignificant findings, could be that it is an external, versus internal, stigma coping orientation. Social support may offer individuals with depression an outlet to feel accepted, and open to communicate their feelings without feeling stigmatized, but may not predict deflecting or challenging as stigma coping orientations, because these stem from a more internal thought process about stigma. Further research regarding the effects of social support on individuals who suffer from depression would be interesting to

possibly determine statistically significant conclusions. This is beyond the scope of this research study. It may be possible that the stigma sentiments scale (DSS – Personal) may have captured similar constructs as the stereotype awareness scale (PDDS). Perhaps another scale that measures stereotype awareness would have generated different results.

Theoretical Framework Context

This study evolved using the theoretical frameworks of Labeling Theory (Scheff, 1984) and Modified Labeling Theory (Link et al., 1989). The latter, modified labeling theory, explored the consequences of being labeled mentally ill. When a person is labeled mentally ill it results in negative coping orientations to stigma (Link et al., 1989); public and internalized. As noted, results of this study indicate that increased deflection scores, correlated positively with increased stigma sentiment scores, and decreased challenging stigma coping orientation scores correlated positively with an increase in stigma sentiment scores. Inversely, decreased scores on deflecting coping orientations correlated negatively with stigma sentiments, and increased challenging coping orientation scores correlated negatively with increased stigma sentiments. The variable stigma sentiments used in this study was defined as "the evaluation, potency, and activity (EPA) associated with the cultural category "mentally ill person" (Kroska & Harkness, 2006)". Interpretations of these findings parallel Modified Labeling Theory in that the greater the stigma sentiments the less positive the stigma coping orientation was utilized, and less stigma sentiments the more positive the stigma coping orientation was. Labeling someone "mentally ill" or having an increased stigma towards depression leads to poorer stigma coping.

Limitations of the Study

This study was conducted using a convenience sample of undergraduate college students. Majority of the participants were white females, limiting generalizability to other ages and ethnicities. Also, since the sample only included college students, it may not be generalizable to the general public, which would include a mix of college educated and non-college educated participants. A more random sample would include varying socioeconomic factors, that may play a role in experiences, and therefore responses as well. Peterson (2001) found that research using college students showed large effect sizes making generalizability of the research results equivocal to that of non-college student samples, while also reminding the researcher not to make inferences about homogeneity and its impact on research results with this population.

External validity is also challenged in that the sample in this study was not taken from a clinical population. A clinical sample would offer more insight into the stigma coping habits of persons that suffer regularly from depression symptoms.

Since potential participants were given a flyer with a link to participate on-line, when and wherever they wanted, controlling the testing conditions and testing environment was not possible. This study only tested correlations between the six predicator variables identified. There are a vast number of other variables that may predict stigma coping as well that was beyond the scope of this research study.

Recommendations

Further research is needed in prediction studies using deflecting and challenging stigma coping orientations, as criterion variables in a clinical sample. Although

correlation is not causation, researchers can start to narrow down variables that are statistical significant predictors of these affirming stigma coping orientations. This study used six predictor variables based on a wide literature review of stigma. However, only stigma sentiments, symptom severity, and treatment seeking where found to be statistically significant. It is recommended that the other variables from this study, depression literacy, stereotype awareness, and social support be explored using other statistical methods, to concur or dismiss results from this study, as to their predictive nature of deflecting and challenging stigma coping orientations. Future research should investigate other potential predictor variables such as age, gender, country of birth, level of education (Griffiths, et al., 2008), just to name some examples. Also, utilizing more than one method of analysis, as in this study, ensures a robust research approach. Also, using different research methods, such as ANOVA, MANOVA, discriminant analysis or conducting a qualitative study using these variables, may result in similar, or different results, increasing or decreasing the validity and reliability of this study. This study used eight measurement scales to try and capture each construct. Further research may indicate the use of different scales that may better encapsulate these constructs.

This type of stigma coping prediction research can also be utilized using other mental health diagnoses, race, sexual orientation, religious beliefs, and a myriad of other variables one could choose to research.

Implications for Social Change

Individual Level

On an individual level, results from this study suggest that individuals who suffer from mild to moderate depression, and have increased symptom severity yet less stigma towards depression, are more likely to seek treatment for their depression, and utilize a challenging stigma coping orientation when faced with depression stigma. Use of this affirming stigma coping orientation may increase a individual's self-esteem, help them become stigma resistant (Campbell & Deacon, 2006), and take action against discriminatory, prejudicial, or stereotyped opinions and misconceptions about depression (Thoits, 2011).

Results also suggest that some individuals with mild depressive symptoms may utilize deflecting; a more cognitive approach to stigma coping. This may help maintain self-esteem (Thoits, 2011).

Further results may suggest that individuals that do not have, or identify as having depressive symptoms, may have more stigma towards depression and treatment seeking. This then remains an area of focus for depression stigma especially among those with severe symptoms, as they were not represented in this sample.

Family Level

Results from this study may be eye-opening to family members who live with, or have a relative who suffers from depression. When a family understands the origins of depression stigma, and the importance of understanding negative and affirming ways to cope with it, they may be better equipped to support their loved ones. Also, as noted in

the literature review, one does not have to suffer from depression to utilize challenging as a stigma coping orientation (Thoits, 2011). Challenging false perceptions of depression will help people better understand depression to decrease stigma due to misconceptions about the disease (Thoits. 2011). Family members can stand up against depression stigma on behalf of their loved ones who suffer from it. Family members that do not understand depression stigma, can benefit from this research by better understanding the impact of the social stigma of depression, and the negative effects this has on individuals experiencing it.

Organizational Level

Combating depression stigma is something that needs to take place on many different organizational levels. Results from this study may be used both in clinical practice, and academia. For example, if a psychologist or counselor has clients who suffer from depression, it would be beneficial to discuss depression stigma, depending on the client's symptom severity, to assess how their client views their disorder. Educating and encouraging clients to utilize deflecting and challenging as stigma coping orientations would be beneficial to them. Understanding and incorporating these concepts, as the clinician, can be taught utilizing continuing education forums. Understanding how symptom severity, stigma sentiments, and treatment seeking correlates to affirming stigma coping would be an asset in the intake process for clinicians. This research could also spill over in academic curriculum. Educating students in schools of psychology, sociology, and other humanities courses about variables that may predict more affirming stigma coping orientations will help them learn the differences between negative, and

positive stigma coping, to prepare them for when they become clinicians. Students in more specialized programs, can learn various clinical skill sets, such as identifying negative coping, assessing depression stigma awareness, and understanding affirming stigma coping orientations. Students in clinical or counseling psychology would benefit by increased insight into depression stigma from a pragmatic point of view. And finally, continued exploration by academic researchers in the field of depression stigma is critically indicated by the review of negative stigma coping, lack of current empirical research on the topic, and the positive hopefulness of affirming stigma coping that emerged in this study.

Conclusion

This research study was a correlational study to explore six variables, symptom severity, depression literacy, stereotype awareness, treatment seeking, social support, and stigma sentiments to investigate their predictive factors, in the use of deflecting and challenging stigma coping orientations, in a community sample of college students. The specific focus was on depression stigma. Results suggest that individuals with less stigma towards depression, are more apt to challenge depression, when their symptoms are higher, and they are more apt to seek treatment for it. Results also indicated that when an individual has greater stigma towards depression, they tend to have less depressive symptoms, and increased stigma toward treatment seeking. They may however use deflecting more because their symptoms are mild, or they may not be experiencing depressive symptoms. These results point to a continued need to increase awareness of depression stigma, including identifying misconceptions of depression, both on an

individual and societal level. Educating students and clinicians on how affirming stigma coping orientations can help people who suffer from depression stigma, can reduce negative feelings, and help improve the well-being of people who suffer from depression. Overall, this study has potential to further the investigation by future researchers to pinpoint other predictive variables, that will positively benefit persons with depression, by helping them cope more positively with stigma.

References

Adewuya, A. O., Ola, B. A., & Afolabi, O. O. (2006). Validity of the patient health questionnaire (PHQ-9) as a screening tool for depression amongst Nigerian university students. *Journal of Affective Disorders, 96*(1), 89-93. doi:10.1016/j.jad.2006.05.021

Aromaa, E., Tolvanen, A., Tuulari, J., & Wahlbeck, K. (2011). Personal stigma and uses of mental health services among people with depression in a general population in Finland. *BMC Psychiatry, 11*(1), 52-57. doi:10.1186/1471-244X-11-52

Barney, L. J., Griffiths, K. M., Jorm, A. F., Christensen, H. (2006). Stigma about depression and its impact on help-seeking intentions. *Australian and New Zealand Journal of Psychiatry, 40*(1), 51-54. doi:10.1111/j.1440-1614.2006.01741.x

Barua, J. (2012). The use of college students as analogues samples for depression research. *Inkblot: Undergraduate Journal of Psychology, 1*, 51-55. Retrieved from http://www.inkblotjournal.com/wp-content/uploads/2012/05/51-55-Jessica-Barua-Students-Depression.pdf

Bathje, G. J., & Pryor, J. B. (2011). The relationship of public and self-stigma to seeking mental health services. *Journal of Mental Health Counseling, 33*(2), 161-176. Retrieved from http://ezp.waldenulibrary.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=59783187&scope=site

Blease, C. (2012). Mental health illiteracy? Perceiving depression as a disorder. *Review of General Psychology, 16*(1), 59-69. doi:10.1037/a0026494

Blumer, H. (1986). *Symbolic interactionism: Perspective and method.* Oakland, CA: University of California Press.

Brohan, E., Gauci, D., Sartorius, N., & Thornicroft, G. (2011). Self-stigma, empowerment and perceived discrimination among people with bipolar disorder or depression in 13 European countries: The GAMIAN–Europe study. *Journal of Affective Disorders*, *129*(1), 56-63. doi:10.1016/j.jad.2010.09.001

Brohan, E., Slade, M., Clement, S., & Thornicroft, G. (2010). Experiences of mental illness stigma, prejudice and discrimination: a review of measures. *BMC Health Services Research*, *10*(1), 80. doi:10.1186/1472-6963-10-80

Brown, C., Conner, K. O., Copeland, V., Grote, N., Beach, S., Battista, D., & Reynolds III, C. F. (2010). Depression stigma, race, and treatment seeking behavior and attitudes. *Journal of Community Psychology, 38*(3), 350-368. doi:10.1002/jcop.20368

Campbell, C., & Deacon, H. (2006). Unraveling the contexts of stigma: From internalization to resistance to change. *Journal of Community & Applied Social Psychology, 16*(6), 411-417. doi:10.1002/casp.901

Chang, C. (2008). Increasing mental health literacy via narrative advertising. *Journal of Health Communication, 13*(1), 37-55. doi:10.1080/10810730701807027

Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist, 59*(7), 614-625. doi:10.1037/0003-066X.59.7.614

Corrigan, P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology: Science and Practice,*

7(1), 48-67. Retrieved from http://webcast.und.edu/health-wellness/healthy-und/mental-health-stigma-fawn.pdf

Corrigan, P. W. (2002). Empowerment and serious mental illness: Treatment partnerships and community opportunities. *Psychiatric Quarterly, 73*(3), 217-228. doi:10.1023/A: 1016040805432

Corrigan, P. W. (2004). Target-specific stigma change: A strategy for impacting mental illness stigma. *Psychiatric Rehabilitation Journal, 28*(2), 113-121. doi:10.2975/28.2004.113.121

Corrigan, P. W., & Calabrese, J. D. (2005). Strategies for assessing and diminishing self-stigma. In P. W. Corrigan (Ed.), *On the stigma of mental illness: Practical strategies for research and social change* (pp. 239-256). Washington, DC: American Psychological Association. doi:10.1037/10887-011

Corrigan, P. W., Edwards, A., Green, A., Diwan, S., & Penn, D. L. (2001). Prejudice, social distance, and familiarity with mental illness. *Schizophrenia Bulletin, 27*(2), 219-225. Retrieved from http://schizophreniabulletin.oxfordjournals.org/content/27/2/219.full.pdf

Corrigan, P. W., Kerr, A., & Knudsen, L. (2005). The stigma of mental illness: Explanatory models for change. *Applied and Preventive Psychology, 11*(3), 179-190. doi:10.1016/j.appsy.2005.07.001

Corrigan, P. W., & Kleinlein, P. (2005). The impact of mental illness stigma. In P. W. Corrigan (Ed.), *On the stigma of mental illness: Practical strategies for research and social change* (pp. 11-44). Washington, DC: American Psychological

Association. doi:10.1037/10887-001

Corrigan, P. W., Larson, J. E., & Rüsch, N. (2009). Self-stigma and the "why try" effect: impact on life goals and evidenced-based practices. *World Psychiatry, 8,* 75-81. doi:10.1002/j.2051-5545.2009.tb00218.x

Corrigan, P. W., Morris, S., Larson, J., Rafacz, J., Wassel, A., Michaels, P., & Rüsch, N. (2010). Self-stigma and coming out about one's mental illness. *Journal of Community Psychology, 38*(3), 259-275. doi:10.1002/jcop.20363

Corrigan, P. W., & Penn, D. L. (1999). Lessons from social psychology on discrediting psychiatric stigma. *American Psychologist, 54*(9), 765-776. doi:10.1037/0003-066X54.9.765

Corrigan, P. W., River, L., Lundin, R. K., Penn, D. L., Uphoff-Wasowski, K., Campion, J., & Kubiak, M. (2001). Three strategies for changing attributions about severe mental illness. *Schizophrenia Bulletin, 27*(2), 187-195. Retrieved from http://schizophreniabulletin.oxfordjournals.org/content/27/2/187.full.pdf

Corrigan, P. W., & Watson, A. C. (2002). Understanding the impact of stigma on people with mental illness. *World Psychiatry, 1*(1), 16-20. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/16946807

Corrigan, P. W., Watson, A. C., & Barr, L. (2006). The self-stigma of mental illness: Implications for self-esteem and self-efficacy. *Journal of Social and Clinical Psychology, 25*(9), 875-884. doi:10.1521/jscp.2006.25.8.875

Crabtree, J. W., Haslam, S., Postmes, T., & Haslam, C. (2010). Mental health support groups, stigma, and self-esteem: Positive and negative implications of group

identification. *Journal of Social Issues, 66*(3), 553-569. doi:10.1111/j. 1540-4560.2010.01662.x

Deen, T., & Bridges, A. (2011). Depression literacy: rates and relation to perceived need and mental health service utilization in a rural American sample. *Rural and Remote Health, 11*(4), 1803. Retrieved from http://www.rrh.org.au

Detweiler-Bedell, J. B., Detweiler-Bedell, B., Hazlett, A., & Friedman, M. A. (2008). The effect of diagnosis and perceived reward on perceptions of depression and social support. *Journal of Social & Clinical Psychology, 27*(1), 1-35. doi: 10.1521/jscp.2008.27.1.1

Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research, 36,* 269-277.

Dickerson, F. B., Sommerville, J. L., & Origoni, A. E. (2002). Mental illness stigma: An impediment to psychiatric rehabilitation. *Psychiatric Rehabilitation Skills*, *6*(2), 186-200. doi:10.1080/10973430208408432

Elhai, J. D., Schweinle, W., & Anderson, S. M. (2008). Reliability and validity of the Attitudes toward Seeking Professional Psychological Help- Short Form. *Psychology Research, 159*, 320-329. doi:10.1016/j.psychres.2007.04.020

Fernandez y Garcia, E., Duberstein, P., Paterniti, D. A., Cipri, C. S., Kravitz, R. L., & Epstein, R. M. (2012). Feeling labeled, judged, lectured, and rejected by family and friends over depression: Cautionary results for primary care clinicians from a multi-centered, qualitative study. *BMC family practice*, *13*(1), 64. doi:

10.1186/1471-2296-13-64

Fischer, E. H. & Farina, A. (1995). Attitudes towards seeking professional psychological help: A shortened form and considerations for research. *Journal of College Student Development, (36)*4, 368-373.

Fischer, E. H., & Turner, J. L. (1970). Attitudes toward Seeking Professional Help Scale. Psyctests, doi:10.1037/t04321-000

Flett, G. L., Vredenburg, K., & Krames, L. (1997). The continuity of depression in clinical and nonclinical samples. *Psychological Bulletin, 121*(3), 395. doi: 10.1037/0033-2909.121.3.395

Gaebel, W. W., Zäske, H. H., & Baumann, A. E. (2006). The relationship between mental illness severity and stigma. *Acta Psychiatrica Scandinavica, 113*(Suppl 429), 41-45. doi:10.1111/j.1600-0447.2005.00716.x

Givens, J., Katz, I., Bellamy, S., & Holmes, W. (2007). Stigma and the acceptability of depression treatments among African Americans and whites. *Journal of General Internal Medicine, 22*(9), 1292-1297. doi:10.1007/s11606-007-0276-3

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. New York: Prentice Hall.

Greenberg, J. (1987). The college sophomore as guinea pig: Setting the record straight. *Academy of Management Review, 12*(1), 157-159. doi:10.5465/AMR.1987.4306516

Griffiths, K. M., Christensen, H., & Jorm, A. F. (2008). Predictors of depression stigma. *BMC psychiatry*, *8*(1), 25. doi:10.1186/1471-244X-8-25

Griffiths, K. M., Crisp, D. A., Barney, L., & Reid, R. (2011). Seeking help for depression from family and friends: a qualitative analysis of perceived advantages and disadvantages. *BMC psychiatry*, *11*(1), 196. Retrieved from http://www.biomedcentral.com/1471-244X/11/196

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Canonical Correlation: A Supplement to Multivariate Data Analysis. *Multivariate Data Analysis*, 7/E.

Harper, D. (1985). Mental disorder is only a label. *Psyccritiques, 30*(10), 808-809. doi: 10.1037/023268

Jorm, A. F. (2000). Mental health literacy Public knowledge and beliefs about mental disorders. *The British Journal of Psychiatry*, *177*(5), 396-401. doi:10.1192/bjp.177.5.396

Jorm, A. F. (2012). Mental health literacy: Empowering the community to take action for better mental health. *American Psychologist*, *67*(3), 231. doi:10.1037/a0025957

Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., Rogers, B., & Pollitt, P. (1997). "Mental health literacy:" a survey of the public's ability to recognize mental disorders and their beliefs about the effectiveness of treatment. *Medical Journal of Australia, 166*(4), 182-186. Retrieved from http://www.mja.com.au/

Jorm, A. F., Medway, J., Christensen, H., Korten, A. E., Jacomb, P. A., & Rodgers, B. (2000). Attitudes towards people with depression: effects on the public's help-seeking and outcome when experiencing common psychiatric symptoms. *Australian and New Zealand Journal of Psychiatry*, *34*(4), 612-618. doi:10.1080/j.1440-1614.2000.00743.x

Jorm, A. F., & Oh, E. (2009). Desire for social distance from people with mental disorders. *Australian and New Zealand Journal of Psychiatry*, *43*(3), 183-200. doi:10.1080/00048670802653349

Jost, J. T. & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology, 33*, 1-27. DOI: 10.1111/j.2044-8309.1994.tb01008.x

Kanter, J. W., Rusch, L. C., & Brondino, M. J. (2008). Depression self-stigma: A new measure and preliminary findings. *Journal of Nervous and Mental Disease*, *196*(9), 663-670. doi:10.1097/NMD.0b013e318183f8af

Katz, D. & Braly, K. (1935). Racial prejudice and racial stereotypes. *Journal of Abnormal & Social Psychiatry, 30*, 175-193. doi:10.1037/h0059800

Kiropoulos, L. A., Griffiths, K. M., & Blashki, G. (2011). Effects of a multilingual information website intervention on the levels of depression literacy and depression-related stigma in Greek-born and Italian-born immigrants living in Australia: A randomized controlled trial. *Journal of Medical Internet Research*, *13*(2). doi:10.2196/jmir.1527

Kleim, B., Vauth, R., Adam, G., Stieglitz, R. D., Hayward, P., & Corrigan, P. (2008). Perceived stigma predicts low self-efficacy and poor coping in schizophrenia. *Journal of Mental Health*, *17*(5), 482-491. doi:10.1080/09638230701506283

Kroenke, K, & Spitzer, R. L. (2002). The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric Annals, 32*(9), 1-7. Retrieved from http://search.proquest.com.ezp.waldenulibrary.org/docview/217052580?accountid

=14872

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001) The PHQ-9: Validity of a brief depression severity measure. *Journal of Internal Medicine, 16*, 606-613. doi:10.1046/j.1525-1497.2001.016009606.x

Kroenke, K., Strine, T. W., Spitzer, R. L., Williams, J. B. W., Berry, J. T., & Mokdad, A. H. (2009) The PHQ-8 as a measure of current depression in the general population. *Journal of Affective Disorders, 114*(1), 163-173. doi:10.1016/j.jad.2008.06.026

Kroska, A., & Harkness, S. K. (2006). Stigma sentiments and self-meanings: Exploring the modified labeling theory of mental illness. *Social Psychology Quarterly, 69*(4), 325-348. doi:10.1177/019027250606900403

Kroska, A., & Harkness, S. K. (2011). Coping with the stigma of mental illness: empirically-grounded hypothesis from computer simulations. *Social Forces, 89*(4), 1315-1339. doi:10.1093/sf/89.4.1315

Lauber, C., & Sartorius, N. (2007). At issue: Anti-stigma-endeavors. *International Review of Psychiatry*, *19*(2), 103-106. doi:10.1080/09540260701278705

Link, B. G., Cullen, F. T., Struening, E., Shrout, P. E., & Dohrenwend, B. P. (1989). A modified labeling theory approach to mental disorders: an empirical assessment. *American Sociological Review*, *54*, 400-423. Retrieved form http://www.jstor.org/stable/2095613

Link, B. G., Mirotznik, J., & Cullen, F. T. (1991). The effectiveness of stigma coping orientations: Can negative consequences of mental illness labeling be avoided?

Journal of Health and Social Behavior, 32(3), 302-320. Retrieved from http://www.jstor.org/stable/2136810

Link, B. G. & Phelan, J. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health, 89*(9), 1328-1333. doi:10.2105/AJPH.89.9.1328

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual review of Sociology*, 363-385. Retrieved from http://www.jstor.org/stable/2678626

Link, B.G., Phelan, J. C., Bresnahan, M., Stueve, A., & Pescosolido, B. A. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health, 89*(9), 1328-1333. doi:10.2105/AJPH.89.9.1328

Link, B. G., & Struening, E. L., Neese-Todd, S., Asmussen, S., & Phelan, J. C. (2002). On describing and seeking to change the experience of stigma. *Psychiatric Rehabilitation Skills, 6(*2), 201-231. doi:10.1080/10973430208408433

Livingston, J. D., & Boyd, J. E. (2010). Correlates and consequences of internalized stigma for people living with mental illness: a systematic review and meta-analysis. *Social Science & Medicine*, *71*(12), 2150-2161. doi:10.1016/j.socscimed.2010.09.030

Lucksted, A., Drapalski, A., Calmes, C., Forbes, C., DeForge, B., & Boyd, J. (2011). Ending self-stigma: pilot evaluation of a new intervention to reduce internalized stigma among people with mental illnesses. *Psychiatric Rehabilitation Journal*, *35*(1), 51-54. doi: 10.2975/35.1.2011.51.54

Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology*, *56*, 393-421. doi: 10.1146/annurev.psych.56.091103.070137

Manos, R. C., Rusch, L. C., Kanter, J. W., & Clifford, L. M. (2009). Depression self-stigma as a mediator of the relationship between depression severity and avoidance. *Journal of Social and Clinical Psychology*, *28*(9), 1128-1143. doi:10.1521/jscp.2009.28.9.1128

Markowitz, F. E., Angell, B., & Greenberg, J. S. (2011). Stigma, reflected appraisals, and recovery outcomes in mental illness. *Social Psychology Quarterly, 74*(2), 144-165. doi:10.1177/0190272511407620

Mccann, T., Lubman, D., & Clark, E. (2012). The experience of young people with depression: A qualitative study. *Journal of Psychiatric and Mental Health Nursing, 19*(4), 334-340. doi:10.1111/j.1365-2850.2011.01783.x

Meegan, C. K., & Kashima, E. S. (2010). Emotional and self-esteem consequences of perceiving discrimination against a new identity group. *Asian Journal of Social Psychology, 13*(3), 195-201. doi:10.1111/j.1467-839X.2010.01316.x

Mittal, D., Sullivan, G., Chekuri, L., Allee, E., & Corrigan, P. W. (2012). Empirical studies of self-stigma reduction strategies: a critical review of the literature. *Psychiatric Services, 63*(10), 974-981. Retrieved from http://search.proquest.com/docview/1444009734?accountid=14872

Monteith, L. L., & Pettit, J. W. (2011). Implicit and explicit stigmatizing attitudes and stereotypes about depression. *Journal of Social and Clinical Psychology, 30*(5), 484-505. doi:10.1521/jscp.2011.30.5.484

Moses, T. (2010). Adolescent mental health consumers' self-stigma: associations with parents' and adolescents' illness perceptions and parental stigma. *Journal of community psychology, 38*(6), 781-798. doi:10.1002/jcop.20395

Nam, S. K., Choi, S. I., Lee, J. H., Lee, M. K., Kim, A. R., & Lee, S. M. (2013). Psychological factors in college students' attitudes toward seeking professional psychological help: A meta-analysis. *Professional Psychology: Research and Practice*, *44*(1), 37. doi:10.1037/a0029562

O'Reilly, C. L., Bell, J. S., Kelly, P. J., & Chen, T. F. (2011). Impact of mental health first aid training on pharmacy students' knowledge, attitudes and self-reported behaviour: a controlled trial. *Australian and New Zealand Journal of Psychiatry*, *45*(7), 549-557. doi:10.3109/00048674.2011.585454

Oxman, T. E., Hegel, M. T., Hull, J. G. & Dietrich. (2008). Problem-solving treatment and coping styles in primary care for minor depression. *Journal of Consulting and Clinical Psychology, 76*(6), 933-943. doi: 10.1037/a0012617

Peterson, R. A. (2001). On the use of college students in social science research: Insights from a second-order meta-analysis. *Journal of Consumer Research, 28*(3), 450-461. Retrieved from http://www.jstor.org/stable/10.1086/323732

Reavley, N. J., & Jorm, A. F. (2011). Recognition about mental disorders and beliefs about treatment and outcome: findings from an Australian National Survey of Mental Health Literacy and Stigma. *Australian and New Zealand Journal of Psychiatry, 45*(11), 947-956. doi:10.3109/00048674.2011.621060

Reavley, N. J., McCann, T. V., & Jorm, A. F. (2012). Mental health literacy in higher

education students. *Early Intervention in Psychiatry*, *6*(1), 45-52. doi:10.1111/j.1751-7893.2011.00314.x

SAMHSA. (2014). Implementation of the Mental Health Parity and Addiction Equity Act (MHPAEA). Retrieved from http://www.samhsa.gov/health-financing/implementation-mental-health-parity-addiction-equity-act.

Scheff, T. J. (1984). *Being mentally ill: A sociological theory* (3rd ed.). New York: Aldine de Gruyter.

Schomerus, G., Matschinger, H., & Angermeyer, M. C. (2009). The stigma of psychiatric treatment and help-seeking intentions for depression. *European archives of psychiatry and clinical neuroscience*, *259*(5), 298-306. doi:10.1007/s00406-009-0870-y

Sibitz, I., Unger, A., Woppmann, A., Zidek, T., & Amering, M. (2011). Stigma resistance in patients with schizophrenia. *Schizophrenia bulletin*, *37*(2), 316-323. doi:10.1093/schbul/sbp048

Strong, R. (2011). Diagnostic labeling of the mentally ill and the resulting stigma. *Honolulu Psychological Examiner*. Retrieved from http://www.examiner.com.

Tabachnick, B. G. & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn and Bacon.

Thoits, P. A. (2011). Resisting the stigma of mental illness. *Social Psychology Quarterly*, *74*(1), 6-28. doi:10.1177/0190272511398019

Vollmann, M., Scharloo, M., Salewski, C., Dienst, A., Schonauer, K., & Renner, B. (2010). Illness representations of depression and perceptions of the helpfulness of

social support: comparing depressed and never-depressed persons. *Journal of affective disorders*, *125*(1), 213-220. doi:10.1016/j.jad.2010.01.075

Vogel, D. L., Wade, N. G., & Hackler, A. H. (2007). Perceived public stigma and the willingness to seek counseling: The mediating roles of self-stigma and attitudes toward counseling. *Journal of Counseling Psychology*, *54*(1), 40. doi:10.1037/0022-0167.54.1.40

Wade, N. G., Post, B. C., Cornish, M. A., Vogel, D. L., & Tucker, J. R. (2011). Predictors of the change in self-stigma following a single session of group counseling. *Journal of Counseling Psychology*, *58*(2), 170. doi:10.1037/a0022630

Watson, A. C., Corrigan, P., Larson, J. E., & Sells, M. (2007). Self-stigma in people with mental illness. *Schizophrenia Bulletin*, *33*(6), 1312-1318. doi:10.1093/schbul/sbl076

Weiss, D. J. (1972). Canonical correlation analysis in counseling psychology research. *Journal of Counseling Psychology, 19*(3), 241. doi:10.1037/h0032675

West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues and applications* (pp. 56-75). Newbery Park, CA: Sage.

Wright, E. R., Gronfein, W. P., & Owens, T. J. (2000). Deinstitutionalization, social rejection, and the self-esteem of former mental patients. *Journal of health and social behavior*, 68-90. Retrieved from http://www.jstor.org/stable/2676361

Yanos, P. T., Roe, D., & Lysaker, P. H. (2010). The impact of illness identity on recovery

from severe mental illness. *American journal of psychiatric rehabilitation*, *13*(2), 73-93. doi:10.1080/15487761003756860

Yanos, P. T., Roe, D., West, M. L., Smith, S. M., & Lysaker, P. H. (2012). Group-based treatment for internalized stigma among persons with severe mental illness: Findings from a randomized controlled trial. *Psychological Services, 9*(3), 248. doi:10.1037/a0028048

Yen, C., Chen, C., Lee, Y., Tang, T., Yen, J., & Ko, C. (2005). Self-stigma and its correlates among outpatients with depressive disorders. *Psychiatric Services, 56*(5), 599-601. Retrieved from http://psychiatryonline.org/doi/ref/10.1176/appi.ps.56.5.599

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment, 52*(1), 30-41. doi:10.1207/s15327752jpa5201_2

Appendix A: Attitudes toward Seeking Professional Psychological Help Scale (ATSPPH – SF)

Attitudes toward Seeking Professional Psychological Help Scale (ATSPPH – SF)

Instructions: Please read the following statements and rate them using the scale provided. Please rate how strongly you agree or disagree with each statement by putting an **X** in the appropriate box for each item.

Statement	Rating
1. If I believed I was having a mental breakdown; my first inclination would be to get professional help.	Agree -3 Partly Agree -2 Partly Disagree -1 Disagree-0
2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	Agree -3 Partly Agree -2 Partly Disagree -1 Disagree-0
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.	Agree -3 Partly Agree -2 Partly Disagree -1 Disagree-0
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to help.	Agree -3 Partly Agree -2 Partly Disagree -1 Disagree-0
5. I would want to get psychological help if I were worried or upset for a long period of time.	Agree -3 Partly Agree -2 Partly Disagree -1 Disagree-0
6. I might want to have psychological counseling in the future.	Agree -3 Partly Agree -2 Partly Disagree -1 Disagree-0
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.	Agree -3 Partly Agree -2 Partly Disagree -1 Disagree-0
8. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	Agree -3 Partly Agree -2 Partly Disagree -1 Disagree-0
9. A person should work out his or her own problems; getting psychological counseling would be a last resort.	Agree -3 Partly Agree -2 Partly Disagree -1

	Disagree-0
10. Personal and emotional troubles, like many things, tend to work out by themselves.	Agree -3 Partly Agree -2 Partly Disagree -1 Disagree-0

(Reproduced with permission) Fischer, E. H. & Farina, A. (1995). Attitudes towards seeking professional psychological help: A shortened form and considerations for research. *Journal of College Student Development, (36*)4, 368-373).

Appendix: B Depression Literacy Questionnaire (D-Lit)

Depression Literacy Questionnaire (D-Lit)

Instructions: Please read each statement and put an **X** in the appropriate box to the right.

Statement	Response
1. People with depression often speak in a rambling and disjointed way.	True False Don't Know
2. People with depression may feel guilty when they are not at fault.	True False Don't Know
3. Reckless and foolhardy behavior is a common sign of depression.	True False Don't Know
4. Loss of confidence and poor self-esteem may be a symptom of depression.	True False Don't Know
5. Not stepping on cracks in the footpath may be a sign of depression.	True False Don't Know
6. People with depression often hear voices that are not there.	True False Don't Know
7. Sleeping too much or too little may be a sign of depression.	True False Don't Know
8. Eating too much or losing interest in food may be a sign of depression.	True False Don't Know
9. Depression does not affect your memory and concentration.	True False Don't Know
10. Having several distinct personalities may be a sign of depression.	True False Don't Know
11. People may move more slowly or become agitated as a result of their depression.	True False Don't Know
13. Moderate depression disrupts a person's life as much as multiple sclerosis or deafness.	True False

	Don't Know
14. Most people with depression need to be hospitalized.	True False Don't Know
15. Many famous people have suffered from depression.	True False Don't Know
16. Many treatments for depression are more effective than antidepressants.	True False Don't Know
17. Counselling is as effective as cognitive behavioral therapy for depression.	True False Don't Know
18. Cognitive behavioral therapy is as effective as antidepressants for mild to moderate depression.	True False Don't Know
19. Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.	True False Don't Know
20. People with depression should stop taking antidepressants as soon as they feel better.	True False Don't Know
21. Antidepressants are addictive.	True False Don't Know
22. Antidepressant medications usually work straight away.	True False Don't Know

(Reproduced with permission) Griffiths, K. M., Christensen, H., & Jorm, A. F. (2008). Predictors of depression stigma. *BMC psychiatry*, 8(1), 25.

Appendix C: Depression Stigma Scale – Personal Subscale (DSS)

Depression Stigma Scale – Personal Subscale (DSS)

Instructions*:* Questions 1 to 9 contains statements about depression. Please indicate how strongly you personally agree or disagree with each statement by putting an **X** in the appropriate box.

1. People with depression could snap out of it if they wanted.	Strongly Agree - 4 Agree - 3 Neither agree nor Disagree - 2 Disagree - 1 Strongly Disagree - 0
2. Depression is a sign of personal weakness.	Strongly Agree - 4 Agree - 3 Neither agree nor Disagree - 2 Disagree – 1 Strongly Disagree - 0
3. Depression is not a real medical illness.	Strongly Agree - 4 Agree - 3 Neither agree nor Disagree - 2 Disagree – 1 Strongly Disagree - 0
4. People with depression are dangerous.	Strongly Agree - 4 Agree - 3 Neither agree nor Disagree - 2 Disagree – 1 Strongly Disagree - 0
5. It is better to avoid people with depression so that you don't become depressed yourself.	Strongly Agree - 4 Agree - 3 Neither agree nor Disagree - 2 Disagree – 1 Strongly Disagree - 0
6. People with depression are unpredictable.	Strongly Agree - 4 Agree - 3 Neither agree nor Disagree - 2 Disagree – 1 Strongly Disagree - 0
7. If I had depression I would not tell anyone.	Strongly Agree - 4 Agree - 3 Neither agree nor Disagree - 2 Disagree – 1

	Strongly Disagree - 0
8. I would not employ someone if I knew they had been depressed.	Strongly Agree - 4 Agree - 3 Neither agree nor Disagree - 2 Disagree – 1 Strongly Disagree - 0
9. I would not vote for a politician if I knew they had been depressed.	Strongly Agree - 4 Agree - 3 Neither agree nor Disagree - 2 Disagree – 1 Strongly Disagree - 0

(Reproduced with permission) Griffiths, K. M., Christensen, H., & Jorm, A. F. (2008). Predictors of depression stigma. *BMC psychiatry*, 8(1), 25

Appendix: D Multidimensional Scale of Perceived Social Support (MSPPS)

Multidimensional Scale of Perceived Social Support (MSPPS)

***Instructions*: Read each statement and <u>**circle**</u> the appropriate number in each box to the right representing how you feel.

	Very Strongly Disagree	**Strongly Disagree**	**Mildly Disagree**	**Neutral**	**Mildly Agree**	**Strongly Agree**	**Very Strongly Agree**
1. There is a special person who is around when I am in need.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. There is a special person with whom I can share joys and sorrows.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. My family really tries to help me.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. I get the emotional help & support I need from my family.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. I have a special person who is a real sense of comfort to me.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. My friends really try to help me.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. I can count on my friends when things go wrong.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. I can talk	**1**	**2**	**3**	**4**	**5**	**6**	**7**

about my problems with my family.							
9. I have friends with whom I can share my joys and sorrows.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10. There is a special person in my life who cares about my feelings.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11. My family is willing to help me make decisions.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
12. I can talk about my problems with my friends.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

(Test content may be reproduced and used for non-commercial research and educational purpose without seeking written permission) Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment, 52*(1), 30-41.

Appendix E: Perceived Devaluation - Discrimination Scale - (PDDS)

Perceived Devaluation - Discrimination Scale - (PDDS)

Instructions: Read the following sentences and **circle** the corresponding number to the right.

	Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**
1. Most people would accept a person who has been in a mental hospital as a close friend. R	4	3	2	1
2. Most people believe that someone who has been hospitalized for mental illness is dangerous.	4	3	2	1
3. Most people believe that a person who has been hospitalized for mental illness is just as trustworthy as the average citizen. R	4	3	2	1
4. Most people would accept a person who has fully recovered from mental illness as a teacher of young children in a public school. R	4	3	2	1
5. Most employers will not hire a person who has been hospitalized for mental illness	4	3	2	1
6. Most people think less of a person after he/she has been hospitalized for a mental illness.	4	3	2	1
7. Most people would be willing to marry someone who has been a patient in a mental hospital. R	4	3	2	1
8. Most employers will hire a person who has been hospitalized for mental illness if he or she is qualified for the job. R	4	3	2	1
9. Most people believe that entering a psychiatric hospital is a sign of personal failure.	4	3	2	1
10. Most people will not hire a person who has	4	3	2	1

been hospitalized for serious mental illness to take care of their children, even if he or she had been well for some time.				
11. Most people in my community would treat a person who has been hospitalized for mental illness just as they would treat anyone."	4	3	2	1
12. Most young people would be reluctant to date someone who has been hospitalized for a serious mental illness.	4	3	2	1

(Reproduced with permission) Link, B. G. (1987). Perceived Devaluation-Discrimination Scale.

Appendix F: Patient Health Questionnaire – (PHQ-8)

Patient Health Questionnaire – (PHQ-8)

Over the last 2 weeks, how often have you been bothered by any of the following problems? *(Please* ***circle the number*** *corresponding to your response.)*	Not at all	Several days	More than half the days	Nearl every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3

FOR OFFICE CODING __*O*__ + _______ + _______ + ____

=Total Score: _______

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all O   Somewhat difficult O   Very difficult O   Extremely difficult O

Appendix G: Stigma Coping Orientation Scale – (SCOS) Challenging and Deflecting

Stigma Coping Orientation Scale – (SCOS) Challenging and Deflecting Subscales

Instructions: Please read the statements below and **circle** the corresponding numbers to the right.

Challenging Subscale	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
1. When someone says something that stigmatizes people with mental illness you let them know you disagree with them.	4	3	2	1
2. You have found that it is important to point out stigmatizing behavior when it occurs. It is better to confront stigmatizing behavior than to ignore it.	4	3	2	1
3. You found that it is best to help the people close to you understand what psychiatric treatment is like.	4	3	2	1
4. If you thought an employer felt uneasy hiring a person who had been in psychiatric treatment, you would try to make him or her understand that most ex-patients are good workers.	4	3	2	1

(Reproduced with permission)

Link, B. G., & Struening, E. L., Neese-Todd, S., Asmussen, S., & Phelan, J. C. (2002). On describing and seeking to change the experience of stigma. Psychiatric Rehabilitation Skills, 6(2), 201-231

Instructions: Please read the statements below and **circle** the corresponding numbers to the right.

Deflecting Subscale	Strongly Agree	Agree	Disagree	Strongly Disagree
1. You do not have the same problems that other people experience as a consequence of depression.	4	3	2	1
2. Most people who have been hospitalized for depression have very different problems than you have.	4	3	2	1
3. You are very different than most people who have depression.	4	3	2	1

(Reproduced with permission) Link, B. G., & Struening, E. L., Neese-Todd, S., Asmussen, S., & Phelan, J. C. (2002). On describing and seeking to change the experience of stigma. Psychiatric Rehabilitation Skills, 6(2), 201-231