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Martinez, Viviana Vasquez, Cindy Nava, Evelyn et al.

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Undergraduate

Factors Affecting Stigma Toward People with Schizophrenia and Video-Based

Interventions for Stigma Reduction

Cindy Vasquez, Evelyn Nava, Kennedy Smith, Viviana Martinez, Ross Avilla PhD

University of California, Merced



Abstract

Having a mental illness can be a stigmatizing feature in the eyes of the public, which can negatively impact the lives of people who already suffer from a mental illness. The purpose of the current study was to determine what factors may contribute to mental illness stigma; specifically, stigma toward people who have schizophrenia. Several factors were examined as being potentially related with mental illness stigma: racial background, gender, college major, GPA, previous contact with someone with schizophrenia, and knowledge about mental illness. Based on past research findings, it was hypothesized that Caucasian female students who are psychology majors with a GPA above 3.0 would hold the lowest level of stigma, compared to other groups. It was further hypothesized that those who had previous contact with people with schizophrenia and a relatively high level of knowledge about mental illness would also display lower levels of mental illness stigma. The study also assessed whether exposure to video interviews of people with schizophrenia or educational videos about schizophrenia could decrease mental illness stigma toward this group. Participants consisted of 264 college students from the University of California, Merced. Results indicated that Caucasian participants displayed lower levels of stigma, compared to Asian and Hispanic participants, and that psychology majors displayed marginally less stigma than nonpsychology majors. Additionally, participants who had prior contact with schizophrenic individuals displayed lower levels of mental illness stigma than those who had no prior contact. Furthermore, participants who displayed a higher level of knowledge about mental illness exhibited less stigma as well. Contrary to past findings, there were no significant effects of gender or GPA on mental illness stigma. Lastly, it was found that showing participants a video featuring an interview of someone with schizophrenia was successful in subsequent levels of mental illness stigma. However, a video interview of a family who had relatives with schizophrenia and an educational video about schizophrenia did not significantly affect mental illness stigma.

These results and their implications were discussed as they pertained to demographic factors that impact mental illness stigma, as well as video-based interventions aimed at lessening stigma. Negative stigma towards mental illness can result in higher risks of misinformation about mental health, higher rates of social isolation for those with mental disorders, as well as higher chances of comorbid illnesses such as depression and anxiety in people with mental illnesses. Because of the negative outcomes that can result from high levels of negative mental illness stigma it is important to examine the underlying factors mentioned in this study.

Introduction

Stigma is defined as a mark. attribute or group affiliation that changes a person "from a whole and usual person to a tainted, discounted one" (Goffman, 1963, p. 3). Stigma against people with mental illnesses has been demonstrated to negatively impact the lives of those suffering with psychological disorders through social isolation, secrecy about having a mental disorder, and lowered self-esteem (Ilic et al., 2012; Kaushik, Kostaki, & Kyriakopoulos, 2016). Such stigma has also been shown to keep people with a mental illness from seeking and adhering to treatment programs (Clement et al., 2015; Rüsch, Angermeyer, & Corrigan, 2009).

Evidence of mental illness stigma is widespread. In their 2003 study, Roeloffs and colleagues examined 1,187 depressed patients in the U.S. and found that 67% reported that stigma about their depression negatively affected their employment and 24% reported it negatively affected their friendships. In a 1999 study conducted by Pescosolido, Monahan, Link, Stueve, and Kikuzawa a general population of people without a mental illness were surveyed and it was found that 40% of those surveyed felt that people with schizophrenia should be forcibly hospitalized and put on medication, even if it is against their will. Perceived and demonstrable mental illness stigma has been shown to negatively impact people with mental disorders. Research by Clement and colleagues (2015) reviewed 144 studies (90,189 participants) and found a

consistent negative relationship between perceived mental illness stigma and help-seeking behavior among people with mental disorders, with people who felt stigmatized by their mental illness being the least likely to seek and adhere to treatments for their mental disorder. Schomerus and colleagues (2014) examined survey data and public records from 25 European countries and found that stigma against people with mental illness (e.g., negative stereotyping, employment discrimination, forced hospitalization) was predictive of higher suicide rates among people with mental disorders. Previous research across 14 European countries also found that higher levels of mental illness stigma in a given nation was predictive of greater perceived stigma and discrimination among people with mental illness, as well as a decreased willingness to seek treatment for mental disorders. These studies indicate that mental illness stigma heavily impairs the lives and treatment of those with psychological disorders. Our research examined stigma towards people with schizophrenia in an effort to further assess what factors may affect attitudes toward people with a mental illness and possible ways of lessening stigma toward these groups.

Past research suggests that mental illness stigma is related to a number of different demographic and social factors. For example, Addison and Thorpe (2004) found that counseling students, compared to law students, were more accurate in their knowledge of

mental illness (i.e., higher levels of "mental illness literacy"), which correlated to lower levels of mental illness stigma. Research also observed that people who had more prior contact with people who have a psychological disorder tended to exhibit lower levels of mental illness stigma, compared to those with little to no prior contact (Batterham, Griffiths, Barney, & Parsons, 2013; Calear, Griffiths, & Christensen, 2011; Corrigan, Green, Lundin, Kubiak, & Penn, 2001; Griffiths, Christensen, & Jorm, 2008). Other studies have reported that women, Caucasian people, and college students with a GPA greater than a 3.0 also tend to display lower levels of mental illness stigma, compared to men, non-Caucasian people, and college students with a GPA below a 3.0, respectively (Al-Naggar, 2013; Becker, Martin, Waseem, Ward, & Shern, 2002). The current study examined these same factors—gender, race, college major, GPA, mental illness literacy, and prior contact with people who have psychological disorders—as possible factors related to mental illness stigma. We aspired to expand on this research by examining stigma toward those with schizophrenia in particular, as this is a group that is often heavily stigmatized (Becker et al., 2002). It was hypothesized that participants who were female, Caucasian, psychology majors, had a GPA higher than a 3.0, who displayed higher levels of mental illness literacy or reported having prior contact with people with schizophrenia would display lower levels of mental illness

stigma when compared to other respective groups.

Previous studies have also explored the effect of video-based interventions on mental illness stigma. Specifically, Hackler, Cornish, and Vogel (2016) examined whether video interviews of individuals talking about mental illness had an effect on stigma toward people with psychological disorders. In these videos, mental illness conditions were discussed, as well as the effects of mental illness stigma on people's lives. They found that a video interview of people discussing family members who had a mental illness had the largest effect on decreasing mental illness stigma, followed by a video interview of people discussing their own mental illness (both compared to a control condition video that featured no discussion on mental illness; see Rao, Feinglass, & Corrigan, 2007, for similar results). They postulated that seeing video interviews of people with, or related to those with, a mental illness may help to combat negative stereotypes about people with mental illnesses and cause greater empathy toward these groups. Our study attempted to replicate these findings and assess the effects that such videos may have on stigma.

To assess the impact of different types of video-based interventions on mental illness stigma, participants were asked to watch one of four videos. Participants assigned to the "Personal Interview" condition watched an interview of someone with schizophrenia, while those assigned to

the "Family Interview" condition watched an interview of family members of people with schizophrenia. Remaining participants were either assigned to the "Educational" condition, in which they watched an educational video about schizophrenia, or the "Control" condition, which an educational video unrelated with schizophrenia (about the anatomy of the human eye) was shown. Based on previous findings, it was expected that participants in the Family Interview condition would subsequently show the lowest levels of mental illness stigma, followed by those in the Personal Interview condition. It was also expected that both of these groups would display lower levels of mental illness stigma compared to the Educational or Control conditions.

Methods

Participants

Our sample consisted of a total of 264 participants from the University of California, Merced. Within this sample, 48 were male and 196 were female. This study included participants who were Hispanic (N = 154), Asian (N = 39), Caucasian (N = 24), Indian (N = 16), African American (N = 10), Middle Eastern (N = 6) and multiracial (N = 15). The ages of participants ranged from 18 to 29, with a mean age of 19 years.

Materials

Previous contact with individuals who have schizophrenia was assessed using the Revised Level of Contact Report (Holmes, Corrigan, Williams, Canar, & Kubiak, 1999). This scale rated participants contact on a continuum from no contact ("I have never observed a person with schizophrenia") to moderate contact ("I have been in a class with a person with schizophrenia") to extensive contact ("I have lived with a person who has schizophrenia"). Participants were scored on a scale from 1 to 8, with higher numbers indicating more extensive contact with people with schizophrenia.

Mental illness literacy was assessed using the Knowledge Test About Mental Illness questionnaire (Holmes et al., 1999). This measure includes 13 multiple-choice items about schizophrenia, as well as the challenges and rights of people with this disorder. Some of the questions included in this measure were, "adolescents with schizophrenia are frequently truant from school" (correct answer: "False") and, "considering people with schizophrenia, what is the average number of separate hospitalizations for their mental illness over a one-year period of time?" (correct answer: "2 or less"). Participants were scored on a scale from 1 - 13, depending on how many of the questions they answered correctly.

During the online experiment, participants were randomly assigned to one of four video conditions. The Personal Interview condition featured a

video interview of a 17-year-old, male, high school student with schizophrenia. In this video, the interviewee discussed his challenges with the disorder, his mental health treatment, and other people's reactions to his disorder. The Family Interview condition featured a video interview of a family (a woman, her mother and her daughter) discussing their family members who had schizophrenia (the woman's husband and son). In this video, the interviewees discussed their family's challenges, their family members' mental health treatments, and other people's reactions to their family members with schizophrenia. The Educational condition featured a video discussing what schizophrenia is and how it is typically treated. The Control condition featured a video discussing the anatomy of the human eye.

Mental illness stigma was assessed using the Attribution Questionnaire-27 (AQ-27; Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003). This measure introduced participants to a hypothetical 21-yearold, single man, named Harry, who "sometime[s] [...] hears voices and becomes upset" and "has been hospitalized six times because of his illness." The survey presented 27 statements about how the participant may feel or behave toward Harry, including items such as, "I would feel unsafe around Harry," and "[i]f I were an employer, I would interview Harry for a job" (reverse-scored). Participants reported the degree to which they agreed with each statement on a scale from 1 ("not likely") to 9 ("very likely"). These items were then averaged together to form a scale score from 1 to 9, with higher numbers indicating higher levels of mental illness stigma. Several items indicating low stigma toward Harry, such as the second item mentioned above, were reverse-scored before this average was computed. Lastly, participants were asked several demographic questions, such as their age, gender, race, college major, and GPA.

Procedure

Participants signed up for the experiment on an online experimental website where they could participate in experiments in exchange for course credit. They were then directed to an online questionnaire. This questionnaire first asked participants about their age, gender, race, college major, and GPA. They were then asked to complete the Revised Level of Contact Report and the Knowledge Test About Mental Illness. Afterwards, participants were randomly assigned to one of the four video conditions. They then finished the experiment by completing the AQ-27 assessment of mental illness stigma.

Results

Results showed that Caucasian participants displayed significantly lower levels mental illness stigma (M = 3.35; SD = 0.82), compared to Hispanic participants (M = 3.81; SD = 0.94), t (159) = 2.15, p = .03, and Asian participants (M = 4.32; SD = 1.00), t (58)

= 3.82, p < .01 (Figure 1). Furthermore, it was found that Hispanic participants displayed significantly lower levels of mental illness stigma than Asian participants, t(177) = 2.95, p < .01. The current study did not collect data from a sufficient number of African American, Indian, Middle Eastern, or multiracial participants to reliably compare their levels of mental illness stigma with other groups. Contrary to expectations, there were no significant differences in mental illness stigma between women and men or between students with a GPA above or below a 3.0. It was found that the 106 students sampled who were either majoring or minoring in psychology had slightly lower levels of mental illness stigma (M = 3.73; SD = 0.96), compared to the 138 students who were not majoring or minoring in psychology (M = 3.96; SD = 0.95), but this difference was only marginally significant, t (242) = 1.88, p = .06.

Results detected that greater levels of prior contact with people who have schizophrenia was negatively related with mental illness stigma, r (243) = -.15, p = .02. Further analyses revealed that the 40 participants who reported having any prior contact with people who have schizophrenia displayed significantly lower levels of mental illness stigma (M = 3.54; SD =0.98) than the 204 participants who reported no prior contact with people who have schizophrenia (M = 3.93; SD =0.95), t(242) = 2.37, p = .02. It was also acknowledged that higher scores in mental illness literacy was related with

lower levels of mental illness stigma, r (241) = -.26, p < .01. The average participant answered 7.67 of the 13 questions (59%) correctly. It was found that those who scored higher than this average displayed significantly lower levels of mental illness stigma (M = 3.65; SD = 0.93), compared to those who scored below average (M = 4.12; SD = 0.94), t (240) = 3.92, p < .01.

A one-way ANOVA revealed that the video conditions did have a significant effect on mental illness stigma, F(3, 216) = 4.04, p.01 (Figure 2). A follow-up Tukey analysis further revealed that participants in the Personal Interview condition displayed lower levels of mental illness stigma (M =3.34; SD = 0.91) compared to all other conditions. There were no significant differences found between those who were assigned to the Family Interview condition (M = 4.04; SD = 1.07), the Educational condition (M = 3.92; SD =0.88) or the Control condition (M = 3.91; SD = 0.97).

Discussion

Our research was partially consistent with previous findings. It was found that Caucasian participants displayed lower levels of mental illness stigma compared to non-Caucasian participants (i.e., Hispanic and Asian participants), with Asian participants displaying the highest level of mental illness stigma. Past researchers had difficulty explaining why these racial differences exist, but this research

determined that these group differences appear to be consistent across samples. There are likely social and cultural factors underlying these racial differences in mental illness stigma, such as differing cultural beliefs about the causes of mental illness and the likelihood of successfully treating them. For example, past research suggests that Caucasian people are more likely to view mental illness as a product of uncontrollable but treatable factors, such as brain chemistry (Carpenter-Song et al., 2010; Corrigan & Watson, 2007; Whaley, 1997). Past studies have also found that Caucasians are less likely to see people with mental illness as dangerous when compared to non-Caucasians (Seeman, Tang, Brown, & Ing, 2015). Future research can potentially examine other potential factors that may explain these racial differences in mental illness stigma.

In contrast to previous expectations, there were no significant differences in mental illness stigma between women and men or between people with a GPA higher or lower than a 3.0. This contradicts findings from past studies (Al-Naggar, 2013; Becker et al., 2002) and may indicate that such group differences are not consistent or reliably replicable across different samples. Although, given that most of the current study's sample consisted of women, this study may not have had enough men to establish significant gender differences. It may also be the case that there was not enough variability between high versus low

GPA scores to make a sufficient comparison in the samples. Although, a between-group comparison of participants with a GPA below 2.5 (N = 45) or above 3.5 (N = 43) also had no significant difference in mental illness stigma. Therefore, it may simply be that GPA, or academic achievement in college, is not reliably associated with mental illness stigma.

Partially confirming past research findings, it was found that participants who were majoring or minoring in psychology displayed slightly less mental illness stigma, compared to students not studying psychology. However, this difference was only marginally significant, so the group difference could not be truly established as valid and reliable. It was hypothesized that psychology students would display lower levels of mental illness stigma, because such students would likely have more knowledge about such individuals. However, it may have been that many of the psychology students in the present study were Freshmen or Sophomores, and thus limited in their knowledge about mental illness. Indeed, past studies that established a difference between psychology and non-psychology students in mental illness examined graduate students in counseling programs (Addison & Thorpe, 2004). It may be the case that an undergraduate education in psychology is insufficient to significantly lessen mental illness stigma.

Confirming our hypotheses, it was analyzed that participants who had prior contact with individuals that have schizophrenia displayed less mental illness stigma than those with no prior contact. It was also examined that higher levels of mental illness literacy was related with lower levels of mental illness stigma. Both findings coincide well with past research showing that learning more about individuals with mental illness often leads to less stigma toward these groups (Bubsy-Grant, Bruce, & Batterham, 2016; Covarrubias & Han, 2011). This fits well with the broader "Contact Hypothesis," which stipulates that increased contact with any outgroup is likely to decrease stereotyping and prejudice toward that group (Allport, 1954; Pettigrew and Tropp, 2006). This is because contact with outgroup members can educate people about that group, thus, lessening inaccurate stereotypes about them, and, increase empathy toward that group as well. Future research could examine the effects of mental illness of having contact with those who have mental illness as well as outcomes of having knowledge about mental illness stigma using a longitudinal design, so as to assess exactly how these factors affect stigma over time.

When it came to the video intervention, there were mixed results. While it was found that exposure to the Personal Interview video resulted in decreased mental illness stigma, this was not found to be the case with the Family Interview video. This contradicts the

findings of Hackler and colleagues (2016), which found that a similar family-interview video resulted in the largest decreases in mental illness stigma, even above a personal-interview video. A potential reason for these divergent findings could be that the Family Interview video used in the current study depicted more negative outcomes for those with schizophrenia, compared to the Personal Interview video. In the Family Interview video, a woman discussed how her husband and son who both had schizophrenia experienced arrests and suicide attempts because of their mental illness; while the man with schizophrenia depicted in the Personal Interview condition had been hospitalized for his condition, he has since been doing well with the help of treatment. Previous research by Reinke, Corrigan, Leonhard, Lundin, and Kubiak (2004) noted that the way stories about people with mental illness emphasize more positive or negative aspects of their lives can potentially influence mental illness stigma. Specifically, these researchers found that stories depicting both positive and negative aspects of a mentally ill person's life helped to alleviate stigma toward people with mental illness, while stories that focused exclusively on negative aspects of their life did not. It may be the case that the Family Interview video used in the current study mainly focused on negative life outcomes of people with schizophrenia, thus confirming negative stereotypes about this group. Future research could assess the degree to

which positive vs. negative outcomes discussed in video interviews about people with psychological disorders affects mental illness stigma.

There are other factors that may explain why only the Personal Interview video was successful in decreasing mental illness stigma within the current study. For one, the Personal Interview video featured a teenage, Caucasian student, while the Family Interview video featured three, non-teenage African American women. It may be that seeing depictions of African Americans discussing mental illness had a different impact than would a similar depiction of Caucasians. Past research has found that African Americans with mental illness tend to be more stigmatized, compared to Caucasians with mental illness (Conner et al., 2010; Latalova, Kamaradova, & Prasko, 2014). This may be due to a combination of stigmas related with having a mental illness and being a member of a racial minority. Furthermore, it may be that the college-aged sample of the current study could more strongly identify with someone who was closer to their age, such as the teenager featured in the Personal Interview video. Future research should examine the effects of the race and age of people being interviewed about mental illness on viewers' mental illness stigma.

Research investigating factors underlying mental illness stigma can have important implications in terms of combating stereotypes, prejudice, and discrimination against people with

psychological disorders. For example, this research points toward particular groups that may most benefit from mental illness education and stigma reduction interventions, such as Asian and Hispanic Americans, or those who haven't had prior contact with people with mental illness. The current study provides further evidence that educating people about mental illnesses, such as schizophrenia, may help alleviate stigma toward these groups. Furthermore, using media to portray the lives of people with mental illness may also dispel inaccurate and harmful stereotypes toward these individuals, further decreasing mental illness stigma. This research seems to suggest that such interventions are most helpful when they feature interviews of or about people with mental illness in a way that is realistic, but not overly pessimistic (Hackler et al., 2016; Reinke et al., 2004). These findings may aid in the creation of interventions to help alleviate mental illness stigma within the general population, as well as the mental health and community service industries. Such programs have been recognized to have a positive impact in decreasing mental illness stigma within a variety of professional populations, such as medical students, police officers, and those who work in emergency services (Mino, Yasuda, Tsuda, & Shimodera, 2001; Bahora, Hanafi, Chien, & Compton, 2008). Perhaps it is time to implement such programs more widely, such as in introductory psychology courses or large-scale community outreach programs. Research in this

field may provide a foundation for how educators and administrators could tailor

such programs to most effectively reduce mental illness stigma.

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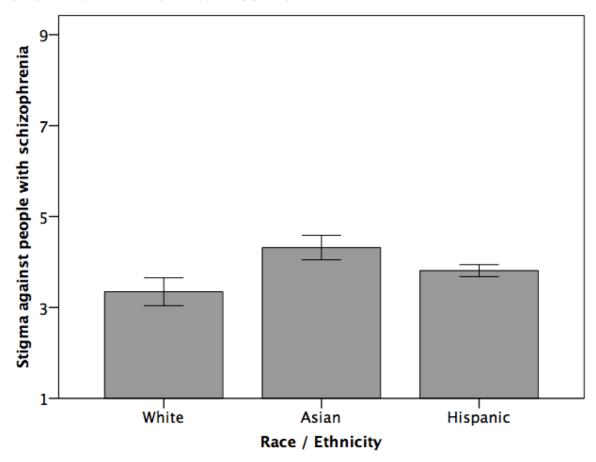


Figure 1. Differences in stigma against people with schizophrenia between Caucasian, Asian, and Latino(a) participants.

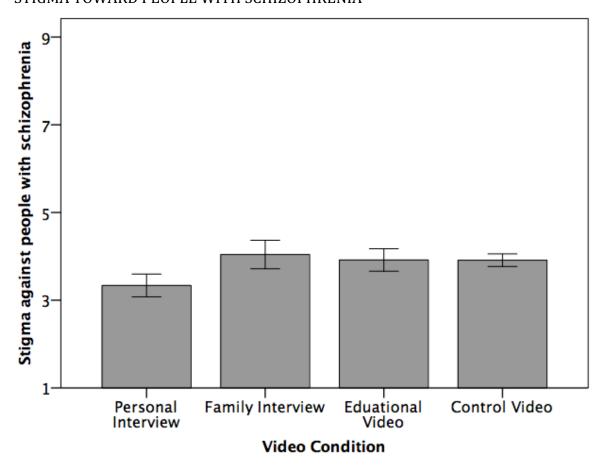


Figure 2. Differences in mental illness stigma between the four video conditions.