Student Perceptions of Mental Illness and Help Seeking Behaviors

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CHAPTER 1: INTRODUCTION

Mental Health is a serious and widespread concern across college campuses in the United States. With the pressure for success so powerful for students, they are particularly vulnerable to depression and anxiety disorders (Hunt and Eisenberg 2010). Knowing that college students are at particularly high risk for mental disorders, most colleges are concerned with how best to go about getting students treatment. However, a particular concern across mental health research amongst adults is the overwhelming lack of help seeking (Hunt and Eisenberg 2010). With the increase in mental health programming on campuses across the country, one would not expect help seeking to still be a concern with increased awareness of resources and the reduction of stigma surrounding them. Today there are many groups such as Active Minds, National Alliance for the Mentally Ill (NAMI), and Mental Health America who have made it their mission to decrease the stigma surrounding mental illness. Moreover, college students have more access to mental health education than ever, and are provided with inexpensive (sometimes free) mental health resources. However, even with these resources, students are still continuing to suffer silently. What exactly is barring these students from seeking help? And does it go beyond simply increasing mental illness awareness?

Studying help seeking for mental health issues is vitally important for a number of reasons. First, practically, we must find a way of encouraging those who will not seek help to go to the necessary sources. Mental illness left untreated can lead to poor academic, social, emotional and their often-related health outcomes (Hunt and Eisenberg 2010). Second, it is imperative to investigate the conceptual understanding of mental illness and how people understand the meaning behind their symptoms, instead of just focusing on expected stigma. Current studies on help seeking have been predominately limited to combating the stigma around
help seeking to encourage health behaviors for those with mental illness (Jackson 2011; Perry 2011; Lien et al 2014; Link et al 1989). While this is an important factor for helping those with mental illness, we must consider alternative reasons for why someone might not seek help since these studies do not hold up with the increase in mental health education and awareness. For example, how people frame mental illness could directly affect the likelihood that they would seek help. How people construct the world around them might well be, “linked to individuals’ attitudes towards others, their definition and framing of social problems, their endorsement of public policies, and their own behavior” (Schnittker et al 2000). With mental illness, how individuals view their symptoms could possibly affect their beliefs towards mental illness and help seeking. A possible framework for conceptualizing mental illness could lie in the medical nature of the illness. If mental illness is considered a medical disorder, rather than purely a social one, it could possibly be less stigmatizing to the individual.

This study intends to provide a better understanding of help seeking behaviors amongst college students. It focuses on answering the question of what could be possible predictors of help seeking, and what could be driving these relationships beyond perceptions of societal stigma. Through this analysis, I aim to offer a more complete understanding of mental illness help seeking behavior that takes into account what happens before symptoms occur that might affect help seeking actions taken after symptomology is recognized. In order to accomplish this, I first intend to investigate the theoretical framework behind the conceptualization of mental illness in order to provide a new model for help seeking. Help seeking is the first step towards treatment, and therefore perhaps the most important aspect to analyze. I then plan to test this model using survey data from a 2015 survey of college students. I will then use the results of this analysis to suggest possible programming options to promote help seeking on campus.
CHAPTER 2: THEORY

Labeling Theory and Modified Labeling Theory

Labeling Theory, as it relates to mental illness, was first established by Thomas Scheff in his 1966 book, *Being Mentally Ill*. In this work, he establishes that the main determining factor of labeling comes from societal reaction to the rule breaking. Rule breaking is understood as “a class of acts, violations of social norms, and deviance to particular acts which have been publically and officially labeled as norm violations” (Scheff 1966:37). In relation to mental illness, Scheff considers most psychiatric symptoms to be cases of rule breaking (1966). If the societal reaction to an instance of rule breaking is minimal, in that society forgives the rule breaking, no explicit label is given (Scheff 1975). Therefore, those who show signs of psychosis but have no societal reaction, or if the specific society “forgives” the symptoms, will not receive a label of mental illness. However, if the society recognizes the behavior as rule breaking, which Scheff names residual rule breaking, then the individual runs the risk of being labeled as deviant (Scheff 1966). Scheff considers residual rule breaking in this context to be the violation of the rule of understandability. Those who receive a label are then at risk of incorporating the label into their self-concept. Once the label is incorporated, the person who has the deviant label enters into deviant role-playing where he or she is rewarded for acting out the corresponding social identity associated with labeled illness. Furthermore, the individual is punished if he or she tries to deny his/her label. This launches the labeled individual into a “career” of deviance where he/she is completely consumed by the attached label (Scheff 1966).

Relating labeling theory to mental illness, those who are labeled mentally ill due to their psychotic symptoms begin to incorporate being “mentally ill” into their self-conception. They are rewarded by society when they act in ways that are salient to this label and are punished if
they try to act in a way that “healthy” individuals would act. The mental illness label then brings them into a career of mental illness where their main identity or master status is that of someone who is sick. It is important to note that Scheff believes those who do not receive a label through residual rule breaking will not experience any negative side effects associated with labeling. However, Scheff does not mean that they will not experience the psychological symptomology—just that they will not experience the negative social consequences of a label.

Modified Labeling Theory uses Scheff’s theory but speculates that there is more variability within the process. First, the newer theory states that people have differing beliefs about how society views mental illness. There is not a single societal conception. While everyone can see that society stigmatizes mental illness in general, some might believe society vilifies mental illness while other people might believe society does not malign those with mental illness (Link et al 1989). Second, while Scheff focuses on the responses of others to those with mental illness, Modified Labeling Theory posits that the expectation of a response is more important than the actual response. Therefore, individual responses can differ based on how much the person fears the devaluation/discrimination associated with the label rather than how much he or she is actually persecuted by society. Lastly, while Scheff indicates someone who is not labeled as mentally ill will not experience the negative impacts associated with the label, Modified labeling theory states that even without a label someone can still experience negative side effects of the illness (Link et al 1989). These negative side effects would include the physiological changes that accompany mental illness such as weight loss, inability to sleep, lack of appetite, etc. Furthermore, those concerns raised by the self about one’s own behavior could also negatively impact self-concept, even without any external criticisms.
The implications of Modified Labeling Theory lie in what happens after the internalization of the label. People who are labeled mentally ill think mental illness is stigmatized; they think people will reject them if they have a mental illness. Labeled individuals typically expect discrimination/devaluation so they may tend to withdraw from society before this rejection can occur. People might react to the expectation of rejection even if actual rejection does not exist. These reactions can involve withdrawal from society and lower self-esteem for the individual. The downside to this type of response is that it can add to the overall stigma of mental illness. If many people with mental illness become withdrawn and secretive due to their expectation of rejection, those who do not have mental illness might think the secrecy is merely a trait of the mental illness itself. The reactions to the expected rejection can aid in the creation of negative societal conceptions of mental illness. Thus, the process becomes cyclical as societal conceptions produce negative responses, and those negative responses feed into societal conceptions.

A particularly important aspect of Labeling Theory is that people are socialized to accept society’s negative stereotypes about those with mental illness regardless of their own individual idiosyncratic conceptions about the mentally ill (Perry 2011). While people may vary on how they respond to a label or how much they believe society stigmatizes the label, they might still internalize what they believe to be the societal view. Thus, people recognize socially driven stereotypes and are somewhat compelled to agree with the opinions and views of others. Modified Labeling theory states that individual conceptions of mental illness either will not differ from societal conceptions, or that those societal conceptions will overrule any individual conceptions. Therefore, someone who personally does not believe mental illness to be stigmatized will still be influenced by negative societal conceptions. Recent studies have
attempted empirically to test the strength of assumed endorsement of stereotypes over one’s personal opinion. Kroska and Harkness (2006) examined the correlation between psychiatric labeling and the diminishing of patients’ self-meanings and their perceptions of others’ assessments. This study indicated that cultural conceptions do in fact become relevant to the self after labeling occurs, supporting the idea that when a label is applied to someone, the negative connotations of that label are prone to being accepted, placing the individual at risk for self-devaluation.

Given the assumptions made by Modified Labeling Theory that labeled individuals are aware of and might accept societal conceptions surrounding mental illness, one would expect that the self-esteem of these labeled individuals would automatically decrease in relation to the expected discrimination/devaluation of society. However, this relationship does not always work in the way Modified Labeling Theory would predict. In fact, separate studies have shown that the inverse relationship between stigma and self-regard is not as strong as Modified Labeling Theory assumes (Thoits 2011). In order to understand this unexpected variation, we must look closer at possible deviations from Modified Labeling Theory.

**Stigma Resistance**

In 2011, Peggy Thoits proposed a new way of considering the automatic endorsement of societal conceptions. She suggested that someone could resist the societal conceptions surrounding mental illness, and therefore not be significantly affected by the negative stereotypes. While Thoits agrees with Link that stereotypes are created through socialization and are known to the individual, she posits that these stereotypes do not necessarily lead to expectations of devaluation/discrimination or to the social withdrawal that Link expects.
Essentially, Thoits posits that individual conceptions of mental illness do matter and can affect the individual’s outcomes.

The main part of Thoits’ argument is that there are people with mental illness who believe they might be devalued/discriminated against by society (thus they have a recognized societal stigmatization) but have surprisingly high levels of self-esteem. The opposite is also true that those who have low perceptions of discrimination/devaluation can also have low self-esteem (Hayward et al 2002). Perceived devaluation has not been found to be negatively correlated with self-esteem. In these cases, individual conceptions of illness matters more than perceived societal conceptions.

Thoits refers to this process as “resisting stigma.” She further posits that there are different levels of resisting stigma. These levels of resistance are created through an individual’s rejection of stigma as it relates to the illness, and as it relates to other people with that illness. She provides a spectrum of stigma resistance that contains five different groups of individuals. At one end of the spectrum lies the “challengers” who both resist stigma for themselves and for others with mental illness. Therefore they do not believe the societal stereotypes surrounding mental illness are true for themselves, or anyone else who has mental illness. “Challengers” not only resist societal conceptions, they outwardly voice that societal conceptions are incorrect and should be changed. At the other end of the spectrum lies the group that follows the Modified Labeling Theory process. These people believe that societal conceptions are relevant both to the self, and to others with mental illness. Between these two spectrums lie three other groups: composed of those who use “deflection,” “avoidance,” and “self-restoration.” Those who employ “deflection” reject public stereotypes as they relate to the self by denying their applicability outright. In other words, those who utilize “deflection” assert that public stereotypes do not
apply to them because they do not have any of the characteristics that would reinforce the attachments of these stereotypes to their self. Those exercising “avoidance” resist stereotypes by keeping all possible sources of labeling secret. Someone who is partaking in “avoidance” does not disclose treatment history or might withdraw from people entirely so that the outside world does not find out about their illness. “Self-restoration” is employed by those who have experienced devaluation based on their label already, and are now attempting to restore their image as “healthy.” Within these three groups, individuals use different strategies to reject stereotypes as self-descriptive, but typically still endorse them as being relevant to others with mental illness. It is also important to note that these responses involve significantly more acceptance of societal stigma compared to the “challenger” response, which reacts to stereotypes by openly disagreeing with them rather than attempting to ameliorate the situation through self-correction.

Beyond Thoits’ work, there are various studies that suggest stigma resistance exists. Sibitz et al (2011) found that within the schizophrenic population, there are those who deny public stigma. The study indicates that perceived discrimination does not affect the degree to which individuals believe negative stereotypes apply to them. Therefore societal conceptions are not necessarily accepted as relevant to self. A similar study conducted by Griffiths et al (2014) found that stigma resistance and lack of internalization were present among those suffering from various eating disorders. This study suggests that interventions to strengthen individual stigma resistance can be just as effective as targeting societal conceptions in the greater battle of reducing the stigma of mental illness. In essence, both of these studies indicate that stigma resistance is possible, and that it can be helpful for the individual. People with mental illness can
resist the negative stereotypes that surround their label, and therefore can avoid the negative consequences that come with internalization of that label.

Individuals’ reactions are not entirely shaped by societal conceptions. They can differ as to how undesirable individuals believe societal conceptions to be (Link et al 1989), and they can differ also, as to how much people think particular conceptions are relevant to themselves and to others with mental illness (Thoits 2011). This is vital when considering the life outcomes for those suffering from mental illness. If negative societal conceptions can be resisted, people with mental illness may not necessarily be doomed to experience the side effects that result from internalizations of these negative connotations. They will be more likely to be able to resist associating themselves with the stereotypes of the label, and therefore resist devaluing themselves based on labels. Not only will those who resist likely have higher self-esteem, they might also help to educate others in an attempt to shift societal conceptions.

**Conceptualization and Medicalization of Mental Illness**

While we can see through Thoit’s theory of stigma resistance (2011) that individual conceptions have a role in influencing behaviors, we must understand how individual conceptions are formed. In order to develop a conceptualization of mental illness, an individual establishes beliefs about two separate dimensions of mental illness; 1) the degree of medicalization/medical source of the condition and 2) the degree of the conditions’ societal stigmatization. The medical sphere involves the physiological or biological understanding of the illness, while the social stigmatization helps an individual comprehend how the illness is conceptualized and understood through the lenses of society. Illnesses therefore are constructed in an individual’s mind as something that is both happening internally within the body and externally through judgment imposed by the outside world, thus labeled as a social failing. In
order to explain these dimensions of mental illness and their impact further, I will examine the social construction of illness (Conrad & Barker 2010) and medicalization (Conrad 1992).

**Social Construction of Illness**

It is easy to draw parallels between the social construction of illness (Conrad & Barker 2010) and labeling theory (Link et al 1989). Both found their arguments in the assumption that certain ideas have societal conceptions attached to them. However, while labeling theory can be applied to any type of label including stigmatizing ones, the social construction of illness is narrower in that it specifically focuses on medical labels. According to this approach, when an illness is defined as a medical disorder, it becomes a complex conceptualization relying both on the physiological nature of the illness and on how it is perceived. Essentially, medical illnesses have specific attached cultural meanings that can shape how those who have these illnesses are viewed by society. Furthermore, the relationship between physiological symptoms and societal conception is extremely varied. For instance, two illnesses that might produce similar medical responses might have completely different cultural connotations (Conrad & Barker 2010). An example of this would be HIV and meningitis. While a possible result of both of these illnesses is death, HIV has a much more negative connotation than meningitis due to the former’s construction as a social disease. Conversely, illnesses that have different symptomology, such as panic disorders and depression, might carry similar levels of social rejection because they are both seen as mental illnesses. Such illnesses have a medical and often a socially stigmatizing dimension. In some cases, the lack of visible physiological symptomology also can affect social conceptions. A group of illnesses that have a particularly poor cultural connotation are those that are considered “contested illnesses,” which are disorders that have significantly negative consequences for those have them, but may not be readily apparent to outsiders. Examples
include fibromyalgia, IBS, and chronic fatigue syndrome (Conrad & Barker 2010). They are “medically invisible” and the symptoms attached to the illness can be questioned since they are not easily measured (Conrad & Barker 2010). In other words, even when symptoms might be apparent or discussed by the individual experiencing them, there are no specific medical markers that can be tested to establish actual occurrence of the disease. For example, while chronic fatigue syndrome can be manifested in profound fatigue, and the person experiencing the symptoms can discuss their lethargy, there is not a test to verify the syndrome scientifically.

While separate entities, the medical dimension and the social stigmatization dimension of illness are frequently conflated. Society often does not consider them to be two separate dimensions, but rather one single process. However, through these examples we see that we cannot rely purely on social conceptions, or purely on the medical nature of an illness to understand the illness as a whole. Rather, the social construction of illness operates at the junction of biological factors and cultural connotations. The conceptualization of an illness thus can change as it moves between the medical and social dimensions. We must look at medicalization to explore further how the relationship of these dimensions can affect conceptualization, and therefore connotation of an illness.

*Medicalization*

Medicalization can be seen as the force that moves a label with certain social meanings into something we consider to be an illness. It can be understood as the process by which we define phenomena with a set of symptoms as medical (Conrad 1992). Through medicalization, “more and more everyday life has come under medical domain, influence, and supervision (Conrad 1992).” The most important part of medicalizing a label is how the movement of an
illness further into the medical dimension can shift individuals’ experiences of that label and of the illness itself.

In the biomedical model an illness is considered to be the product of a pathogen inside an agent that changes the agent’s state of health. There is something distinctly objective happening within the body that is changing it. Therefore, when we take a non-medical condition and state that it is medical, part of that condition becomes understood to be outside of the individual’s control. In the biomedical model, mental illness is often attributable to “a deficiency or excess of neurotransmitters, to hormonal imbalances, or to genetic predispositions” (Thachuk 2011). For example, instead of being seen as an amalgamation of negative personality traits and behaviors, depression would be seen as the deficiency of norepinephrine and serotonin within the brain (Thachuk 2011).

The implications of viewing mental illness as a medical condition have been debated. Some researchers believe that viewing mental illness through the biomedical model can increase the “othering” process of those with mental illness (Kvaale et al 2013). They further argue that medical illnesses carry a stigmatizing weight of their own, and that this stigma becomes compounded with the social stigma that may already exist for those suffering from mental illness.

However, other researchers state that medicalizing the symptoms and the illness can help make the individual’s social experience more positive. The benefits of viewing mental illness as something happening objectively in the brain is that it can relieve some of the blame the sufferer faces for violating social norms. “Once localized in the body, the disorder somehow becomes more concrete and tangible, lending credence to the individual’s experience” (Thachuk 2011). When people believe they can attribute mental illness to biological occurrences in the body, they
legitimize the experience more and understand it as outside the individual’s control. Both of
these processes can help to decrease the actual and the expected degree of stigma and rejection
experienced by an individual. It can also lead to less imputed blame, and therefore less self-
blame (Kvaale et al 2013). The lessened state of self-blame can be hypothesized as positively
affecting overall self-esteem and self-concept. Possible consequences of heightened self-concept
could be rejection of negative societal conceptions surrounding mental illness.

Help Seeking and Mental Illness

Resisting negative societal conceptions of mental illness is particularly important not just
for labeled individuals’ self-esteem, but also for their help seeking behaviors. In many cases,
seeking help is seen as a form of official labeling. Help sources can define someone as having a
problem, and can cause people to infer that that person cannot handle the problem on his or her
own (Phillips 1963). If modified labeling theory is correct, a person will perceive discrimination
or public stigma associated with the official labeling that comes with help seeking. Therefore,
one might avoid help seeking to avoid the official labeling, and thus the perceived
discrimination. However, if a person is able to resist societal conceptions in favor of one’s own
personal more positive views, one might not share the same fear of official labeling through help
seeking. The person will be more inclined to seek help because he/she will likely be more able to
resist perceived public stigma associated with labeling.

Although Thoits’ work does not specifically examine the relationship between individual
perceptions of illness and help seeking, other researchers’ work suggests that this association
exists. Vogel et al (2009) studied what they refer to as “self-stigma” and help seeking. They
found that self-stigma predicted help seeking likelihood more strongly than public-stigma
(societal conceptions) predicted help seeking. Self-stigma can be defined as “an internal form of
stigma, wherein one labels oneself as unacceptable because of having a mental health concern” (Vogel and Wade 2009:20). Self-stigma can be seen as what Thoits refers to as the level of stigma resistance. If someone has relatively low stigma resistance, he/she can be seen as having high self-stigma. High self-stigma is cited as being related to lower instances of help seeking (Vogel et al 2009). Not only does this study support the claim that individual conceptions can drive a person’s behavior regardless of societal conceptions, it also introduces help seeking into the conversation. Thus the level of self-stigma, or stigma resistance, can directly affect seeking behaviors.

Reluctance to seek help due to fear of negative consequences whether self- or socially-driven has a long history in the literature of mental illness (Vogel and Wade 2009; Phillips 1963; Link; Hunt and Eisenberg 2011). However, help seeking is often measured generally and distinctions are not made between types of help seeking. To understand fully the relationship between societal conceptions, individual conceptions (and resistance) and help seeking, we must consider the full range of help seeking.

Philips (1963) postulated that different help sources would be met with varying levels of rejection. Not only did he find that seeing a psychiatrist would be met with more rejection than consulting a physician or a clergyman, he found this held true despite varying symptoms. A person with schizophrenia would be met with more societal rejection in general than someone who didn’t have symptoms, but would be met with even more rejection if he/she went to a psychiatrist rather than a physician. Thus, Philips’ contributed to the discussion that different help sources have different cultural meanings and therefore different weights in the official labeling process.
Phillips’ finding works in tandem with Vogel’s research on the relationship between self-stigma and help seeking. In general, people are more likely to seek help if they believe they won’t face negative consequences. Therefore someone who can resist stigma/societal conceptions will be more likely to seek help because he/she will be less affected by negative conceptions. Additionally, someone who seeks help from a more formal source, such as a psychiatrist, will face more negative conceptions than someone who seeks help from a less formal source, such as a physician. Taken together this implies that someone who is able to resist societal conceptions will be more likely to seek help from a more formal sources because he/she will be less concerned with the heightened possibility of social rejection. Conversely, someone who has high levels of self-stigma, or low stigma resistance, will avoid formal help seeking sources due to her/his ability to label someone formally and incite negative consequences.

**Medical Dimension, Stigma Resistance, and Help Seeking**

I suggest that the conceptualization of mental illness as a legitimate medical disorder will lead to more stigma resistance. Viewing an illness as a medical disorder lessens some of the self-blame for symptoms. The person feels that he or she is not at fault for the illness, but rather there is something inside their body, but outside the individual’s control, that is changing their state of health. This leads him or her to believe that negative stereotypes about mental illness are not true because the medical nature of the illness is beyond the realm of his or her control. Thus, they can consider the condition not a result of a personality flaw but rather a medical one. This conceptualization of mental illness will lead an individual to feel more comfortable indicating that societal conceptions of mentally ill persons do not relate to himself or herself or to anyone else with a mental illness. As a harbinger for stigma resistance, this in itself should lead to more help seeking, especially at more formal levels. Medical conceptualization provides the
legitimization for the resistance of societal conceptions. Thus I propose the following hypotheses:

Hypothesis 1: Individuals who view mental illness as a medical disorder will be more likely to go to more intense help seeking sources than those who do not.

Hypothesis 2: Higher levels of stigma resistance will mediate the relationship between viewing mental illness as a medical disorder and searching for more intense help seeking sources.

These hypotheses aim to develop a new understanding for the model of help seeking. Utilizing this model we can understand medicalization as relating and predicting help seeking, with greater degrees of stigma resistance mediating this relationship.

**CHAPTER 3: DATA AND METHODS**

In order to test the relationships between medicalization of mental illness, stigma resistance, and help seeking behaviors, I utilized a survey with a vignette design. The survey was distributed in September 2015 to a 25% random sample of currently enrolled Washington and Lee undergraduates (457 respondents). The survey response rate was 28.9% totaling 132 responses. I utilized a two-part survey in order to study the three main aspects of my analysis: medicalization of mental illness, stigma resistance, and help seeking behaviors. The first part of the survey measured stigma resistance through the Internalized Stigma of Mental Illness Scale (ISMI). The second part measured perceived medicalization of symptoms and help seeking behaviors through the use of a vignette design.

**Vignette Design**
In order to study my hypotheses, it was vital to ask respondents direct questions about mental illness. A major problem in studying mental illness is that it is a sensitive and frequently stigmatized topic. Often people do not want to disclose personal experiences with mental illness. Additionally, with a relatively small sample size (N=132 responses) there is no guarantee that the majority of respondents would have had any experience with mental illness. In order to circumvent these issues, I utilized a vignette (see Appendix) that outlined mental illness symptoms within my survey. The use of a vignette has multiple benefits for this analysis. First, it allows anyone to respond to questions about mental illness symptoms in the vignette and subsequent help-seeking behaviors regardless of whether they have ever had a mental illness. Second, the use of the vignette provides a less threatening way to explore mental illness. Since mental illness is a sensitive topic, people are often less likely to disclose their opinions when asked to relate them to their own personal experience than with a hypothesized experience. A vignette allows people to disclose how they would react in a situation, without necessarily disclosing real-life experience.

The current vignette asked respondents to imagine themselves experiencing the symptoms of moderate depression. These symptoms included being moody or irritable everyday, experiencing loss of interest in the activities that used to bring joy, having trouble getting to sleep and staying asleep, feeling fatigue throughout the day, not being able to focus on studies, and finding it hard to interact in social situations. The described symptoms of moderate depression were directly derived from the DSM-V. The DSM-V (Diagnostic and Statistical Manual of Mental Disorders 2013) is the standard manual used by mental health professionals to identify and diagnose mental disorders.
The choice to use moderate depression over other types of mental illness was to allow for familiarity with a well-known disorder and to lessen variability in responses that might have been caused by some respondents visualizing the vignette in the context of more serious disorders. In addition, depression is more frequently observable across college student populations than more serious psychoses (i.e. schizophrenia) (Hunt and Eisenberg 2011). Therefore respondents might find it easier to imagine what it might be like to experience symptoms of depression. Additionally, the medical aspect of depression has been debated among researchers and doctors alike, whereas more serious psychoses are generally accepted as medical disorders (Mulder 2008). Therefore, respondents would not only be more familiar with the symptoms of depression, they would be more likely to vary in their belief of it being a medical disorder.

**Independent Variable**

*Mental Illness conceptualized as a Medical Disorder.* The key independent variable in this study is if a respondent views mental illness as a medical disorder. To measure this, respondents were asked to read the depression vignette (See Appendix 2) and answer questions. The first question asked respondents to, “Indicate the likelihood to which you believe these behaviors might have a medical diagnosis?” The framing of this question was to force respondents to question the degree to which they believed their symptoms indicated a medical disorder. Asking respondents whether or not the behaviors would have a medical diagnosis makes it possible to see whether respondents viewed the behaviors medically and whether they would legitimize the medical nature of these symptoms through an expected diagnosis. Respondents were then asked to respond to a 5-pt Likert scale. Due to the low response rate for “Very Unlikely” and “Somewhat Unlikely,” these categories were collapsed into a single
“Unlikely” category. The final categories included were “1=Unlikely,” “2=Neither likely nor unlikely,” “3=Somewhat likely,” and “4=Very likely.” Table 1 provides a breakdown of respondents in each category of the final groupings.

**Dependent Variable**

*Help Seeking.* The key dependent variable in this study is the degree to which individuals believe they would seek help for their condition. In order to measure help seeking, four questions were asked after the respondents read the vignette. The first question asks whether a respondent would seek help for the behaviors in the vignette. This response was coded so that “yes” =1 and “no” =0. If respondents said “yes” they were then asked what help source they would seek for the symptoms they were experiencing. The options were presented in the following order and respondents were instructed to choose only one source, “Peer Counselor (or RA),” “Psychologist,” “Academic Adviser,” “General Physician,” “Spiritual Leader,” “Psychiatrist” or “Other.” Responses were not presented in the actual order of formality in order to allow respondents to choose their help source freely without leading them to view the options as ranked. Through Phillips work (1963), we see that the more “formal” a help source the higher the level of social rejection will be. In order to measure the formality of help seeking a respondent would seek, I used some of Philips’ (1963) options (clergyman, physician, psychiatrist) and then added additional sources of help that specifically pertained to college life. Peer Counselors (or RAs) and Academic Advisors are help sources found only on college campuses, and psychologist (rather than just psychiatrists) are available in most counseling services on campuses. The help sources were understood in the following order of formality:

1. Psychiatrist because of their ability to prescribe medication for the illness.
2. Psychologist, because of the direct link to mental illness (even without the ability to prescribe medicine).

3. General Physician because of their medical context, although the general physician is not directly linked to mental illness; therefore, the threat of official labeling is present albeit lower than with either a psychiatrist or psychologist.

4. Peer counselor (or RA) because they help with “emotional problems” but are peers less “official” than a doctor or therapist.

5. Spiritual leader and academic adviser are seen as the same level of formality: they are fairly low in establishing official labeling, yet establishing contact with one of them still indicates a need for help (e.g. the person cannot handle problems on their own).

Responses were coded into 5 categories so that “1” indicated the least formal help sources (Spiritual Leader and Academic Advisors) and “5” indicated the most formal help source (Psychiatrist).

The last two questions measure the frequency and duration of the help seeking behaviors. These measures examine the degree to which someone would seek help long-term, and if they would continue to seek help even if their behaviors did not improve. Someone who would seek help more frequently and for a longer time period would be seen as having higher levels of help seeking behavior, since they would be showing a larger commitment to help seeking than someone who went less frequently and for a shorter period of time. The first question asked “How many times a month (the respondent) would be willing to seek help for these behaviors?” with response options coded as: “1=Twice a week,” “2=Once a week, “3=Every other week,” “4=1 time,” or “=Other (Please Specify).” Those who responded, “Other” were recoded as
missing and dropped from the analysis of this question.\(^1\) The second question asked, “For how long would you be willing to seek help for these behaviors if they continued to persist?” with response options coded as: “1=1 week,” “2=2 weeks,” “3=1 month,” “4=3 months,” “5=6 months,” “6=1 year,” “7=over a year,” or “.=Other (Please specify).” “Other” was recoded as missing.\(^2\)

**Mediating Variable**

*Stigma Resistance.* The key mediator in this study is stigma resistance. In order to measure this, I specifically look at the degree to which someone endorses stigma. This includes endorsing negative stereotypes surrounding conceptions of mental illness as relevant to self and to other people with mental illness (Thoits 2011). Stigma resistance was measured utilizing two versions of questions taken from the Internalized Stigma of Mental Illness Scale (ISMI). The ISMI has been utilized in various studies to measure the degree to which people internally endorse socially stigmatizing beliefs about mental illness (Lien et al 2015). Two iterations of the scales were used in order to measure both “general” stigma resistance and “self” stigma resistance. “General” stigma resistance is the degree to which someone does not endorse stereotypes as true for anyone with a mental illness (Thoits 2011). “Self” stigma resistance is considered the degree to which someone does not believe stereotypes of mental illness are relevant to the self (Thoits 2011). The following items were utilized to measure “general” stigma resistance:

\(^1\) Those who chose “other” were dropped due to the relatively low number of respondents who chose this option (12 respondents). Furthermore, when asked to explain their response, those who chose “other” did not have similar answers and thus could not be recoded into a new response.

\(^2\) While this “other” category yielded a large portion of responses, the responses were too varied to recode into a new response category.
1) “People with depression can make important contribution to society”

2) “People with depression cannot live a good, rewarding life,”

3) “In general, people with depression cannot make decisions for themselves,”

4) “People with depression are inferior to those who do not have a mental illness,”

5) “People with depression are a burden to their friends and family.”

Respondents were asked to indicate how much they agreed with each statement on a 5-pt Likert scale, ranging from 1, Strongly disagree, to 5, Strongly agree.

In order to create the “self” stigma scale, items were reworded with first person “I,” and respondents were asked to consider how much they agreed with each statement, assuming that they had depression. For example, statement 3 had the preceding statement “If I had a mental illness,” “I wouldn’t be capable of making decision for myself.” Another change that was made in the “self stigma” index was that statement 1 was rephrased as a negative statement, “If I had depression, I couldn’t contribute anything to society,” whereas the “general” stigma resistance was a positive statement for this measure. Additionally statement 2 read as a positive statement “I would still be able to live a good, rewarding life,” whereas the “general” stigma resistance question utilized a negative statement for this measure. The questions taken from ISMI were utilized because they directly measure what Thoits captures as “stigma resistance” through the ability to reject commonly held stereotypes (e.g. mentally ill people can not contribute anything to society, mentally ill people are a burden, etc.).

3 The change in statements between the “general” and “self” stigma questions was in order to break up the survey flow so that respondents would not feel the need to response the same to the “general” and “self” questions.
An index for “Stigma Resistance” was created by taking the average score of the 10 questions (5 from “self” and 5 from “general”) (Cronbach’s Alpha = .77). “Resistance” was measured so that the higher the score on the index, the higher the level of stigma resistance. As such, negative statements (i.e. If I had depression I wouldn’t be capable of making decisions for myself) were coded so that “Strongly Agree” equaled 1, and “Strongly Disagree” equaled 5 and positive statements (i.e. People with depression can make important contributions to society) were reverse coded so that “Strongly Agree” equaled 5 and “Strongly Disagree” equaled 1.

Controls

Demographics. Demographics have been cited throughout literature as affecting both mental illness status as well as attitudes toward help seeking. There were four demographic controls: race, gender, income, and rurality. Race was gathered as, “Non Hispanic White,” “Non Hispanic Black,” “Non Hispanic Asian,” “Non Hispanic Hawaiian or Pacific Islander,” “Hispanic,” and “Other.” There have been many studies that cite racial differences in the stigmatization of help seeking (Schnittker et al 2000). Specifically, blacks are more likely to be coerced into treatment, whereas whites are more likely voluntarily to seek treatment (Schnittker et al 2000). Race was recoded as a binary variable “1=White” and “0=Non-White,” to collapse the “non-white” categories due to the relatively small number of respondents in each group alone. Gender was listed as female, male, or other. Gender is cited as being a large determinant of help seeking and mental illness stigmatization. Males are often cited as wanting to keep a sense of masculinity and therefore believe that problems should be worked out without help (Jackson 2011). Gender was coded as a binary variable so that “1=male” and “0=female.” Other was taken out of the model since only a single respondent indicated “other” as their gender. Total family income was a 6 category variable starting at “At or below 49,999” and ending at “300,000
or higher” with increments of 50,000. Income can affect help seeking in that those with lower income can stigmatize help seeking because they see it as an expensive commodity rather than a necessary treatment (Lubotsky et al 2010). This variable was treated as a series of ordinal categories rather than using the actual income numbers.\(^4\) Rurality was measured through the question “Indicate which of the following type of neighborhood you grew up in” with selection options of “rural,” “urban,” or “other.” Rurality is seen as affecting mental illness perceptions in that those who live in rural areas tend to stigmatize mental illness more than those who live in urban environments. Hauenstein et al (2007) saw that mental health treatment rates generally dropped as rurality increased. A binary variable was created so that “1=rural” and “0= non-rural (urban or other).”

**History of Mental Illness.** Individual histories of mental illness were obtained through two questions. The first question, “Have you ever had a mental illness?” measured a respondent’s own experience with mental illness symptoms. Responses were coded “1=yes” and “0=no.” Personal history with mental illness can affect respondents’ answers because they could be viewing the questions through their own personal experiences. Therefore someone who has had depression before might answer the survey questions differently than someone who is merely thinking of the symptoms in hypothetical terms. A person who has experience with depression might therefore answer help seeking and perception questions based on real life experiences rather than solely based on the symptoms in the vignette.

\(^4\) The decision to keep income as categories rather than the actual number was to account for the variance in actual income levels that might occur in the “300,000 or higher” category. Thus the categories could be seen as income “tiers” rather than actual income levels since there would be no way of knowing the actual range of income levels in this category.
The second question asked, “Have you ever known anyone with mental illness”. Responses were coded “1=yes” and “0=no.” Ties to persons with mental illness, especially close friends or family members, have been linked to lower levels of stigma endorsement (Phillips 1963). Furthermore, people who have close relationships with people suffering from mental illness have generally more favorable attitudes towards help seeking behavior (Phillips 1963).

Perceptions of Public Stigma. Perceptions of public stigma were gathered through Link’s Perceived Discrimination Devaluation Scale. This scale was used to control for the effect perceptions of public stigma might have on both stigma resistance and help seeking behaviors. People have varying view on how stigmatized they believe mental illness to be; therefore, this could affect how they resist stigma (Link et al 1989). This concept differs from stigma resistance in that it is merely measuring how much the individual believes the outside world stigmatized mental illness, whereas stigma resistance involves personal beliefs regarding the applicability of negative stereotypes to those with mental illness. Thus someone could believe the outside world stigmatizes mental illness and depression greatly, but does not personally believe the negative stereotypes surrounding mental illness are relevant to the self or to others with mental illness. The original scale was altered slightly to reflect modern vernacular and to fit the aims of this study. The term “mental patient” was replaced with “someone with depression,” since “mental patient” has a distinct connotation. Furthermore, the use of “depression” was more salient to the rest of the study since the vignette and questions focused on depression. Additionally, the questions in the original scale that dealt with people who had been hospitalized were removed. Hospitalizations and hospitals for the mentally ill are not as ubiquitous now as they were when this scale was created. Because of this, the stigma for hospitalization is probably quite high and does not necessarily match the current stigmatizing of people suffering from depression.
The remaining instruments asked respondents to, “Indicate the degree to which you believe the following,” on a 5-pt Likert scale with these statements:

1) “Most people would willingly accept someone who had depression as a close friend,”

2) “Most people would view someone with depression as just as trustworthy as the average citizen,”

3) “Most people would accept someone who had recovered from depression as a teacher of young children in a public school,”

4) “Most people would not hire someone who used to have depression to take care of their children, even if he or she had been well for some time,”

5) “Most employers will pass over the application of someone who has depression in favor of another applicant.”

High perceptions of public stigma were marked by support for negative statements surrounding depression (Statements 4 and 5), and lack of support for positive statements surrounding depression (Statements 1, 2, and 3). Negative statements were coded normally so that “Strongly Disagree” was coded as “1”, and “Strongly Agree” was coded as “5”. Positive statements were reverse coded so that “Strongly Disagree” equaled 5, and “Strongly Agree” equaled 1. Agreement with public stigma was measured by averaging the score of each of the five questions (Cronbach’s Alpha = .60).

Other Perceptions of Symptoms. I controlled for four aspects of symptom perception that could possibly affect the likelihood an individual may have conceptualized the symptoms in the vignette as a medical disorder. Since medicalization can sometimes be tied to the transience of
symptoms or the locus of control of the illness (within self vs. outside of self), it was important to control for these aspects. Four questions were asked regarding respondent’s beliefs about the symptoms. Respondents were asked to “Indicate the degree to which you agree with the following,” on a 5-pt Likert scale where 1=”Strongly disagree” and 5=”Strongly agree.” The first statement, “I would expect to have these behaviors for the rest of my life,” and the second statement, “I would assume that these behaviors would improve over time,” both dealt with the perceived transience of symptoms. Transient behaviors might be treated with less severity or might negatively affect how much a person believes the behaviors to indicate a medical problem. The third statement, “I would believe these behaviors are due to external stressors,” and the fourth statement, “I would believe these behaviors would be due to biological factors,” both controlled for perceived locus of control with regard to symptoms. Biological connotations differ from medical connotations because it indicates a type of predisposition to disease, while the medical nature of symptoms purely focuses on the external aspect of the illness. If something is “medical” it is outside the person’s control. These ideas are often confounded, so in order to focus solely on medicalization it is important to separate biological factors from the perception of illness.

**Question Order**

A concern that arose from this study was the effect the vignette might have on questions not directly tied with it. Someone who reads the vignette is primed to view himself or herself as experiencing depression symptoms. Therefore, similar to the effect of personal mental illness history, viewing oneself with these symptoms could possibly color responses—particularly regarding stigma resistance. Someone who has now imagined what it is like to have depression might feel less inclined to endorse negative stereotypes surrounding mental illness, since he/she
does not want those stereotypes to pertain to himself/herself—even in a hypothetical situation. Conversely, being asked questions about mental illness before reading the vignette might affect how one views the symptoms in the vignette. A respondent might be more primed to view the symptoms as conducive to depression if they have just been asked questions regarding depression and personal mental health history.

In order to control for the effect of the placement of the vignette, two conditions were created. In the first condition, respondents received questions regarding stigma resistance and all the controls first, and then received the vignette and the medicalization and help seeking questions related to the vignette. In the second condition, respondents received the vignette set of questions first, and then received the stigma resistance and control questions. To control for the condition affect, a binary variable was created so that “1=Condition 1” and “0=Condition 2.”

**Analytic Method**

In order to examine how medicalization and stigma resistance affects help seeking behaviors, I utilized a series of logistic and linear regressions. To test my first hypothesis, that medicalization affects help seeking behaviors, I ran a baseline logistic regression. The subsequent models were used to estimate the various effects of the controls on the relationship. To test my second hypothesis, that stigma resistance mediates the relationship between medicalization and help seeking, I first ran a baseline logistic regression to test the relationship between my independent variable (medicalization) and my mediator(stigma resistance). I then ran a full model to test the effects of the controls on this relationship. Next, I ran a baseline linear regression to test the relationship between independent variable (medicalization) and my mediator (stigma resistance) on my dependent variable (help seeking). I then ran a full model to test the effects of the controls on this relationship.
CHAPTER 4: RESULTS AND DISCUSSION

Descriptive Statistics

Table 1 (See Table 1) summarizes the descriptive statistics for the data collected. Of the 132 responses over half were female (67.69%). The W&L population is comprised of approximately 50% women (US News & World Report 2015); therefore the sample had a higher representation of women. The sample percentage of white students (84.85%) mirrored that of the actual proportion of white students in the W&L population (83.18%) (Forbes 2015). The last two demographic measures of income and rurality were not available for the W&L population, so there is no way of knowing whether or not the sample mirrors the actual population with regards to these factors. However it should be noted that most respondents in the sample were from non-rural areas (82.74%). Additionally, the income distribution was somewhat polarized within the sample with 29.59% of respondents identifying as having a total family income of 300,000 or higher, and 31.63% of respondents identifying as having a total family income of 99,999 or lower.

With regards to the main variables for this analysis, 44.26% of respondents indicated they believed it was “somewhat likely” that the behaviors in the vignette would have a medical diagnosis. A much smaller percentage (11.48%) felt it was “unlikely” the behaviors would have a medical diagnosis. The average stigma resistance score (measured through the ISMI) was 3.87, indicating a somewhat high resistance of stigma. Over half of the respondents (66.14%) indicated that they would seek help for the behaviors in the vignette. Of these respondents who said they would seek help, a majority indicated that they would go to more formal help sources. 34.78% of respondents said they would seek help from a psychologist, and 27.54% said they would seek help from a psychiatrist. Additionally, of those who stated that they would seek help,
over half (60%) indicated they would seek help once a week, and a bulk (39.68%) said they would continue to seek help for over a year if their symptoms persisted.

Most respondents (81.54%) had no history of mental illness, however a large percentage (88.46%) indicated they knew someone who had a mental illness. The average Perceived Devaluation Discrimination score was 2.53, indicating an overall neutral perception of discrimination/devaluation as it relates to the mentally ill population. With regards to the questions on the behaviors within the vignette, a large majority (84.25%) did not believe they would have the behaviors for the rest of their life. Similarly, most respondents (85.83%) believed the behaviors in the vignette would improve over time and 83.46% of respondents indicated that they believed the behaviors were due to external stressors. The question regarding the biological nature of the behaviors was less skewed. 37.80% of respondents indicated they somewhat agreed the behaviors were due to biological factors, 25.98% neither agreed nor disagreed, and 23.62% somewhat disagreed with assuming the behaviors were of a biological nature.

**Medicalization and Help Seeking**

The primary research question for this thesis was whether viewing depression symptoms as medical made a respondent more likely to seek help. Table 2 (See table 2) shows the chi-square results of medicalization and help seeking. Chi-square results indicate that degree of medicalization and the indication that one would seek help are independent factors ($\chi^2 (3, N = 122) = 2.32, p > .1$). The baseline regression model (Table 3, Model 1) utilized to test this relationship was not statistically significant ($\chi^2=2.28, p>0.1$). However, the full model (Table 3, Model 2) that included all of the controls was statistically significant ($\chi^2=25.94, p<.05$) and indicated a statistically significant difference in help seeking outcomes between those who
indicated the symptoms were “somewhat likely” to be reflective of a medical diagnosis and those who indicated the symptoms were “unlikely” to receive a medical diagnosis. Those who viewed symptoms as “somewhat likely” had 5.7 times higher odds of seeking help than the odds of help seeking for those who viewed the symptoms as “unlikely” (OR= 5.76, p<.1). All other comparisons of medicalization (Unlikely to Neither Likely nor Unlikely and Unlikely to Very Likely) were not statistically significant (p>.1). Therefore the odds of help seeking for those who perceived the symptoms as “very likely” or perceived the symptoms as “neither likely nor unlikely” of being medical were not different than the odds of help seeking for those who perceived the symptoms as “unlikely.”

To look further into the relationship between medicalization and help seeking, I utilized a series of linear regressions to measure the effect of medicalization on the three measures of formality/severity of help seeking (help source they would go to, how many times a week, how long willing to seek help). To do this, I looked at these relationships solely within the sample population who had answered “yes” to seeking help (N=84).

Table 4 (see Table 4) shows the cross tabulation of medicalization and help source. The chi square results were statistically insignificant ($\chi^2$ (12, N = 69) = 13.30 p >.1), indicating that source sought for help was independent of the degree of medicalization. Table 5 (see Table 5) shows the cross tabulation of medicalization and how many times a week someone would seek help. The chi-square results for analyzing this relationship were also statistically insignificant ($\chi^2$ (9, N = 75) =8.33, p >.1), indicating that how many times a week a person would seek help did not vary by degree or medicalization. Table 6 (see Table 6) shows the cross tabulation of medicalization and how long a person would seek help if their symptoms persisted. The chi-
square results were statistically insignificant ($\chi^2 (18, N = 75) = 15.55, p > .1$). concluding that how long a person would seek help if their symptoms persisted did not vary by medicalization.

The initial tests of the first hypothesis yielded statistically significant results for the effect of medicalization on likelihood to simply seek help. Those who indicated symptoms of the vignette condition were “somewhat likely” to be medical had higher odds of seeking help compared to those who indicated symptoms were “unlikely” to be medical. However, none of the additional measures of help seeking (formality of help source, times a week seeking help, and longevity of help seeking) differed by medicalization. These results indicate mixed support for the effect of medicalization on help seeking. While medicalization can affect the likelihood to seek help, it does not effect the severity/formality of help seeking behaviors as Phillips (1963) hypothesized.

**Stigma Resistance as Mediator**

The second hypothesis of this thesis was that stigma resistance would mediate the relationship between medicalization and help seeking. To investigate this relationship further I ran a series of linear regressions for the effect of medicalization on stigma resistance score. The baseline model (Table 7, Model 1) was statistically insignificant (F(3, 117)=0.34, p>.1) and the full model accounting for the relative effects of the controls (Table 7, Model 2) was statistically insignificant (F(10,74)=0.66, p>.1). This indicated that medicalization did not significantly affect the degree to which someone resisted the negative stereotypes surrounding mental illness as relevant to self and relevant to others with mental illness. This result indicated that the second hypothesis of this analysis was not supported. While stigma resistance did not mediate medicalization and help seeking, I continued on with my analysis to see if stigma resistance had any impact on help seeking as an independent variable.
To test the relationship between stigma resistance and help seeking, I ran a series of linear regressions to test if stigma resistance impacted help seeking, controlling for perceived degree of medicalization. The baseline model (Table 8, Model 1) measuring the effect of stigma resistance on help seeking was statistically significant ($\chi^2=4.52$, $p<.05$). For every increase in stigma resistance the odds of help seeking increased by 1.9 times (OR=1.91, $p<.05$). I then ran a second model (Table 8, Model 2) measuring this relationship in the presence of the controls. This model was statistically significant ($\chi^2=32.16$, $p<.01$) and stigma resistance continued to have a statistically significant impact on the odds of seeking help (OR=2.88, $p<.05$). To analyze this relationship in the presence of my original independent variable, medicalization, I ran a model measuring the effects of medicalization and stigma resistance on help seeking (Table 8, Model 3). This model was not statistically significant ($\chi^2=4.40$, $p>.1$). However, the full model (Table 8, Model 4) was significant ($\chi^2=27.11$, $p<.05$) and when stigma resistance and medicalization were included in the same model, neither were statistically significant predictors of help seeking likelihood. Thus while medicalization and stigma resistance were significant predictors of help seeking odds in their respective models, they were not statistically significant when included in the same model.

The hypothesis that stigma resistance would mediate the relationship between medicalization and help seeking was not supported. Medicalization did not predict the degree of stigma resistance. However, stigma resistance did prove to be a statistically significant predictor of help seeking odds. Furthermore, when both medicalization and stigma resistance were included in the same model, both were statistically insignificant. This indicates that when accounting for both medicalization and stigma resistance, neither can be seen as a significant predictor of help seeking odds.
DISCUSSION

The main hypothesis of this thesis was whether the medicalization of symptoms would encourage help seeking. The results provide evidence that this main hypothesis receives mixed support after accounting for the relative effects of the controls. Those who view the likelihood of medicalization of symptoms as “somewhat likely” had 5.7 times higher odds of help seeking than the odds of help seeking for those who saw the likelihood as “unlikely.” However, there was no difference between “unlikely” and “neither likely nor unlikely” as well as no difference between “unlikely” and “very likely.” While the difference between “unlikely” and “somewhat likely” supports my hypothesis, one would expect there to be a difference between “unlikely” and “very likely” for the hypothesis to fully be supported. Additionally, medicalization did not vary by help source sought, how many times a week a person would seek help, or for how long a person would seek help. Therefore this part of the hypothesis was also not supported.

A possible explanation for the weak support for the hypothesis that degree of perceived medicalization will increase likelihood of engaging in help seeking behaviors is that the measure for medicalization was not broad enough. Firstly, examination of qualitative explanations for why respondents would not seek help indicated that many believed that the symptoms had an internal locus of control. For example, one respondent indicated, “Unless the situation intensified, I would work to correct my unhealthy behaviors through a better routine.” Another respondent outwardly put, “I have an internal locus of control, so I process and decide how things affect me.” While these reasons for not seeking help do not transparently indicate a lack of medicalization, they do suggest that these respondents believed the symptoms were within their control. Through the theories surrounding medicalization (Conrad 1992), we see that often those who medicalize symptoms view these symptoms as beyond their control, rather than something
they can fix themselves. Therefore, these internal locus of control responses could possibly indicate less inherent medicalization. Secondly, viewing symptoms as biological was a significant predictor for help seeking (OR=2.11, p<.1) (See Table 8, Model 4). This indicated that for every increase in the likert scale measuring belief in symptoms as biological, there is a 2.11 times greater odds for seeking help. Perhaps, viewing symptoms as biological could indicate a type of “medical nature” of the symptoms that a measure for medical diagnosis might not capture. It was originally assumed that the biological nature of symptoms would indicate a predisposition for depression rather than the medicalization of depression. More importantly, it was assumed that these variables measured two separate things. However, the term “biology” might be more tied to a medical frame of mind than was originally assumed. To test the relationship between biological nature and medical nature I ran a correlation test. Results (See Table 10) indicated that there was a significant but fairly low correlation between perceived biological nature of symptoms and perceptions of medicalization of the condition (r(120)=.30, p<.01). Therefore, these variables can be seen as having a moderately strong relationship. These additional analyses regarding biological nature and locus of control of the condition suggest that perhaps a more encompassing measure of medicalization needs to be utilized for future analysis. Purely measuring medicalization through likelihood of medical diagnosis might be too narrow of scope. Rather a measure that included the many ways mental illness can be understood as “medical” might provide a more clear view of the relationship between medicalization and help seeking.

The second hypothesis of this study was whether or not stigma resistance mediated the relationship between medicalization and help seeking. Results indicate that there is not a significant relationship between medicalization and stigma resistance. Therefore, the data
suggests that stigma resistance does not mediate the relationship between perceived degree of medicalization and help seeking. However, further analysis also indicated a possible relationship between help seeking and stigma resistance. When testing the relationship between stigma resistance and help seeking (Table 8, Model 2), stigma resistance was seen as a statistically significant predictor of help seeking odds. This could possibly be explained by Thoits’ theories involving stigma endorsement/resistance and self-concept. Those that were less concerned with taking on the stigma of help seeking probably had higher self-concepts. Through Thoits’ work we see that higher self-concepts are usually related to stigma resistance. Conversely, those who do not seek help and possibly have a negative self-concept could also have higher rates of stigma endorsement. Respondent answers that mirrored this type of thought process gave reasons for not seeking help that included, “I would be too embarrassed to admit I was weak,” and “societal stigma.” These responses showcased that stigma resistance affected help seeking.

It is also important to note that when accounting for both medicalization and stigma resistance in the same model (Table 8, Model 4) neither were statistically significant. While this could be seen as both variables attenuating each other’s relationship with help seeking, a perhaps more justified reasoning would be that there were too many variables in the model with such a small number of cases (N=85 responses). Therefore, for the sake of this analysis it is more productive to treat each variable as separate, statistically significant, predictors of odds of help seeking.

Apart from the results analyzing the relationship between medicalization, stigma resistance and help seeking, some of the controls showed significant impacts on help seeking. Table 9 (See Table 9, Model 2), shows the significant controls in the full model. Respondents who were white were less likely than those who were not white to seek help (OR= .12, p<.1).
Furthermore, with every increase in income bracket, the odds that respondents would seek help were 1.69 times larger (p<.01). With regards to perceptions of the vignette behaviors, the more respondents believed that behaviors would improve over time (OR=2.78, p<.1) the higher the odds that the respondent was to seek help. One of the strongest predictors for help seeking was previous mental health history. If respondents indicated that they had a history of mental illness, their odds of seeking help were 14.44 times higher than the odds of those without personal history of mental illness (p<.05). This could most likely be the outcome of previous experience. For example, many of the respondents who indicated that they had a history of mental illness and indicated that they would seek help gave such reasoning as, “I have before and plan to go again,” or, “I went through that last year so I know to seek help.” Therefore many of the respondents could have been answering through first-hand knowledge of seeking help being beneficial, rather than through the speculation of the vignette.

A final note to make on the controls was the statistically insignificant effect that perceived devaluation, or perceived public stigma, had on help seeking in the full model (Table 8, Model 4) (OR=2.40, p>.1). As explained previously, most of the literature surrounding help seeking is concerned with reducing public stigma so that mental illness patients have lower perceived devaluation. This finding possibly indicates that moving away from a focus on perceived devaluation may be necessary. Since perceived devaluation/discrimination did not have an effect on help seeking, we might need to further explore other hindrances to help seeking that do not concern public opinion.

A possible way this study could be improved would be to study more college populations. The sample of this study was the relatively small and homogenous. Most of the respondents were white, and of high-income backgrounds. While the sample did mirror the
overall uniform nature of the campus, it did not provide a holistic picture of college students’ help seeking behaviors. More studies using this survey instrument at other colleges with possibly more diverse populations could help give a more complete understanding of help seeking behaviors of college students. This would be vital in the attempt to find ways of encouraging help seeking for many different groups of college students.

CHAPTER 5: CONCLUSION

The heart of this study lies in the desire to understand better harbingers for seeking help. While there was not overwhelming support for this hypothesis, medicalization did significantly affect the odds of help seeking at least with regards to those who thought the condition was “somewhat likely” compared to those who thought the condition was “unlikely” to receive a medical diagnosis. This finding is particularly important when considering what campuses can do in order to better encourage students to seek help. If there is a way to implement programming that can help students resist the negative stereotypes surrounding mental illness, they might be more willing to seek help when faced with symptoms. Using the results of this analysis, and the theories surrounding medicalization, programming needs to be more focused on portraying mental illness as a medical issue. This would involve working to educate the public that mental illness is a medical disorder that is not within the person’s control. Rather, in the terms of the biomedical model, it is a pathogen that is affecting and harming the individual. If people can understand mental illness as something medical rather than a personality flaw (Thachuk 2011), people will be more comfortable getting the help that they need.

Furthermore, the lack of relationship between perceived public stigma and help seeking, is also important to note in efforts to encourage help seeking. The inability for perceived public stigma to predict help seeking odds indicates that programming needs to move away from just
focusing on reducing stigma in general. The degree to which others perceive society to stigmatize mental illness does not affect their behaviors in the help seeking realm. Therefore, while programs to increase education about mental illness and reduce negative societal opinions surrounding mental illness are important in their own right, they might not be aiding in increased help seeking. Furthermore, the relationship between stigma resistance and help seeking should be further explored. While stigma resistance was not found to be a mediator for medicalization and help seeking, it was seen a statistically significant predictor for odds of help seeking (Table 9, Model 2). A more in depth analysis of specifically this relationship could aid in the understanding of help seeking. If stigma resistance can encourage people to seek help, then this concept could be vital in the efforts to aid help seeking. The importance that Thoits (2011) puts on stigma resistance on overall self-concept can be further related to help seeking and thus utilized in programming. Mental health advocates could focus on building up individual’s self-concept and ability to not internalize negative stereotypes of mental illness in order to encourage the imperative help seeking.

In order for mental health professional to do the jobs they are immensely trained to do, people must first seek help. While this study provides the groundwork for studying a new model of help seeking, more information is needed on this subject. A study done of more college campuses could help create a better understanding of student help seeking overall. Additionally, studies on the general population could help aid in the understanding of help seeking overall. College students have the benefit of being more highly informed about mental illness and having more readily available (and inexpensive) treatment options, and are still not seeking help at high enough rates. Those in the general population who are without these resources could possibly be seeking help at rates even lower than college students. Overall, studies of mental health need to
shift their focus more on help seeking. It is vitally necessary for any treatment process yet it is one of the hardest feats for those suffering to accomplish. Therefore in order to help the mentally ill population more effectively, we must continue to investigate this very crucial first step.
### APPENDIX 1

**Table 1: Univariate Statistics of Individual Level Data**

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<th>Independent Variable</th>
<th>Sample Percentage</th>
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<table>
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<td>Academic/Spiritual Counselor</td>
<td>11.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RA/ Peer Counselor</td>
<td>18.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Physician</td>
<td>7.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychologist</td>
<td>34.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>27.54</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many times a week&lt;sup&gt;6&lt;/sup&gt;</th>
<th>Sample Percentage</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twice a week</td>
<td>13.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Once a week</td>
<td>60.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every other week</td>
<td>22.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 time</td>
<td>4.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>5</sup> If respondent answered “yes” to if they would seek help for the behaviors

<sup>6</sup> If respondent answered “yes” to if they would seek help for the behaviors
How long

1 week  0.00
2 weeks  1.59
1 month  15.87
3 months  26.98
6 months  12.70
1 year  3.17
Over a year  39.68

Mediating Variable

Stigma Resistance

Internalized Stigma of Mental Illness (ISMI)  3.87  0.64

Controls

Race

White  84.85

Gender

Male  32.31

Income

At or below 49,999  11.22
50,000 to 99,999  20.41
100,000 to 149,999  13.27
150,000 to 199,999  8.16
200,000 to 249,999  8.16
250,000 to 299,999  9.18
300,000 or higher  29.59

Rurality

Rural  17.26

History of Mental Illness

Personal History  18.46

---

7 If respondent answered “yes” to if they would seek help for the behaviors
Known someone 88.46

Perception of Public Stigma

PDD 2.53 0.71

Behaviors for rest of life

Strongly Disagree 40.16
Somewhat Disagree 44.09
Neither Agree nor Disagree 4.72
Somewhat Agree 11.02
Strongly Agree 0.00

Behaviors would improve over time

Strongly Disagree 2.36
Somewhat Disagree 3.15
Neither Agree nor Disagree 8.66
Somewhat Agree 61.42
Strongly Agree 24.41

Behaviors due to external stressors

Strongly Disagree 1.57
Somewhat Disagree 6.30
Neither Agree nor Disagree 8.66
Somewhat Agree 62.99
Strongly Agree 20.47

Behaviors due to biological factors

Strongly Disagree 6.30
Somewhat Disagree 23.62
Neither Agree nor Disagree 25.98
Somewhat Agree 37.80
Data Source: Student Perceptions and Help Seeking Behaviors

Sample Size=168 individuals

Table 2: Crosstabulation of Perceived Medicalization of Symptoms to Help Seeking

<table>
<thead>
<tr>
<th>Medicalization</th>
<th>Would Seek Help</th>
<th>Would Not Seek Help</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td>8 (9.52%)</td>
<td>6 (15.79%)</td>
<td>2.32</td>
</tr>
<tr>
<td>Neither Likely nor</td>
<td>16 (19.05%)</td>
<td>10 (26.32%)</td>
<td></td>
</tr>
<tr>
<td>Unlikely</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat Likely</td>
<td>39 (46.43%)</td>
<td>15 (39.47%)</td>
<td></td>
</tr>
<tr>
<td>Very Likely</td>
<td>21 (25.00%)</td>
<td>7 (18.42%)</td>
<td></td>
</tr>
</tbody>
</table>

Data Source: Student Perceptions and Help Seeking Behaviors

Sample Size=122 Individuals

Notes: *=p≤.1  **=p≤.05  ***=p≤.01
Table 3: Odds Ratios From Logistic Regression Models Predicting Likelihood of Help Seeking on Perceived Medicalization of Symptoms

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither Likely nor Unlikely</td>
<td>1.20</td>
<td>(0.81)</td>
<td>4.04</td>
<td>(4.38)</td>
</tr>
<tr>
<td>Somewhat Likely</td>
<td>1.95</td>
<td>(1.21)</td>
<td>5.77 *</td>
<td>(6.03)</td>
</tr>
<tr>
<td>Very Likely</td>
<td>2.25</td>
<td>(1.56)</td>
<td>2.15</td>
<td>(2.62)</td>
</tr>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.43</td>
<td>(0.36)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>0.14 *</td>
<td>(0.15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>1.62 ***</td>
<td>(0.30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>3.15</td>
<td>(2.92)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health History</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>17.39 **</td>
<td>(23.66)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Known Anyone</td>
<td>0.11</td>
<td>(0.15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perception of Public Stigma</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDD</td>
<td>2.29</td>
<td>(1.22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceptions of Behaviors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rest of life</td>
<td>0.83</td>
<td>(0.31)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve over time</td>
<td>3.11 **</td>
<td>(1.72)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External stressors</td>
<td>0.90</td>
<td>(0.39)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological factors</td>
<td>1.99 *</td>
<td>(0.79)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>χ²</td>
<td>2.28</td>
<td></td>
<td>25.94 **</td>
<td></td>
</tr>
<tr>
<td>Sample Size</td>
<td>122</td>
<td></td>
<td>85</td>
<td></td>
</tr>
</tbody>
</table>

Data Source: Student Perceptions and Help Seeking Behaviors
Notes: *=p≤.1    **=p≤.05    ***=p≤.01
Table 4: Crosstabulation of Perceived Medicalization of Symptoms to Help Seeking Sources  
(For those seeking help)

<table>
<thead>
<tr>
<th>Medicalization</th>
<th>Help Seeking Source</th>
<th>Academic/Religious Advisor</th>
<th>Peer Counselor (or RA)</th>
<th>General Physician</th>
<th>Psychologist</th>
<th>Psychiatrist</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>13.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(12.50%)</td>
<td>(7.69%)</td>
<td>(20.00%)</td>
<td>(0.00%)</td>
<td>(10.53%)</td>
<td></td>
</tr>
<tr>
<td>Neither Likely nor Unlikely</td>
<td></td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(12.50%)</td>
<td>(23.08%)</td>
<td>(40.00%)</td>
<td>(12.50%)</td>
<td>(5.26%)</td>
<td></td>
</tr>
<tr>
<td>Somewhat Likely</td>
<td></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>14</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(50.00%)</td>
<td>(23.08%)</td>
<td>(20.00%)</td>
<td>(58.33%)</td>
<td>(63.16%)</td>
<td></td>
</tr>
<tr>
<td>Very Likely</td>
<td></td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(25.00%)</td>
<td>(46.15%)</td>
<td>(20.00%)</td>
<td>(29.17%)</td>
<td>(21.05%)</td>
<td></td>
</tr>
</tbody>
</table>

*Data Source:* Student Perceptions and Help Seeking Behaviors

*Sample Size:* 69 Individuals

*Notes:* * = p≤.1  ** = p≤.05  *** = p≤.0
Table 5: Crosstabulation of Perceived Medicalization of Symptoms to Times seeking help (For those seeking help)

<table>
<thead>
<tr>
<th>Medicalization</th>
<th>1 Time Only</th>
<th>Every Other Week</th>
<th>Once a Week</th>
<th>Twice a Week</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>8.33</td>
</tr>
<tr>
<td></td>
<td>(33.33%)</td>
<td>(5.88%)</td>
<td>(6.67%)</td>
<td>(20.00%)</td>
<td></td>
</tr>
<tr>
<td>Neither Likely nor Unlikely</td>
<td>0</td>
<td>4</td>
<td>9</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00%)</td>
<td>(23.53%)</td>
<td>(20.00%)</td>
<td>(0.00%)</td>
<td></td>
</tr>
<tr>
<td>Somewhat Likely</td>
<td>2</td>
<td>8</td>
<td>21</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(66.67%)</td>
<td>(47.06%)</td>
<td>(46.67%)</td>
<td>(40.00%)</td>
<td></td>
</tr>
<tr>
<td>Very Likely</td>
<td>0</td>
<td>4</td>
<td>12</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00%)</td>
<td>(23.53%)</td>
<td>(26.67%)</td>
<td>(40.00%)</td>
<td></td>
</tr>
</tbody>
</table>

Data Source: Student Perceptions and Help Seeking Behaviors
Sample Size=75 Individuals
Notes: * = p ≤ .1  ** = p ≤ .05  *** = p ≤ .0

Table 6: Crosstabulation of Perceived Medicalization of Symptoms to How Long Seeking Help (For those seeking help)

<table>
<thead>
<tr>
<th>Medicalization</th>
<th>1 Week</th>
<th>2 Weeks</th>
<th>1 Month</th>
<th>3 Months</th>
<th>6 Months</th>
<th>1 Year</th>
<th>Over a Year</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>15.55</td>
</tr>
<tr>
<td></td>
<td>(0.00%)</td>
<td>(0.00%)</td>
<td>(10.00%)</td>
<td>(17.65%)</td>
<td>(12.50%)</td>
<td>(0.00%)</td>
<td>(4.00%)</td>
<td></td>
</tr>
<tr>
<td>Neither Likely nor Unlikely</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00%)</td>
<td>(100.00%)</td>
<td>(30.00%)</td>
<td>(23.53%)</td>
<td>(12.50%)</td>
<td>(0.00%)</td>
<td>(16.00%)</td>
<td></td>
</tr>
<tr>
<td>Somewhat Likely</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00%)</td>
<td>(0.00%)</td>
<td>(50.00%)</td>
<td>(47.06%)</td>
<td>(50.00%)</td>
<td>(100.00%)</td>
<td>(36.00%)</td>
<td></td>
</tr>
<tr>
<td>Very Likely</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00%)</td>
<td>(0.00%)</td>
<td>(10.00%)</td>
<td>(11.76%)</td>
<td>(25.00%)</td>
<td>(0.00%)</td>
<td>(44.00%)</td>
<td></td>
</tr>
</tbody>
</table>

Data Source: Student Perceptions and Help Seeking Behaviors
Sample Size=75 Individuals
Notes: * = p ≤ .1  ** = p ≤ .05  *** = p ≤ .0
Table 7: Linear Regression Output for Likelihood of Stigma Endorsement by Perceived Medicalization of Symptoms

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicalization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither Likely nor Unlikely</td>
<td>0.19</td>
<td>0.35</td>
</tr>
<tr>
<td></td>
<td>(0.21)</td>
<td>(0.26)</td>
</tr>
<tr>
<td>Somewhat Likely</td>
<td>0.11</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td>(0.19)</td>
<td>(0.23)</td>
</tr>
<tr>
<td>Very Likely</td>
<td>0.17</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>(0.21)</td>
<td>(0.27)</td>
</tr>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-0.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.17)</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.21)</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>-0.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.18)</td>
<td></td>
</tr>
<tr>
<td>Mental Health History</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>-0.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.18)</td>
<td></td>
</tr>
<tr>
<td>Known Anyone</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.22)</td>
<td></td>
</tr>
<tr>
<td>Perception of Public Stigma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDD</td>
<td>-0.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.10)</td>
<td></td>
</tr>
<tr>
<td>F-Statistic</td>
<td>0.34</td>
<td>0.66</td>
</tr>
<tr>
<td>Sample Size</td>
<td>121</td>
<td>85</td>
</tr>
</tbody>
</table>

Data Source: Student Perceptions and Help Seeking Behaviors

Notes: *=p≤.1   **=p≤.05   ***=p≤.01
Table 8: Odds Ratios From Logistic Regression Models Predicting Likelihood of Help Seeking on Perceived Medicalization of Symptoms and Stigma Endorsement

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stigma Endorsement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISMI Score</td>
<td>1.91</td>
<td>2.88</td>
<td>1.60</td>
<td>1.87</td>
</tr>
<tr>
<td></td>
<td>(0.59)</td>
<td>(1.56)</td>
<td>(0.54)</td>
<td>(1.11)</td>
</tr>
<tr>
<td>Medicalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither Likely nor Unlikely</td>
<td>1.22</td>
<td>3.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.84)</td>
<td>(3.71)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat Likely</td>
<td>1.86</td>
<td>5.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.17)</td>
<td>(5.48)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Likely</td>
<td>2.10</td>
<td>2.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.48)</td>
<td>(2.64)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Demographics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.82</td>
<td></td>
<td>0.54</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.60)</td>
<td></td>
<td>(0.45)</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>0.13</td>
<td>0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.13)</td>
<td>(0.14)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>1.60</td>
<td>1.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.28)</td>
<td>(0.33)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>4.46</td>
<td>3.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.95)</td>
<td>(3.08)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mental Health History</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>11.55</td>
<td></td>
<td>14.44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(14.25)</td>
<td></td>
<td>(19.42)</td>
<td></td>
</tr>
<tr>
<td>Known Anyone</td>
<td>0.11</td>
<td>0.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.14)</td>
<td>(0.13)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perception of Public Stigma</strong></td>
<td>1.81</td>
<td>2.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDD</td>
<td>(0.84)</td>
<td>(1.29)</td>
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<tr>
<td><strong>Perceptions of Behaviors</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rest of life</td>
<td>1.11</td>
<td></td>
<td>0.89</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.37)</td>
<td></td>
<td>(0.34)</td>
<td></td>
</tr>
<tr>
<td>Improve over time</td>
<td>1.86</td>
<td>2.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.96)</td>
<td>(1.63)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External stressors</td>
<td>0.82</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.32)</td>
<td>(0.37)</td>
<td></td>
<td></td>
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<tr>
<td>Biological factors</td>
<td>2.36</td>
<td>2.11</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.87)</td>
<td>(0.88)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>4.52**</td>
<td>32.16***</td>
<td>4.40</td>
<td>27.11**</td>
</tr>
<tr>
<td>Sample Size</td>
<td>126</td>
<td>90</td>
<td>121</td>
<td>85</td>
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Data Source: Student Perceptions and Help Seeking Behaviors

Notes: *=p≤.1    **=p≤.05    ***=p≤.01
Table 9: Correlation of Perceived Medicalization of Symptoms and Perceived Biological Nature of Symptoms.

<table>
<thead>
<tr>
<th>Medicalization</th>
<th>Biological Nature</th>
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</thead>
<tbody>
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<td>.30***</td>
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</tbody>
</table>

Data Source: Student Perceptions and Help Seeking Behaviors

Sample Size=122 Individuals

Notes: *= p≤.1    **=p≤.05    ***=p≤.01
Thank you for participating in this survey. The purpose of this study is to examine W&L student perceptions on certain types of situations and behaviors. Your responses will be kept anonymous. They will be sent to a database where they will NOT be linked to you. Your participation is entirely voluntary. I very much appreciate your willingness to participate. To show my appreciation I am holding a random drawing, four $50 Amazon gift cards will be given to those who participate in the survey. To enter the drawing, email kamisc16@mail.wlu.edu affirming your completion of the survey.

Please click on your response or write in your answer for each question. Please answer all questions. However, if a question makes you uncomfortable, you will have the option to decline to answer. Please click “DONE” to submit your answers, even if you choose to not fully complete the study. Thank you very much.

Part 1: (Part 1 and Part 2 will be randomized so that in some surveys Part 2 might be presented before Part 1)

1) What is your race?
   a) Non-Hispanic White
   b) Non-Hispanic Black
   c) Non-Hispanic Asian
   d) Non-Hispanic Hawaiian or Pacific Islander
   e) Hispanic
   f) Other (Please Specify) ________

2) What is your gender?
   a) female  b) male  c) other (Please Explain)

3) Select your Total Family Income Bracket
   a) At or below 49,999
   b) 50,000 to 99,999
   c) 100,000 to 149,999
   d) 150,000 to 199,999
e) 200,000 to 249,999  
f) 250,000 to 299,999  
g) 300,000 or higher  
h) Prefer not to answer

4) Indicate which of the following type of neighborhood you grew up in:
   a) rural  
   b) urban  
   c) other (Please Specify) ______

5) Indicate the degree to which you agree with the following regarding depression:
   a. Most people would willingly accept someone as a close friend who has depression.
      i. Strongly disagree  
      ii. Somewhat disagree  
      iii. Neither disagree nor agree  
      iv. Somewhat agree  
      v. Strongly agree  
   b. Most people would view someone with depression as just as trustworthy as the average person  
      i. Strongly disagree  
      ii. Somewhat disagree  
      iii. Neither disagree nor agree  
      iv. Somewhat agree  
      v. Strongly agree  
   c. Most people would accept someone who had recovered from depression as a teacher of young children in a public school  
      i. Strongly disagree  
      ii. Somewhat disagree  
      iii. Neither disagree nor agree  
      iv. Somewhat agree  
      v. Strongly agree  
   d. Most people would not hire someone who used to have depression to take care of their children, even if the person had been well for some time.  
      i. Strongly disagree  
      ii. Somewhat disagree  
      iii. Neither disagree nor agree  
      iv. Somewhat agree  
      v. Strongly agree  
   e. Most employers will pass over the application of someone who has depression in favor of another applicant  
      i. Strongly disagree  
      ii. Somewhat disagree
iii. Neither disagree nor agree
iv. Somewhat agree
v. Strongly agree

6) Indicate the degree to which you agree with the following “If I had depression…”
a. I couldn’t contribute anything to society.
   i. Strongly disagree
   ii. Somewhat disagree
   iii. Neither disagree nor agree
   iv. Somewhat agree
   v. Strongly agree
b. I would still be able to live a good, rewarding life.
   i. Strongly disagree
   ii. Somewhat disagree
   iii. Neither disagree nor agree
   iv. Somewhat agree
   v. Strongly agree
c. I wouldn’t be capable of making decisions for myself.
   i. Strongly disagree
   ii. Somewhat disagree
   iii. Neither disagree nor agree
   iv. Somewhat agree
   v. Strongly agree
d. I would be inferior to those who do not have depression.
   i. Strongly disagree
   ii. Somewhat disagree
   iii. Neither disagree nor agree
   iv. Somewhat agree
   v. Strongly agree
e. I would be a burden to my friends and family.
   i. Strongly disagree
   ii. Somewhat disagree
   iii. Neither disagree nor agree
   iv. Somewhat agree
   v. Strongly agree

7) Indicate the degree to which you agree with the following:
a. People with depression can make important contribution to society.
   i. Strongly disagree
   ii. Somewhat disagree
   iii. Neither disagree nor agree
   iv. Somewhat agree
   v. Strongly agree
b. People with depression cannot live a good, rewarding life.
   i. Strongly disagree
ii. Somewhat disagree
iii. Neither disagree nor agree
iv. Somewhat agree
v. Strongly agree
c. In general, people with depression cannot make decisions for themselves.
   i. Strongly disagree
   ii. Somewhat disagree
   iii. Neither disagree nor agree
   iv. Somewhat agree
   v. Strongly agree
d. People with depression are inferior to those who do not have depression.
   i. Strongly disagree
   ii. Somewhat disagree
   iii. Neither disagree nor agree
   iv. Somewhat agree
   v. Strongly agree
e. People with depression are a burden to their friends and family.
   i. Strongly disagree
   ii. Somewhat disagree
   iii. Neither disagree nor agree
   iv. Somewhat agree
   v. Strongly agree
8) Have you ever been diagnosed with a mental illness?
   a. Yes
   b. No
   c. Decline to Answer
9) Have you ever known anyone who has been diagnosed with a mental illness
   a. Yes
   b. No
   c. Decline to Answer
10) If yes to Q.14, Please indicate your relationship to that person
    a. ______________

Part 2:

Vignette:

Last semester, you noticed a change in your behavior over the entire term. You are moody or irritable everyday and have noticed a severe loss in interest in the activities that used to bring you joy. You have trouble getting to sleep and staying asleep every night and therefore are fatigued throughout the day. The fatigue has led to missing some classes and overall you find you can’t
focus on your studies. Furthermore you haven’t been hanging out with your friends as much. When you do hang out, you find it hard to add to the conversation.

11) Indicate the degree to which you agree with the following:
   a. I would expect to have these behaviors for the rest of my life
      i. Strongly disagree
      ii. Somewhat disagree
      iii. Neither disagree nor agree
      iv. Somewhat agree
      v. Strongly agree
   b. I would assume that these behaviors would improve over time
      i. Strongly disagree
      ii. Somewhat disagree
      iii. Neither disagree nor agree
      iv. Somewhat agree
      v. Strongly agree
   c. I would believe these behaviors are due to external stressors
      i. Strongly disagree
      ii. Somewhat disagree
      iii. Neither disagree nor agree
      iv. Somewhat agree
      v. Strongly agree
   d. I would believe these behaviors would be due to biological factors
      i. Strongly disagree
      ii. Somewhat disagree
      iii. Neither disagree nor agree
      iv. Somewhat agree
      v. Strongly agree

12) Would you seek help for these behaviors in the vignette above?
   a. Yes
   b. No
      i. Please explain your response

13) If yes, from whom would you seek help from for these behaviors (choose 1):
   a. Peer Counselor (or RA)
   b. Psychologist
   c. Academic Advisor
   d. General Physician
   e. Spiritual Leader
   f. Psychiatrist
   g. Other (Please Indicate)

14) Why would you go to this help source?
   a. _______________ (Please Explain)

15) How many times a month would you be willing to seek help for these behaviors?
   a. Twice a week
b. Once a week
c. Every other week
d. 1 time only
e. Other __________ (Please specify)

16) For how long would you be willing to seek help for these behaviors if they continued to persist?
   a. 1 week
   b. 2 weeks
   c. 1 month
   d. 3 months
   e. 6 months
   f. 1 year
   g. over a year
   h. Other __________ (Please specify)

17) Indicate the likelihood to which you believe these behaviors might have a medical diagnosis?
   i. Very unlikely
   ii. Somewhat unlikely
   iii. Neither likely nor unlikely
   iv. Somewhat likely
   v. Very likely

Debriefing:

“Thank you for completing the survey. As you may have gathered from the nature of the questions, this study intends to measure student perceptions of mental illness and help-seeking behaviors as they relate to depression symptoms. In order to avoid influencing your responses, the true nature of this study was not disclosed outright. From this study I expect to uncover the relationship between viewing mental illness as a medical disorder and the likelihood of seeking help. Please do not speak to other students on campus about the true nature of this experiment, as it may bias other participants’ answers. Additionally, if you feel lasting discomfort due to this study, the link to the counseling services can also be found at the bottom of this page: http://www.wlu.edu/student-life/health-and-safety/student-health-and-counseling/university-counseling. If you would like more information on my study or a copy of my paper once it is completed, please contact me at kamisc16@mail.wlu.edu.”
WORKS CITED


Link, Bruce G., Francis T. Cullen, Elmer Struening, Patrick E. Shrout, and Bruce P.


