Examining the Stigma of College Students in Relation to Mental Illnesses by Way of Gender,

Age, Major, and Ethnicity

by

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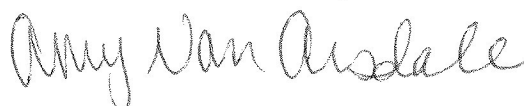A thesis submitted in partial fulfillment of the requirements of the Marymount Honors Program

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Examining Factors that Influence College Students' Perceptions of People with Mental Illness

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ABSTRACT

This paper looks to explore the factors that may influence college students' perceptions of people with mental illness. These factors include gender, age ethnicity, previous knowledge, and exposure to mental illness. A total of 63 surveys were collected from Marymount University undergraduate students and the gender of the participants was reflective of the campus' gender ratio. Results indicated that gender, ethnicity, and major at Marymount have no relationship to participants' understanding of mental illness or perceptions about the people with mental illness. The hypothesis that bias towards people with mental illness should also correlate in a positive way with people's own perceptions on mental illness was supported. The final hypothesis that bias should also have a negative correlation with knowing what mental illness are recognized in the DSM-V was also supported.

INTRODUCTION

Mental illness, or mental disorder, is a distinct part of the human existence. At least one in five adults suffer from a diagnosable mental illness (Phelan & Basow, 2007), whether it be anxiety, depression, schizophrenia, or bipolar disorder. Each disorder comes with its own unique attributes and can affect individuals differently. For example, some people suffer from such severe depression that modern medicine, like pills, electroconvulsive therapy (ECT), or talk therapy, does not help them to function within society. These people, who have been diagnosed with a mental disorder or who suffer without a diagnosis, represent the mentally ill community and they can be severely impacted by media bias and stigma.

The Media and Gun Violence

Mental illness can be defined as irregular patterns in affect, behavior, and thought (CDC, 2016). Overall, the stigmas surrounding mental illnesses like depression and anxiety have begun to decrease, but fears surrounding people with schizophrenia have remained relatively the same (McGinty, Webster, Jarlenski, & Barry, 2014). Common fears about people with schizophrenia are that they are a danger to others and can be unpredictable. This is probably in large part due to media coverage of gun violence on campuses around the country as well as in other heavily populated public places. The news reports that cover these instances of mass violence do more harm than good to the mentally ill community by causing the public to fear anyone who has a mental disorder. Take for example the shooters involved in Virginia Tech and Aurora. The Virginia Tech was reported to have had schizophrenia and the Aurora shooter was said to be

bipolar. The rarity of these events and their horrific nature combined with the media's inclusion of the mental health history of the shooters makes it easy for fear to develop within the general public because they are now going to assume that the mental illnesses that the shooters had were the cause of the violence (McGinty et al., 2014). In addition, if the media devotes enough time to covering gun violence and linking it to someone with mental illness, public stigma is likely to increase (McGinty et al., 2014). These acts of violence committed by the rare few have generated inordinate amounts of negative press causing people to believe that all those with the same disorders are just as violent (Rosenberg, 2014). Approximately 4.2% of American adults are diagnosed with a serious mental illness (SMI). SMIs are considered by the NIH (2014) to be emotional disorders, behavioral disorders, or any other mental disorder (save drug addiction) that can be diagnosed by a professional and inhibits one's ability to function within their own life. This translates to approximately 9.8 million Americans. The idea that mental illness leads to violence is untrue as people with mental illness, especially the aforementioned ones, are more likely to have violence committed against them than to commit violence themselves (Rosenberg, 2014). Studies have found that people with mental illness are eleven percent more likely to be attacked than those without mental illness (Insel, 2011).

With the general public generally having an unfavorable opinion of people with mental disorders especially in light of all the gun violence in the country, multiple surveys have been conducted to see what people would think of giving people with mental disorders the right to carry firearms. Barry, McGinty, Vernick, and Webster (2013) sent out two nationally representative surveys with a population size of roughly 2,700 for the survey on gun issues and 1,500 for the survey on mental illness. Most people believed that those with mental illness should not have access to guns because they perceived people with mental illness to be

dangerous to themselves or others. As Rosenberg stated before, this is generally not the case.

While the general public might think that having stricter gun control laws and regulations in

place for people with mental disorders is a good idea, many psychologists believe that it might

actually increase bias against those with mental illness (McGinty, 2013).

Most of the time, if any violence is committed by a person with a mental illness, the

individual is under the influence of illegal drugs or alcohol (McGinty, Webster, & Barry, 2013).

Having a SMI does not significantly increase the chance of committing violent acts (Elbogen &

Johnson, 2009). But, a person with a SMI who also uses illegal drugs and/or alcohol is

significantly more likely to be violent (Elbogen & Johnson, 2009). Even then, there are multiple

tools in the criminal justice system to predict recidivism, or repeat offenses, and it was found

that while people with mental illness on illegal drugs were more likely to be violent, mental

illness itself was not indicative of any risk (Elbogen & Johnson, 2009). Yet, legal restrictions are

still placed on people with mental illness because they are perceived as "dangerous people" and

even more so if they were ever involuntary placed in mental health institutions or if caretakers

believe they might be a risk (McGinty et al., 2013). In some cases, like in New York, therapists

are required by law to report anyone who might be a danger to themselves or others so that the

state can come to their homes and take any firearms that they might legally own (McGinty et al,

2013). But these laws also increase the desire for social distance in the general population and

increase stigma because those with mental illness no longer have the same rights as the rest of

the country's citizens do (McGinty et al., 2013). What is interesting to note however, is that

when people were surveyed by Barry et al. (2013), many were in agreement that people with

mental illness needed more health care support from the government. But, the people surveyed

also expressed the intention of maintaining social distance indicating that while they are

beginning to maybe fear those with mental illness less, there is still enough uncertainty for them to want to interact with the mentally ill as little as possible (Barry et al., 2013).

Popular Media

Besides the news media, young people get a lot of their information from social media and from celebrities (Pfister, 2014). When watching television or movies depicting persons with mental illness, young adults are more likely to see them as unattractive and label them as "crazy" (Pfister, 2004). The problem lies in the fact that many teenagers might not completely understand what mental illness is, but nevertheless label people who they see as abnormal as "crazy" to be accepted by their peers (Pfister, 2004). They cannot have developed these notions about people with mental illness completely alone because they have not had enough life experience yet. Therefore, it can be reasonably assumed that they are influenced by people such as their guardians, teachers, and what popular media tells them (Pfister, 2004). As such, it is hypothesized that there will be no relationship between awareness of the public's opinion and a person's own opinion (hypothesis 1). Baun (2009) writes that there is hardly a week that goes by without some mention of mental illness in the media and that media is so powerful it "can even override peoples' own personal experiences in relation to how they view mental illness" (p. 32). In film and television, the mentally ill are often shown as homeless, unemployed, and aimless (Baun, 2009). Because of these common depictions, people are prone to seeing the mentally ill as unpredictable, violent, and generally hopeless (Tartakovsy, 2016). It is quite common for the media to isolate characters with mental illness too, making the viewership feel uncertain about them (Pfister, 2004). When channels like MTV use the words "crazy" and "idiot" when referring to people with mental illness, it was found to have a direct impact on how preteens and teenagers viewed mental disorders (Pfister, 2004). Seeing such negative depictions of people

with mental disorders has led some people with anxiety and depression to experience an increase in symptoms and report that it made them feel more like outsiders (Baun, 2009). These vilified television characters can severely impact the self-esteem of people with mental illness and can make them want to hide their illnesses even more, thus internalizing their fears and making it less likely that they will seek help (Baun, 2009). A study done by Pfister (2004) suggested, contrary to most research, that men and women would be more willing to "hang out" with a person who had a mental illness after an interview was conducted to determine college students' perceptions of stigma and mental illness and how media and celebrities can influence a person's views on mental illness. The participants admitted during the interview session that they had negative perceptions of celebrities with mental illness (Pfister, 2004). This is most likely because of preconceived notions established at a young age by other celebrities, the media, and mentors that they had growing up. Based on this research, a relationship between awareness of public opinion and stigma toward people with mental illness was predicted (hypothesis 2).

Education of the General Population

It has been conjectured by many that, with the proper education, the general public could come to better understand people with mental illness (Schomerus, Matschinger, & Angermeyer, 2014; Pescosolido, Martin, Long, Medina, Phelan, & Link, 2010). Theoretically, at least some general knowledge should allow for a more positive opinion of people with mental illness. Unfortunately, though, it has been suggested that knowledge and factual information do not help to improve the perspective of the public toward people with mental illness except in the case of depression (McGinty et al., 2014). Based on this study, it was predicted that having a better understanding of what mental illnesses are will not lead to fewer negative opinions about those who have mental illness (hypothesis 3). Schomerus et al. (2014) believed that explaining

mental disorders through the lens of biology would help to make it clear that it is not the fault of the people who have them. These approaches only worked to lessen some stigmas, but mostly those associated with alcohol dependency as people are more likely to see it as a trait unfortunately inherited from previous generations when compared to disorders like schizophrenia (Schomerus et al., 2014). Pescosolido et al. (2010), on the other hand, found that while education helped people to accept neurological explanations for mental illnesses, there was still no reduction in public stigma. Interestingly enough, even with contradictory results, it was found that education has led to further support for mental health care and therapy (Parrott, 2010). Parrott (2010) conducted an experiment where different groups of people were given a pre- and post-test on their opinions of people with mental illness. When the pre-test was completed, they were given newspaper articles to read involving people with mental illness. One article told a story of a woman with a mental disorder who committed a violent crime. The second group's article was the same as the first except that new information was added that provided readers with information from the NIH that answered questions about schizophrenia. The final group's article had nothing to do with mental illness (Parrott, 2010). A post-test was conducted to see if there was any change in opinion. The general public still believed that those with schizophrenia or bipolar disorder should be avoided. This aversion may be because these two disorders specifically involve sporadic personality changes and actions, such as talking to oneself in the case of schizophrenia, whereas disorders like depression are usually kept to oneself. I predicted that psychology majors will show less stigmatization than the other majors collected in this study by virtue of their studies (hypothesis 4).

Stigmatization

Overall, there has not been an excessive amount of research conducted on how the media might impact public perception of mental disorders. It can be agreed upon that people who suffer from mental illness are being discriminated against. For example, McGinty et al. (2014) found that the news portraying people with mental illness as aggressive individuals has contributed to already negative attitudes by the public. Studies have also shown that those surveyed about mental illness see individuals with mental disorders as irresponsible and childish. These negative attitudes about people with mental illness fuel negative stereotypes and as they grow, they lead to stigmatization and discrimination (Rao, Feinglass, & Corrigan, 2007). Therefore, the more stigmatizing a person's perceptions of people with mental illness are, the less understanding a person will have of what mental illnesses are (hypothesis 5). Additionally, there will be a relationship between levels of stigmatization and personal opinion. More specifically, the more stigmatizing someone is the more negative their personal opinions are of mental illness (hypothesis 6). Stigmatization can make it difficult to find work and housing and can disrupt social relationships further isolating people with mental illness (Rice, Richardson, & Kraemer, 2014). The best way to further understand the effects of discrimination that the mentally ill community experiences based on stigmatization is to compare it to more well-known forms of discrimination.

 Racism and In-Group/ Out-Group Bias

The best comparison to be made would have to be with racism as it has been a long standing part of our country's history. While the two are most definitely not the same, racism is a form of discrimination that is widely talked about in our society today whereas mental health discrimination is not. By comparing the two, hopefully similarities can be drawn to justify the

juxtaposition.   If that is to be the case, the basic aspects of racism should be explored to examine discrimination and bias towards those with mental illness.

Discrimination operates on an in-group/out-group bias with the in-group being the powerful majority and the out-group being the minority (Chen, Purdie-Vaughns, Phelan, Yu, &Yang, 2014). The difference between groups is strongly highlighted when social issues are involved, making it easy for there to be an "us" and "them" mindset (Boyanowski & Allen, 1973). Stigma grows in a very specific way according to Phelan and Basow (2007). Phelan and Basow (2007) found that the in-group will find some sort of difference between themselves and the out group and label it. From there, an often negative association is paired with that label and the groups more thoroughly draw the lines between "us" and "them". The end product ends up being discrimination, and if the in-group has the most power, they can make life very difficult for the out group based on stigma (Phelan & Basow, 2007). There are many different variations and ways that in-groups and out-groups can differ, but for the sake of the analogy, we will focus on race. The in-group population in this case is white Americans and the out-group will be minority Americans. With the social power that the in-group had, they were more capable of discriminating against minority populations and keeping them at a lower societal level while at the same time seeing them as generally untrustworthy (Rice et al., 2014). The in-group was able to see them this way even if other members of their own group acted in a similar manner because of attribution (Chen et al., 2014). Anything positive that a member of the in-group does is internal; they are inherently good. But, if they were to do something negative, other members of the in-group would say that this behavior was caused by external forces and is not completely the fault of the member in question (Chen et al., 2014). All negative qualities of the out-group are internal, making the out-group innately inferior, while if another member of their group acted

in a less than upright way, there would have to be some other explanation (Chen et al., 2014). This kind of reasoning can still be seen in our media today and is used to justify any negative perceptions held by the in-group (Chen et al., 2014).

The case is similar with mental disorders in that the in-group (the general population) thinks that it is the fault of the out-group (the mentally ill community). This kind of stigma is easily internalized and makes it more difficult for the out-group to seek out help because they blame themselves for the way they are (Rice et al., 2014). Racial stereotyping is similar in that people who are discriminated against hold in all of that negative emotion and feel powerless to do anything (Brosch, Bar-David, & Phelps, 2013; Mansten, Telzer, & Eisenberger, 2011). Rice et al. (2014) found research that showed that the best way for a member of the in-group to overcome any bias or stigma is to actually interact and befriend someone from the out-group. In the case of mental illness, the in-group is the population of Americans that do not have a diagnosed mental illness, while the out-group is constituted of people diagnosed as having at least one. This evidence supports hypothesis seven in that personal opinions of people with mental illness will be related to exposure to people with mental illness. The study conducted by Bizub and Davidson (2011) found that developing trust between the students and people with mental illness dispelled previously held stigmas. Hypothesis eight therefore suggests that exposure to people with mental illness will influence people's understanding of what mental illness is. The results of this study are intriguing, and although the sample size was very small, it suggests that individuals with more exposure to mental illness might have fewer negative perceptions of people with mental illness (hypothesis 9).

In the case of mental illness, the in-group is the population of Americans that do not have a diagnosed mental illness, while the out-group is constituted of people diagnosed as having at

least one. With the unintentional aid of the media, the in-group is attempting to maintain and encourage social distance from the out-group population. The research posited here therefore gives credence to hypothesis ten where exposure to people with mental illness will not impact how people understand public opinion (this includes the media). As previously stated, educating the public has not helped to improve discrimination against the out-group. Schizophrenia is still as stigmatized as it was decades ago (Pescosolido, Martin, Long, Medina, Phelan, & Link, 2009).

Perceptions of Mental Illness Based on Gender

Gender, along with race, also seems to have an impact on mental illness and how it is approached. Studies have found that women are more likely to look for help when it comes to dealing with mental illness (Gonzalez, Alegria, & Prihoda, 2005). This phenomenon is known as the gender effect. The World Health Organization (2002) has noticed that trend too, especially in developing countries where the wife is more likely to show support for a husband with a mental illness. They also found that, in mostly developed countries, more women actively seek help for mental illness compared to men (World Health Organization, 2002). However, Angermeyer and Dietrich (2005), who studied global attitudes about people with serious mental illness, found that there was no correlation, or gender effect, between gender and attitude towards mental illness. Although they did find that age has an influence on what people think about mental illness. Gonzalez et al. (2005) investigated whether the gender effect would be more evident in minority groups, specifically African Americans and Latinos. What they instead found was that there was no gender effect suggesting that they share many similarities in their thoughts about handling and encountering mental illness as European Americans (Gonzalez et al., 2005). The results of these

studies are mixed. But, based on the earlier research, it can be hypothesized that males will show more negative perceptions than females (hypothesis 11).

Perceptions of Mental Illness Based on Age

Another possible influence on stigma may be age. Younger people are still learning about life and may not have encountered as many people with mental illness as older people. Younger people usually still rely on the teachings and cues that their parents or teachers give them to make their decisions. In contrast, older people have had many impactful experiences that have been able to mold their decision-making beyond what their mentors taught them early on in life. A study in Australia on stigmas that young people have towards those with mental illness shows that teenagers tend to have views that reflect those of their parents (Jorm & Wright, 2008). In addition, while stigma is multidimensional, they found that there tend to be more negative perceptions among youths (Jorm &Wright, 2008). These stigmas can even effect young adults who have mental illness, but see getting help to be a sign of weakness (Gonzalez et al., 2005; Mackenzie, Gekoski, & Knox, 2006). Based on their studies, the group that indicated more of a desire to seek help were older, single women (Mackenzie et al., 2006).

From the research conducted above, it is highly probable that younger people stigmatize and discriminate against people with mental illness. This study offers support to hypothesis twelve, which theorizes that younger people will hold more stigma towards people with mental
illness.

Beliefs About Mental Illness Based on Ethnicity

When combining the fear of mental illness with other stigmas, it alters how the people involved are affected. Research by the Surgeon General has shown that mental illnesses like

depression, bipolar disorder, and schizophrenia occur in similar rates all over the world (US Department of Health and Human Services, 2001).   There are no exceptions due to differences in culture, except in manifestation of symptoms. Indeed, the classification of mental illnesses depends on the culture that they are in. Mental illness can be defined as disrupting social norms, however unintentional (Phelan & Basow, 2007). This might explain why some ethnic groups in the United States are more averse to mental illnesses than others. In the United States specifically, people of minority status are less likely to seek aid for any mental disorders

(Department of Health and Human Services, 2001). Another study by Anglin, Link, and Phelan (2006) found that in a survey of eighty-one African American and over five-hundred European Americans, African Americans were more likely to be biased towards people with mental illness and see them as dangerous. But, they were also more supportive than European Americans of getting those with mental disorders access to health care (Anglin et al., 2006).

In a study across a college campus, Rao et al. (2007) wanted to see if race had any influence on the perception of mental illness. They found that before exposure to people with mental illness, African Americans and Asian Americans were more likely to see people with mental illness as a threat than European Americans. After being exposed to people with mental illness, however, Asian Americans and Latinos were less likely to see them as threatening than any other group while African Americans still wanted separation the most (Rao et al., 2007). Supporting the findings of Rice et al. (2014), the study showed that after a one-on-one interaction with a person who has a mental illness, it drastically improved people's perceptions of those with mental disorders (Rao et al., 2007). In fact, Asian Americans showed the most signs of change when it came to overcoming stigma (Rao et al., 2007).   In research done by

Phelan and Basow (2007), they found the fact that people being labeled "mentally ill" had an influence on stigma, because they are directly identifying the difference between themselves and the other group. It should be noted that this labelling was only seen as problematic when negatively associated with a stereotype (Phelan & Basow, 2007). Based on the research above, it can be hypothesized that ethnicity will influence stigmatization (hypothesis 13).

METHODS

Participants

A total of 64 Marymount University undergraduate students were recruited using convenience sampling. Marymount University is a small Master's II comprehensive University in the Washington DC metropolitan area of the United States with a culturally diverse student body. One participant's data was omitted because it was incomplete leaving 63 participants with usable data that are discussed here. Forty-two participants were female, and twenty were male and they fell between the ages of 18-29 years old. While 63 total surveys were completed, one of the participants failed to mention their gender. The Chi-square goodness-of-fit test for gender was X^2 $(1, N=62) = .003$, $p = 1.00$, showing that the gender distribution of the participants in this sample did not differ significantly from the population of undergraduate students at Marymount University (Marymount Factbook, 2016). The majority of the students sampled were white (27.1%) and freshmen (58%). Participants were primarily psychology and criminal justice majors: 36.5% psychology majors, 31.7% criminal justice majors, and 31.7% other. In addition, the ratio of majors collected was not representative of Marymount's majors with X^2 $(1, N=63) = 80.05$, $p = .0001$. Roughly 8.8% percent of participants in the study were African American,

4.7% Asian/Pacific American, 9.5% Hispanic/Latino, .3% Native American/ Alaskan Native, 27.1% White (Non-Hispanic), and 12.6% other. A chisquare goodness-of-fit test was conducted to determine whether or not the racial demographic data collected from the sample matched Marymount University's population. It was determined that it did not, X^2 (5, N=63) = 9.62, p = .08.

Each participant was treated in accordance with the "Ethical Principles of Psychologists and Code of Conduct" (American Psychological Association, 2010). A copy of the consent form and all measures completed by participants are attached (see Appendices).

Procedure

The researcher approached each professor and asked for permission to distribute the survey to their classes. In total, three professors and two student teachers were approached. One professor taught introductory history, two student teachers taught psychology lab, and one professor taught an introductory course for honors students. There was only one upper level class and it was a criminal justice course on correctional facilities. When there, the predetermined script (Appendix B) was read aloud to each class while handing out a copy of the consent form for the students to sign. When the newly signed forms were collected and put into an envelope face down, a second copy was distributed for their records as well as the survey consisting of six different tests. The tests were: an instrument to measure presentation of self (SDF), a questionnaire measuring bias towards people with mental illness (KT), a survey to measure how aware people are of public perceptions about people with mental illness (SSMIS Aware), a survey to measure a person's own negative perceptions (SSMIS Agree), a questionnaire to measure whether people know what mental disorders are classified and recognized in the DSM-V (UMD), and an instrument to measure exposure to people with mental

illness (LOF) (Appendix C). A demographic form was also attached to the six surveys (Appendix D). Once the surveys were completed, the researcher collected them and put them in the envelope with the consent forms. All the documents were stored in the thesis advisor's office in two separate envelopes. When originally collected, the surveys and consent forms were delinked, so there was no way to associate them. The students who participated were thanked for taking part in the research and were given a debriefing form to keep for their records. The questionnaires and consent forms were stored separately in a locked office.

Ability to Recognize Mental Disorders

The fourth survey was called Understanding Mental Disorders (UMD) and was created by the author (2016) to assess whether or not participants knew what a mental disorder was according to the DSM-V. There were fifteen questions that asked whether or not the mental condition listed in the question was a disorder or not. For example, one question asked "Is schizophrenia a mental disorder" and another asked "Is down syndrome a mental disorder?"

Each response was issued a number to be tallied up at the end with "yes" being one point and "no" and "I've never heard of it" being worth no points. The list of mental disorders was generated by the author of this thesis. All disorders were listed in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition *(DSM-5)* except Down Syndrome and brain tumor. If the answer was no the questions were reverse scored. Only two questions were reverse scored, and they were questions two and eight. The answers "yes" and "I've never heard of it" were scored with a zero and "no" was scored as a one. Participants' scores were summed to determine if the participant really knew if the conditions presented to them were mental disorders or not.

The initial scoring system was 1 representing "yes", two representing a "no", and three representing "I've never heard of it". Participants could have had scores ranging from zero to fifteen with a higher score showing more ability to identify mental disorders.

The initial Cronbach's alpha for this measure was .42, which is a low reliability score. Therefore, a principal components factor analysis with varimax rotation was performed. All but five questions were removed raising Cronbach's alpha to a .713. The questions left were 1, 3, 4, 7, and 10, which included disorders such as ADD/ADHD, anorexia, hoarding, autism, and trichotillomania (hair pulling caused by stress) respectively. The first two are common in younger people, the others, with perhaps the exception of autism, are not. The Eigenvalues of the questions removed were all above one, giving those remaining questions good reliability. Two versions of this measure were used in analyses, the full scale and the composite scale generated from factor analysis. However, the pattern of results was the same for the full scale and the composite score.

Exposure to People with Mental Illness

The fifth and final measure was the Level of Familiarity (LOF) survey created by Holmes, Corrigan, Williams, Canar, and Kubiak (1999). In the test, participants are asked a total of eleven questions about any direct or indirect experience they might have had with mental illness. The most personal question on the test is "I have a severe mental illness" while the most impersonal is "I have never observed a person that I was aware had a severe mental illness." The goal of this test was to measure intimacy, so when calculated, only the question with the highest level of intimacy checked by the participant was calculated. For example, if someone were to check off "A friend of the family has a severe mental illness", which is ranked as eight, and "I have a relative who has a severe mental illness", ranked at number nine, the participant would

only have the nine count as their score for the test. The highest number achievable is eleven, "I

have a severe mental illness", which indicates the most intimate personal experience with mental

illness. Because the participants received a single score (their highest rank), there is no

Cronbach's alpha for this test.

Stigma Concerning Mental Illness

The Knowledge Test About Mental Illness (KT) created by Michaels et. al (2011)

measured stigma concerning mental illness and contained fourteen mostly true and false

questions. This test was designed to determine if participants believed in commonly held

misconceptions about people with mental illness. This survey contained fourteen items and

participants responded to each, depending on which they agreed more with, by selecting

either "a" or "b". A higher score on this test was associated with more stigma. Questions

included "A person with schizophrenia is capable of being a medical physician or doctor" and

"The divorce rate among the general population is about 50%. What is the divorce rate among

people who experience mental illness?" with optional responses of "Greater than 70%" and

"Less than 50%".

Each question had two options for responses. Numbers were associated with each

response based on how stigmatizing the answers were. One represented an answer that was

more stigmatizing than the other response, which was associated with a zero. The original

scoring was not useful and therefore had to be recoded. In the original coding, a non-

stigmatizing answer was coded to "1" and a stigmatizing one was coded to "2". It was

determined that it would be easier to have the "1" become a "0" and the "2" become a "1".

Therefore, response "A" was changed from "1" to "1" or to "0" depending on how stigmatizing

the answer was. Again, "0" meant that the answer was not stigmatizing, while "1" meant that it

was. Answer "B" was changed from "2" to "1" or "0", again, depending on the actual written

response. Responses were summed and the range of possible scores went from zero to fourteen.

A higher score was indicative of more stigma. The initial Cronbach's alpha revealed a reliability

of .47, which is considered poor reliability. Corrigan (2013), the creator of the test, did not

report his validity and reliability in his works and was therefore contacted about it, but he did not

respond. To mediate this, a principal components factor analysis with a varimax rotation was

performed on the Knowledge Test.

Each question with a high Eigenvalue above one was removed from the list of questions

resulting in a higher Cronbach's alpha of .67. Only five of the original total questions remained,

divided into four components. The questions used in the FA results were: questions 2, 5, 8, 11,

12, and 14. One of the creators of the test, Patrick Corrigan, was contacted about the reliability

that he found when using it, but his office did not respond. In the analysis, the full subscale as

well as the composite five item scale were used. The pattern of results was the same for the full

scale and the composite score.

Awareness of Public Opinion & Personal, Negative Perceptions

The next two Self-Stigma of Mental Illness Scales are related to each other and are

counted as one measure. Participants were asked to rate their opinions on the statements with a

9-point Likert scale, with one meaning "I strongly agree" and nine meaning "I strongly

disagree". Higher numbers reflected higher levels of agreement (The highest possible score,

of 90, corresponded to the most negative opinions about mental illness). These tests are called

the

SSMIS and are two of four available under that name. These tests were created by Corrigan,

Watson, and Barr (2006). The first of the two tests used, which we will call "SSMIS Aware",

asked participants to rank the opinions of the public using a Likert scale. The second test, which

will be called "SSMIS Agree", asks the exact same questions of the participant as Aware did, but

this time it is asking for their personal opinion instead of what they thought were the public's

opinion. There were a total of ten questions on each SSMIS test. Ratings were summed to

produce two subscale scores. The scores that respondents received could range from zero to

ninety, with a higher score on the Aware test revealing more awareness of public bias. A higher

score on SSMIS Agree indicates that the participant has more negative perceptions about people

with mental illness. SSMIS Aware had a Cronbach's Alpha of .92 indicating high reliability.

Guttman's split-half reliability coefficient was .90 and the correlation between the two halves

was .82. SSMIS Agree had a Cronbach's alpha of .81 and a Guttman's split-half reliability of .84

and the correlation between the two halves was .73. This shows high reliability for each of the

subscales of this measure.

Presentation of Self

Because self-report data were used, a questionnaire was used to assess and control for the

extent to which participants might be trying to present themselves in a positive light, rather than

responding honestly. Marlowe-Crowne's Social Desirability Form (SDF) modified by Strahan

and Gerbasi (1972) contained twenty items, as opposed to the original thirty-three, and measured

how they present themselves to others in a positive light, especially to the researcher. Statements

ranged from "I like to gossip at times" to "I would never think of letting someone else be

punished for my wrongdoings". Participants wrote "true" or "false" for each statement. The

same standard questions from the original thirty-three item social reliability form were used in

the modified version, but the Strahan and Gerbasi's (1972) model had clusters of five alternating

true and false responses. For example, the first five questions were all true and the next five were false and so on. They were arranged in these clusters to control for acquiescence bias. To properly understand the results of the test, each response of "true" or "false" had a number associated with it so that all responses could be added up to scores ranging from zero to twenty. Questions that were true (1-5 and 11-14) were scored as one, while false was represented by the number zero. The items that were reverse-scored were six through ten and fifteen through twenty. The scores were then added together and, depending on the number of true or false responses, the higher the score, the better a person wanted to appear. The Social Desirability Form had a Cronbach's alpha reliability score of .74 and a Guttman's split-half of .71 with this sample, indicating high reliability. Strahan and Gerbasi (1972) found roughly .78 reliability when all of the scores from the different populations that they sampled were combined.

RESULTS

Test Comparisons

 Two-tailed bivariate correlations were used to look for relationships among both the measures and the demographic variables age, gender, ethnicity, and major. First each measure was correlated with the Social Desirability Form before beginning the main analyses in order to rule out the possibility that participants' answers were influenced by social desirability. While every other test was analyzed with Pearson correlation, the Level of Familiarity test was always analyzed using Spearman's correlation because that test is specifically used for ordinal data. Data analyses for the surveys and the demographics were conducted using SPSS, with α=.05. There were no statistically significant correlations found, which was a good thing because it indicated that people were honest when answering the questionnaires (see Table 1).

In order to test the final hypotheses, that bias toward people with mental illness, perceptions of people with mental illness, knowledge of mental illness, and exposure to people with mental illness vary by demographic factors such as gender, age, ethnicity, and major correlations and mean differences were investigated. Specifically, the dependent variables were correlated with age, sex, ethnicity, and major (See Table 2). Only one significant correlation was found, that of age and SSMIS Agree. This indicates that the older the participant, the more negative their perceptions of people with mental illness. The correlations discussed below involving SSMIS Agree a partial correlation between SSMIS Agree and the six other dependent variables, controlling for age, was performed. The results were the same as reported below. Therefore, age is not a significant explanatory factor for the results reported below.

 Tables 3, 4, and 5 explored whether there were gender, ethnicity, and major of study differences in mean scores on the dependent variables. There were no significant differences on the dependent variables for any of these groups. For LOF, which was ordinal data, nonparametric Median Tests for k samples were used to see whether LOF median scores differed by group (gender, ethnicity, and field of study), and no significant differences were found (p ranged from .22 to .77). For these variables, differences seem to be more evident at the group-level than at the individual-level.

Popular Media

In order to test the first hypothesis that, personal opinion was not related to public opinion, SSMIS was correlated with SSMIS Agree. It was found that SSMIS Aware was unrelated to SSMIS Agree and also did not show a significant correlation suggesting that they were honest in what they thought were public opinion and in their own opinion on people with

mental illness, r(61) = -.05, p = .70. It shows that there was little to no projection onto the public by the participants.

To test the second hypothesis, that stigmatization was related to understanding public opinion, the KT full scale and composite scale were correlated with SSMIS Aware. When the KT full scale and the KT composite variable were correlated with SSMIS Aware, no significant relationship was found: $r(61) = .05$, $p = .70$, and $r(59) = -.09$, $p = .48$, respectively, there was no significant difference between these two correlations, $z = 0.76$, $p = .45$. This suggests that there is no relationship between awareness of public opinion on mental illness and stigma about mental illness.

Education of the General Population

In order to test the third hypothesis, that understanding what mental disorders are will not have a relationship with personal opinion, the UMD full scale and the UMD composite scale were correlated with SSMIS Agree. The UMD full scale did show a significant, negative correlation $r(61) = -.26$, $p = .04$ with SSMIS Agree. UMD composite with SSMIS Agree, $r(59) = -.00$, $p = .98$, these two correlations were not significantly different, $z = -1.45$, $p = .15$. This result implies that perceptions about the mentally ill and a general knowledge about what a mental illness is have an effect on each other. A participant with a higher general knowledge score, will have a lower score on the SSMIS Agree showing that they have fewer negative perceptions about people with mental illness. The UMD Factor Analysis Results did not have a significant result when tested with the SSMIS Agree.

The results for hypothesis four, that stigma will be lower for psychology majors, an Analysis of Variance was conducted. The psychology major was the largest single major collected with 37% of the total participants reporting that they were psychology majors. Perhaps

because 35% of them were Freshmen, this had an impact. They are relatively new to the psychology major and may not have a lot of experience in studying mental illness. But, it should also be mentioned that 35% of the people who also took this collection of surveys were seniors. The results, regardless of class, suggest that majors have no impact on stigmatization or understanding of people with mental illness.

Stigmatization

To test hypothesis five, that stigmatization will have a relationship with understanding what a mental disorder is, the KT full scale and composite scale were correlated with the UMD full scale and UMD composite scale. The KT full showed negative correlations UMD full $r(61)$ = -.31, p = .02, and UMD composite $r(59)$ = -.09, p = .50, there was no significant difference between these two correlations, z = -1.25, p = .21. The KT composite showed the following correlations with the UMD full, $r(59)$ = -.24, p = .07, and the UMD composite $r(57)$ = .06, p = .67. There was no significant relationship between the two, z = -1.63, p = .10. This indicates that people with a better knowledge of mental illness classifications have less stigma toward those with mental illness

In order to test hypothesis six, that there will be a relationship between levels of stigmatization and personal opinion, SSMIS Agree and the KT full and composite scales were correlated. A significant relationship was found between the SSMIS Agree subscale and both the KT full scale, $r(61)$ = .40, p = .001, and KT composite variable, $r(59)$ = .34, p = .01, there was no significant difference between these two correlations, z = .38, p = .70. This correlation was positive suggesting that the more bias someone has toward people with mental illness, the more negative their perceptions about them. The higher a score on the KT full scale and KT composite variable, the more negative the perceptions about people with mental illness. The

scoring on the KT was if it is higher, the more stigmatizing the participant is, which ties in well

with the SSMIS Agree as it calculates negative perceptions.

Racism in In-Group/Out-Group Bias

To test hypothesis seven, that personal opinion will be related to exposure of people with

mental illness, SSMIS Agree was correlated with LOF. What was interesting was that when

SSMIS Agree was correlated with the Level of Familiarity test (LOF), it was found that there

was no significant relationship, $r(61) = -.15$, $p=.24$. These results suggest that personal opinion

and intimacy with people who have a mental illness are not related.

In order to test hypothesis eight, that exposure to people with mental illness will influence

people's understanding of mental illnesses, LOF was correlated with UMD full $r(61) = .22, p = .$

08 and composite $r(59) = .13, p = .32$, and there neither of these correlations were significant.

These two correlations did not differ significantly from each other, $z = .50, p = .62$.   This result

suggests that exposure to people with mental illness does not help people understand what a

mental illness is.

To test hypothesis nine, that stigmatization of people with mental illness will be related to

exposure, correlations were performed between LOF and KT full scale, $r(61) = -.20, p = .12$, and

KT composite subscale, $r(59) = -.18, p = .17$, neither were statistically significant, and these

correlations were not significantly different from each other, $z = -.11, p = .91$. This relationship

is in the expected direction although it did not reach significance.

In order to test the tenth hypothesis, that exposure was related to public opinion, SSMIS

Aware was correlated with LOF. SSMIS Aware had no significant correlation with LOF $r(61) = .$

06, $p = .63$. Meaning that exposure to people with mental illness does not impact how people

understand public opinion. This is a good thing as it shows that they are not projecting their own experiences onto the public's beliefs.

Relations between Dependent Variables and Demographics

The demographics compared with all of the tests and their factor analyses were gender, age, ethnicity, and major.

To test hypothesis eleven, that males will be more likely to stigmatize and have negative perceptions of people with mental illness than females. Independent samples t-tests were used to test for gender differences. For the full KT measure and gender, the results were $t(60) = -.29$, $p = .77$. The results of the composite KT were $t(58) = .86$, $p = .39$. In addition, gender was also compared to the SSMIS Agree. The results of the test were $t(60) = .58$, $p = .57$. The results for the full KT, the composite KT, and the SSMIS Agree measures are insignificant.

In order to test the twelfth hypothesis, that younger people are more likely to stigmatize people with mental illness than older people, a correlation was performed between age and the KT measure. The age range of the participants was between seventeen and twenty-nine, with the majority of participants being eighteen (27%). Age had no correlation with the KT, the KT Factor Analysis Results, the UMD test, and the UMD test Factor Analysis Results. But, it did have a positive correlation (.271) with the SSMIS Agree test at a significance level of .05. These results imply that the older a person is, the more negative their perceptions about mental illness will be, which is contradictory to the hypothesis.

In order to test the thirteenth hypothesis, that ethnicity will influence stigmatization, ethnic group differences in bias (KT) was investigated. The results were, for the full KT measure, $F(4,58) = .46$, $p = .77$; these results are insignificant. The results for the composite KT were also insignificant, $F(4,56) = .90$, $p = .47$.

DISCUSSION

The overall results of the study were that demographics had little to no influence on public perception of mental illness. Gender, ethnicity, and major at Marymount suggest no relationship to understanding mental illnesses and having negative perceptions about the people with them. Results associated with age actually suggested the opposite of the research implying that the older one gets, the less likely they are to have positive reaction to people with mental disorders. It may be that for age, younger people are more exposed to mental illness and are, therefore, more willing to talk about it. Pfister (2004) found that celebrities have been more open on social media with their mental illnesses with stars like Demi Lovato continually discussing their own personal ailments. A study done by Reavley and Jorm (2011) found that young people between the ages of 15-25 were less likely to seek social distance from people who had mental illness, except in the case of schizophrenia. In the same study, they found that older people were more likely to do the opposite and try to avoid people with mental disorders (Reavley & Jorm, 2011). Similar studies have found, though, that younger people do have biases towards people with mental illness and this could be because of mentors.

In addition, other people's beliefs and exposure to people with mental illness had no significant impact on understanding mental disorders or lessening negative personal opinions and stigma. What was significant was that understanding mental disorders would lead to fewer negative opinions. This contradicts the study done by McGinty et al. (2014) who found that education of mental disorders only helped in the case of depression and no other SMI like schizophrenia. It indicates that higher stigmatization means that the person will have less of an understanding of what is classified as a mental illness in the DSM-V.

Another significant result was that negative personal perceptions would have a relationship with stigmatization. McGinty et al. (2014) found that the exposure to news portraying those with mental illness as aggressive individuals has contributed to negative attitudes by the public. Television shows constantly portray people with mental illness as being dangerous and isolated from the world (Pfister, 2004). Seeing people in such a negative light in fiction can alter how real people who suffer from the same illnesses are seen. These negative attitudes about people with mental illness fuel stereotypes and, as those stereotypes grow, they lead to stigmatization and discrimination (Deppa, Feinglass, & Corrigan, 2007). As a result, it becomes harder to find employment and housing and can inspire fear in others leading to poor social relationships and isolation (Rice, Richardson, & Kraemer, 2014).

This study could have been improved upon in a multitude of ways. To begin, it would have been far better if there had been a larger sample size. Results might have become more significant, thus altering the results of this paper. In that vein, these results can only be applied to Marymount University students, and not to the general public. Still, the population should have been more diverse to allow for better findings. The ethnicity ratio of the sample was not representative of the university and neither were the majors. It might have been easier to have collected a more diverse sample by sending out the questions via email, especially if it could have been distributed to other, larger schools with a wider age range.

In line with that, the sample was only collected on a college campus and the participants were all relatively young. The results of the study might have been more diverse had the surveys been distributed to more campuses or to the general public. The results gathered in this study can only be applied to the Marymount University population and that is very limited in its scope. In

addition, the study might have been improved upon by the inclusion of surveys on the impact of social media on perceptions of mental illnesses as discussed in the introductory literature review.

Regardless of population size and the lack of diversity, this is an interesting topic. Mental illness affects a wide array of people all over the country and having such a large population be feared for being sick is disconcerting to say the least. Based on Marymount's results, major and ethnicity do not really have an impact on how students see people with mental illnesses, but age does. The inclusion of older generations in this study would have been beneficial so that it could be seen how much of an impact age makes. In addition, it would also have been interesting to have applied media based questions to this study to try and ascertain how it might have impacted the population here at Marymount. Of course, though, more research needs to be done on this topic to better understand how people, especially college age students, see people with mental illness.

 To conclude, people who suffer from mental illness endure public fear, misunderstanding, and stigmatization. These negative attitudes make it difficult for those with mental disorders to find housing or work. Education has generally proved to be ineffective in regards to helping the majority without mental illness to understand the minority with it. This lack of understanding leads to an in-group/out-group bias that further separates those with mental illness from society. Research has indicated that gender, age, and ethnicity also play a role in how stigmatizing a person can be. Without research like the kind this article has done, the treatment of people with mental illness would not be readily noticed. Stigmatization of people with mental illness needs to be stopped, and it can be easily addressed on college campuses and other learning institutions. If these institutions were to safely expose people in the

general population to what a person with mental illness is actually like and what they endure,

they could hopefully begin to reduce bias and stigmatization.

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Table 1. Correlations Between Social Desirability Scale and All Dependent Variables

Dependent Variables		Social Desirability Scale
Knowledge Test (KT)	Full Scale	.20
	Composite	.09
The Self Stigma of Mental Illness Scale (SSMIS)	Awareness Subscale	-.06
	Agreement Subscale	-.11
Understanding Mental Disorders (UMD)	Full Scale	-.06
	Composite	.04
Level of Familiarity (LOF)		-.09

Note. Pearson correlations were used for all tests except the LOF for which Spearman's correlations was used.

*p < .05, **p < .01, ***p < .001

Table 2. Correlation Between Demographic Variables and Dependent Variables.

Dependent Variables		Age	Sex	Ethnicity	Major	Grade
Knowledge Test (KT)	Full Scale	.01	.04	-.12	.08	-.08
	Composite	.14	-.11	.03	.03	-.05
The Self Stigma of Mental Illness Scale (SSMIS)	Awareness Subscale	.00	.19	.02	.02	.08
	Agreement Subscale	.27*	-.07	-.05	-.03	.14
Understanding Mental Disorders (UMD)	Full Scale	-.18	.18	.06	.09	.07
	Composite	.09	-.07	.17	-.20	.18
Level of Familiarity (LOF)		-.16	.19	-.04	-.05	-.10

Note. Pearson correlations were used for all tests except the LOF for which Spearman's correlations was used.

*p < .05, **p < .01, ***p < .001

Table 3. Relationship Between Sex and Dependent Variables

Dependent Variables		Sex		Independent samples *t*test
		Males	Females	
Knowledge Test (KT)	Full Scale	5.90 (2.85)	6.10 (2.25)	*t*(60) = -.29, *p* = .77
	Composite	.13 (.99)	-.10 (.98)	*t*(58) = .86, *p* = .39
The Self Stigma of Mental Illness Scale (SSMIS)	Awareness Subscale	47.65 (19.03)	55.26 (18.08)	*t*(60) = -1.52, *p* = .13
	Agreement Subscale	32.25 (12.07)	30.50 (10.67)	*t*(60) = .58, *p* = .57
Understanding Mental Disorders (UMD)	Full Scale	10.60 (1.70)	11.31 (1.94)	*t*(60) = -1.40, *p* = .17
	Composite	.09 (.59)	-.05 (1.16)	*t*(58) = .52, *p* = .61

Note. Data are *M(SD)*.
Note. For the LOF test, the Median Test for *k* samples was used to investigate whether there were

gender differences. No significant difference was found, *p* = .77.

Table 4. Ethnicity Differences on the Dependent Variables

Dependent Variables		Ethnicity					Analysis of Variance
		African American	Asian/ Pacific Islander	Hispanic/ Latino	White/ Non-Hispanic	Other	
Knowledge Test (KT)	Full Scale	7.00 (1.83)	5.33 (2.08)	6.70 (3.06)	5.95 (2.56)	5.63 (1.19)	$F(4,58) = .46, p = .77$
	Composite	-.41 (.66)	-.47 (.50)	.32 (1.46)	.08 (.98)	-.37 (.68)	$F(4,56) = .90, p = .47$
The Self Stigma of Mental Illness Scale (SSMIS)	Awareness Subscale	51.25 (18.01)	46.33 (29.37)	54.40 (18.99)	53.42 (18.17)	50.35 (19.75)	$F(4,58) = .16, p = .96$
	Agreement Subscale	32.50 (15.15)	25.33 (11.02)	33.00 (8.97)	32.63 (11.13)	24.75 (11.78)	$F(4,58) = 1.11, p = .36$
Understanding Mental Disorders (UMD)	Full Scale	11.25 (.50)	11.33 (.58)	10.50 (2.17)	11.13 (1.76)	11.38 (2.77)	$F(4,58) = .31, p = .87$
	Composite	-1.16 (2.38)	.03 (.22)	.05 (.40)	.20 (.65)	-.37 (1.63)	$F(4,56) = 2.11, p = .09$

Note. Data are *M(SD)*.

Note. For the LOF test, the Median Test for *k* samples was used to investigate whether there were gender differences. No significant difference was found, *p* = .54.

Table 5. Field of Study Differences on the Dependent Variables

Dependent Variables		Field of Study			Analysis of Variance
		Psychology $n = 23$	Criminal Justice $n = 20$	Other $n = 20$	
Knowledge Test (KT)	Full Scale	5.48 (2.19)	6.85 (2.92)	5.95 (2.01)	$F(2,60) = 1.78, p = .18$
	Composite	-.20 (1.12)	.29 (.95)	-.05 (.87)	$F(2, 58) = 1.33, p = .27$
The Self Stigma of Mental Illness Scale (SSMIS)	Awareness Subscale	51.78 (19.94)	53 (15.62)	53.45 (20.14)	$F(2, 60) = .05, p = .96$
	Agreement Subscale	28.91 (9.87)	36.30 (10.22)	29.15 (12.38)	$F(2, 60) = 3.08, p = .05$
Understanding Mental Disorders (UMD)	Full Scale	11.04 (2.65)	10.90 (1.21)	11.30 (1.30)	$F(2, 60) = .23, p = .80$
	Composite	-.01 (1.08)	.27 (.48)	-.25 (1.22)	$F(2, 58) = 1.38, p = .26$

Note. Data are *M(SD)*.

Note. For the LOF test, the Median Test for k samples was used to investigate whether there were gender differences. No significant difference was found, $p = .22$.

APPENDIX A

Informed Consent Form

You are being asked to participate in a research study being conducted by Kaitlin Atterbury for an Honors Thesis research project. This project is being conducted under the supervision of Dr. Cote-Reilly in the Department of Psychology at Marymount University, Arlington, Virginia.

The purpose of this study is to analyze college students' perceptions of mental illness. During the course of the study, you will be asked to complete five surveys that ask about your personal experiences, perceptions, knowledge, and experience with mental illness. You will also complete one demographic questionnaire. Completion of the surveys will take about fifteen minutes.

This study falls into the category of moderate risk, and, as such, may cause some discomfort because of the nature of a few of the questions about your own personal experiences with mental illness. If any questions make you feel uncomfortable, you have the right to skip them or to stop participating all together and, if you feel it necessary, please contact Marymount University's Counseling Center at 703-526-6861.

Your participation in this study is entirely voluntary, such that refusal to participate will not involve penalty and will not affect your grades. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty. While there are no benefits awarded to the students who take the surveys, completed materials stand the chance of helping researchers better understand how the mental ill are viewed in a close social setting and the biases held against them.

Any information that is obtained in connection with this study will remain confidential. Your responses will be combined with those of other participants in the study and reported in group format only, making it impossible to identify you

as an individual. Your identity will be protected by storing the consent forms separately from your other survey responses in a locked filing cabinet and by keeping the results in a password-protected database. Your responses will be recorded by a number, not your name, and there will be no way to link you to your response.

This project has been reviewed and approved by Marymount University's IRB. If you have additional questions concerning this project at a later time, you may contact Dr. Cote-Reilly in the Psychology Department at Marymount at 703-284-1659 or via email at linda.cote-reilly@marymount.edu. You will be given a copy of this form to keep for your records.

Your signature below indicates that you have read and understood the information provided above, that you are at least 18 years of age, that you willingly agree to participate, that you understand that you may withdraw your consent at any time and discontinue participation without penalty, and that you understand that you are not waiving any legal claims, rights, or remedies.

Print Name_____

Signature _____

Date_____

APPENDIX B

Script

1. Hello, my name is _Kaitlin Atterbury_.

2. I am conducting a study on _ college students' perceptions of mental illness for my Honors   Thesis. I am looking for volunteers to participate. Participation takes about 15 minutes and   involves completing 5 surveys about your perceptions, knowledge, and experience with   mental illness and a demographic form. You have the right to decide if you will participate.

3. Participation will not affect your grade.

4. You have the right to stop participating at any time. All of your responses will be confidential. This study involves minimal risk to you. Would you be interested in participating?

5) **[If they say yes, continue…]** The first thing that I'd like you to do is read the consent form   and sign it if you agree to participate **[pass out consent form]**. Do you have any questions   about the study? **[Answer any questions and collect consent form once they sign it.]**

6) Collect signed consent forms and put them in an envelope.

7) **[Give them a blank copy of the consent form. They are entitled to keep a copy.]**

8) Let's get started. **Pass out the surveys and demographic form with a number on each one. Tell the students NOT to put their names on it.**

9) I would now like you to complete this demographic form (pass out demographic form and   collect it once the surveys are completed).

10) Please make sure to complete the surveys in the order that they are presented to you. When you have completed the surveys come up to me or raise your hand and I will collect all of the materials from you.

11) That concludes the study. I would now like you to read this debriefing statement, which explains the purpose of the study in more detail Specifically, in this study I want to examine whether college students' perceptions, knowledge, and experience with mental illness are related and influence each other. Do you have any questions about the study that you'd like to ask me now? **[Answer their questions.]**

12) Thank you for your participation.

APPENDIX C

Demographic Form

1. Age (specify): _____

2. Sex (circle):   Male   Female

3. Ethnicity (check one):

   _____ African American

   _____ Asian/ Pacific American

   _____ Hispanic/ Latino

   _____ Native American/ Alaskan Native

   _____ White (Non-Hispanic)

   _____ Other (specify): _____

4. Major: _____

5. Current Class Standing (circle):   First-year   Sophomore   Junior   Senior

Other (specify): _____

Social Desirability Form (SDF)

Designed by Crowne, D.P. and Marlowe, D.

Modified by Strahan, R. and Gerbasi, K.C.

Please read the statements below and mark them as either **true** or **false** to the best of your knowledge.

1. _____I'm always willing to admit it when I make a mistake.

2. _____I always try to practice what I preach.

3. _____I never resent being asked to return a favor.

4. _____I have never been irked when people expressed ideas very different from my own.

5. _____I have never deliberately said something that hurt someone's feelings.

6. _____I like to gossip at times.

7. _____There have been occasions when I took advantage of someone.

8. _____I sometimes try to get even rather than forgive and forget.

9. _____At times I have really insisted on having things my own way.

10. _____There have been occasions when I felt like smashing things.

11. _____I never hesitate to go out of my way to help someone in trouble.

12. _____I have never intensely disliked anyone.

13. _____When I don't know something I don't at all mind admitting it. 14. _____I am always courteous, even to people who are disagreeable.

15. _____I would never think of letting someone else be punished for my wrong doings.

16. _____I sometimes feel resentful when I don't get my way.

17. _____There have been times when I felt like rebelling against people in authority even though I knew they were right.

18. ____I can remember "playing sick" to get out of something.

19. ____There have been times when I was quite jealous of the good fortune of others.

20. ____I am sometimes irritated by people who ask favors of me.

KNOWLEDGE TEST ABOUT MENTAL ILLNESS
Michaels, Corrigan, Buchholz, Brown, Arthur, Netter, & MacDonald-Wilson. (2011)

This is a test of your knowledge about mental illness. The questions on the test are taken from findings of scientific research. Read each question carefully and select the response that you consider to be the correct answer. THERE IS NO PENALTY FOR GUESSING.

1. One type of psychotherapy, cognitive-behavioral therapy, has been shown to reduce the psychotic symptoms of schizophrenia.
   a. True
   b. False

2. Considering people with schizophrenia, what is the average number of separate hospitalizations for their mental illness over a one-year period of time?
   a. 4 or more
   b. 2 or less

3. People with severe mental illness cannot maintain private residences.
   a. True
   b. False

4. People with schizophrenia should be allowed to use an online dating service. a. True
   b. False

5. People with schizophrenia make up what percent of the homeless population?
   a. 5%
   b. 25%

6. Adolescents with schizophrenia are frequently truant (absent) from school. a. True
   b. False

7. People with severe mental illness are capable of establishing an intimate long-term relationship of a sexual nature.
   a. True
   b. False

8. People with schizophrenia benefit the least from services like psychotherapy. a. True
   b. False

9. People with schizophrenia are likely to steal from their family members.
   a. True
   b. False

10. Based on the capabilities of people with schizophrenia, school counselors should recommend beginning a job-training program rather than continuing in the regular curriculum.
    a. True
    b. False

11. For those with serious mental illness, what percent of treatment should be dedicated to medication compliance?
    a. Greater than 80%
    b. Less than 50%

12. Neglectful parenting is somewhat responsible for the beginning of a serious mental illness.
    a. True
    b. False

13. A person with schizophrenia is capable of being a physician or medical doctor. a. True
        b. False

14. The divorce rate among the general population is about 50%. What is the divorce rate among people who experience mental illness?
    a. Greater than 70%
    b. Less than 50%

SSMIS
Corrigan, Watson, & Barr (2006)

There are many attitudes about mental illness. We would like to know what you think most of the public as a whole (or most people) believe about these attitudes. Please answer the following items using the 9-point scale below.

I strongly Disagree			neither agree nor disagree				I strongly agree	
1	2	3	4	5	6	7	8	9

Section 1:

I think the public believes…

1. _____ most persons with mental illness cannot be trusted.

2. _____ most persons with mental illness are disgusting.

3. _____ most persons with mental illness are unable to get or keep a regular job.

4. _____ most persons with mental illness are dirty and unkempt.

5. _____ most persons with mental illness are to blame for their problems.

6. _____ most persons with mental illness are below average in intelligence.

7. _____ most persons with mental illness are unpredictable.

8. _____ most persons with mental illness will not recover or get better.

9. _____ most persons with mental illness are dangerous.

10. _____ most persons with mental illness are unable to take care of themselves.
Section 2:

Now answer the next 10 items using the agreement scale.

	I strongly Disagree			neither agree nor disagree			I strongly agree	
1	2	3	4	5	6	7	8	9

I think…

1. _____ most persons with mental illness are to blame for their problems.

2. _____ most persons with mental illness are unpredictable.

3. _____ most persons with mental illness will not recover or get better.

4. _____ most persons with mental illness are unable to get or keep a regular job.

5. _____ most persons with mental illness are dirty and unkempt.

6. _____ most persons with mental illness are dangerous.

7. _____ most persons with mental illness cannot be trusted.

8. _____ most persons with mental illness are below average in intelligence.

9. _____ most persons with mental illness are unable to take care of themselves.

10. _____ most persons with mental illness are disgusting.

Understanding Mental Disorders
Kaitlin Atterbury

On the following list, indicate whether you think each of the following are mental disorders (as classified by the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition).

1. I think ADD/ADHD are mental disorders. (Circle one):

> Yes   No   I've never heard of them

2. I think Down syndrome is a mental disorder:

> Yes   No   I've never heard of it

3. I think anorexia is a mental disorder:

> Yes   No   I've never heard of it

4. I think hoarding is a mental disorder:

> Yes   No   I've never heard of it

5. I think depression is a mental disorder:

> Yes   No   I've never heard of it

6. I think cardiovascular dementia is a mental disorder:

> Yes   No   I've never heard of it

7. I think autism is a mental disorder:

> Yes   No   I've never heard of it

8. I think a brain tumor is a mental disorder:

> Yes   No   I've never heard of it

9. I think internet gaming for up to or over 10-12 hours a day is a mental disorder:

> Yes   No   I've never heard of it

10. I think hair-pulling to the point of bald spots is a mental disorder:

> Yes   No   I've never heard of it

11. I think schizophrenia is a mental disorder:

Yes   No   I've never heard of it

12. I think manic depression is a mental disorder:

Yes   No   I've never heard of it

13. I think gender identity disorder is a mental disorder:

Yes   No   I've never heard of it

14. I think post-traumatic stress disorder (PTSD) is a mental disorder:

Yes   No   I've never heard of it

15. I think borderline personality disorder is a mental disorder:

Yes   No   I've never heard of it

LEVEL OF FAMILIARITY (LOF)
Holmes, Corrigan, Williams, Canar, & Kubiak (1999)

PLEASE READ EACH OF THE FOLLOWING STATEMENTS CAREFULLY. AFTER YOU

HAVE READ ALL OF THE STATEMENTS BELOW, **PLACE A CHECK** BY EVERY STATEMENT THAT REPRESENTS YOUR EXPERIENCE WITH PERSONS WITH A SEVERE MENTAL ILLNESS.

_____ I have watched a movie or television show in which a character depicted a person with mental illness.

_____ My job involves providing services/treatment for persons with a severe mental illness.

_____ I have observed, in passing, a person I believe may have had a severe mental illness.

_____ I have observed persons with a severe mental illness on a frequent basis.

_____ I have a severe mental illness.

_____ I have worked with a person who had a severe mental illness at my place of employment.

_____ I have never observed a person that I was aware had a severe mental illness.

_____ A friend of the family has a severe mental illness.

_____ I have a relative who has a severe mental illness.

_____ I have watched a documentary on television about severe mental illness.

_____ I live with a person who has a severe mental illness.

APPENDIX D

Debriefing Statement

This study is concerned primarily with the perceptions and beliefs of college students in regards to mental illnesses. The question to be answered is whether or not these college students have biases towards people with mental illnesses and which ones are expressed more. If you feel

that any of the questions asked in the surveys caused you discomfort please contact the Marymount

Counseling Center at 703-526-6861. If you have any questions about the survey or any of the other materials given to you please contact Dr. Cote-Reilly in the Psychology Department at Marymount at 703-284-1659 or via email at linda.cote-reilly@marymount.edu.