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The Use of Celebrity and Non-celebrity Examples to Reduce Stigma in University Students

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The Use of Celebrity and Non-Celebrity Examples to Reduce Stigma in University Students:

An Analysis of Stigma Reduction Interventions

by

Tyrus McCartney

Submitted in partial fulfillment of the requirements for the degree

Master of Science in Experimental Psychology

With a Concentration in Behavioral Sciences

In

The Department of Psychology

Seton Hall University

June 2019

Seton Hall University
## Department of Psychology
Report of M.S. Thesis Defense

To be completed by the *Student and Principal Advisor* and filed with the Director of the Graduate Studies within72 hours of the completion of the Thesis defense meeting.

We have examined Tyrus McCartney, **Student ID 11513030**

Thesis Title: The Use of Celebrity and Non-Celebrity Examples to Reduce Stigma in University Students: An Analysis of Stigma Reduction Interventions

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The results of the Thesis Defense on June 17, 2019 WERE satisfactory

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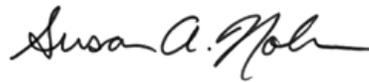
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Acknowledgements

I must express the deepest gratitude to my advisor, Dr. Susan Nolan, for her unending guidance and support through my time at Seton Hall University. I would like to express sincere appreciation for my committee members, Dr. Paige Fisher and Dr. Andrew Simon, for their valuable feedback and insight. Thank you to Dr. Kelly Goedert for making my time at Seton Hall fun, challenging, and rewarding. Special thanks to the members of Dr. Nolan's lab who have helped me collect data and contributed thoughts and critiques throughout the thesis process. Thank you to Ms. Willie Yaylaci for always lending help when needed. Very special thanks to Brent Costleigh, without whom I would not have learned the importance of experimental psychology.

I would like to thank the 2018 cohort for their guidance as a first-year student, especially Naquan Ross, Laura Mangus, and Kelly Mannion. I would like to thank everyone in my cohort for the spirited conversations, intellectual and otherwise, especially Steven Masi, Sean Bogart, and Alyssa DeRonda.

I would like to thank my friends who have supported me always and then through my transition into psychology, especially Samuel Aubrey Alston, Jr., and Matthew Alexander Parmet. I would like to thank Wilson James Droter, Robert Luigi Patterson, and Thomas Hofstedt Bosc for keeping me sane during the academic year. Special thanks to Lawrence Wu, whose work ethic has always reminded me to keep progressing in times of adversity.

I would like to thank Dr. Carla Enriquez and Greta Enriquez for a lifetime of counseling and support in my times of greatest need.

It is my privilege to thank Amanda Joan Pra Sisto for her love and support. You have made my time here more special than I could have ever imagined. Here's to many more dumplings.

Finally, I would like to thank my family. Thanks to Dr. Taima McCartney for being an excellent sister and support structure, without whom I would have lost my way. Thank you to Uncle Paul, Aunt Jane, and Erin Biba, for always making me feel at home. The deepest gratitude a son can express goes to my mother, Hsi-hua Yang McCartney, for always supporting me wherever I went in life and for providing the foundation on which my achievements have grown. I love you and I miss you every day.

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Abstract

Although effective treatments have been developed for various mental illnesses, many individuals who need psychological help do not seek it because of stigma. Interventions have been developed to reduce stigma, with the hope of increasing access to mental healthcare. Vicarious contact with individuals who have mental illness can reduce both public and internal stigma. Furthermore, celebrity examples have been used to reduce stigma. The present study compared celebrity examples and non-celebrity examples across a stigma-reduction intervention, as well as a control group, to determine the most effective ways to present first-person narrative vignettes for reducing both public and internal stigma. The results showed that exposure to celebrity status in the form of a vignette did not statistically significantly reduce self-reported scores for either public or internal stigma, on average, when compared to exposure to a non-celebrity or no exposure (a control group).

Keywords: mental illness, stigma, intervention, contact hypothesis, indirect contact, first person narrative, vignette, celebrity

Introduction

In 1990, the World Bank and the World Health Organization (WHO) commissioned the first Global Burden of Disease study. This study, based out of the Institute for Health Metrics and Evaluation (IHME) at the University of Washington and funded by the Bill and Melinda Gates Foundation, assessed death and disability from disease, injury, and various health risk factors. According to this seminal study, 4 of the 10 leading causes of disability for persons age 5 and older were mental disorders (U.S. Department of Health and Human Services, 1999). Major depression was found to be the largest cause of disability in developed nations, including the United States. Manic-depressive illness (now called bipolar disorder), schizophrenia, and obsessive-compulsive disorder were also toward the top of these rankings. Data collected in 2013 from the IHME and published by the National Center for Complementary and Integrative Health (NCCIH) show that mental and substance abuse disorders still represent the leading cause of disability for people under the age of 40 living in the United States.

More recently, a meta-analysis of 203 articles, representing 29 countries in 6 continents, was conducted after the publication of the most recent Global Burden of Disease Study (2015). For all-cause mortality, people living with mental illness had a reduction in life expectancy ranging from 1.5 to 32 years, with a median of 10 years lost, when compared to people living without mental illness (Walker, McGee, & Druss, 2015). For specific diagnoses, mortality was significantly elevated for psychoses, mood disorders, and anxiety. Some psychiatrists contend that the true burden of mental illness is still underestimated for multiple reasons, such as the exclusion of personality disorders from calculations (Vigo, Thornicroft, & Atun, 2016). Mental disorders do not only cause disability, but they contribute to mortality. The link between mental disorders and suicide, for example, has been well-established (Rossiter & Sivakumaran, 2017).

Year after year, suicide represents one of the leading causes of preventable death both in the United States and worldwide (Centers for Disease Control and Prevention, 2012).

In response to reports by the National Advisory Councils of the National Institute of Neurological Disorders and Stroke (NINDS) and the National Institute of Mental Health (NIMH), the U.S. Congress declared the 1990s to be the "Decade of the Brain." During this decade, scientists made great progress in the understanding of and treatment for mental disorders (Goldstein, 1994). This new focus on mental health research and empirically supported treatments has allowed scientists and clinicians to develop an array of efficacious strategies for reducing levels of disability and mortality within the afflicted population.

Unfortunately, treatment alone is rarely sufficient for allowing people afflicted by mental illness to live satisfactory lives. Almost all individuals who are diagnosed with mental disorders, as well as their family members, friends, and other sources of social support, face the burden of stigma (Corrigan, 2005). In 1999, the U.S. Surgeon General, Dr. David Satcher, issued a groundbreaking Report on Mental Health. This report led to a White House Conference on Mental Health, which called for a national anti-stigma campaign as well as a Call to Action on Suicide Prevention. This U.S. Surgeon General Report acknowledged the medical model of mental illness and proposed that mental disorders be treated in the same manner as any other diseases. Surgeon General Satcher also addressed the link between mental and physical health and called for societal investment in public education regarding mental health as well as confrontation of the attitudes, fear, and misunderstandings regarding mental illness.

More recently, the current U.S. Surgeon General, Dr. Vivek Murthy, conducted an interview with Truth Initiative, a non-profit public health organization, confirming the importance of reducing the negative attitudes associated with mental illness (2016). In his

statement, he reiterated the importance of viewing mental health as a part of overall health. He clarified that attitudes about mental illness are influenced as much by individual civilians as they are by scientific professionals, and he called on all Americans to play a role in reducing this stigma. Although stigma affects people across a broad spectrum of circumstances, including HIV status and sexual orientation (Hatzenbuehler, Phelan, & Link, 2013), the present work is focused on stigma related to mental disorders.

The word "stigma" originates from a Greek word that denoted a marking made by pin pricks, cuts, or burns on the skin of criminals, slaves, and traitors to readily identify these individuals in public places. Goffman (1963) originally referred to stigma as undesirable traits attributed to individuals who suffer from mental illness and the adverse cognitive and behavioral consequences linked to these attributions. Since then, the definition of stigma has changed very little. Patrick Corrigan, a leading researcher on stigma, uses the social-cognitive model to define the effects that discriminative stimuli have on behavior (Corrigan, 2005). According to the social-cognitive model, stigma can be understood by signals that suggest an individual is mentally ill and by the ways in which others react to these signals. The signals may not necessarily be direct statements about mental illness but may be inferred to have underlying meaning. Corrigan proposes that these signals can be studied to understand which signals lead to negative behavior from others.

Link and Phelan (2001) expanded on Corrigan's definition by providing four specific components related to stigma. First, stigma is a label applied to an out-group; second, the differences that are labeled are invariably negative; third, the named differences separate the out-group from the in-group of the labeler; and fourth, the label and separation leads to

discrimination or loss of status. Researchers have identified several levels of stigma: structural, societal, and self.

Structural stigma refers to the rules, policies, and procedures that are implemented by social institutions that restrict rights and opportunities from stigmatized individuals (Corrigan, Druss, & Perlick, 2014). Often, structural stigma is experienced when legislation is implemented. Pugh, Hatzenbuehler, and Link (2015) reviewed legislation in the United States and found legal restrictions against people living with mental illness in several domains, including voting, holding political office, and having parental custody rights. By excluding individuals with mental illness from these basic opportunities, structural stigma reinforces a detrimental paradigm in society.

Societal stigma, also known as social or public stigma, occurs when the general population sanctions stereotypes and discrimination against people with mental illness (Corrigan, Druss, & Perlick, 2014). This type of stigma manifests itself in situations where power dynamics are at play. Corrigan (2005) reports personal anecdotes where he has fought fervently on behalf of people with mental health diagnoses against discrimination in basic human rights such as housing and employment. When individuals hold both power and stigmatizing beliefs, the results can be incredibly disadvantageous for people with mental disorders. Societal stigma has been referred to as treatment stigma when the effects of stigma originating from the public deters people with mental illness from seeking treatment (Corrigan, Druss, & Perlick, 2014).

Self-stigma reflects the internalization of prejudice within the individual who has a diagnosis (Link, 1987). This type of stigma occurs when the diagnosed individual perceives stigma, which may lead to agreement with and self-application of the stigma. For example, the public may believe that people with mental illness are dangerous, which might lead the

stigmatized individual to believe that she or he is dangerous. This belief might lower the self-esteem and self-efficacy of the diagnosed person, which may impact the person's ability to live a satisfying life (Corrigan & Watson, 2002).

<div align="center">Effects of Stigma</div>

Research supports the notion that stigma affects individuals living with mental disorders. In 1963, Dr. Erving Goffman published *Stigma: Notes on the Management of Spoiled Identity*, an influential book that helped shape the foundations for labeling theory. Labeling theory proposes that individuals who exhibit "residual deviance," or behaviors that exist outside of the norm, are labeled as mentally ill; these labeled individuals are then ostracized and are relegated to their roles as patients with mental illness (Scheff, 1966). Critics of this theory have argued that stigma itself does not affect the lives of people diagnosed with mental illness; rather, the symptoms of the mental illness itself are to blame for the negative outcomes experienced by these individuals (Markowitz, 1998). Critics also argue that these labels allow those who receive them to access benefits and services which are intended to improve their condition.

Subsequent research has supported a modified version of this theory, aptly referred to as modified labeling theory (Link, Cullen, Struening, Shrout, & Dohrenwend, 1989). This theory replaces the claim that labeling causes diagnosed persons to continue lives of deviance with a subtler analysis of how stigma affects the course of each individual's illness (Link, 1987). Modified labeling theory proposes that stereotypical attitudes against people living with mental illness become personally relevant and salient to these individuals. These attitudes, typically that individuals with mental illness are incompetent or dangerous, cause the bearers to expect devaluation and discrimination, which can result in a self-fulfilling prophecy of lowered self-esteem and demoralization. Additionally, diagnosed individuals may engage in secrecy or social

withdrawal to avoid rejection, further diminishing social support networks. The result of lowered self-esteem in conjunction with constricted social networks can lead to increases in stress, which can place the individual with a diagnosis at greater risk for continued symptoms (Pearlin, Menaghan, Liberman, & Mullan, 1981).

Research suggests that stigma is a large contributor to social isolation (Hatzenbuehler, Phelan, & Link, 2013). People living with concealable stigmas, such as a diagnosis of mental illness or a minority sexual orientation, are less likely than those without stigmas to enter close relationships because of concern over others discovering the stigmatized status. A daily diary study performed by Frable, Platt, and Hoey (1998) revealed that people with concealable stigma had lower self-esteem, on average, than those without any stigma. This same study showed that the individuals with concealable stigmas enjoyed a lift in self-esteem only when in the presence of others who openly shared the same stigmatized condition. The caveat was that individuals with concealable stigmatized conditions were much less likely to have a bonding experience with others who share the same concealable stigmatized condition when compared to individuals with visible stigmas, such as race and ethnicity. Correlational studies have supported the notion that social isolation tends to accompany stigmatized status (Link et al., 1989). Related studies have shown that individuals with mental disorders may experience reduced stress and symptomology when supported by larger social networks (Cohen & Willis, 1985). It is clear that reducing stigma at all levels – societal, public, and self – has positive effects for those living with mental illness as well as their friends and families.

Stigma as a Barrier to Recovery

Researchers have investigated the relationship between stigma and treatment-seeking behavior and have found that increases in perceived stigma tend to lower the treatment-seeking

behavior of diagnosed individuals. For example, Link, Struening, Neese-Todd, Asmussen, and Phelan (2001) conducted an experiment over the course of two years that has since been much cited. This study followed members of a clubhouse program, an outpatient community mental health program designed to help individuals rejoin society, to determine the relations among perceived stigma, self-esteem, and self-care among people living with various mental illnesses. The researchers assessed perceived discrimination-devaluation with respect to Rosenberg's scale of self-esteem over 24 months. The results and subsequent discussion highlight the detrimental effects of stigma. Link and colleagues found that 54% of participants agreed or strongly agreed with the statement "You feel useless at times," and 37% agreed or strongly agreed with the statement "All in all, you are inclined to feel that you are a failure." A comparison study of a representative sample from the general population received responses of 29% and 10%, respectively. The researchers concluded that stigma definitively impacts the lives of those living with mental illness in a negative way. The participants, reflecting the opinions of the vast majority of people living with mental illness, divulged reluctance to seek treatment on the basis of being victims of stigma. This reluctance to seek treatment sometimes led to the discontinuation of psychological services such as talk therapy as well as of psychiatric services such as medication adherence.

      The detrimental effects of stigma extend beyond self-reported matters. Stigma may also affect the behaviors of those who are subjected to it. Sirey, Bruce, Alexopoulos, Perlick, Friedman, and Meyers (2001) found that higher levels of perceived stigma were associated with lower rates of antidepressant medication adherence. The authors suggest that it is likely that people who are prescribed antidepressant medications are less likely to refill their prescriptions when they believe that the general public holds negative beliefs about people who take these

medications than when they don't hold such negative beliefs. Jennings, Cheung, Britt, Goguen, Jeffirs, Peasley, and Lee (2015) developed a model based on extensive research into the mechanisms that reduce treatment-seeking behavior. These researchers used regression analyses to determine that higher amounts of perceived stigma were related to more negative views of treatment-seeking. In other words, people with mental illnesses who believed that the general public had more stigmatizing attitudes were less committed to seeking professional help. This increase in perceived stigma also resulted in higher self-stigma and higher self-reliance. The researchers concluded that people who face higher levels of perceived stigma tend to put the burden of improvement on themselves rather than seek help from professionals. It is readily apparent that people who live with mental illness are aware of stigmatizing attitudes against them. These individuals may avoid treatment because receiving treatment reinforces these stigmatizing attitudes within themselves. It follows that reducing stigma may increase treatment compliance in those living with mental illness, which could result in those individuals living more fulfilling lives.

More recently, Wahl (2012) published an article that supports the need for more stigma reduction interventions. Included are the results of the 2006 General Social Survey which examined public attitudes toward mental illnesses in the USA. These results show that 47% of respondents were unwilling to work on a job with someone who has depression, and 62% of respondents were unwilling to work on a job with someone who has schizophrenia. These results were not significantly improved from the same survey performed a decade earlier. Wahl connected these data with a qualitative study by Thornicroft (2009), who found that people who disclosed a diagnosis of schizophrenia faced increased isolation. This isolation was primarily caused by friends calling and visiting less frequently and extending fewer social invitations. This

social rejection and interpersonal isolation may make recovery from mental illness a more difficult task than it would be without the barrier of stigma (Wahl, 2012).

Combating Stigma

Because there are studies suggesting that stigma has negative effects, researchers have sought ways to combat stigma. To date, only two strategies have garnered empirical support: contact and education (Mann & Himelein, 2007). Contact interventions focus on creating interactions between participants and members of a stigmatized group. Desforges, Lord, Ramsey, Mason, Van Leeuwen, West, and Lepper (1991) demonstrated that people who were randomly assigned to participate in contact interventions with individuals who were diagnosed with mental illnesses reported having more positive attitudes towards people with mental disorders, on average, compared to the control condition. These positive attitudes were maintained at a one-week follow-up and corresponded to a mean increase in helping behaviors directed towards stigmatized individuals. For this type of contact to be effective, both the participant and stigmatized individual must have equal status in the dynamic. For example, this type of contact is not as effective in situations where there is an unequal distribution of power in the relationship, such as when a patient seeks services from a provider.

Direct contact with a stigmatized individual is not the only form of contact that can reduce stigma. Stuart (2006) performed an experiment to determine the effectiveness of in-vivo contact interventions compared to video contact interventions in reducing the stigma of schizophrenia. This researcher used video interventions prepared by the Schizophrenia Society of Canada. These videos included accurate information about the disease as well as interviews conducted with young adults who were diagnosed with schizophrenia. In a within-groups design, Stuart demonstrated that video interventions led to significant increases in accurate knowledge of

schizophrenia and significant decreases in reports of social distancing as compared with those who did not receive the intervention. The improvements were comparable to programs that feature in-vivo contact (Schulze, Richter-Werling, Matschinger, & Angermeyer, 2003), suggesting that indirect contact may be as effective in reducing stigma as in-vivo contact. The author mentions the greater difficulties in providing systematic in-vivo contact, such as the need for a patient to be trained and available for these interventions.

It has been suggested that live contact may be more effective than indirect contact. However, indirect contact is still more effective than no contact. Faigin and Stein (2009) performed a study directly comparing live and video-taped theatrical performances of stigmatization of people with serious mental illnesses. The researchers presented over 300 undergraduates with one of three conditions. One group received a live performance of the subjective experience of a person with mental illness being stigmatized. Another group received the same performance, except it was pre-recorded and displayed on a screen. The third group received no intervention. On measures taken a month before the intervention, all groups had relatively equal attitudes of tolerance and behavioral intentions for interaction. On measures taken a month after the intervention, the group that received the live performance scored highest on attitudes of tolerance and also on behavioral intentions for interaction, suggesting the largest reduction in stigma of the three groups. However, the group that received the pre-recorded message had scores that were significantly different from the control group, suggesting that video-taped interventions can also be effective in reducing stigma.

Research suggests that contact interventions are more effective at reducing stigma, on average, than education is; however, the latter strategy has been viewed as the more practical solution to the current stigma epidemic (Corrigan, et al., 2001). Educational interventions focus

on presenting accurate information about mental illnesses and the people who live with them. There is empirical evidence that educational interventions can be successful in reducing stigma in targeted populations (Keane 1991; Mann & Himelein, 2008). Corrigan and Penn (1999) identified four primary factors also associated with the most effective educational interventions: 1) including personal information about the diagnosed individual, 2) attacking myths directly, 3) using simulations to increase empathy, and 4) encouraging discussion. The type of accurate information is also relevant. For example, Walker and Read (2002) found that a focus on biological or genetic causal beliefs actually reinforced stigmatizing attitudes when compared to psychosocial causal beliefs.

Regardless of which intervention style is used, researchers believe that classrooms may be the most efficient place to install stigma reduction interventions. Chan, Mak, and Law (2009) argue that school-based interventions should be a central theme in stigma-reduction efforts because stigmatizing beliefs are developed early in life and because earlier interventions may promote more help-seeking behavior from people afflicted by mental illnesses. According to Mann and Himelein (2008), introductory psychology courses are taken by students of many disciplines as well as by future mental health professionals. These researchers recognize college graduates as an important group to reduce stigma of mental illness within and acknowledge that stigma reduction efforts are difficult to implement for individuals once they are out in the work force.

<center>Classroom Strategies</center>

Introductory psychology has been the most popular college course in any discipline for several decades (Adelman, 2004). Psychopathology courses are the second most popular courses within psychology departments. Between these two courses, thousands of people are being

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educated every semester about mental illnesses; however, these courses are generally taught with lectures on symptoms and diagnoses (Halonen, 2005). This style does not adhere to the outline set forth by Corrigan and Penn (1999) to effectively reduce stigma. To wit, there seems to be an overemphasis of the medical model which endorses categorization and labeling instead of empathy and understanding (Mann & Himelein, 2008). It is clear that teaching psychopathology without considering the impact of stigma is wasted potential. Mann and Himelein (2008) found that the most successful classroom interventions to reduce stigma are based on psychosocial rather than medical models.

The Mann and Himelein study (2008) provides support for the use of first-person narratives in reducing the stigma of mental illness in college classrooms. In this study, the researchers compared two introductory psychology courses. In the control classroom, the researchers taught the section on psychopathology with a traditional, diagnostic approach. In the experimental classroom, the researchers developed an alternative method to teaching psychopathology which emphasized first-person narratives of individuals who had been diagnosed with mental illness. The researchers considered the first-person narratives to be a form of vicarious contact. In both classrooms, scores for both public stigma and self-stigma were measured at the very start of the semester and again after the semester had concluded. Comparatively, there was no significant difference between classrooms at the start of the semester; however, after the semester was over, the researchers found that the experimental group that received psychopathology instruction alongside first-person narratives had significantly lower scores for both self-stigma and public stigma. The researchers concluded that it is possible to reduce both public stigma and self-stigma with a targeted intervention in a college classroom.

Theories Supporting Stigma Reduction

Research supports the notion that the public has misconceptions about individuals with mental illness. Arboleda-Florez (1998) found that the general public tends to view people with mental illness as dangerous, dysfunctional, and unintelligent, whereas Crisp and colleagues (2000) recorded beliefs that people with mental illness are lazy, noncontributing members of society. There is also evidence that seeking professional help for mental illness is stigmatized. Research conducted on college students found that those who were described as seeking professional services for depression were rated as less emotionally stable, less interesting, and less confident, on average, than individuals who had the same symptomology but were *not* seeking professional help (Ben-Porath, 2002). As previously discussed, contact and education are the two primary strategies that can be employed to overcome these misconceptions. The present study focuses on a form of vicarious contact informed by the intergroup contact theory.

The intergroup contact theory, commonly referred to as the contact hypothesis, was proposed by Gordon Allport in *The Nature of Prejudice,* an influential book that explores issues of stereotyping, prejudice, and discrimination between groups (1954). This theory was developed during World War II, when Black soldiers were beginning to be platooned with White soldiers. When surveyed, over 60% of segregated White units disliked the idea of racially integrated units. After integration, however, White soldiers reported less than 10% dissatisfaction (Allport, 1954). Allport's research found that putting groups in contact with each other under specific conditions would result in greater empathy and reduced prejudice, on average. These conditions include equal status and personal interaction and exclude competition and violence. Researchers have applied the contact hypothesis to the issue of stigma surrounding mental illness (Corrigan, Morris, Michaels, Rafacz, & Rusch, 2012).

Meta-analytic work by Pettigrew and Tropp (2006) sheds more insight on the contact hypothesis. Data from 515 independent studies were collected. The authors make several conclusions based on the results. First, it appears that repeated exposure can enhance liking for the targets. This finding suggests that simply exposing individuals to people with mental illnesses may enhance liking and reduce prejudice. Further, exposure to one minority group may enhance liking for other related, but previously unknown, groups. This finding suggests that reducing stigma against people with a particular mental illness may help reduce stigma against people with other mental illnesses. Familiarity with members of other groups, such as individuals who are open about having a mental illness, tends to lead to lower prejudice. This finding, in turn, suggests that presenting a familiar person with mental illness should have a stronger effect on stigma-reduction than a non-familiar person.

Allport proposed that common goals, cooperation, and equal status were necessary for reduction of prejudice between groups. The meta-analytic work by Pettigrew and Tropp found that none of Allport's stated conditions were necessary for reducing prejudice. There were no significant differences in prejudice reduction with or without common goals ($p = .17$), cooperation ($p = .86$), or equal status ($p = .40$). However, the meta-analysis did find that carefully structured contact interventions that were designed to meet all of Allport's conditions had higher mean effect sizes than did studies that did not adhere to Allport's conditions. The meta-analysists concluded that, although Allport's conditions of common goals, cooperation, and equal status between groups do not seem to be necessary for reduction in prejudice, incorporating these conditions might facilitate a larger reduction in prejudice than would occur without.

By putting the general public in contact with individuals who have a mental illness, stigmatizing beliefs may be reduced. Research has found that both direct (in-person) and indirect (video) contact can reduce stigma (Reinke, Corrigan, Leonhard, Lundin, & Kubiak, 2004). Reinke and colleagues (2004) found no significant differences between using an in-person contact intervention and a recorded video contact intervention for reducing measures of public stigma. Furthermore, Reinke and colleagues (2004) found that using a video intervention of a family member or friend of an individual with mental illness was comparable to using a video intervention of an individual with mental illness in reducing mean levels of stigma in a classroom setting. It appears that vicarious contact that involves veridical stories can reduce stigma. More recently, Mann and Himelein (2008) demonstrated stigma reduction with vignettes in a pre- and post-intervention design in a classroom setting. In these studies, participants were indirectly exposed to stories of people living with a mental illness with successful reduction of stigma. Several groups of researchers have found support for reducing stigma with indirect contact.

Use of Celebrities to Reduce Stigma

Although there is a dearth of research on the topic, scientists have suggested that celebrity disclosures may be particularly effective in reducing both public stigma against individuals with mental illness as well as the self-stigma that reduces help-seeking among individuals with mental illness (Vogel & Wade, 2009). These researchers believe that celebrities fit into the social categories required by Corrigan and Penn (1999) that allow for efficacious stigma reduction through contact. In comparison with many members of the general public, celebrities are of at least equal status, are perceived as in-group members, and are likeable. Because there are several studies supporting the use of vicarious contact, such as first-person

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narratives being more effective in reducing stigma than no intervention in the absence of in-vivo contact, it is worth investigating if indirect contact with celebrities who have mental illness will yield successful results.

Even without a large body of research supporting the notion that celebrities may be useful in combating stigma, the use of celebrity stories is being incorporated into the teaching of psychology. I analyzed nine popular textbooks used in introductory psychology courses and found that all of them mentioned celebrities in at least one chapter related to psychopathology, including chapters on personality, psychopathology, and treatment. The majority of these textbooks had more than a dozen mentions each of different celebrities with respect to varying topics. Certain celebrities, such as Demi Lovato, are well known for openly discussing their mental health issues. Other celebrities, such as Dr. John Forbes Nash, have been popularized by the media; Nash was the subject of the Academy Award-winning film *A Beautiful Mind* because of his struggles with schizophrenia. Some celebrities are advocates for professional help-seeking and therapy, such as Howie Mandel for his obsessive-compulsive disorder and Brooke Shields for her postpartum depression. Beloved author J.K. Rowling has shared her battle with depression and suicidal thoughts on social media, and Grammy Award-winning artist Adele has openly discussed her severe anxiety attacks. This analysis makes it clear that students in introductory psychology courses are being exposed to celebrities with mental illnesses in their textbooks and likely in their classroom lectures as well. The current use of celebrity examples suggests that it is important to research whether this tactic is effective.

Ferrari (2016) conducted a study to determine whether incorporating celebrities' stories into lectures would be effective in reducing stigma in college students. This study compared two abnormal psychology courses that were taught in the same manner except for one manipulation:

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The experimental group was presented with celebrity examples for the various disorders and the control group was not. For example, in the experimental group, Howie Mandel was used as an example of an individual living with obsessive-compulsive disorder and Demi Lovato was used as an example of an individual living with bipolar disorder. Pretest and posttest questionnaires assessed students' stigmatizing beliefs in accordance with the social distance scale (SDS). The social distance scale measures the willingness of the participant to engage in social proximity to an individual diagnosed with a mental illness; an example would be how willing the participant would be to be friends or roommates with a person who has a mental illness. The study found that mean levels of stigma assessed by the SDS were significantly lower in the experimental group at the end of the course when compared to the control group. This finding supports the contact hypothesis for use of celebrities to reduce scores on measures of stigma in targeted populations. However, this study was limited by a small sample size and a lack of diversity in the participants, as all of the participants were women. Furthermore, it is unclear to what degree celebrities need to be incorporated. The researcher used one celebrity example each for fourteen different disorders. This study, however, does not confirm that celebrity examples were necessary to produce attitude change; it is possible that non-celebrity examples of individuals with the same disorders may be as effective in reducing stigma as celebrity examples.

To briefly summarize, mental illness may cause disability (Walker, McGee, & Druss, 2015), mortality (Rossiter & Sivakumaran, 2017) and reduced self-efficacy (Corrigan, 2005). Although treatments exist for most mental illnesses, many individuals still do not seek professional help for mental health issues because of stigma (Hatzenbuehler, Phelan, & Link, 2013). Some interventions utilizing first-person narratives have been successful in reducing stigma (Mann & Himelein, 2008; Desforges et al., 1991). These interventions may be successful

due to intergroup contact (Tropp & Pettigrew, 2005). Celebrities with mental illnesses have been successfully utilized in stigma reduction (Ferrari, 2016); however, some specific factors remain unclear, such as the degree of exposure necessary to reduce stigma.

Present Study

The present study examined the effect of celebrity status as a stigma-reduction intervention using the first-person narrative format, an effective tool for reducing stigma in which individuals are presented with personal vignettes (Mann & Himelein, 2008). It aimed to determine whether celebrity narratives or non-celebrity narratives are more effective in reducing public and internal stigma, as compared to a control group. At the time of this study, no publication within the stigma literature has suggested future directions for investigating the effects of using celebrities with mental illnesses as tools for reducing stigma. To aid in future investigations, the present study will include exploratory and open-ended questions to provide researchers with more information.

It is currently unclear as to whether celebrity status directly plays a role in stigma reduction. In the Ferrari (2016) study, celebrity stories were compared to no intervention. It is possible that the significant findings were caused by the use of vicarious contact alone, without any influence from celebrity status, such that a non-celebrity story would have yielded similar results. The first aspect of the present study will determine whether reading about celebrities' or noncelebrities' psychological disorders leads to lower mean scores on two distinct measures of stigma. Celebrity examples have been effectively utilized in classroom interventions (Ferrari, 2016). The Ferrari study manipulated an entire course curriculum to accommodate the use of celebrity examples. In the present study, celebrity examples will be compared with non-celebrity examples in first-person narratives and with a control group receiving no examples. The results

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will reveal whether reading about a celebrity with mental illness is more effective than reading about a non-celebrity with mental illness in reducing measures of public stigma and measures of internal stigma.

If celebrity status plays a role in stigma reduction, it is currently unclear as to what specific qualities of celebrities mediate the mechanisms of stigma reduction. The second aspect of the study will attempt to inform future directions for confirmatory research. To this end, participants will be asked exploratory questions. The open-ended questions are intended to elicit information about the qualities that celebrities may possess that may impact participants' perceptions of individuals with mental illness. The other exploratory questions are intended to determine whether the factors influencing stigma reduction are the same ones that influence purchasing habits due to celebrity endorsements. If celebrities do affect stigma reduction in a meaningful way, then the qualities that empower celebrity endorsements may be the same qualities that lead to stigma reduction. The exploratory questions relating celebrity endorsements to stigma reduction are based on marketing research gathered by Kenton (1989), Russell and Stern (2006), and Miller and Allen (2012). Kenton demonstrated that speakers who are perceived to share similar values as audience members were rated as being more knowledgeable and competent by audience members than those who are perceived not to share similar values. Russell and Stern found that there was a positive correlation between the degree to which participants talked about a celebrity and the success of that celebrity's endorsement. Miller and Allen isolated four characteristics of a celebrity that lead to a successful model of endorsement: goodwill, expanded as fairness and unselfishness; prestige, expanded as power and status; expertise, expanded as competence; and self-presentation, expanded as confidence.

To explore the effects of celebrity status on stigma reduction, participants will be randomly assigned to one of three groups. The first group will be the celebrity group, which will be exposed to vignettes crafted from stories directly stated by the celebrities themselves. The second group will be the non-celebrity group. The non-celebrity group will be exposed to vignettes crafted from the same language as the celebrity stories, except the vignettes will be attributed to non-celebrity college students. The third group will be the control group, which will not be exposed to any stories. Because an individual's opinions and attitudes may theoretically be influenced by prior contact with mental illness in various forms, the present study will control for participant's level of contact with people with mental illness (Corrigan et al., 2001).

Based on previous research, the present study has two hypotheses. First, I hypothesize a main effect of celebrity status, such that exposure to celebrity vignettes will lead to lower reported levels of public stigma, on average, compared to exposure to non-celebrity vignettes or no vignettes, when controlling for prior level of contact. This hypothesis is based on research by Ferrari (2016) supporting the use of celebrities with mental illness in reducing public stigma. Finding support for this hypothesis will strengthen the argument that vicarious exposure to celebrities with mental illness is more effective in reducing public stigma than vicarious exposure to a non-celebrity with mental illness or no exposure at all.

 The second hypothesis is that there will be a main effect of celebrity status, such that exposure to celebrity vignettes will lead to lower reported levels of self-stigma, on average, compared to exposure to non-celebrity vignettes or no vignettes, when controlling for prior level of contact. This hypothesis is based on research by Mann and Himelein (2008) supporting the use of vicarious contact with individuals with mental illness in the form of vignettes in reducing self-stigma of seeking professional help if necessary. Finding support for this hypothesis will

strengthen the argument that vicarious exposure to celebrities with mental illness is more effective in reducing internal stigma than vicarious exposure to a non-celebrity with mental illness or no exposure at all.

Methods

Participants

An a priori power analysis was conducted using G*Power (Buchner, Erdfelder, Faul, & Lang, 2007). Based on this analysis, I determined that 159 participants were needed to achieve a power level of 0.80 to detect a medium effect size with an alpha level of 0.05 and a two-tailed test. To account for the possibility of lost data due to computer issues or participant non-compliance, 167 participants were recruited. No participants were dropped. All participants gave informed consent in accordance with Institutional Review Board approval. In addition, each participant was debriefed at the end of the study. Participants were recruited from the Seton Hall Psychology Department participant pool. Undergraduate students over the age of 18 who were fluent in English were included and received course credit for participation. 77% of the participants were women and 23% of the participants were men. 16% of the participants were Asian, 7% were Black, 18% were Hispanic, 56% were White, and 3% were Other. The average age of participants was 19.3 years old.

Design and Procedure

Participants provided informed consent before beginning the study. Participants were randomly assigned to one of the three conditions by using the "list randomizer" feature on random.org for six conditions. There were six conditions total because each of the three experimental conditions were counter-balanced in that the order in which the two psychological

disorders were presented varied. Thus, I created a randomized list for participants using the random.org tool.

The condition to which the participant was assigned determined whether the participant received one of the sets of experimental vignettes (celebrity or non-celebrity) or was assigned to the control group. The participants assigned to the experimental groups (celebrity or non-celebrity) were asked to read one vignette depicting a woman and one vignette depicting a man for each condition. Participants in the control condition did not receive any experimental vignettes, but they did read and respond to test vignettes. This allowed a measurement of baseline stigma scores without influence from vignettes about either celebrities or non-celebrities describing their mental illness.

After reading one of the experimental vignettes, or no experimental vignettes for the control condition, all participants were presented with one test vignette about a subject with a gender-neutral name who had symptoms of depression. Participants in the control group started the experiment by reading one of the test vignettes. Immediately after receiving the first test vignette, the participant received a Social Distance Scale (SDS) report form. The participant completed the SDS report form with respect to the subject in the first test vignette. After this was completed, the participant received a second test vignette and a second SDS report form. In the second test vignette, the subject with a gender-neutral name had symptoms of bipolar disorder. The participant completed the second SDS report form with respect to the subject in the second test vignette. The two SDS reports reflected the participant's levels of stigma toward individuals with mental illness. Using the procedure followed by Mann and Himelein (2008), the two SDS scores were combined to give a total social distance stigma score that was used in the statistical

analyses (minimum score of 8, maximum score of 32). To counterbalance, the order of the test vignettes was reversed for half of the participants for each group.

After both SDS report forms were completed, the participant completed the Self-Stigma of Seeking Help Scale (SSoSHS) report form. After the SSoSHS form was completed, the participant completed the Level of Contact Report (LCR). Then the participant completed the exploratory questions. The participant then completed a demographics form. After the demographics form was completed, the participant filled out a fidelity check. Then the participant was debriefed.

<center>Materials</center>

Experimental Vignettes. There were three conditions: celebrity, non-celebrity, and control. Each experimental group received one vignette about a man and one about a woman.

Group	Celebrity	Non-celebrity	Control
Vignette received	Participant read about a celebrity with mental illness	Participant read about a non-celebrity with mental illness	Participant received no vignette

The experimental vignettes were developed using quotes from the celebrities depicted. Quotes for Demi Lovato, who has been diagnosed with bipolar disorder, were found in the documentaries *Stay Strong* (2012) and *Simply Complicated* (2017). Quotes for Jon Hamm, who has been diagnosed with major depressive disorder, were found in interviews with reporters from *The Guardian* (Vernon, 2010), *Daily Mail* (Lipworth, 2012), and *In Style* (Bagley, 2017). Quotes and factual information were included in the experimental vignettes in the same manner used by Mann (2010). Using brief but important excerpts from case history information, Mann created short narratives with quotes to highlight messages from the subjects. The vignettes used in the

study by Mann were written by the researcher based on actual quotes from clinical interviews. The vignettes for the two celebrities in the current study were approximately equal in length and number of quotes used.

Demi Lovato and Jon Hamm were selected as the two representative celebrities for several reasons. First, selecting one woman and one man was important to balance for any gender effects. Second, both of these celebrities are currently featured in media. Demi Lovato released albums in 2011, 2013, 2015, and 2017. Jon Hamm has received 16 Primetime Emmy Award nominations for his work on television, including *Mad Men* and *Black Mirror*. He has also starred in many films. These celebrities have mental illnesses (i.e., bipolar disorder, depression) that are relatively recognizable by the general public. Most importantly, both of these celebrities have been open publicly about their struggles with mental illness and have spoken on record about their experiences and recoveries.

Experimental vignettes can be found in Appendix A. The celebrity vignettes depicted actual quotes used by the respective celebrities. The non-celebrity vignettes were created by replacing the names and occupations of the people in the celebrity vignettes with non-celebrity names and occupations. The control group received no experimental vignettes and were tested on test vignettes to get a baseline measure of stigma without influence from a celebrity or non-celebrity first-person narrative.

Test Vignettes. All participants read two test vignettes (see Appendix B). The first test vignette is of an individual with depression and was adapted from a study by Jorm and colleagues (2005). The second test vignette is of an individual with bipolar disorder and was adapted from Zylstra and Sanford (1999). These correlated with the mental disorders used in the experimental vignettes. The people in both test vignettes were given gender-neutral names. The

purpose of the test vignette was to give the participant a target for displaying stigmatizing beliefs. The degree of stigma leveraged against this imagined individual who displays real symptoms of a mental illness was with the social distance scale. The test vignettes also represent symptoms that may manifest in the participant if the participant were to develop symptoms of a mental illness. The degree of internalized stigma in the participant if this were to happen was measured by the self-stigma of seeking help scale.

Social Distance Scale. After reading the test vignettes, participants filled out the social distance scale. The social distance scale (SDS) was developed by Link and colleagues (1987). This scale measured the willingness of the participant to engage in social proximity with an individual depicted as having a mental illness. This scale is commonly used in the literature to gauge participants' stigmatizing behavior toward individuals with mental illness. An example question is, "How willing would you be to be friends with [the subject of the test vignette]?" Responses ranged from 0 = definitely unwilling to 3 = definitely willing. Higher scores reflect a greater acceptance of those with mental illness and translate to lower amounts of stigma. The original SDS has since been adapted to be more applicable to university student populations (Mann & Himelein, 2004 and Ferrari, 2016). In a sample of college students, internal reliability as measured by Cronbach's alpha was found to be .88 (Ferrari, 2016). In the present study, internal reliability as measured by Cronbach's alpha was found to be .82.

Self-Stigma of Seeking Help Scale. The self-stigma of seeking help scale (SSoSHS) was designed by Vogel and colleagues (2006). This scale is used to assess how much stigma the participant has internalized regarding seeking professional help for a psychological problem. An example prompt on this scale is, "I would feel okay about myself if I made the choice to seek professional help." Responses range from 1 = strongly disagree to 5 = strongly agree. Half of the

prompts are reverse-scored to prevent response bias. An example reverse-scored prompt is "I would feel inadequate if I went to a therapist for psychological help." Higher scores on the SSoSHS represent greater willingness to seek professional help and translate to lower amounts of self-stigma for seeking help. Vogel and colleagues (2006) reported internal reliability at .84 and internal consistency at .82. The SSoSHS was shown to have a unidimensional factor structure and demonstrated validity (Kosyluk et al., 2016). In the present study, internal reliability as measured by Cronbach's alpha was found to be .86.

  Level of Contact Report. The level of contact report (LCR) was developed by Holmes and colleagues (1999) to measure a participant's level of intimacy with an individual who has a mental illness. The LCR lists 12 situations that are ranked in terms of intimacy of contact. These situations range from "1: I have never observed a person that I was aware had a severe mental illness," to "12: I have a severe mental illness." Each situation is assigned a numbered score from 1 to 12, and higher scores represent more intimacy with an individual with a mental illness. For example, a participant who has a relative with a mental illness (scored as a 10) would be rated as having a higher level of intimacy with a person with a mental illness than a participant who has been a coworker with a person with a mental illness (scored as a 6). When the LCR was developed, the mean of rank-order correlations summarizing interrater reliability was .83 (Holmes et al., 1999). The rank order was validated in a sample of 100 research participants. In the current study, participants will complete a level of contact report after completing the SSoSHS. LCR scores will be used as a covariate in the same manner as employed by Hackler, Cornish, and Vogel (2016) because prior exposure to mental illness theoretically may impact either or both reported measures of stigma. In the present study, internal reliability as measured by Cronbach's alpha was found to be .80.

Exploratory Questions. Each participant completed a list of exploratory questions (see Appendix C). These questions asked the participant about perceptions of attributes of the subject of the vignettes. The answers to these questions may be useful in determining what specific qualities might be useful in stigma-reduction efforts by celebrities, which could lead to future studies targeting more effective celebrities to use. These qualities were borrowed from research examining celebrities' usefulness for marketing purposes (Knoll & Matthes, 2017). There were four major qualities that were inspected: goodwill, expanded as fairness and unselfishness; prestige, expanded as power and status; expertise, expanded as competence; and self-presentation, expanded as confidence. Each quality was measured on a 5-point scale, from very low to very high. If celebrity status is found to influence stigma-reduction, then these qualities may shed light on qualities that mediate influence on participants. Participants were asked three additional questions about each celebrity. These questions can be summarized as evaluations of personal social proximity to the celebrities and are measured on self-reported scores of liking the celebrity, having talked about the celebrity, and perceived similarity to the celebrity. Specific questions can be found in the appendix. Questions were scored on a 4-point Likert-type scale. These questions are also meant to determine if specific qualities are necessary or helpful in celebrities for attenuating stigma.

Each participant was asked three open-ended questions to gain further insight into quantitative results. The first question was, "Have you been exposed to stories of celebrities as examples of people living with mental illness? If so, how and when?" The second open-ended question was, "In your opinion, does learning about celebrities who live with mental illness affect any of your stigmas against mental illness? Why or why not?" The third open-ended question was, "What qualities or attributes of a celebrity living with mental illness may impact

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your opinions of people living with mental illness?" Surveys could not be completed until each question box received at least one character in the response form.

Open-ended responses were coded by an inductive coding method. The primary goal was to determine the total number of narratives that had unique supporting themes. By reducing down each open-ended response into its most basic idea, I was able to determine which ideas were most common. The coding process progressed by simplifying each response into a base theme. Next, I checked to see if this theme fit into a previously listed theme. If not, a new theme was created. An example response for the second open-ended question, which asked, 'In your opinion, does learning about celebrities who live with mental illness affect any of your stigmas against mental illness? Why or why not?' would be, "Yes, it shows that even people of such high status can struggle just as much, or even more, as the common person." This response was included under the theme 'Yes, because it shows that celebrities can be affected by mental illness the same as non-celebrities,' (Table 5). Character input was required by the software to complete the survey. Not every response was coherent, as some participants entered random characters to continue to the next part of the survey.

Fidelity Check. Each participant completed a fidelity check to determine familiarity with the celebrities in the vignettes (see Appendix D).

Demographics Form. Each participant completed a demographics form (see Appendix E). This form asked about the participant's gender, ethnicity, and year in school. These data were used to provide insight into the sample population when analyzing results.

Results

An analysis of variance (ANOVA) was used to examine both hypotheses. The first hypothesis was that exposure to celebrity vignettes would result in lower public stigma scores,

on average, than would exposure to non-celebrity vignettes or to no vignette (the control group), as measured on the SDS, with LCR scores used as a covariate. The second hypothesis was that exposure to celebrity vignettes would result in lower self-stigma scores, on average, than would exposure to non-celebrity vignettes or to no vignette (the control group), as measured on the SSoSHS, with LCR scores used as a covariate. Important assumptions of an ANOVA include normality, or assuming that residuals are normally distributed; independence; random sampling; and homogeneity of covariance matrices (Field, 2013). Because all participants were required to take the study for class credit, the sample of this experiment was not randomly selected. However, it is worth mentioning that all participants came from the population of interest, college students. The college population is the key group to target for stigma reduction because many students are getting their first and, for some, their only academic exposure to mental illness; once people join the workforce, it is much more difficult to employ stigma-reduction measures (Ferrari, 2016). In accordance with the Central Limit Theorem, a normal distribution can be assumed because the sample size is larger than 30. Homogeneity of covariance matrices was examined using Levene's test of equality of error variances to determine if the variance-covariance matrices of the different groups within the analysis were equal. All values were greater than 0.05, indicating that the variability between conditions is similar.

*Confirmatory Analyses*

The first hypothesis was that exposure to celebrity vignettes would result in lower public stigma scores, on average, than would exposure to non-celebrity vignettes or to no vignette (the control group), as measured on the SDS, with LCR scores used as a covariate. The second hypothesis was that exposure to celebrity vignettes would result in lower self-stigma scores, on

average, than would exposure to non-celebrity vignettes or to no vignette (the control group), as measured on the SSoSHS, with LCR scores used as a covariate.

A one-way ANOVA was conducted to examine the effects of experimental vignette (celebrity, non-celebrity, or control) on public stigma scores, as measured on the SDS. Higher SDS scores indicate a greater willingness to engage in social proximity with people who have a mental illness, which effectively translates to lower overall public stigma. An ANCOVA was originally intended to be used, but the LCR scores proved to be a non-significant covariate ($p = 0.135$), so I reported only the results of the ANOVA. No statistically significant effect of experimental vignette on public stigma scores was found ($F(2,164) = 1.966$, $p = 0.143$, $\eta^2 = 0.023$), a small effect. Results are depicted in Figure 1, and means and standard deviations are summarized in Table 1.

Figure 1 – Results depicting the effect of experimental condition on SDS scores. Error bars represent standard errors.
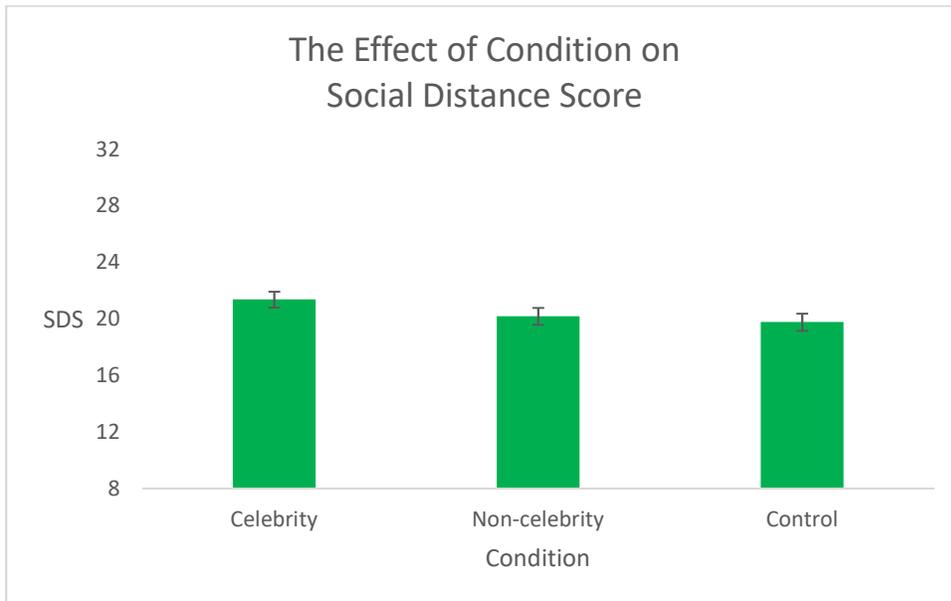
A second one-way ANOVA was conducted to examine the effects of experimental vignette (celebrity, non-celebrity, or control) on self-stigma scores, as measured on the SSoSHS. Higher SSoSHS scores indicate a greater willingness to seek professional help for a psychological problem, which effectively translates to lower overall self-stigma. An ANCOVA was originally intended to be used, but the LCR scores proved to be a non-significant covariate ($p = 0.535$). No statistically significant effect of experimental vignette on self-stigma scores was found ($F(2,164) = 0.261$, $p = 0.77$, $^2 = 0.003$), a small effect. Results are depicted in Figure 2, and means and standard deviations are summarized in Table 1.

Figure 2- Results depicting the effect of experimental condition on SSoSHS scores. Error bars represent standard errors.

Table 1.

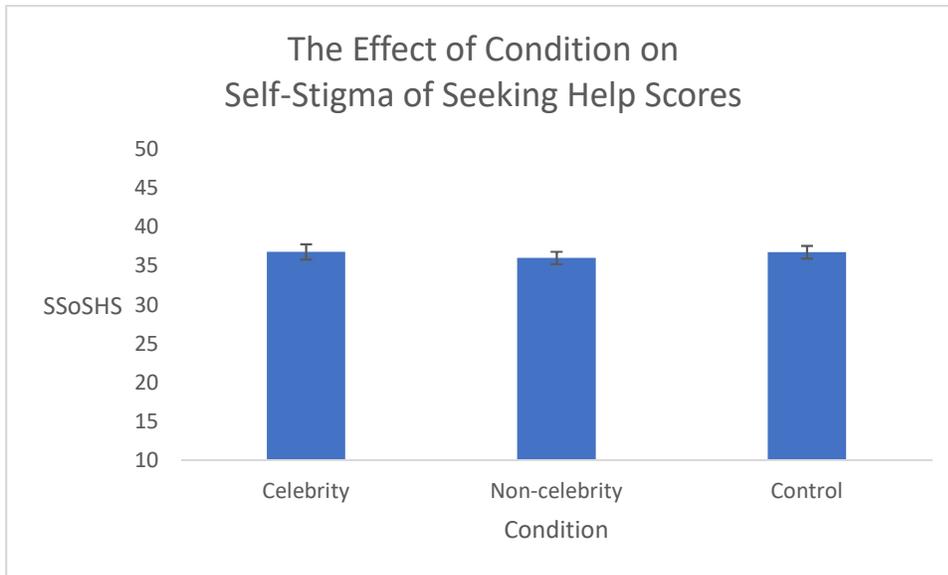Means and Standard Deviations of SDS and SSoSHS scores by Experimental Condition (Higher SDS scores indicate lower public stigma and higher SSoSHS scores indicate lower self-stigma)

Experimental Condition		SDS		SSoSHS	
	N	*M*	*SD*	*M*	*SD*
Celebrity	55	21.38	4.17	36.82	7.31
Non-Celebrity	57	20.19	4.51	36.04	6.02

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| Control | 55 | 19.78 | 4.50 | 36.78 | 6.06 |

Exploratory Analyses

Exploratory analyses were also conducted to identify further research directions. First, all participants rated their familiarity with the celebrities in the celebrity vignettes. This was done to explore how familiar participants need to be with celebrities for their stories to affect ratings related to stigma about mental illness. On a 5-point scale, Jon Hamm's familiarity rating was a 1.48 and Demi Lovato's rating was a 4.22. There was a significant difference between the familiarity scores for Demi Lovato (M = 4.22, SD = 0.93) and those for Jon Hamm (M = 1.48, SD = 0.92), $t(166)$ = 28.73, $p < .001$, Cohen's d = 2.22, a very large effect size. Comparatively, Demi Lovato was a more familiar name to respondents.

All participants also were asked about their perceptions of celebrities' personal qualities. Specifically, they were asked to rate their perceptions of how much each of the two celebrities possessed four specific qualities (i.e., goodwill, prestige, expertise, and confidence) on a 5-point scale. Demi Lovato was rated on average on goodwill as 3.54, prestige as 3.72, expertise as 3.22, and confidence as 3.59. Jon Hamm was rated on average on goodwill as 3.11, prestige as 3.17, expertise as 2.93, and confidence as 3.07. Because Jon Hamm's familiarity score was exceptionally low, these results should be interpreted with caution.

Table 2.

Means and Standard Deviations of Celebrity Qualities scores by Celebrity

Qualities	Demi Lovato		Jon Hamm	
	M	*SD*	*M*	*SD*
Good Will	3.54	1.11	3.02	1.06
Prestige	3.72	1.33	3.13	1.13
Expertise	3.22	1.26	2.93	0.95
Self-Presentation	3.59	0.99	3.07	1.03

Personal social proximity to both celebrities was also evaluated. Personal social proximity was the degree to which a participant felt the celebrity represented qualities that may make that particular celebrity an individual that the participant would like, speak about among peers, and feel similar to. Higher scores indicated an increased perception that the celebrity had that quality. Questions were scored on a 4-point Likert-type scale. Results are summarized in Table 3.

Table 3.

Means and Standard Deviations of Social Proximities to Celebrities by Celebrity

Social Proximities	Demi Lovato		Jon Hamm	
	M	*SD*	*M*	*SD*
Liking	3.17	0.66	2.83	0.69
Social Relevance	2.85	0.92	1.60	0.69
Similarity	2.52	0.74	2.14	0.60

Open-ended questions followed, with each question requiring character input in the response box. Open-ended responses were coded by the inductive coding method. All responses were reduced to simplest unique supporting themes.

The first open-ended question was, "Have you been exposed to stories of celebrities as examples of people living with mental illness? If so, how and when?" 149 of 167 (89%) responded in the affirmative, while 18 of 167 (11%) reported never having been exposed to celebrity stories of mental illness. Of the 149 affirmative responses, 86 (58%) explicitly mentioned some form of media (including television, internet, and social media) as being their source. 3 of the affirmative responses (2%) explicitly mentioned friends as a source of information about celebrity stories. Although not explicitly asked in the question, many celebrities were explicitly mentioned. Of the 149 affirmative responses, 81 (54%) explicitly mentioned Demi Lovato. Other celebrity mentions are listed in Table 4.

Table 4.

Celebrities Mentioned in Open-Ended Question #1 by Number of Responses

Celebrity	Number of Responses	Occupation
Robin Williams	8	Comedian, actor
Mac Miller	7	Musician
Selena Gomez	3	Musician
Miley Cyrus	3	Musician
Kanye West	2	Musician
Howie Mandel	2	Comedian, actor
Michael Jackson	2	Musician
Britney Spears	2	Musician

The following celebrities each received 1 mention in the open-ended responses: Mariah Carey (musician), OJ Simpson (athlete), Lindsey Lohan (actor), Aaron Hernandez (athlete), Amy Winehouse (musician), Russell Brand (comedian/actor), Lily Collins (actor), Kendrick Lamar (musician), Adele Adkins (musician), Pete Davidson (comedian/actor), Chester Bennington (musician), Brandon Marshall (athlete), and Kate Spade (fashion designer).

The second open-ended question was, "In your opinion, does learning about celebrities who live with mental illness affect any of your stigmas against mental illness? Why or why not?" Of the 167 participants, 49 (29%) responded in the affirmative. 87 (52%) responded that they did not believe celebrities with mental illness affected their stigma. 31 (19%) responded with an unclear or ambivalent answer. Responses that addressed the question at hand are categorized in Table 5.

Table 5.

General Summaries of Responses for Open-Ended Question #2

N	Yes	N	No
17	Yes, because it shows that celebrities can be affected by	28	No, because I view them the same as non-celebrities.

	mental illness the same as non-celebrities.		
9	Yes, because they are role models.	18	No, because I don't have any stigma towards people with mental illness [however, these participants have SDS scores below the mid-point, indicating higher than average stigma].
5	Yes, because a celebrity with mental illness is not the typical stereotype of a person with mental illness.	13	I do not value celebrity status.
4	Yes, otherwise I would not know much about mental illness.	8	No, because I don't have any stigma towards people with mental illness [and these participants have SDS scores above the mid-point].
		7	Not me, personally, but I believe it may affect others.
		6	No, because I don't know them personally, but if I did know them (or a non-celebrity) personally, then probably.
		5	No, because I am personally familiar with mental illness [and these participants have SDS scores above the mid-point].
		5	Not me, personally, but I believe they provide general awareness.
		4	No, because I have witnessed mental illness first-hand [and these participants have SDS scores below the mid-point, indicating lower than average stigma].

The third open-ended question was, "What qualities or attributes of a celebrity living with mental illness may impact your opinions of people living with mental illness?" Of the 167 respondents, 93 gave responses which could be identified and included in the results. Of the 93

who gave responses that could be identified and included, 7 listed more than one quality. 74 of the 167 responses were off-topic (e.g. "I think it shows that even with a mental illness, you can still be very successful,"), incoherent (e.g. "adlkfj"), or did not directly answer the question (e.g. "It can impact my opinion of others because I can know someone with the same thing as what Demi Lovato is going through and I get tired of trying to help them or my family does, but then I think that if I'm okay with Demi Lovato's illness and I can still see the good in her, why can't I do the same with the person that I know that has the same thing that she's going through?"). Qualities that received more than one response are indicated in Table 6.

Table 6.

Responses to Open-Ended Question #3 by Number of Responses

Quality	*N*
[None / NA]	43
Openness / honesty	17
Composure (how mental illness is handled)	11
Drug abstinence / rehabilitation	9
Success / fame	9
Perseverance / resilience	7
Confidence	6
Help-seeking behavior	5
Kindness	4
Humility	2
Wealth	2

Discussion

As society moves into a new era of discussion about human rights and egalitarianism, it is important for scientists to identify what factors may influence perceptions of those who have traditionally experienced prejudiced. This study analyzes a specific, short-form intervention which combines research from different facets of the stigma literature. First, a vignette depicting

an individual with mental illness is used, as per Mann and Himelein (2008). Second, celebrities who have come public about their mental illnesses are incorporated, as per Ferrari (2016). Finally, this study includes exploratory analyses that may aid in providing direction for future research.

The present study did not find support for the use of the Level of Contact Report (LCR), a measure of prior contact with individuals who have a mental illness, as a covariate with respect to either the Social Distance Scale (SDS) or the Self-Stigma of Seeking Help Scale (SSoSHS), so the current findings do not include these as covariates. The LCR measures how familiar an individual is with people who have mental illness. The LCR ranges from 1 – "I have never met a person with mental illness before" to 12 – "I have mental illness". It is used as a covariate because a participant's familiarity with mental illness might predict the outcome of other measures, namely the SDS and SSoSHS. The assumption behind this is that greater familiarity with mental illness may likely lead to greater acceptance of people with mental illness and, subsequently, lower overall stigma.

The support for using the LCR came from a study performed by Hackler, Cornish, and Vogel (2016). In the Hackler, Cornish, and Vogel study, videos of family members and friends of those with mental illness are used as an intervention to reduce stigma in a pre- / post-test format. In that study, the participant pool included only undergraduate psychology majors. A major difference between the Hackler and colleagues study and the present study is that the present study included any undergraduate enrolled in an introductory psychology course. Although undergraduate major was not reported in the study, it is known that students from a number of majors, such as nursing and criminal justice majors, are required to take introductory psychology. The major of the participant may make a difference in the outcome of the two

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studies because people who opt to be psychology majors, as in the study by Hackler and colleagues, are possibly more likely to understand the mechanisms of mental illness, which may lead to these participants having lower overall stigma. Participants who major in other disciplines and are required to take a single introductory psychology course may not be interested or knowledgeable about mental illness, which constitutes only a small part of psychology overall. This could result in higher stigma scores.

The first hypothesis was that exposure to celebrity vignettes would lead to lower public stigma scores, on average, than exposure to non-celebrity vignettes or to no vignette (a control group), as measured on the SDS. This hypothesis was not supported by the data. One possible explanation for this lack of a finding is that the intervention itself was not effective enough to elicit change among the participants who read the celebrity vignettes. It is possible that the fact that students reported low familiarity with Jon Hamm blunted the results. Moreover, in previous research, the use of celebrities has been supported in a format where fourteen different celebrities, each with their own distinct mental illness, were discussed over the course of an entire semester of an abnormal psychology class (Ferrari, 2016). The Ferrari intervention had much more time allotted for stigma-reducing discussion when compared with the present study's use of a one-page vignette. The Ferrari intervention was aided by a professor guiding discussion and exploration. Furthermore, the Ferrari intervention used a pre- / post-test format, where demand effects may have played a role. Finally, the Ferrari experiment only used women as participants. The increased number of celebrities used, increased time in enforcing the intervention, and increased direction from a professor may have all contributed to the significant findings of the Ferrari study. It is as of yet unclear as to whether there are sex differences in stigma-reduction intervention effectiveness.

Another possible explanation for the lack of significant results for the first hypothesis is that the SDS was simply not sensitive enough for the intervention at hand. The SDS asked respondents to report their willingness to participate in rather intimate social proximity, such as dating and marriage, with individuals who display symptoms of mental illness, with four responses: definitely unwilling, probably unwilling, probably willing, and definitely willing. It is plausible that a short intervention such as the one at hand might not have had enough impact to move a participant's response such a large social distance, such as from "probably unwilling" to "probably willing". It is possible that extending the range of responses would have allowed enough flexibility to see statistically significant results. For example, if responses were recorded on a 7-point scale instead of a 4-point scale, there may have been more flexibility to allow for subtle differences to be measured.

Finally, it is possible that assuming a medium effect size in the a priori power analysis prevented the study from finding significant results. If a small effect size was assumed, the sample size would be increased, thereby increasing the statistical power of the intervention. It is possible significant results would have been found with more participants. However, a small effect size may also not be meaningful in the real world – that is, a small decrease in stigma may not be worth the time and effort of the intervention itself.

The second hypothesis was that exposure to celebrity vignettes would result in lower self-stigma scores, on average, compared to exposure to non-celebrity vignettes or to no vignettes (the control group), as measured on the SSoSHS. This hypothesis also was not supported by the results. The Ferrari (2016) study, detailed above, also employed the SSoSHS and found significant results. The same differences between the Ferrari study and the present study for comparing the SDS may have led to the differences in results of the SSoSHS possible. For

example, participants in the Ferrari study may have related to one or more of the many celebrities used in the Ferrari study. In comparison, the present study only had two celebrities, and the exploratory analyses showed that the majority of participants were "not at all familiar" with Jon Hamm.

It also is possible that the increased time spent on relating to celebrities with mental illness over a college semester played a large role in reducing self-stigma of seeking help. In addition, the Ferrari study employed only women as participants. It is possible that gender differences might contribute to the lack of significant findings in the present study, as it is plausible that men and women view help-seeking behavior with respect to self-image differently. Furthermore, it is possible that the Ferrari within-groups design yielded demand effects. While teaching over the course of the semester, it is possible that Ferrari subconsciously influenced her students into reporting lower stigma scores after the treatment, resulting in significant results for her study.

With respect to the contact hypothesis, it is possible that the criteria for effective change were not met. Because repeated exposure alone should yield positive results, it is possible that participants were not given enough exposure to the celebrities while referencing their mental illnesses. It is possible that a more thorough approach would be successful. For example, having participants watch both of Demi Lovato's documentaries would provide more exposure to Demi Lovato in the context of her mental health, which may yield significant results. While Allport's conditions are not necessary to elicit change with intergroup contact, they have been shown to facilitate a reduction of prejudice (Pettigrew & Tropp, 2006). The present intervention may have strayed too far from Allport's conditions. Common goals and cooperation were not explicitly identified in the present study. Furthermore, it is unclear as to what relationship celebrity status

has on the condition of equal status. It is possible that participants viewed celebrities as not being of equal status as themselves. If this were the case, the difference in social status itself might be a barrier to contact and may have hampered the present intervention.

It should also be noted that the average SDS scores and the average SSoSHS scores for the non-celebrity group were not significantly different from the control group. This suggests that exposure to a single-page first-person narrative of a peer with mental illness was not effective in reducing the stigma of mental illness as compared to taking the stigma measures without reading any narrative. It is possible that the above-mentioned contact conditions were not met. Another possible explanation is that participants in both the control group and the non-celebrity group have already had enough exposure to stories of mental illness such that one additional vignette of a hypothetical individual was not salient enough to change self-reported beliefs. The stigmatizing beliefs of participants in both groups had already been reduced to the level that can be accomplished using vicarious contact. It should be acknowledged that strong efforts have been made to reduce stigma in recent years following Surgeon General Vivek Murthy's call to arms against stigma in 2016. It is possible that these efforts have been at least partially successful, so the control group in the present study has likely already been exposed to stigma-reduction interventions.

Because the present study did not yield statistically significant results, it is not possible to draw conclusions from the exploratory analyses; however, it has been shown in previous research that the use of celebrities with mental illnesses can reduce stigma in targeted populations. In light of this, lessons from the exploratory analyses in the current study should be incorporated into future studies. It is logical to assume that stigma-reducing effects can only be caused by celebrities with a degree of familiarity to the participant. The degree of familiarity

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required for an impact to be made has yet to be determined. Future studies should address this question and also try to establish if increased familiarity has a positive effect on stigma reduction.

The first aspect of the exploratory analyses addressed perceived qualities of the two celebrities. The qualities were goodwill, prestige, expertise, and self-presentation, based on qualities determined by Knoll and Matthes (2017) to increase influence in celebrity endorsements. Future research should aim to determine if the same perceived level of qualities that influence celebrity endorsements are able to reduce stigma.

The next aspect of the exploratory analyses asked participants about their social proximity to these celebrities. They were asked to rate perceived liking, social relevance, and similarity to the celebrities. Future research should aim to determine if these or other attributes are relevant to the stigma-reduction capacity of individual celebrities. This will help individuals who are utilizing interventions to pick the most effective celebrities.

The last aspect of the exploratory analyses were the open-ended questions. The responses to these questions may help in interpreting the current results. The first open-ended question revealed that 89% of participants had been exposed to stories of celebrities with mental illness before. This may be one reason why the current intervention did not yield statistically significant results. The current intervention may have been too brief compared to previous exposure to have a noticeable effect. It is possible that prior exposure to celebrities with mental illnesses already shifted the participants' baseline stigma such that the current intervention was not noticeably effective. Future research might examine in more in-depth the effects of previous exposure on intervention exposure to celebrities with mental illnesses. The second open-ended question revealed that only 29% of participants believed that celebrities would affect their perceptions of

people with mental illnesses. This may reflect perceptions of celebrities living with a mental illness; however, it may also reflect overall perceptions of celebrities, with or without a mental illness. Future research should determine if there is a difference between perceptions of celebrities with and without mental illness. The final open-ended question revealed some qualities that participants believed an effective celebrity would possess. The top three qualities listed were openness/honesty, composure (how the mental illness is handled), and drug abstinence/rehabilitation. Future research should aim to determine if these qualities do, in fact, aid in the stigma-reduction effort and to what degree a celebrity needs to possess these qualities to be effective in reducing stigma.

An interesting takeaway from the open-ended questions is that participants self-reported many different interpretations of whether celebrity status would influence their perceptions of stigma and why. Table 5 highlights four categories for why participants believe celebrities would impact their perceptions of stigma and seven categories for why participants believe celebrities would not affect their perceptions of stigma. Although more participants reported that they do not believe celebrities would be effective, it is still plausible that celebrities would be effective for a select group of the population. It may be possible to isolate these individuals to use a targeted stigma-reduction campaign on them.

<center>Strengths and Limitations</center>

A strength of the present study is that it is one of only a few studies within the literature on the stigma of mental illness to employ an experimental, between-groups model. This experimental design may decrease demand effects that may affect pre- / post-test models. The random assignment to varying conditions allowed for a more conservative approach to testing the hypotheses.

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Another strength is that the present study appears to be the first of its kind to employ succinct celebrity vignettes in an empirical intervention. The use of short excerpts from celebrities with mental illness is similar to the use of short descriptions of the same celebrities in textbooks. This use of celebrities with mental illness in introductory psychology, abnormal psychology, and psychopathology textbooks is becoming incredibly popular; yet, the efficacy of their use has yet to be tested empirically. Although Ferrari (2016) was able to find a statistically significant effect of condition (celebrity vs. control), that study was confounded by several factors already described. The current study sought to isolate the effect of celebrity status on interpretation and salience of the message conveyed.

The fact that the present study targeted a college population was another strength. In many experimental designs, the use of a college population is a limitation necessitated by convenience or lack of accessibility to broader populations; however, the college population is the population of interest for the present study and for the vast majority of stigma-reducing measures. After people enter the workforce, it is incredibly difficult to employ stigma-reducing measures (Halonen, 2005). College classrooms are possibly the most effective place to employ stigma-reducing measures (Mann & Himelein, 2008). In this light, it is crucial to determine which interventions are most effective for the population of interest.

The present study was also limited in certain respects. The first limitation is participants' perception of the celebrities with mental illness depicted in this study. The exploratory analyses concluded that very few participants were familiar with Jon Hamm. Conversely, nearly every participant reported a high degree of familiarity with Demi Lovato. One celebrity with mental illness of each gender was employed to balance between perceptions of gender differences in participants because it is not yet known if an individual is influenced differently by celebrities of

the same or different gender. However, because Demi Lovato's familiarity score was statistically significantly higher than Jon Hamm's familiarity score, the results must be interpreted in this light.

Another limitation to the present study relates to external validity. Specifically, this study analyzed the effect of U.S.-born celebrities who became famous in U.S. culture on students at a U.S. university. It is not known what percent of the respondents were born and/or raised in the U.S. as compared to international students. It is likely that different cultures have different perceptions of celebrities, and this may impact the effectiveness of using foreign celebrities on differing cultures for reducing stigmas. Cross-cultural reliability is becoming an increasingly important aspect of psychological research and is one that deserves attention.

Another limitation of the present study, as well as several other studies within the mental illness stigma literature that the present study is founded upon, is that they assume that all mental illnesses are viewed similarly. For example, bipolar disorder and major depressive disorder are among the most common disorders to be explored in the stigma reduction literature; however, from the results of the SDS scores, it is clear that respondents had different levels of willingness to interact with the individual with bipolar disorder as compared to the individual with major depression. An example would be a response of "probably willing" to date a person with major depression while simultaneously reporting a response of "probably unwilling" to date a person with bipolar disorder. Furthermore, both bipolar disorder and major depression are affective disorders. Results of the present study should be interpreted cautiously – or not at all – when extrapolating to any other type of mental illness. The stigma literature tends not to address these important distinctions.

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A final limitation to this study is that it is unclear whether participants had already experienced stigma-reduction interventions, or whether the participants were undergoing a stigma-reduction intervention for the first time. The present study was opened up to participants very early in the school year, but it stayed open for several weeks. All of the participants were enrolled in a psychology course, so it is possible that some participants had already been exposed to stigma-reduction measures; however, we do not know. Future research should ask participants about the psychology courses they have taken, including any stigma-related interventions they had undergone.

Future Directions

Future research is necessary to investigate more specific dynamics concerning individuals' stigma of mental illness. It is logical to assume that people have had different exposures and experiences concerning the two disorders used in the study, resulting in differing perceptions of those living with the disorders. Future research should focus on investigating stigma related to different diagnoses, especially with respect to which kind of experiences and exposures predict stigmatizing behavior. Because the participants in the present study reported much higher familiarity with Demi Lovato, who has bipolar disorder, than with Jon Hamm, who has major depressive disorder, it may be that the results for the vignette of bipolar disorder were skewed differently than the results for the vignette of major depressive disorder. Future research should explore this possibility.

Future research should also focus on qualities of individual celebrities. Research has suggested that running the gamut of celebrities who represent a wide range of psychological disorders, such as in the Ferrari (2016) study, is more effective than using just a single celebrity representing one disorder. However, it is still unclear as to *why* this is the most effective method.

It may be that each celebrity contributes a small effect that compounds when combined with other celebrity stories. Conversely, it may be that relating to one celebrity is enough to make a difference in select individuals, and employing many celebrities happens to relate to enough of the sample as to see significant results. The qualitative aspect of this study shows that there are differences in how people relate to individual celebrities; these differences are worth investigating.

Future studies incorporating celebrities for interventions should make efforts to isolate the impact of familiarity and popularity on stigma-reduction effects. It seems probable that heightened familiarity would lead to better outcomes; however, this has yet to be established. Other qualities may moderate the degree to which familiarity contributes to reduction of prejudice. Researchers should aim to identify and model these effects.

Another future direction that should be taken is a reanalysis of the LCR, which measures a participant's prior level of contact with an individual with a mental illness. The LCR assumes that, as people become more personally experienced and familiar with mental illness, they have fewer stigmatizing thoughts and behaviors. However, the present study's qualitative reporting alongside self-report measures indicates that this is not the case for all individuals. In fact, four individuals reported that exposure to either a family friend or a family member with mental illness was the reason that they held stigmatizing beliefs (Table 5). These four individual results may suggest that the contact hypothesis conditions were not met within these family dynamics, such as not having a common goal or being of equal status. It is possible that the contact hypothesis does not fully explain the mechanisms of beliefs within every single individual. It is possible that these four individuals were outliers; however, it may be the case that contact with people who have mental illness is nuanced, and the specific dynamics between the individuals do

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not fall neatly into a simplified theory. It also may be that there are more individuals who also hold these stigmatizing beliefs but are less self-aware of their stigma. A surprising number of respondents reported holding no stigmatizing beliefs toward people with mental illness while also reporting SDS scores lower than the mid-point – that is, these respondents had more "probably unwilling" and below responses than "probably willing" and above. Regression analyses should be done on many of the attributes listed within this study but for individual levels of the LCR; this would require additional statistical power. Regression analyses in future studies may reveal which factors influence those who are personally closer to mental illness (without having mental illness) as compared to those who are less close to mental illness.

With respect to the wide array of different responses found in the open-ended questions, it appears as though people have differing opinions on both stigma and the interventions used to reduce stigma. This may suggest that a possible future direction is to isolate individuals who believe that celebrities could be effective in reducing stigma. Individual stigma interventions might include an assessment of perceptions of participants about stigma and mental illness followed by a query as to why they believe celebrities will or will not be effective in reducing stigma. After qualitative assessment, targeted intervention techniques such as veridical celebrity stories may be useful in reducing stigma for the individual participant. Future studies could aim to determine if this could be an effective intervention tactic.

Conclusion

Being the target of stigma often results in many people with mental illnesses leading less fulfilling lives than do those who do not have a mental illness. People who are victims of stigma have greater social isolation (Hatzenbuehler, Phelan, & Link, 2013), are less likely to enter close relationships (Frable, Platt, & Hoey, 1998), and have greater overall stress (Cohen & Willis,

1985), on average, than those in non-targeted populations. Furthermore, people who have higher self-stigmatizing beliefs tend to be less likely to seek professional help when it is needed (Link et al., 2001). It is clear that interventions aimed at reducing stigma are necessary, and college classrooms may be one of the best places to employ stigma-reducing measures (Mann & Himelein, 2008). Although celebrities can be useful in reducing public and self-stigma (Ferrari, 2016), the present study did not find evidence to support the use of brief celebrity vignettes in reducing either type of stigma in the targeted population. Future research is imperative for helping to understand the cognitive mechanisms that reinforce stigma so that interventions may be introduced to dismantle them. Treatments exist that can help many people who struggle with psychological problems. But, in the words of published stigma researcher and psychologist Caroline E. Mann, "We must remember that no amount of clinical expertise can help the patient who never walks through the door, deterred by the shame of mental illness."

Appendix A – Experimental Vignettes

Celebrity Woman – Excerpts from *Stay Strong* (2012) and *Simply Complicated* (2017)

Demi Lovato is a well-known singer. Demi reveals that some nights, she is unable to sleep. She stays up until 4 or 5 a.m. writing feverishly in notebooks and is able to function the next day with little sleep. Other days, Demi sleeps for most of the day. Troubled by her mood and erratic behavior, Demi's friends and family tried discussing it with her. On this confrontation, Demi said, "I was exhausted. I had so many issues underneath that needed to be taken care of, and we kept just putting band-aids over it. It literally ended up driving me insane." After several months, Demi hit a breaking point. She was admitted into an inpatient treatment center. At admittance, she said, "I felt like I was living a lie. I was dealing with all of this pain emotionally, and I felt guilt… and I was just depressed." While in the inpatient facility, Demi was diagnosed with bipolar disorder. On learning of her diagnosis, Demi said, "I found out that I was bipolar, and I was just like, what is bipolar anyway? I mean, everyone's moody, so is bipolar really just what normal is?" On being open about her diagnosis, Demi said, "I don't really think there was anybody that was coming out and talking about these issues while I was growing up." When asked what has made her treatment successful, Demi replied, "You really have to lean into the people who are trying to support you. You really have to surrender, because that's when the change is going to happen." When asked for advice for others going through treatment, Demi said, "Everyone has their own path in recovery. For me, it's about going to therapy, working my program, and having an honest relationship with myself and the other people around me." On speaking about her journey, Demi said, "I went into treatment and I realized I could use what I'm in here for… for the better, so why not air all my secrets? Why not share my story, because some people need to hear it."

Non-Celebrity Woman

Diane is a university student. Diane is speaking openly about mental illness for mental health awareness month. Diane reveals that some nights, she is unable to sleep. She stays up until 4 or 5 a.m. writing feverishly in notebooks and is able to function the next day with little sleep. Other days, Diane sleeps for most of the day. Troubled by her mood and erratic behavior, Diane's friends and family tried discussing it with her. On this confrontation, Diane said, "I was exhausted. I had so many issues underneath that needed to be taken care of, and we kept just putting band-aids over it. It literally ended up driving me insane." After several months, Diane hit a breaking point. She was admitted into an inpatient treatment center. At admittance, she said, "I felt like I was living a lie. I was dealing with all of this pain emotionally, and I felt guilt… and I was just depressed." While in the inpatient facility, Diane was diagnosed with bipolar disorder. On learning of her diagnosis, Diane said, "I found out that I was bipolar, and I was just like, what is bipolar anyway? I mean, everyone's moody, so is bipolar really just what normal is?" On being open about her diagnosis, Diane said, "I don't really think there was anybody that was coming out and talking about these issues while I was growing up." When asked what has made her treatment successful, Diane replied, "You really have to lean into the people who are trying to support you. You really have to surrender, because that's when the change is going to happen." When asked for advice for others going through treatment, Diane said, "Everyone has their own path in recovery. For me, it's about going to therapy, working my program, and having an honest relationship with myself and the other people around me." On speaking about her journey, Diane said, "I went into treatment and I realized I could use what I'm in here for… for the better, so why not air all my secrets? Why not share my story, because some people need to hear it."

Celebrity Man – Excerpts from *The Guardian* (Vernon, 2010), *Daily Mail* (Lipworth, 2012), and *In Style* (Bagley, 2017)

Jon Hamm is a well-known actor. When Jon was 2 years old, his parents divorced, and Jon went to live with his mother. When Jon was 10 years old, his mother passed away from cancer, and he went to live with his father. At the age of 20, Jon's father passed while Jon was at university. In his early to mid-twenties, Jon said, "I struggled with chronic depression. I was in bad shape." Jon sought professional help. He said, "I did do therapy and antidepressants, which helped me. Which is what therapy does – it gives you another perspective when you are so lost in your own spiral. It helps. And honestly? Antidepressants help!" After recovering, Jon continued therapy. Reflecting on his early to mid-twenties, Jon said, "It was the classic definition of clinical depression; you want to stay in bed all day, you sleep till four o'clock in the afternoon. I didn't have any drive to get up and do anything. It was rough." Jon confirms that he has had suicidal thoughts. He said, "Other people who are better than me at putting thoughts into words describe it as a black cloud that descends on you. You become numb. You feel so overwhelmed that it's hard to take any step towards solving your situation." Jon now has a successful career and reports being happy. When asked about being open about seeking treatment, Jon said, "Medical attention is medical attention, whether it's for your elbow or for your teeth or for your brain. And it's important. We live in a world where to admit anything negative about yourself is seen as a weakness, when it's actually a strength. It's not a weak move to say, 'I need help.' In the long run it's way better, because you have to fix it."

Non-Celebrity Man

James is a university graduate. James is speaking openly about mental illness for mental health awareness month. When James was 2 years old, his parents divorced, and James went to live with his mother. When James was 10 years old, his mother passed away from cancer, and he went to live with his father. At the age of 20, James's father passed while James was at university. In his early to mid-twenties, James said, "I struggled with chronic depression. I was in bad shape." James sought professional help. He said, "I did do therapy and antidepressants, which helped me. Which is what therapy does – it gives you another perspective when you are so lost in your own spiral. It helps. And honestly? Antidepressants help!" After recovering, James continued therapy. Reflecting on his early to mid-twenties, James said, "It was the classic definition of clinical depression; you want to stay in bed all day, you sleep till four o'clock in the afternoon. I didn't have any drive to get up and do anything. It was rough." James confirms that he has had suicidal thoughts. He said, "Other people who are better than me at putting thoughts into words describe it as a black cloud that descends on you. You become numb. You feel so overwhelmed that it's hard to take any step towards solving your situation." James now has a successful career and reports being happy. When asked about being open about seeking treatment, James said, "Medical attention is medical attention, whether it's for your elbow or for your teeth or for your brain. And it's important. We live in a world where to admit anything negative about yourself is seen as a weakness, when it's actually a strength. It's not a weak move to say, 'I need help.' In the long run it's way better, because you have to fix it."

Appendix B – Test Vignettes

Depression – Adapted from Jorm et al., 2005

Casey is a university student. Casey has been feeling unusually sad and miserable for the last few weeks. Even though Casey is tired all the time, Casey has trouble sleeping nearly every night. Casey doesn't feel like eating and has lost weight. Casey can't keep focused on work and puts off making decisions. Even day-to-day tasks seem too much for Casey. This has come to the attention of Casey's professors, who are concerned about Casey's lowered productivity.

Bipolar Disorder – Adapted from Zylstra & Sanford, 1999

Jamie is a recent university graduate. Jamie reports increasing problems with depressed mood. Although Jamie's current level of depressive symptomatology fall short of major depression, a careful history uncovered multiple past episodes that met those criteria. Jamie initially reported hypersomnia and daytime lethargy, increased appetite, and headaches. However, a week later Jamie reports needing only 3 to 4 hours of sleep per night. Jamie describes feelings of elation and racing thoughts and has become markedly more talkative and social. Those around Jamie have noted that Jamie's behavior is distinctly different than usual. When asked if these episodes had ever occurred in the past, Jamie described experiencing similar brief periods of expanded mood that occurred every 2 to 3 weeks, typically lasting from 2 to 3 days.

Appendix C - Exploratory Questions

Rate your perceptions of how much Demi Lovato possesses each of the following qualities on the following scale: 1 = very low, 2 = low, 3 = moderate, 4 = high, 5 = very high. Indicate the rating next to each corresponding quality.

1. Goodwill/ fairness/unselfishness   [1-5]: ____
2. Prestige/power/status   [1-5]: ____
3. Expertise/competence   [1-5]: ____
4. Self-presentation/confidence   [1-5]: ____

Rate your perceptions of how much Jon Hamm possesses each of the following qualities on the following scale: 1 = very low, 2 = low, 3 = moderate, 4 = high, 5 = very high. Indicate the rating next to each corresponding quality.

1. Goodwill/ fairness/unselfishness   [1-5]: ____
2. Prestige/power/status   [1-5]: ____
3. Expertise/competence   [1-5]: ____
4. Self-presentation/confidence   [1-5]: ____

Rate your perceptions of how much Diane possesses each of the following qualities on the following scale: 1 = very low, 2 = low, 3 = moderate, 4 = high, 5 = very high. Indicate the rating next to each corresponding quality.

1. Goodwill/ fairness/unselfishness   [1-5]: ____
2. Prestige/power/status   [1-5]: ____
3. Expertise/competence   [1-5]: ____
4. Self-presentation/confidence   [1-5]: ____

Rate your perceptions of how much James possesses each of the following qualities on the following scale: 1 = very low, 2 = low, 3 = moderate, 4 = high, 5 = very high. Indicate the rating next to each corresponding quality.

1. Goodwill/ fairness/unselfishness   [1-5]: ____
2. Prestige/power/status   [1-5]: ____
3. Expertise/competence   [1-5]: ____
4. Self-presentation/confidence   [1-5]: ____

Rate the following statements on the following scale: 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree

1. I like Demi Lovato as a person.   [1-7]: ___
2. I have talked to peers, friends, or family about Demi Lovato.   [1-7]: ___
3. I like the things that Demi Lovato likes.   [1-7]: ___

Rate the following statements on the following scale: 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree

1. I like Jon Hamm as a person.   [1-7]: ___
2. I have talked to peers, friends, or family about Jon Hamm.   [1-7]: ___
3. I like the things that Jon Hamm likes.   [1-7]: ___

Rate the following statements on the following scale: 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree

1. I think I would like James as a person.   [1-7]: ___
2. I think I would like the things that James likes.   [1-7]: ___

Rate the following statements on the following scale: 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree

1. I think I would like Diane as a person.   [1-7]: ___
2. I think I would like the things that Diane likes.   [1-7]: ___

Please fill in the following open-ended questions:

Have you been exposed to celebrities as examples of people living with mental illness? If so, how and when?

In your opinion, does learning about celebrities who live with mental illness decrease your stigma against mental illness? Why or why not?

What qualities or attributes of a celebrity living with mental illness may impact your opinions of people living with mental illness?

Appendix D - Fidelity Check

How familiar are you with Demi Lovato? (1-5)
Did you know that she had a mental illness prior to this study? (y/n)

How familiar are you with Jon Hamm? (1-5)
Did you know that he had a mental illness prior to this study? (y/n)

Appendix E - Demographics Form

1. What is your gender?
2. What is your ethnicity?
   a. White
   b. Hispanic or Latino
   c. Black or African American
   d. Native American or American Indian
   e. Asian / Pacific Islander
   f. Other
3. What is your year in school?
4. What is your age?

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