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# Stigma and Knowledge: a Questionnaire and Literature Review

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# STIGMA AND KNOWLEDGE: A QUESTIONNAIRE AND LITERATURE REVIEW

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## ABSTRACT

The main purpose of this study is to show a link between lack of knowledge about mental illness and stigmatizing attitudes towards those with mental illnesses. The first hypothesis, that stigma would be correlated with a lack of knowledge about mental illnesses was confirmed. The majority of results indicate that more knowledge about mental illness in general or about anxiety and/or schizophrenia is associated with less stigmatizing or negative attitudes. Some results didn't support the first hypothesis and these results show that some negative or stigmatizing responses were associated with more estimated knowledge about schizophrenia and/or anxiety.

The second hypothesis was that 1) participants who have high levels of confidence in their knowledge about mental illnesses would possess less knowledge about them and 2) that high confidence would be linked to resistance to learning more about mental illnesses. Results show that participants who report less overall knowledge of mental illnesses also report less confidence in their knowledge and vice versa. Results also indicate that participants who report more confidence in their general knowledge of mental illness also report more confidence in their knowledge about anxiety. Some results did show that more negative or stigmatizing responses were associated with more estimated knowledge about schizophrenia.

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# CHAPTER I

# INTRODUCTION

Stigma is a major and debilitating problem the mentally ill face in society today. There is a cycle starting with the public's lack of education and contact with the mentally ill and ending with stigmatizing and/or negative attitudes towards the mentally ill. A vicious cycle of wrong or incomplete knowledge about causes, treatment possibilities and consequences of mental illness, discriminating attitudes, and prejudices towards people with mental illness, and finally discrimination, leads to disadvantage, ostracism, exclusion, and banishment of those affected (Lauber, 2008). Stigma often results in serious problems for those suffering from mental illness and a possible worsening of their condition. Stigma may lead to a lack of social support from their families, their peers, and the community and compound adjustment problems that persons with a mental illness may already have (Coorigan & Watson, 2002). These problems may be further exacerbated by to a lack of treatment or support. Thus, it may be more difficult for persons with a mental illness to function in society, and this may lead to even more stigmatization and negative attitudes towards those diagnosed with a mental illness (Lauber, 2008).

## 1.1 Definition of Terms

Stigma is defined as negative stereotyping (Lauber, 2008) which is an inevitable outcome of social categorization and is an attitude towards a group or individual due to real or assumed characteristics (Thornicroft, Brohan, Kassam, & Lewis-Holmes, 2008). Stereotyping is often an efficient means of negotiating complex social interaction but often results in stigma consists of three related problems: ignorance, prejudice, and discrimination (Hinshaw & Cicchetti, 2000). Ignorance is due to the lack of accurate knowledge about mental illness despite the unprecedented volume of information in the public domain (Thornicroft, et al., 2008). Prejudice can be defined as an unreasonable like, dislike, or opinion of something or someone and it can also be defined as either a desire to harm someone's rights or a general attitude toward a group. Prejudice can either cause stigma and stereotyping or be a result of it. Discrimination is defined as unfair treatment that often results from stigma and/or prejudice, and/or stereotyping.

## 1.2 Literature Review

In the 1950's and 1960's two key conclusions were drawn regarding people diagnosed with mental illnesses. First, people with mental illnesses were often socially rejected. Second, mental illness and the label of having a mental illness were associated with fear, distrust, and dislike. In the 1970's, research showed that the primary reasons for stigma were the unpredictability of mental illness, the lack of accountability of the mentally ill, and fear of the mentally ill (Hinshaw & Cicchetti, 2000).

The research of the 1990's showed that there was a continued desire for social distance from the mentally ill and the perception that mentally ill people tended to be dangerous remained quite strong (Hinshaw & Cicchetti, 2000) . From 2000 to the present, there have been numerous studies of mental illness stigma, one of the conclusions of these studies it that more effective educational programs, designed to reduce stigma, should be developed. The educational programs being used today are not reducing stigma to an effective degree (Hinshaw & Cicchetti, 2000). Hinshaw and Cicchetti suggested a change in current educational programs and campaigns and the development of new programs. Fortunately, research has shown that more effort is being put forth in recent years to reduce stigma.

### 1.3 Policy Initiatives

Recent policy initiatives are good examples of some of the efforts to reduce stigma and increase awareness about mental illness. In 1990, two important policies were enacted. First, the Americans with Disabilities Act provided equal access to jobs, housing, and transportation to those with physical or mental illness. Second, the National Advisory Council on Mental Health began to prepare insurance plans that would help cover mental illness.

In 1996, the Domenici-Wellstone Mental Health Parity Act was the first step in national legislation to address discriminatory practices that exist in health care for the mentally ill. In 1997, the National Institute of Mental Health (NIMH) increased funding for research on mental health services.

Two major policy initiatives were introduced in 1999. First, President Clinton and Tipper Gore sponsored the first White House Conference on Mental Health.

Second, the Surgeon General released a precedent-setting report on mental disorders. He highlighted the critical national needs for research, prevention, and treatment. Most importantly, according to the U.S. Department of Health and Human Services, he declared that stigma was "the most formidable obstacle to future progress in the arena of mental illness and health" (as cited in Hinshaw & Cicchetti, 2000, p. 556).

Fear, mistrust, and rejection of the mentally ill are typical (Gupta & Bonnell, 1993). People diagnosed with mental illnesses experience disapproval much more often than those suffering from most physical illnesses (Coorigan & Watson, 2002). The mentally ill are often perceived to be in control of their illness and responsible for causing it (Hinshaw & Cicchetti, 2000). The mentally ill are less likely to be pitied, are often responded to with anger; and many people believe the mentally ill do not deserve help (Coorigan & Watson, 2002). Ramon (1998) noted that mentally ill people are often evaluated less positively on characteristics such as being fair, strong, clean, intelligent, non-aggressive, peaceful, and socially desirable. One common belief is that people with mental illness, irrespective of the underlying disorder, are dangerous, unpredictable and violent (Lauber, 2008). In addition, the media often creates inaccurate and unfavorable depictions of individuals with mental illnesses, which may fuel these attitudes (Hinshaw & Cicchetti, 2000).

The mentally ill are often discriminated against with regard to housing, insurance policies education, and employment. These discriminatory practices often force mentally ill people to hide their illnesses and may cause them to avoid seeking treatment. It has been shown that the negative effects of stigma include less access to mental health services and advances in psychiatric treatment and delays in appropriate

help seeking (Svensson, et al., 2011). In addition, (Sharma 2012) stated that stigma attached to mental illness is one more serious hurdle in delivering mental health services in the community. Stigma brings about shame, social exclusion and isolation to mentally ill persons and discourages them from utilizing available mental health services, resulting in poor compliance.

Stigma and discrimination may indirectly reduce the odds of rehabilitation for many of those suffering with chronic mental illnesses. Mentally ill people often avoid seeking treatment because of shame associated with a need to hide their illness. Stigma also adds to feelings of self-blame, hopelessness, poor self-esteem, and lack of confidence in their future. The feelings that come with stigma often add stress to the lives of mentally ill people. In fact, Hinshaw and Cicchetti (2000) stated that the impact of stigma on mentally ill people might be as harmful as the direct effects of the disease. Evidence has shown that isolation caused by stigma can lead to feelings of depression and to suicidal ideation, which are already problematic symptoms for many mentally ill people.

Stigma has been shown to contribute to many personal problems for those with mental illnesses. Coorigan and Watson (2002) stated that stigma could cause major barriers to success in friendships and at work. It undermines finding support from others with similar illnesses. It also undermines group cohesion and group identity.

### 1.4 Stigma and Education

Researchers have proposed several ways to reduce stigma and increase social support for the mentally ill. Negative attitudes can be fueled by a lack of knowledge, and education has been proven to be an efficient means of reducing stigma and

increasing awareness about mental illness. Several methods of educating people about mental illness that have proven to be effective. These methods include (a) class discussions versus lectures about mental illness, (b) role-playing, (c) lecturing of students by mentally ill people in recovery, (d) "jigsaw" cooperative contact (working in a pair with a mentally ill person), and (e) volunteering to work with mentally ill people for extra credit or as part of a curriculum (Mayville & Penn, 1998). The strongest intervention at present to reduce stigma involves direct social contact with people with mental illness (Thornicoft et al, 2008). In addition, Wolff, Pathare, Craig, and Leff (1996) found that focusing educational programs on drawing the public's awareness to the treatability of mental illness is effective.

Mayville and Penn (1998) reported considerable empirical support for using a combination of education and contact as a means of reducing stigma. Bailey (1999) stated that the best educators are those who have experienced mental illness. It was also found that informal contact with the mentally ill, such as through education, was associated with more benign attitudes and lower ratings of dangerousness.

### 1.5 Instruments of Knowledge

It is important to discuss which groups of people tend to stigmatize the mentally ill. According to several researchers in the area of mental illness stigma, there are certain groups of people that tend to stigmatize more than do others. Younger adults and people with less education tend to be more prejudiced or have negative attitudes towards the mentally ill (Gething, as cited in Loo, 2001). It has been shown that stigma may be more severe in children and adolescents (Gupta & Bonnell, 1993). People who are not directly involved with the mentally ill tend to have the most

stigmatizing attitudes (Ramon, 1998). Also, those with a lower socio-economic status, those of a non-Caucasian ethnic origin, and males have been shown to have more negative or stigmatizing attitudes toward the mentally ill. Parents also tend to have more fear and cautiousness when it comes to the mentally ill, due to a desire to protect their children from harm (Wolff et al., 1996).

Ramon (1978) looked at attitudes towards the mentally ill based on personal and social involvement. She found that people who are not involved with the mentally ill are usually the ones found to have the most negative attitudes toward them. He stated that people must be involved at an emotional level with those diagnosed with a mental illness for their negative attitudes toward those persons to change.

Sadow, Ryder and Webster (2002) supported contact involving an emotional connection as beneficial for persons with a mental illness. They noted that one way to accomplish this is to have mentally ill people in recovery give lectures. Yet, they did not offer any suggestions as to what they should lecture about. Nor did they discuss what kinds of educational information to include in these lectures to encourage people to want to be involved with the mentally ill.

Gething (1994) reported that discomfort in social interactions was a central factor underlying negative attitudes and that the administration of the Interaction with Disabled People Scale (IDP) in and of itself might promote attitude change and self-awareness. The administration of the scale may also make respondents aware of negative attitudes they hold. This scale was useful for stimulating group discussions that prompted people to think about their own behavior.

Loo (2001) re-analyzed Gething's (1994) IDP scale, supported his findings, and suggested class discussions to enhance self-awareness. Loo also noted that the class discussions were more effective than lectures when educating about mental illnesses. However, neither of these researchers discussed the format for class discussions or what were the most important topics to be covered for attitude change to occur.

The Opinions about Mental Illness Scale (OMI) provides information about college students' attitudes toward those diagnosed with a mental illness and demographic factors that affect stigma, including (a) marital status, (b) socio-economic conditions, (c) gender, (d) level of education, and (d) intended major in Psychology versus other majors (Gupta & Bonnell, 1993). Gupta and Bonnell (1993) found Psychology students had more negative attitudes towards the mentally ill than did non-Psychology students as measured by the OMI. Non-psychology students tended to see the mentally ill as less inferior and viewed mental illness like any other illness. Further, taking Psychology courses did not change attitudes. Gupta and Bonnell (1993) found that the teacher's attitude and interest in the subject taught was more important than the Psychology course materials themselves. However, they did not make recommendations about ways to improve course materials.

The mass media has often been blamed for sensitizing society against the mentally ill. Arikan and Usyal (1999) found that knowing a mentally ill person was effective in reducing negative emotions towards them. They found that this might be due to the desensitization of negative emotions that acquaintance with a person diagnosed with a mental illness accomplishes. Although the authors mention the

media as a cause of stigma towards the mentally ill, they offer no suggestions for how to improve the messages the mass media convey (Arikan & Uysal, 1999), and they do not discuss what messages cause this sensitizing effect or how they could be changed.

A version of the Social Distance Scale was designed to determine if knowing someone diagnosed with a mental illness was effective in reducing stigma (Arikan & Usyal, 1999). The questions were designed to bring the student's attitudes into their conscious awareness. They hypothesized that those who had an acquaintance with a mentally ill person would have lower scores on the Social Distance Scale. Results showed that acquaintance with a mentally ill person reduced negative emotions as indicated in smaller social distances (Arikan & Uysal, 1999). Arikan and Uysal (1999) created a Dangerousness Scale in which they asked college student to state whether they believed mental illness was treatable. Those who did not think that mental illness was treatable tended to stigmatize more. They believed that while awareness of treatability was not the only determinant of stigmatization, it did have an impact on reducing stigma. They asserted that society should be aware of treatment opportunities and be in contact with mentally ill people that have been treated. However, they also did not describe specific ways to accomplish this. For example, they did not specify what illnesses people should know the treatment options for, and they did not specify what illnesses were treatable, that many people think some illnesses are not treatable, and what needs to be focused on.

Bailey (1999) showed that young people expressed a wide range of responses to and levels of understanding knowledge and acceptance of the mentally ill. However, he did not define in what areas the young people surveyed lacked correct

information or what misperceptions and stigmatizing attitudes they evidenced. He stressed the importance of students' interests and what students want to learn about being included in the curriculum. He didn't discuss the possibility that they may not want to learn at all or what those who want to learn about mental illnesses were interested in knowing.

Larkey (1996), based on the results from the WDQ, points out that the majority often fails to see existing discrimination. Perhaps this is because they are not victims of discrimination. On the other hand, minority group members may sometimes interpret situations to be discriminatory that are not. Perhaps, the majority is resistant to learning about stigma and discrimination because it doesn't affect them or because they believe they know what they need to know about these issues.

# CHAPTER II

# PROBLEM

There are many gaps in the research about stigma toward the mentally ill and education about mental illness. This study plans to address these issues by describing negative and stigmatizing attitudes that people commonly hold about persons with a mental illness and specific areas in which their knowledge is lacking or misleading.

This information may be used to create media messages that will help desensitize the public.

This information will fill a significant gap in the literature and will be useful to people who plan educational programs.

The first hypothesis is that stigma would be correlated with a lack of knowledge about mental illness. Another goal of this research was to describe people's attitudes towards the mentally ill. It is hoped that this research will support previous research in connection between lack of knowledge and stigmatizing attitudes.

# CHAPTER III

# METHOD

## 3.1 Participants

The sample consisted of 115 Cleveland State University undergraduates. An attempt was made by visiting a variety of psychology classes at Cleveland State University to include a diverse population of students in terms of (a) age, (b) gender (c) ethnic background (d) socio-economic, (e) whether or not they have children, (f) declared major, (g) previous coursework in Psychology, and (h) personal involvement with mental illness.

The sample contained a majority of participants that were uninvolved adolescents and young adults that were beginning their college education. This is a group that is more likely to have negative or stigmatizing attitudes towards mentally ill people. These demographic factors were chosen from the Opinions about Mental Illness Scale (OMI) (Gupta & Bonnell, 1993).

## 3.2 Descriptions of Questionnaire Items

This questionnaire was designed to serve several purposes: to measure the respondents knowledge of mental illnesses and the respondents' confidence of that knowledge. Demographic questions included questions about age, gender, ethnic

origin, total household income, children, Psychology courses taken, and questions that determined if the subject is personally involved with the mentally ill.

Forty-eight questions addressed the respondents' attitudes towards the mentally ill. Five questions addressed how much knowledge the student believed they had about mental illness, source(s) of that knowledge, and the students' confidence in their knowledge about mental illness. Additional questions targeted specific areas where people lack knowledge about mental illnesses and perceived importance of education about mental illness. This questionnaire was constructed by the author.

Questions dealing with knowledge about the DSM-IV symptoms for schizophrenia and anxiety disorders were based on the literature from the NIMH, (National Institute of Mental Health), the DSM-IV (Diagnostic and Statistical Manual of Mental Disorders), and the Handbook of Developmental Psychopathology.

Several items from the Interaction with Disabled Persons (IDP) were used in the stigma and attitude section of the questionnaire. Items were reworded to apply to mental illnesses. The IDP contains 6 factors: Discomfort in Social Interaction, Coping/Succumbing Framework, Perceived Level of Information, Vulnerability, Coping, and another Vulnerability factor (Gething, 1994). Items representing each factor were included. The IDP was designed to measure discomfort in social interactions as a central factor underlying negative attitudes, and was predicted to be related to the level of contact people have with those with disabilities.

Several questions from the Workforce Diversity Questionnaire (WDQ) (Larkey, 1996) were reworded and used to assess exclusion, misunderstanding, and differential treatment of those with disabilities or handicaps.

The Medical Condition Regard Scale (MCRS) created by Christison and Haviland (2002) was used to capture biases, emotions, and expectations generated by medical conditions. Questions were derived from factors used to create the MCRS and were reworded. The MCRS was designed to assess whether respondents find patients with a medical condition to be enjoyable, treatable, and worthy of medical resources. All of these factors contributed to whether a respondent may or may not have stigmatizing attitudes towards the mentally ill. Arikan and Usyal's (1999) Social Distance Scale was used to measure what people consider a comfortable distance from the mentally ill population.

Three questions were taken from the Wolff et al. (1996) Community Attitudes toward Mental Illness Inventory (CAMI). Two questions were created to assess how knowledgeable the students believed they were about mental illness and how confident they were in that knowledge. These questions were placed at the beginning of the survey to avoid any effect of the actual survey responses to these questions.

### 3.3 Procedure

The respondents were provided with the following materials: (a) the questionnaire, (b) a description of the project, (c) informed consent form (d) general verbal and written instructions, and (e) contact information for the researchers and Cleveland State University's Institutional Review Board. The questionnaire was composed of demographic information, questions assessing general knowledge about mental illness, knowledge about schizophrenia and anxiety, attitudes about mental illness and education questions. A brief description of the project was given. The participants were told the project was examining education about mental illness.

Participants were told to read and sign the consent form. Participants then completed the questionnaires following standard instructions. The participants were given contact information for questions or debriefing.

# CHAPTER IV

# RESULTS

Overall knowledge about anxiety and overall knowledge about schizophrenia were measured by summing up the correct answers to the questions in each section. High scores indicated more knowledge. Estimated knowledge and estimated confidence were based on how much knowledge or confidence the participant estimated they had.

## 4.1 Hypothesis 1

The first hypothesis, that stigma would be correlated with a lack of knowledge about mental illnesses was supported. Results indicated that high scores on overall knowledge about anxiety were associated with scores on questions that indicated more positive or less stigmatizing attitudes towards persons with mental illnesses.

High scores on overall knowledge about anxiety were associated with a person being more willing to "recommend someone with a mental illness for a job working with a friend or family member" (r= -. 212*) ;"work in a study group with a mentally ill person" (r= -.248**) and "take classes with someone who is mentally ill" (r= -.247**). Participants with more overall knowledge about anxiety were more likely to agree with the statements "Working with mentally ill people would be satisfying" (r=. -.219*), and "I go out of my way to learn about mental illness" (r=-.239*). Those

with more overall knowledge about anxiety were more likely to disagree with the statements: “If I knew someone had a history of mental illness, I would be less likely to trust him or her”; and “Although some mentally ill people seem alright, it is dangerous to forget for a moment that they are mentally ill” (r=.249**).

Participants with more overall knowledge about schizophrenia were more likely to say “yes” when asked if they would like to learn more about mental illness (r=-205*) . These results show that more overall knowledge about schizophrenia was associated with an interest in learning more about mental about mental illness.

Those who reported more overall knowledge about mental illness were more likely to disagree with the statements “If I knew someone has a history of mental illness, I would be less likely to trust him or her”(r=-.268**), “There is little I can do to help mentally ill people” (r=-.328**), and “It seems like people don’t trust mentally ill people" (r=-.248**). Those who were more likely to disagree with the statement “I go out of my way to learn about mental illness,” also estimated their knowledge about schizophrenia as lower (r=.252**).

Those who were more likely to disagree with the statement “I am aware of the problems mentally ill people face,” estimated their knowledge about anxiety as lower (r=.198**) and estimated overall knowledge about mental illnesses as lower (r=.434**). Thus, participants who had a more stigmatizing response also described themselves as having less overall knowledge about mental illnesses and less knowledge about anxiety. In addition, those with more knowledge about anxiety tended to believe that much more education in mental illness and mental health is

needed in our schools and said “yes” to wanting to learn more about mental illness (r=-.210*).

Several findings did not support the first hypothesis. Results showed that those who had estimated high levels of knowledge about anxiety were more likely to agree with the statement “One important thing about people with a history of mental illness is that you cannot tell what they will do from one minute to the next.”

Participants who were more likely to agree with the statement “I would prefer not to work with mentally ill people,” had reported more knowledge about schizophrenia (r=.212*). Therefore, a more stigmatizing response was associated with more knowledge. Those who were more likely to disagree with the statement “I feel like mentally ill people are protected more or given extra advantages,” estimated less knowledge about schizophrenia (r=.187*)

Those who were more likely to disagree with the statement “People need to adopt a far more tolerant attitude towards the mentally ill.” also estimated their knowledge about schizophrenia as higher (-.262**) Also, those who stated they were “unwilling” when asked the following questions:” How about working with someone who is mentally ill? (r=.255**) “How about having someone who is mentally ill as a neighbor?” (r=-.272**) and “How about having someone who is mentally ill as a friend?” (r=-.291**) estimated their knowledge about schizophrenia as higher. In these instances, more negative or stigmatizing responses were associated with more estimated knowledge about schizophrenia.

There were similar results in regards to estimates of knowledge about anxiety. Those who were less likely to agree with the following statement: “I feel especially

compassionate towards mentally ill people," reported more knowledge about anxiety (r= -.199*). Furthermore, those who answered "unwilling" when asked, "How about having someone who is mentally ill as a friend?" also estimated more knowledge about anxiety (r= -.216*). A more negative or stigmatizing response was associated with estimates of more knowledge about anxiety.

In conclusion, more knowledge about mental illness in general or about anxiety and schizophrenia was generally associated with less stigmatizing or negative responses to questionnaire items. However, some items did not support the results because it is possible that even those with more knowledge about mental illnesses in general, anxiety, or schizophrenia may still have stigmatizing or negative attitudes towards the mentally ill. It is also possible that those with less knowledge about mental illnesses, anxiety, or schizophrenia may not have stigmatizing or negative attitudes towards persons with a mental illness. Research showed some reasons why this would be the case. Gupta and Bonnell (1993) found that Psychology students had more negative attitudes towards the mentally ill than did non-Psychology students and taking Psychology courses did not change attitudes. Their research showed that non-psychology students tended to view mental illness like any other illness and these students did not see the mentally ill as inferior.

### 4.2 Hypothesis 2

The second hypothesis stated that participants who have high levels of confidence in their knowledge about mental illnesses might not be very knowledgeable about them. The second hypothesis also proposed that this high level

of confidence might be linked to a resistance to learning more about mental illnesses and/or becoming aware of negative attitudes that are held.

Some results supported the second hypothesis. Those who reported more confidence in their knowledge about mental illness stated they were "unwilling" to work in a study group with someone who is mentally ill (r=.222*) Therefore, a more stigmatizing or negative response was associated with reports of more confidence in their knowledge about mental illnesses. Those who noted less overall knowledge of mental illnesses also had less confidence in that knowledge and those who projected more overall knowledge estimated more overall confidence. Those who reported more confidence in their knowledge about mental illness also estimated more confidence in their knowledge about anxiety (r=.229*).

In addition, participants who were more likely to agree with the statement "If I knew someone who has a history of mental illness, I would be less likely to trust him or her" approximated less knowledge of mental illnesses (r=.268**) and less confidence in that knowledge (r=-.222*). Participants who said "yes" to wanting to learn more about mental illnesses also demonstrated more overall knowledge about anxiety (r=-.210*). Those who were more knowledgeable about anxiety tended to be more open to learning more about mental illnesses (r=-.210*)

The majority of the results concerning the second hypothesis were not supportive. For example, participants who were more likely to disagree with the statement "If a group of people with a history of mental illness lived nearby, I would not allow my children or children in my neighborhood to play alone" reported more confidence in their knowledge about anxiety (r=-.194*). Those who disagreed with

the following statements: “I am aware of the problems mentally ill people face” (r=.339**), “There is little the community can do to help mentally ill people” (r=-.189*); and “I go out of my way to learn about mental illness” (r=.289**) rated their confidence in their knowledge about mental illness as higher.

Also, those who agreed with the statements “There is little I can do to help mentally ill people”( r=-.323**); and “Mentally ill people’s way of talking or acting causes them to be treated as less competent or smart” also noted more confidence in their knowledge about mental illness.

# CHAPTER V

# DISCUSSION

Stigma causes many debilitating problems for those suffering with a mental illness. Education has been proven to be an effective way to reduce stigma and increase awareness about mental illness. The problem begins with the public's lack of education about mental illness and stigmatizing and/or negative attitudes towards the mentally ill that result. The first objective of the study was to discover stigmatizing or non-stigmatizing attitudes toward the mentally ill. The second objective of the study was to find specific areas where people lack knowledge and have misperceptions about mental illnesses. The main goal of the study was to show a correlation between lack of knowledge and stigmatizing and negative attitudes towards the mentally ill. It is hoped that this study will stress the importance of improvements in education about mental illnesses and show important areas to target in future research.

## 5.1 Review of Results and Literature

The first hypothesis was that stigma is correlated with a lack of knowledge about mental illnesses and that low levels of knowledge about mental illnesses are linked to resistance to learning more about mental illnesses and becoming aware of negative attitudes they hold.

In support of the first hypothesis, results indicated that high scores on overall knowledge about anxiety are correlated with scores on questions that indicated less stigmatizing and more positive attitudes towards persons with mental illnesses.

The results also show that more overall knowledge about schizophrenia is correlated with a desire to learn more about mental illnesses. In addition, those with more overall knowledge about anxiety tended to believe that much more education in mental illness and mental health is needed in our schools and said “yes” to wanting to learn more about mental illness.

However, some results did not support the first hypothesis. Some correlations show that more negative or stigmatizing responses were associated with more estimated knowledge about anxiety and schizophrenia. However, some items did not support the results because it is possible that even those with more knowledge about mental illnesses in general, anxiety, or schizophrenia may still have stigmatizing or negative attitudes towards the mentally ill. It is also possible that those with less knowledge about mental illnesses, anxiety, or schizophrenia may not have stigmatizing or negative attitudes towards persons with a mental illness. One reason this may be the case is that researchers found that Psychology students had more negative attitudes towards the mentally ill than did non-Psychology students. (Gupta & Bonnell, 1993). They found that taking Psychology courses did not change their attitudes. Their research showed that non-psychology students tended to view mental illness like any other illness. In addition, non-psychology students did not see the mentally ill as inferior. See Table 1 to refer to specific questions and Pearson correlations.

The literature lended support to the results confirming the first hypothesis. Ramon (1998) stated mentally ill people are often evaluated less positively on characteristics such as being fair, strong, clean, intelligent, non-aggressive, peaceful, and socially desirable. In addition, the media often creates inaccurate and unfavorable depictions of individuals with mental illnesses, which may fuel these attitudes (Hinshaw & Cicchetti, 2000). In addition, the mentally ill are often discriminated against with regard to (a) housing, (b) insurance policies, (c) education, and (d) employment. The questionnaire included questions regarding these characteristics and responses to these questions supported both hypotheses.

The second hypothesis stated that participants who have high levels of confidence in their knowledge about mental illnesses may not be knowledgeable about mental illnesses. The second hypothesis also proposed that high levels of confidence might be linked to a resistance to learning more about mental illnesses and/or becoming aware of negative attitudes. The data shows that a less stigmatizing or negative response was correlated with reports of more confidence in one's knowledge about mental illnesses. There was a significant correlation between students who reported less overall knowledge of mental illnesses and those who reported less confidence in that knowledge. The data showed that there was a correlation between more estimated overall knowledge and more estimated overall confidence. Those students who reported more confidence in their knowledge about mental illness also estimated more confidence in their knowledge about anxiety. Students who said "yes" to wanting to learn more about mental illnesses also demonstrated more overall knowledge about anxiety.

Those who reported more confidence in their knowledge about mental illness and anxiety that had stigmatizing responses may have overestimated their knowledge. Or they may have still had stigmatizing responses regardless of how knowledgeable they are. While more knowledge about mental illnesses and anxiety is correlated with less stigmatizing and negative responses to questionnaire items, it is not a guarantee that all respondents with more knowledge will have less stigmatizing and negative attitudes towards persons with a mental illness.

## 5.2 Implications and Future Research

Three shortcoming of this research are: 1) The sample was limited to Cleveland State University students, 2) The sample size was under 150 people, and 3) Only two mental illnesses (anxiety and schizophrenia) were used to test knowledge of mental illnesses and confidence in that knowledge. A larger sample size and a sample that included people outside of the Cleveland State University population of students would provide more diverse results. Also, looking at other mental illnesses would have helped to better determine people's true knowledge of mental illnesses. Due to availability of students and time constraints for the questionnaire these changes and additions were not possible. Future research may want to consider making changes in these areas if using a questionnaire similar to the one created for this proposal.

It has been shown that the mass media has often been blamed for sensitizing society against the mentally ill. The research in this proposal may be helpful for creating media messages that will help desensitize the public. This was addressed by describing negative and stigmatizing attitudes that people commonly hold about

mentally ill people and showing specific areas in which people lack knowledge and have misleading notions about mental illnesses.

Therefore, it can be hypothesized that a change needs to be made in current educational programs and campaigns and new programs need to be developed. The programs being used today are still not reducing stigma to an effective degree. But fortunately, it is evident from this proposal and other current studies that more effort is being put forth in recent years to reduce stigma. Future research needs to focus on making society more aware of treatment opportunities and be in contact with mentally ill people that have been treated (Arikan & Uysal, 1999). Future research should also explore the connection between knowledge and confidence in one's knowledge further.

According to the U.S. Department of Health and Human Services (1999), the Surgeon General declared that stigma was "the most formidable obstacle to future progress in the arena of mental illness and health" (as cited in Hinshaw & Cicchetti, 2000, 556). From 2000 to the present, researchers have presented numerous studies on mental illness stigma. These researchers stressed the need for more research in this area due to the fact that research has proved stigma to still be a major problem today. Negative attitudes are fueled by a lack of knowledge, and education has been proven to be an efficient means of reducing stigma and increasing awareness about mental illness.

The challenge in coming years will be to identify which interventions, whether directed towards knowledge, attitudes, or behaviors are most effective in reducing the social exclusion of people with mental illness (Thornicroft et al., 2008).

## REFERENCES

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision. Washington, DC, American Psychiatric Association.

Arikan, K., Uysal, O., & Cetin, G. (1999). Public awareness of the effectiveness of psychiatric treatment may reduce stigma. *The Israel Journal of Psychiatry and Related Sciences, 36,* 95-99.

Arikan, K., & Uysal, O. (1999). Emotional reactions to the mentally ill are positively influenced by personal acquaintance. *The Israel Journal of Psychiatry and Related Sciences, 36,* 100-104.

Bailey, S. (1999). Young people, mental illness and stigmatization. *Psychiatric Bulletin, 23,* 107-110.

Boyce, W. T. (1985). Social support, family relations, and children. *Social Support and Health, 2,* 151-159.

Christison, G. W., Haviland, M. G., & Riggs, M. L. (2002). The Medical Condition Regard Scale: Measuring reactions to diagnoses. *Academic Medicine, 77,* 257-262.

Corrigan, P. W., & Watson, A. C. (2002). The paradox of self-stigma and mental illness. *Clinical Psychology, 9,* 35-53.

Davidson, L., Chinman, M., Weingarten, R., Stayner, D., & Tebes, J. K. (1999). Peer support among individuals with several mental illness: A review of the evidence. *Clinical Psychology, 6,* 165-l87.

Gething, L. (1994). The Interaction with Disabled Persons Scale: A new Australian instrument to measure attitudes towards people with disabilities. *Journal of Social Behavior and Personality*, *9*, 23-42.

Grishham, W. M. (1982). The effects of social desirability on opinions about mental illness in community college students. *Dissertation Abstracts International*, *42*, 3032-3033.

Gupta, A., & Bonnell, P. (1993). Opinions about mental illness among college students. *Journal of Personality and Clinical Studies, 9*, 63-68.

Hart, E., & Williams, C. (1987). Suicidal behavior and interpersonal network. *Crisis: An International Journal of Suicide*, *8*, 112-124.

Hendrix, M. (2002). *Anxiety disorders*. NIH Publication No. 02-3879. Maryland: National Institute of Mental Health.

Hinshaw, S. P., & Cicchetti, D. (2000). Stigma and mental disorder: Conceptions of illness, public attitudes, personal disclosure, and social policy. *Development and Psychopathology*, 12, 555-598.

Kingsbury, S., Hawton, K., Steinhardt, K., & James, A. (1999). Do adolescents who take overdoses have specific psychological characteristics? A comparative study with psychiatric and community controls. *Journal of the American Academy of Child and Adolescent Psychiatry*, *38*, 1125-1131.

Klein, D. N., Lewinsohn, P. M., & Seeley, J. R. (1997). Psychosocial characteristics of adolescents with a past history of dsythymic disorder: Comparison with adolescents with past histories of major depressive and non-affective disorders, and never mentally ill controls. *Journal of Affective Disorders*, *42*, 127-135.

Larkey, L. K. (1996). The development and validation of the Workforce Diversity Questionnaire: An instrument to assess interactions in diverse workgroups. *Management Communication Quarterly, 9,* 296-337.

Lauber, C. (2008). Stigma and discrimination against people with mental illness: a critical appraisal. *Epidemiologia e Psichiatria Sociale, 17,* 10-13.

Loo, R. (2001). A psychometric re-analysis of the Interaction with Disabled Persons Scale. *Canadian Journal of Behavioural Science, 33,* 245-250.

Lopez, L. R. (1991) Adolescents' attitudes toward mental illness and perceived sources of their attitudes: An examination of pilot data. *Archives of Psychiatric Nursing, V,* 271-280.

Mayville, E., & Penn, D. L. (1998). Changing societal attitudes towards persons with severe mental illness. *Cognitive and Behavioral Practice, 5,* 241-253.

Moran, P. M., Bifulco, A., Ball, C., & Campbell, C. (2001). Predicting onset of depression: The Vulnerability to Depression Questionnaire. *British Journal of Clinical Psychology, 40,* 411-427.

Morano, C. D., Cisler, R .A., & Lemerond, J. (1993). Risk factors for adolescent suicidal behavior: Loss, insufficient familial support, and hopelessness. *Adolescence, 28,* 851-866.

Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L S. Wrightman (Eds.) Measures of personality and social psychological attitudes (pp. 17-57). San Diego, CA: Academic Press, Inc.

Petrus, N. G., & Chan, K. F. (2002). Attitudes towards people with mental illness: Effects of a training program for secondary school students. *International Journal of Adolescent Medical Health, 14*, 215-216.

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.

Ramon, S. (1978). The meaning attached: Attitudes towards the mentally ill. *Mental Health and Society, 5*, 164-182.

Roeckelein, J. E. (2002) A demonstration of undergraduate students' first impression and their rating of pathology. *Psychological Reports, 90*, 613-618.

Sadow, D., Ryder, M., & Webster, D. (2002). Is education of health professionals encouraging stigma towards the mentally ill? *Journal of Mental Health, 11*, 657-665.

Sameroff, A. J., Lewis, M., & Miller, S. M. (2000). *Handbook of Developmental Psychopathology*, Second Edition. New York: Kluwer Academic/Plenum Publishers.

Sharma, P.P. (2012). Positive Mental Health, Need for Holistic Approach. Kathmandu *University Medical Journal, 8, 360-361.*

Spearing, M. (2002). NIH Publication No. 02-3679. *Bipolar Disorder*. Maryland: National Institute of Mental Health.

Spearing, M. (2002). NIH Publication No. 02-3517. *Schizophrenia*. Maryland: National Institute of Mental Health.

Strock, M. (2002). NIH Publication No. 02-3561. *Depression.* Maryland: National Institute of Mental Health.

Svensson et al. (2011). Test-retest reliability of two instruments for measuring public attitudes towards persons with mental illness. *BMC Psychiatry, 11:11.*

Tatman, S. M., Greene, A. L., & Karr, L. C. (1993). Use of the Suicide Probability Scale (SPS) with adolescents. *Suicide and Life-Threatening Behavior*, *23*, 188-203.

Thornicroft, G., Brohan, E. Kassam, A., & Lewis-Holmes, E. (2008). Reducing stigma and discrimination: Candidate interventions. *International Journal of Mental Health Systems*, *2:3.*

Wolff, G., Pathare, S., Craig, T., & Leff, J. (1996). Community Knowledge of Mental Illness and Reaction to Mentally Ill People. *British Journal of Psychiatry*, *168*, 191-198.

# APPENDICES

## Questionnaire

# QUESTIONNAIRE

**Thank you for choosing to participate in this study. Please do not put your name or any identifying information (such as your CSU ID#, name, or signature) on the questionnaire. This will ensure that all answers will be completely confidential. There is no right or wrong answer to any of the survey questions. Please answer each question honestly and to the best of your ability. Please follow the directions listed at the beginning of each section of the questionnaire. Please put one copy of the consent form with your signature and the completed questionnaire in the provided envelopes and return to Chester Building 103. Consent forms will be kept separately from the questionnaires to ensure privacy. If you have any questions regarding this survey- please contact either Melissa Derrick at 216-346-7920 or her faculty advisor, Dr. Stephen D. Slane at 216-687-3554. Melissa Derrick will also be available for debriefing.**

## DEMOGRAPHIC INFORMATION

**Please check the appropriate response or fill in the blank with the appropriate answer-please check only one answer.**

1. Age:
___18-21
___22-25
___26-35
___36 & older

2. Gender:
___male
___female

3. Ethnic origin:
___White/Caucasian
___Black/African American
___Hispanic/Latino
___Asian
___Native American
___Other _____

4. Total Household income:
___$20,000 & under
___$20,000-25,000
___$26,000-$50,000
___$51,000-$100,000
1. ___$100,000 & above

5. Do you have any children?
___Yes
___No

6. If yes, how many children do you have? _____

7. Have you taken any Psychology courses?
___Yes
___No

8. If yes, are you currently taking a Psychology course?
___Yes-Please list the course(s) you are currently taking_____
___No

9. Have you ever been diagnosed with a mental illness?
___Yes
___ No

10. Has a family member or friend of yours ever been diagnosed with a mental illness?
___Yes
___No

# SURVEY QUESTIONS

## GENERAL KNOWLEDGE ABOUT MENTAL ILLNESS

**Please check the response that best describes you.**

11. How knowledgeable do you consider yourself to be about mental illness overall?
___Very knowledgeable
___Knowledgeable
___Somewhat knowledgeable
___Not very knowledgeable
___Not at all knowledgeable

12. How confident are you in your overall knowledge of mental illness?
___Very confident
___Confident
___Somewhat confident
___Not very confident
___Not at all confident

13. Can a person be born with a mental illness? (Please check only one answer)
___Yes
___No

14. Do you believe the severity of a person's mental illness is an important factor in the type of treatment they receive?
___Yes
___No

15. In your opinion, which of the following is **not** an example of a mental illness? **(check all that apply) If you believe that all of the following are examples of mental illness- leave this question blank.**

___Schizophrenia
___Depression
___Bipolar Disorder
___Anxiety
___Autism
___Anorexia Nervosa/Bulimia/Nervosa
___Dissociative Identity Disorder (Multiple Personality Disorder)
___Obsessive-Compulsive Disorder
___Phobias
___Insomnia
___Posttraumatic Stress Disorder

**Please rank all of the following 12 items by placing a different number from 1 to 12 by each item with 1 being the most likely to cause mental illness and 12 being the least likely to cause mental illness.**

16. What causes mental illness?

___Family/relationship problems
___Depression
___Stress
___Drinking/drugs
___Organic/physical illness
___Death or loss
___Bad childhood or abuse
___Accident
___Loss of employment
___Environment
___Genetics
___Other factors (please explain)_____

**please go to page 4**

**Please rank each of the following 12 items by placing a different number from 1 to 12 by each item with 1 being the most frequent result of mental illness and 12 being the least frequent result of mental illness.**

17. What happens to people with mental illness?

___Withdrawal
___Violent Behavior
___Loss of memory
___Suicide
___Confusion
___Hallucinations
___Institutionalized permanently
___Discriminated against
___Become homeless
___Go on medication
___Go to a mental hospital
___See a counselor or psychiatrist

**Please rank each of the following 6 items by placing a different number from 1 to 6 next to each item with 1 being the best place for the mentally ill to be treated and 6 being the worst place for the mentally ill to be treated**

18. Where do you think mentally ill people should be treated?

___Special homes
___Hospital
___At home
___In a clinic
___By the community
___By a general practitioner

**please go to page 5**

**Please rank each of the following 10 items by placing a different number from 1 to 10 next to each item with 1 being the best person to treat mentally ill person and 10 being the worst person to treat the mentally ill.**

19. Who do you think should treat mentally ill people?

___Doctor
___Psychiatrist
___Nurse
___Counselor
___Psychologist
___Social Worker
___Friend
___Family
___Ex-patients
___Volunteers

20. What is/are the source(s) of your knowledge about mental illness**? (check all that apply)**

___Personal experience
___Relationship with a mentally ill person
___Work- related experience
___Educational experience
___Personal interest in learning about the mentally ill
___News media (TV news, radio news, and newpapers/magazine articles)
___Television programs and movies about mental illness
___Other (Please explain) _____

21. Which of the above sources that you checked is your main source of knowledge about mental illness?_____

**please go to page 6**

**Please follow the directions carefully for questions 22-48 below.**

**First, please rate how knowledgeable you are and the confidence you have in that knowledge for each illness listed in questions 22 and 23 on a scale of 1 to 5 with 1 being very knowledgeable or confident and 5 being not at all knowledgeable or confident.**

**Second, put a check in the box of the symptom if you believe it is TYPICAL of the mental illness listed.**

**PLEASE NOTE: Some symptoms may NOT be symptoms of either illness. *If the symptom listed is NOT a symptom of either illness-please leave that question blank*. Some symptoms may be symptoms of BOTH illnesses. *If so, please check BOTH boxes for that question.***

| | | Schizophrenia | Anxiety Disorder(s) |
|---|---|---|---|
| 22. | **Rate your knowledge of each illness** | | |
| 23. | **Rate your confidence in your knowledge of each illness** | | |

| | Symptoms | Schizophrenia | Anxiety Disorder(s) |
|---|---|---|---|
| 24. | Irritability | | |
| 25. | Depressed mood most of the day-every day | | |
| 26. | Confusion or perplexity | | |
| 27. | Difficulty controlling worry & excessive worry (apprehensive expectation) | | |
| 28. | Easily Fatigued | | |
| 29. | Disorganized speech | | |
| 30. | Restlessness | | |
| 31. | More talkative than usual or pressure to keep talking | | |
| 32. | Hyperviligance | | |
| 33. | Grossly disorganized or catatonic behavior | | |
| 34. | Echolalia or echopraxia | | |
| 35. | Muscle tension | | |
| 36. | Suspiciousness or paranoid ideation | | |
| 37. | Peculiarities of movement | | |

| | Symptoms | Schizophrenia | Anxiety Disorder(s) |
|---|---|---|---|
| 38. | Flat or inappropriate affect | | |
| 39. | Increase in goal-directed activity | | |
| 40. | Poor appetite or overeating | | |
| 41. | Hallucinations | | |
| 42. | Sleep disturbance-difficulty falling asleep and/or staying asleep or restless unsatisfying sleep | | |
| 43. | Difficulty concentrating or mind going blank | | |
| 44. | Excessive or inappropriate guilt nearly every day | | |
| 45. | Delusions | | |
| 46. | Inflated self-esteem or grandiosity | | |
| 47. | Recurrent thoughts of death and/or recurrent thoughts of suicidal ideation or suicide attempt with or without a plan | | |
| 48. | Failure to conform to social norms with respect to lawful behavior | | |

**Please go to page 8**

**ATTITUDES ABOUT MENTAL ILLNESS**

**Please use the following scale to answer each of the following questions: (please circle the number that most closely resembles how you feel for each question)**

| *Strongly agree* | | | *Neutral* | | | *Strongly Disagree* |
|---|---|---|---|---|---|---|
| ***1*** | ***2*** | ***3*** | ***4*** | ***5*** | ***6*** | ***7*** |

49. If a group of people with a history of mental illness lived nearby, I would not allow my children or children in my neighborhood to play alone.

| **Strongly agree** | | | **Neutral** | | | **Strongly Disagree** |
|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |

50. If a person with a history of mental illness applied for a teaching position and was qualified for the job, I would recommend hiring him or her.

| **Strongly agree** | | | **Neutral** | | | **Strongly Disagree** |
|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |

51. One important thing about people with a history of mental illness is that you cannot tell what they will do from one minute to the next.

| **Strongly agree** | | | **Neutral** | | | **Strongly Disagree** |
|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |

52. If I knew someone has a history of mental illness, I would be less likely to trust him or her.

| **Strongly agree** | | | **Neutral** | | | **Strongly Disagree** |
|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |

53. The main purpose of mental hospitals is to protect the public from mentally ill people.

| **Strongly agree** | | | **Neutral** | | | **Strongly Disagree** |
|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |

54. Although some mentally ill people seem alright, it is dangerous to forget for a moment that they are mentally ill.

| **Strongly agree** | | | **Neutral** | | | **Strongly Disagree** |
|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |

55. I can't help staring at mentally ill people.

| **Strongly agree** | | | **Neutral** | | | **Strongly Disagree** |
|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |

56. I tend to make contact with mentally ill people as brief and quick as possible.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

57. I admire a mentally ill person's ability to cope.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

58. It would be rewarding to be able to help mentally ill people.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

59. I feel frustrated because I don't know how to help mentally ill people.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

60. I am aware of the problems mentally ill people face.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

61. I am grateful I am not mentally ill.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

62. I dread the thought that I could become mentally ill.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

63. I don't pity mentally ill people.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

64. After frequent contact with a mentally ill person, I think I would notice the person, not the illness.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

65. I would prefer not to work with mentally ill people.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

66. Mentally ill people irritate me.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

67. Working with mentally ill people would be satisfying.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

68. There is little I can do to help mentally ill people.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

69. Treating mentally ill people is a waste of medical dollars.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

70. Although people talk about supporting mentally ill people, the visible, active support just isn't there.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

71. It seems like the real reason mentally ill people are denied promotions or a raise is that they are seen as not fitting in.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

72. People are sometimes hired for a job with fewer qualifications than other applicants because they are mentally ill.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

73. I feel like mentally ill people are protected more or given extra advantages.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

74. People who are mentally ill are hard to talk to sometimes.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

75. I am careful not to joke around about mental illness with those who may take it personally.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

76. Individuals with mental illness have a difficult time getting their ideas across.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

77. Individuals have a difficult time really listening with an open mind to the ideas presented by those with mental illnesses.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

78. I go out of my way to learn about mental illness.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

79. Mentally ill people's way of talking or acting causes them to be treated as less competent or smart.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

80. It seems like people don't trust mentally ill people.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

81. You can just see a difference in the way some people are treated or talked to because they are mentally ill.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

82. As soon as a person shows signs of mental illness he or she should be hospitalized.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

83. People need to adopt a far more tolerant attitude towards the mentally ill.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

84. Mentally ill people are more aggressive or violent than other people.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

85. Insurance plans should cover mentally ill patients to the same degree that they cover patients with other conditions.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

86. I feel especially compassionate towards mentally ill people.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

87. There is little the community can do to help mentally ill people.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

88. Mentally ill children should be in special classes or a special school.

| Strongly agree | | | Neutral | | | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**<u>Use the following scale to answer the next eight questions</u>: <u>(Please choose the number that most closely resembles how you feel for each question)</u>**

| ***1*** | ***2*** | ***3*** | ***4*** |
|---|---|---|---|
| ***definitely willing*** | ***probably willing*** | ***probably unwilling*** | ***definitely unwilling*** |

89. How about renting a room in your home to someone who is mentally ill?

| **1** | **2** | **3** | **4** |
|---|---|---|---|
| **definitely willing** | **probably willing** | **probably unwilling** | **definitely unwilling** |

90. How about working with someone who is mentally ill?

| **1** | **2** | **3** | **4** |
|---|---|---|---|
| **definitely willing** | **probably willing** | **probably unwilling** | **definitely unwilling** |

91. How about having someone who is mentally ill as a neighbor?

| **1** | **2** | **3** | **4** |
|---|---|---|---|
| **definitely willing** | **probably willing** | **probably unwilling** | **definitely unwilling** |

92. How about having someone who is mentally ill as a friend?

| **1** | **2** | **3** | **4** |
|---|---|---|---|
| **definitely willing** | **probably willing** | **probably unwilling** | **definitely unwilling** |

93. How about having your child or a relative of yours marry someone with a mental illness?

| **1** | **2** | **3** | **4** |
|---|---|---|---|
| **definitely willing** | **probably willing** | **probably unwilling** | **definitely unwilling** |

94. How about recommending someone with a mental illness for a job working with a friend or family member of yours?

| **1** | **2** | **3** | **4** |
|---|---|---|---|
| **definitely willing** | **probably willing** | **probably unwilling** | **definitely unwilling** |

95. How about working in a study group with someone with a mental illness?

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| **definitely willing** | **probably willing** | **probably unwilling** | **definitely unwilling** |

96. How about taking classes with someone who has a mental illness?

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| **definitely willing** | **probably willing** | **probably unwilling** | **definitely unwilling** |

**EDUCATION QUESTIONS**

**Please use this scale to answer the following two questions: On a scale of 1 to 10 (with 1 indicating no more education needed and 10 indicating that much more education is needed) please circle the number that most accurately describes how you feel.**

**NO Education needed** **MUCH more education needed**

**1 2 3 4 5 6 7 8 9 10**

97. Do you believe there the general public needs to be educated about mental illness and if so, to what extent?

**NO Education needed** **MUCH more education needed**

**1 2 3 4 5 6 7 8 9 10**

98. Do you believe there should be mental illness and mental health education in our schools?

**NO Education needed** **MUCH more education needed**

**1 2 3 4 5 6 7 8 9 10**

99. Do you want to learn more about mental illness?

____Yes
____No

**Thank you**

# APPENDICES

## Table I: Summary of Results

## Knowledge

| Mental Illness | | Anxiety | | Schizophrenia | |
|---|---|---|---|---|---|
| how do I feel about recommending a mentally ill person for a job? | r=.200* | how do I feel about recommending a mentally ill person for a job? | r=-.212* | said "yes" if they would like to learn about mental illness | r=.205* |
| How do I feel about being in a study group with a mental ill person? | r=.222* | How do I feel about being in a study group with a mentally ill person? | r=-.248** | | |
| | | Working with mentally ill people would be satisfying | r=-.219* | | |
| | | I go out of my way to learn about mental illness | r=.239* | | |
| | | said "yes" if they would like to learn about mental illness | r=-.210* | | |
| | | Although some mentally ill people seem alright, it is dangerous to forget that they are mentally ill | r=.249** | | |
| | | How do I feel about taking classes with a mentally ill person? | r=.247** | | |

## Estimated Knowledge

| Mental Illness | | Anxiety | | Schizophrenia | |
|---|---|---|---|---|---|
| If I knew of someone with a history of mental illness I would be less likely to trust him or her | r=.268** | How do I feel about a mentally ill person being my friend? | r=-.216* | How do I feel about working with a mentally ill person? | r=.255** |
| There is little I can do to help mentally ill people | r=-328** | I am aware of the problems mentally ill people face | r=.198** | How do I feel about a mentally ill person being my neighbor? | r=-.272** |
| I am aware pf problems mentally ill people face | r=.434** | | | I go out of my way to learn about mental illness | r=.252** |
| It seems like people don't trust mentally ill people | r=-.248** | | | How do I feel about a mentallly ill person being my friend? | r=.291** |

## Confidence

| Mental Illness | | Anxiety | | Schizoprhenia | |
|---|---|---|---|---|---|
| If I knew someone with mentall illness I would be less likely to trust him or her | r=.268** | If a group of people with a hsitory of mental illness lived nearby, I would not allow my children to play alone | r=-.194* | | |
| how do you feel about being in a study group with a mentally ill person? | r=.222* | | | | |

## Estimated Confidence

| Mental Illness | | Anxiety | | Schizoprhenia | |
|---|---|---|---|---|---|
| I am aware of the problem mentally ill people face | r=..339** | | | | |
| I go out of my way to learn about mental illness | r=.289** | | | | |
| There is little I can do to help mentally ill people? | r=-.323** | | | | |
| There is little the community can do to help mentally ill people | r=.189* | | | | |
| If I knew someone with mental illness I would be less likely to trust him or her | r=.222* | How do I feel about a mentally ill person being my friend? | r=-.295** | How do I feel about a mentally ill person being my friend? | r=-.291** |

**Key:**

**.Correlation is signficant at the 0.01 level (2 tailed).

*. Correlation is significant at the 0.05 level (2-tailed)

Gray highlighted results support hypothesis 1

Gray hightlighted results support hypothesis 2