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Effects of mental health campaigns

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The Effects of Mental Health Campaigns

An Honors College Project Presented to

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College of Arts and Letters

James Madison University

by Susan Marie Schott

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Effects of Mental Health Campaigns

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Author Note

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Abstract

This project examines the effects of a mental health campaign on college students. This is important to research because universities and colleges alike need to understand the effects that campaigns about mental health on campus can have on students. I researched this by conducting an online experimental study on a sample of 511 students at a university in the Mid-Atlantic region. Qualtrics randomly assigned the participants into two groups, where one group viewed an experimental campaign and the other a control ad. The participants were measured using a post-test questionnaire which tested their self-perceptions of anxiety and level of stigma. The results showed that H1 was significant but H2 was not. Overall, the study answered my research question.
Effects of Mental Health Campaigns

In this paper, I focus on media campaigns about mental health on college campuses. College is a significant transition period for individuals, where one moves away from home, finds out who they are, and is forced to deal with a multitude of academic and social pressures. Because of all of these factors, mental health issues, and the stigma that surrounds them, arise frequently. While creating this project, I am hoping to be able to answer the following research question: Are college students affected by media campaigns about mental health? In studying this question, I am hoping to dive deeper into the communication phenomenon of persuasive media campaigns and hone in on how college students and the mental health stigma are impacted directly.

Justification

The first reason why it is critical to study this topic is because mental health is a common, yet overlooked issue among college students. Universities need to be doing more to educate about mental health and promote services for students to seek help if needed. In a study done by Armstrong and Young (2015), they surveyed first year college students and found that they “were fairly poor at recognizing symptoms of common mental illnesses” (p. 86). The results showed that in the pool, both males and females were able to recognize about half of the mental illnesses about half of the time. The study recognizes that universities need to educate students better on mental illnesses to try and reduce the stigma surrounding them. Armstrong and Young (2015) found that first year college students were most interested in becoming more educated on “symptoms of mental illnesses, how to cope with stress, and how to talk to someone who is suicidal” (p. 86). By knowing this information, colleges/universities can cater their media campaigns surrounding mental illness to be as effective as possible to students.
The second reason that it is imperative to study mental health is because of the incredibly low number of college-aged people who seek help. According to Substance Abuse and Mental Health Services Administration (http://www.samhsa.gov), “the 18-24 year old age group shows the lowest rate of help-seeking” (2006). Because of this statistic, colleges and universities need to create media campaigns and services to help lower the stigma of seeking help. Chandrasekara (2016) conducted a study with 600 random university students to try and determine the attitudes towards seeking help with mental illnesses. According to her research, Chandrasekara (2016) found that “the most common barrier reported by students was the fear of what relatives, friends might think (80.1%)…the next was cost of services (72.6%)” (p. 242). It was also found that around half of participants did not have knowledge about the location of help services (Chandrasekara, 2016). Colleges and universities alike can take this information and design specific media campaigns to tackle the largest stigmas that students have about receiving help for mental illness. By doing this, more students will hopefully be less afraid and stigmatized and seek help.

The third reason it is important to study this topic is because of the stigma and discrimination that surrounds mental health. Having a mental illness should not be a battle one faces alone. But, according to a study done by Wynaden et al. (2014), “69% of students agreed they felt alone because of their mental health problems” (p. 339-344). It was also found that 76% of students would not notify an employer or faculty member about their illness (Wynaden et al, 2014). Going along with these statistics, around half of the students who participated in the study said they feel discriminated against or talked down to because of their mental illness (Wynaden et al, 2014). These numbers are shocking, and universities should take this into consideration when using media campaigns and programs to educate students, faculty, staff, and
employers on campus. Those who work for the university need to be aware of the mental health stigma and correct ways to react and respond when a student reaches out to them. In the study that follows I review literature pertaining to mental health campaigns and then report on the results of experimental study designed to answer my research question.

**Literature Review**

**Knowledge and Stigma of Mental Health**

Researchers have found that the stigmatization of mental illnesses is extremely high on college campuses, and students and staff have very little knowledge of most mental illnesses. Wynaden et al. (2014) conducted a descriptive study to determine the levels of stigmatization that university staff and students have regarding mental illnesses. The study concluded that the staff was empathetic when it came to mental health, but the students still felt stigmatized against. However, Lally, Quigley, Bainbridge and McDonald (2013) conducted a similar study to test the stigmatization on a public and personal level. The researchers concluded that personal stigma had a greater negative association with seeking help. These two studies contradict each other in what they believe the source of the stigmatization is. Wynaden et al. (2014) suggested that students felt most stigmatized due to the stereotypes the staff at the university had, which would be in the public sphere, not personal. On the other hand, Lally et al. (2013) came to the conclusion that the students’ own personal stigmas are far more influential than the public.

Besides stigmatization being an overall problem on college campuses, the amount of stigma and varying levels of attitudes towards mental illnesses differs specifically between male and female students. Chandrasekara (2016) gave 600 undergraduate students questionnaires to examine their attitudes towards mental illnesses. The results showed that overall, females showed a greater willingness to seek help and generally had a more positive attitude towards
mental illnesses in comparison to males. Chandrasekara (2016) noted that males have a more negative attitude due to the harsh stereotypes of males having to be manly and tough. Similarly, Pingani et al. (2016) conducted a study surveying college students about the stereotypes of mental health. The researchers found that males had a greater association with answering negatively about mental health stereotypes. Both of these studies complement each other as their findings both suggest that the stigma and stereotypes of mental illnesses affect males more than females. Going along with that, Lally et al. (2013), previously mentioned above, suggested that personal stigma had greater negative effects. But, according to these two studies, society’s standards of males are a main cause of low help-seeking behaviors. The influence of society and others would fall under more of a public sphere, which contradicts these two findings for why males feel more stigmatized.

Holland and Wheeler (2016) conducted a different study surveying 342 students on a Midwestern college campus about their stigmatic views on mental health counseling, how this affects their willingness to seek help, and how the students’ adaptive coping methods predicted willingness to use services. As mentioned in the studies above, Holland and Wheeler (2016) found very similar results pertaining to stigmatization. It was concluded that not only was stigma of mental health a prevalent problem on campus, but it hindered students’ likelihood to seek help. This study suggested that communication surrounding mental health needs to change from being denigrating and discriminatory to empowering. A suggestion made by the researchers was to simply replace the term “mental illness” with “mental health” or “student wellness”. These small changes reduce the stigma and, in turn, cause more students to seek help.

The amount of knowledge that college students have regarding mental illnesses has a direct impact on their level of stigmatization. Armstrong and Young (2015) conducted a study of
post-secondary students using surveys to identify how much knowledge they have in regards to identifying mental illnesses. The study found that the illnesses that the students knew the least about had the highest stigma attached to them. Therefore, the more knowledgeable a student was about a certain illness, the less they stigmatized it. In comparison, according to the study conducted by Chandraskara (2016), the researcher also found that the overall attitudes were more positive when the student had previous knowledge on psychology. This suggests that the more educated a student is, the less they will stigmatize mental illness. The researchers both suggested using their findings to create educational campaigns to try and reverse the stereotype surrounding mental illnesses. Holland and Wheeler (2016) also talked about the differences in age and experience. They found that the older the student, the less they felt stigmatized. This would play into the idea that by having more knowledge and experience you are more open and receptive to mental health and its services.

**Content of Mental Health Campaigns**

The research on how to construct the most effective campaigns conflicts with whether they should focus on biological, psychosocial, or direct aspects of mental illnesses. Boucher and Campbell (2014) conducted a study with university students to test whether biological or psychosocial campaigns were more effective. They exposed the students to two campaigns, and then the students had to decide which campaign made them want to seek treatment more. The researchers found that campaigns that focus on mental illness as a product of one’s biology were significantly less effective. In contrast, Crisafulli, Thompson-Brenner, Franko, Eddy, and Herzog (2010) conducted a similar study exposing university students to campaign videos showing mental illness as a result of one’s biology or culture. They found that students who viewed the video that displayed the illness as a part of one’s biology were significantly less
stigmatized than the students who viewed the cultural video. These two studies directly contradict each other in their findings. Because of this, both set of researchers have vastly different ideas of what type of content would make a mental health campaign the most effective.

Although some researchers studied campaigns that depicted the cause of mental illnesses, some campaigns directly identify a specific illness. For example, Lienemann, Siegel, and Crano (2013) tested whether campaigns about specific mental illnesses had a negative effect on student’s likelihood to seek help. Their study showed that the students who were exposed to campaigns directly related to a mental illness tended to report feeling inadequate and less likely to seek help. The study conducted by Lally et al. (2013) reaffirms what Lienemann et al. (2013) studied. Lally et al. (2013) concluded that personal stigma was a greater factor than public stigma. This ties nicely into the study mentioned above because the students are personally stigmatizing themselves while viewing a campaign that depicts a specific mental illness. Therefore, the two studies reinforce each other in their ideas.

Arpan, Lee, and Wang (2017) conducted a study where they exposed university students to health risk campaigns that made use of affirmative text. Unlike Crisafulli et al. (2010), this study wanted to target the emotional or psychological side of people instead of their biology. The study found that exposing college students to affirming messages regarding mental illness only had positive effects. It caused individuals to have greater perceptions and more adaptive attitudes and beliefs. Overall, Arpan et al. (2017) concluded that self-affirmation health campaigns caused individuals to feel less attacked and threatened and more resilient. With this, colleges and universities alike can adjust the overall text and message of their campaign to make the message more receptive.
Lazard, Bamgbadem Sontag, and Brown (2016) used visual metaphors in their experimental study to test whether the presence of these visuals in mental health campaigns lowered stigma. More specifically, they wanted to test whether the visual metaphor led to more favorable attitudes, greater recall of the message, and reduced stigma. They exposed undergraduate students to mental health campaigns with various visuals and metaphors. Surprisingly, the results of the study showed that using a visual metaphor, such as a dumbbell literally weighing down one’s bed, did not have a significant impact. Lazard et al. (2016) found that the metaphors did not cause an increase in positivity, ability to recall information, or have an impact on stigma. The study shows that the undergraduate students found themselves to be more comfortable with straightforward messages versus the visuals.

**Format of Mental Health Campaigns**

Extensive research has shown the varying effectiveness of using different formats of campaign styles such as short-term, interactive, and classroom based. In 2010, Evans-Lacko, London, Little, Henderson, and Thornicroft conducted face-to-face interviews with college students to answer whether short- or long-term campaigns were more effective at reducing the mental health stigma. The researchers found that the short-term campaigns didn’t raise awareness of the mental illness, but were more effective in increasing knowledge of said illness. As Chandrasekara (2016) and Armstrong and Young (2015) state, being educated is the best way to have a reduced stigma. Therefore, Evans-Lacko et al. (2010) concluded that although long-term campaigns increase awareness, short-term campaigns are overall more effective because they increase the level of knowledge students have on the mental illnesses.

Merritt, Price, Mollison, and Geddes (2007) conducted a descriptive study that encompassed mailing postcards about depression to 3,313 undergraduate students. The study’s
goal was to raise awareness about the effectiveness of treatment and to increase recognition of symptoms and knowledge about depression. The study’s results showed that the use of a mailed postcard to undergraduates did not raise awareness about the treatability of depression, however it did increase awareness of depressive symptoms and knowledge of treatments. Like other studies reviewed about knowledge of mental health, these findings are significant. Although this campaign method was not effective in treatment, past studies have shown that the greater the knowledge of mental health the lower the stigma and the greater increase in help-seeking behaviors. Overall, this use of print campaigns could be helpful in aiding in increasing positive behaviors.

Going beyond the use of print or video campaigns, interactive models have shown to be just as effective in reducing the stigma of mental health. Kim and Stout (2010) studied how using interactive models reduced the stigma in college students. They exposed different groups of students to either high or low interactivity scenarios. The researchers found that high interactivity models were more successful at reducing stigma. This means that hands-on campaigns are an effective way to create positive outcomes with the students. In the study conducted by Armstrong and Young (2015) as mentioned above, they claim that in-class discussions would be effective in reducing the stigma. Similarly, Wynaden et al. (2014) noted the significance of having a hands-on interaction with faculty and students to decrease the stigmatization between both parties. All three sources recognize the need to get students and staff involved in hands-on campaigns to significantly reduce the stigma on campuses.

To begin my study, I proposed the research question of: Are college students affected by media campaigns about mental health? Based on the findings from the Lienemann et al. (2013) study, I propose the following hypothesis:
H1: There will be a significant relationship between viewing the anxiety ad and having negative self-perceptions about one’s own anxiety. Moreover, based on the findings from the Lally et al. (2013) study, I propose a second hypothesis:

H2: There will be a significant relationship between those who saw the anxiety ad and the level of stigma they possessed regarding anxiety.

Methodology

Sample

For my sample, I studied college students who identify with having anxiety. I chose this specific sample because my research question is looking to test the effects that media campaign’s portrayals of mental health have on college-aged individuals. I tested to see if there is an effect based on the student’s self-perception of anxiety and level of stigma after viewing the campaign. I recruited my convenience/volunteer sample using James Madison University’s School of Communication Studies and the Department of Psychology research pools through SONA, a participant management system. In recruiting participants, I specifically indicated participants should identify with having anxiety which I defined for them as “a feeling of worry, nervousness, or unease, typically about an imminent event or something with an uncertain outcome” (Anxiety Disorders, 2016). It was not until students were actually taking the survey that they were asked whether or not they had a medical diagnosis of anxiety. The sample consisted of 511 participants which Qualtrics randomly assigned them into experimental and control groups of 255 students.
Measures

The independent variable was exposure to a mental health campaign flyer while the dependent variable was the effects of that flyer as measured by a post-test questionnaire (Appendix A) which was adopted from Lienemann, Siegel, & Crano (2013). The questions regarding self-perceptions of anxiety yielded a Cronbach’s Alpha of .829 making it reliable. The questions that focused on level of stigma had a Cronbach’s Alpha of .761 making it acceptable. The post-test contains a multitude of different questions that incorporates all four levels of measurement. I used my post-test questionnaire to find a meaningful relationship between those who viewed the campaign on mental health and those who viewed the control ad.

Procedures

My online experimental study used a two-group random assignment post-test control group design. After selecting 511 students from the Communication Studies and Psychology SONA Research Pool and having Qualtrics randomly assign them to two groups of 255, the participants were able to login to Qualtrics, an online survey tool, to being the study. First, the participants were prompted to consent to participate in the study. If they consented, they were asked a series of demographic questions. Following that, Qualtrics randomly assigned one group to view a mental health campaign about anxiety (Appendix B) and the other to view a non-related control ad about fevers (Appendix C). Once they viewed the ad, they were prompted to answer a series of questions regarding their self-perceptions of anxiety and their level of stigma. At the closing of the study, the participants were given the researchers’ contact information as well as information on accessing various mental health resources on campus.

As stated above, I adopted the post-test questionnaire used by Lienemann et al. (2013) in their study of depression by replacing their use of the word “depression” in questions with
“anxiety”. Other than that change, I used the scales exactly as they were in the study. This post-test questionnaire consisted of four sections and was used as my dependent variable to test the effects the mental health campaign had on the experimental group. The first section measuring demographics consisted of four questions that were used to gauge what type of participants took part in my study. The next section was measuring personal experiences and feelings about anxiety. This section consisted of 11 items on a 5-point scale with 1 being strongly disagree and 5 being strongly agree. Questions in this section were things such as “I often feel it is necessary to conceal my anxiety from my friends” and “I fear reaction by others if they find out I have anxiety”. The third section consisted of 7 questions that measured perceptions of how others view anxiety, or stigma. This section used the same scale as section two. Questions consisted of things such as “Most people believe that people with anxiety could snap out of it if they wanted” and “Most people believe people with anxiety are unpredictable”. Lastly, the final section contained 9 questions that measured attitudes towards seeking help. This section also used the same scales as the previous section and asked questions such as “I might want to have psychological counselling in the future” and “Personal and emotional troubles, like many things, tend to work out by themselves”. This post-test questionnaire that I adapted from Lienemann, et al. (2013) effectively measured the effects of the mental health campaigns, which was my dependent variable. I believe that this procedure was the most effective in answering my research question. I worked directly with students who identified with having anxiety and was able to compare them at the end using the post-test which helped prove causality.

In my study I ensured validity and reliability. For internal reliability, I protected against sensitization because I chose not to have a pre-test in fear that the participants would understand what I was trying to study. I also had to be aware of self-selection bias because those who
identify as having a mental illness for a study might already have a certain level of stigma or bias within them. Lastly, I needed to protect against evaluation apprehension. When the students were answering the post-test questions they may have felt pressured to answer differently out of fear of being judged. I helped prevent this by clearly stating in the beginning that it was all private information and will never be used against them. I ensured reliability within my study by using the same post-test for both groups. This ensures that there are no discrepancies between the two questionnaires and I could easily compare the results.

Analysis

As noted, the questionnaire tested for self-perceptions of anxiety, level of stigma when it came to mental health, and likeliness to seek help. With this, I expected to find that the experimental group exposed to the mental health campaign would have a higher level of stigma and be less likely to seek help. The 255 students who were exposed to the control ad, I believed, would overall have a lower level of stigma relating to mental illnesses and be more likely to seek help. With all of this data, I am answering my research question that media campaign’s portrayals of mental health do in fact have an effect on college-aged students. To measure this data, SPSS was used to run statistical tests to determine whether or not the variables had any significance. The information gathered from the statistical tests were used to show relationships and prove causality or not.

Results

Descriptive

This study had a total of 511 participants. Of those 511, 89 (17.4%) were male and 420 (82.2%) were female. There were a total of 401 (78.5%) freshmen, 60 (11.7%) sophomores, 34 (6.7%) juniors, and 16 (3.1%) seniors. In my study I asked my participants if they have ever
been medically diagnosed with anxiety, and 118 (23%) said yes. I conducted a reliability test on the survey questions and yielded a Cronbach’s Alpha of .829, making it reliable. Once the survey was deemed reliable, I tested my hypotheses using a linear regression and t-test.

**Test of the Hypotheses**

**Hypothesis 1:** The first hypothesis predicted a significant relationship between viewing the anxiety ad and having negative self-perceptions about one’s own anxiety. More specifically, it was predicted that those who stated they were medically diagnosed with anxiety will especially have significant results and greater negative feelings. A regression test was run and the results can be found in Table 1. Overall the model was significant, $F(3, 493) = 5.21, p < .01$, but the interaction effect was not significant ($p = .86$). The regression showed that those who have not been medically diagnosed have less anxiety regardless of which ad they saw. On the contrary, if the participant had been medically diagnosed, their anxiety increased regardless of which ad they saw ($\beta = -.164$).

**Table 1**

*R Relationship between Viewing Anxiety Ad & Negative Self-Perceptions of One’s Own Anxiety*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.991</td>
<td>.199</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ad_seen</td>
<td>-.029</td>
<td>.259</td>
<td>-.022</td>
<td>-.111</td>
</tr>
<tr>
<td>Medical_Diagnosis</td>
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<td>.108</td>
<td>-.164</td>
<td>-2.393</td>
</tr>
<tr>
<td>Ad_Seen_X_Med_Diag</td>
<td>-.020</td>
<td>.142</td>
<td>-.029</td>
<td>-.144</td>
</tr>
</tbody>
</table>
Table 2

*Relationship between Viewing Anxiety Ad and Level of Stigma Regarding Anxiety*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1  (Constant)</td>
<td>3.129</td>
<td>.217</td>
<td>14.431</td>
<td>.000</td>
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<tr>
<td>Ad_seen</td>
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<td>.284</td>
<td>.046</td>
<td>.235</td>
</tr>
<tr>
<td>Medical_Diagnosis</td>
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<td>.118</td>
<td>-.032</td>
<td>-.472</td>
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<tr>
<td>Ad_Seen_X_Med_Diag</td>
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<td>.156</td>
<td>-.063</td>
<td>-.314</td>
</tr>
</tbody>
</table>

**Hypothesis 2:** The second hypothesis stated there would be a significant relationship between those who saw the anxiety ad and the level of stigma they possessed regarding anxiety. A linear regression was conducted and the results can be found in Table 2. The overall model was not significant, $F(3, 502) = .45$, $p=.720$, but there was a correlation. Those that viewed the anxiety ad had an increase in stigma whereas those who viewed the control ad displayed a decrease in stigma.

**Discussion**

The first hypothesis tested for a significant difference between viewing an ad about anxiety and having a negative self-perception about anxiety. Based on previous studies, it was predicted that the relationship between the two would be significantly negative. Lienemann et al. (2013) and Lally et al. (2013) both produced negative effects when students were exposed to a campaign relating directly to a mental illness. Specifically, Lally et al. (2013) discovered that
one’s personal stigma had a greater effect than public stigma. Because of this, it was expected that my results would be similar. It was surprising when there was no main effect for ad seen (Table 1). Viewing the ad about anxiety was expected to trigger negative self-perceptions of anxiety, but that was not the case. Whether the participant viewed the ad on anxiety or fever did not predict whether a person had a negative or positive self-perception of anxiety.

Although there was not a main effect for the ad that was seen, there was a significant negative relationship when examining participants who identified themselves as being medically diagnosed with anxiety. This is relevant because this means that those who have displayed help-seeking behaviors and have an actual diagnosis were affected by the campaigns. If the participant was medically diagnosed with anxiety, no matter what ad they saw, their negative perception of anxiety was raised. This is important because it reinforces the Lally et al. (2013) study that personal stigma is a lot stronger than public stigma. If public stigma was stronger, the participant’s anxiety would only increase when viewing the ad about anxiety and not the fever ad. But, since their anxiety increased no matter what ad they viewed, it shows how strong and prevalent their own personal stigmas are. This is useful because it can be applied directly to college campuses. The results on the effectiveness of mental health campaigns have been varied throughout different studies, and this study clearly showed that the stigma comes from within, and the ad is not as relevant. College campuses can use this information by implementing other forms of campaigns, or by eliminating them altogether. More research needs to be conducted on what, if any, campaigns would lower negative self-perception of anxiety within individuals who identify with having anxiety.

The second hypothesis was testing the relationship between viewing an ad about anxiety and level of stigma about mental health. It was expected that those who viewed the ad about
anxiety would overall have a higher stigma about mental health than those who viewed the fever ad. When testing participants who just identified as being medically diagnosed, there was no significance. Like the previous hypothesis, from past studies, especially Lienemann et al. (2013), it was expected that the stigma would be higher when viewing the anxiety campaign. But, there was a negative correlation between those who are medically diagnosed and those who have a higher stigma. This means that participants who identify with having anxiety are more likely to experience stigmatization than those who don’t. Similarly, to the hypothesis above, this is significant for college campuses because it shows how strongly those with anxiety are stigmatized against mental health. But, overall, it didn’t seem to matter what condition the participants were in. With a mean of 3.02, the level of stigma was neutral which shows the participants did not have a lot of anxiety. This could be due to the participants being apathetic or misdiagnosing themselves with anxiety.

We then tested to see if there was correlation between sex and stigma due to the results of the studies by Pingani et al. (2016) and Chandrasekara (2016) that stated males had a more negative perception of mental health. In our sample, it was revealed that there was no significance between levels of stigma and sex of the participant. Due to the skewed gender ratio in my study, it is imperative that more research is conducted on the stigmatization that different genders possess regarding mental illness.

**Implications**

While the relationship between viewing the ad and stigma was not significant, there was still a correlation. Interestingly, this study only yielded significant results for those medically diagnosed with anxiety and their self-perceptions of anxiety and not stigma. This leaves the study more open-ended and allows for future research on this matter. With results being so
inconsistent between my study and other similar studies, there are still large gaps regarding the effects of mental health campaigns on college campuses. More specific research can be conducted with those who have been medically diagnosed. It can be broken down further into different types of campaigns, mental illnesses, and demographics and how those characteristics influence self-perception and stigma. These campaigns are designed to help those suffering from a mental illness, and it is critical for those creating them to be aware of their implications.

**Conclusion**

It is clear from previous research examining knowledge and stigma about mental health, content of mental health campaigns, and format of such campaigns that mental health stigma and stereotypes are extremely prevalent on college campuses. The literature not only documents that stigmatization exists, but also by what means it exists. Sex differences, conflicting relationship between staff/students, and level of knowledge have all been shown to affect the level of stigma the student has or will have as well as the potential effectiveness of mental health campaigns.

This research is critical in order to increase the number of college students who seek help for their mental illnesses. By answering my research question, I was able to benefit not only students but universities as well. By knowing the effects of the campaigns, universities can cater their messages to specifically lower the stigma and increase help seeking behaviors. This can lead to an overall better school environment and a higher performance in students.

There were a few limitations within my study. Firstly, I only selected my sample from one university. This limited the diversity that my sample could have. Next, since I only used the Communication Studies and Psychology SONA Research Pool, I am limited to those who are in a class that involve using SONA. My sample ended up being approximately 80% female freshmen, which is disproportionate to the sex and class ratio at the university. Lastly, my study
involved relying on students to self-identify with having anxiety by reading a clinical definition of what anxiety was. It is possible that the participants misidentified themselves as having anxiety when they really don’t, which could have skewed my results. There were also a few limitations regarding internal validity. Because the study was conducted online and not in an experimental lab setting, I had less control over internal validity. I could not control if participants talked to one another before taking the test and there was also no way of controlling whether or not the participants took the test together. Both of these things could have affected their answers. Despite the limitations, this study overall answered my research question. This study provides valuable information and can be used by universities seeking to educate students about mental health as well as guide future mental health campaign researchers.
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Appendix A

Post-Test Questionnaire

1. What is your biological sex?
   a. Male
   b. Female
   c. Other: _______

2. What year are you at JMU?
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior
   e. Other: _______

3. What is your major?
   a. _______

4. Where are you from?
   a. _______

5. How long have you self-identified with having anxiety? Please round to the nearest year.
   a. _______

6. Have you ever received a medical diagnosis for anxiety?
   a. Yes
   b. No
7. Are you currently receiving treatment for anxiety?
   a. Yes
   b. No

8. The campaign being used in this study is from The Well in the Student Success Center.
   Have you ever seen it before?
   a. Yes
   b. No
   c. Other _______

9. On a scale of 1-10, how informative do you find the campaign? (1 being not informative and 10 being extremely informative?)
   1 2 3 4 5 6 7 8 9 10

10. How likely do you think JMU students would be to learn from this flyer?
    a. Extremely likely
    b. Somewhat likely
    c. Not likely

When you volunteered to participate in this study, you indicated you identify as having anxiety. The following statements are designed to learn a little about how you navigate your experiences with anxiety. Please respond to each of the following statements by indicating your level of agreement on a scale of 1-5 with 1 being “strongly disagree” and 5 being “strongly agree”.

11. I often feel it is necessary to conceal my anxiety from my friends.
    Strongly Disagree 1 2 3 4 5 Strongly Agree
12. I do not like to tell others that I have anxiety
   Strongly Disagree 1 2 3 4 5 Strongly Agree

13. I will admit to having anxiety if I am interviewed for a job
   Strongly Disagree 1 2 3 4 5 Strongly Agree

14. I fear reaction by others if they find out I have anxiety
   Strongly Disagree 1 2 3 4 5 Strongly Agree

15. I feel out of place in the world because I have anxiety
   Strongly Disagree 1 2 3 4 5 Strongly Agree

16. Having anxiety has negatively impacted my life
   Strongly Disagree 1 2 3 4 5 Strongly Agree

17. I am embarrassed or ashamed that I have anxiety.
   Strongly Disagree 1 2 3 4 5 Strongly Agree

18. I feel inferior to others who don’t have anxiety
   Strongly Disagree 1 2 3 4 5 Strongly Agree

19. Stereotypes about people with anxiety apply to me
   Strongly Disagree 1 2 3 4 5 Strongly Agree

20. People can tell I have anxiety by the way I look
   Strongly Disagree 1 2 3 4 5 Strongly Agree

21. People ignore me or take me less seriously just because I have anxiety
   Strongly Disagree 1 2 3 4 5 Strongly Agree

22. I can’t contribute anything to society because I have a mental illness
   Strongly Disagree 1 2 3 4 5 Strongly Agree
23. Most people believe that people with anxiety could snap out of it if they wanted
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree

24. Most people believe that anxiety is a sign of personal weakness
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree

25. Most people believe that anxiety is not a real medical illness
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree

26. Most people believe that it is best to avoid people with anxiety so that you don’t become anxious yourself
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree

27. Most people believe people with anxiety are unpredictable
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree

28. Most people would not tell anyone if they had anxiety
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree

29. Most people would not employ someone with anxiety
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree

30. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree

31. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree

32. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help
   
   Strongly Disagree  1  2  3  4  5  Strongly Agree
33. I would want to get psychological help if I were worried or upset for a long period of time.

   Strongly Disagree  1  2  3  4  5  Strongly Agree

34. I might want to have psychological counselling in the future.

   Strongly Disagree  1  2  3  4  5  Strongly Agree

35. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.

   Strongly Disagree  1  2  3  4  5  Strongly Agree

36. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.

   Strongly Disagree  1  2  3  4  5  Strongly Agree

37. A person should work out his or her own problems; getting psychological counselling would be a last resort.

   Strongly Disagree  1  2  3  4  5  Strongly Agree

38. Personal and emotional troubles, like many things, tend to work out by themselves.

   Strongly Disagree  1  2  3  4  5  Strongly Agree

Thank you so much for participating in my study. I appreciate your time and cooperation. For more information about on-campus resources regarding mental health please visit:

- The JMU Counseling Center phone number: (540) 568-6552
- The JMU Counseling Center website: https://www.jmu.edu/counselingctr/
- The JMU Well: https://www.jmu.edu/healthcenter/Resources/index.shtml

If you have any questions, please contact Susan Schott at schottsm@dukes.jmu.edu or Dr. Sharon Mazzarella at mazzarsr@jmu.edu
Appendix B

Anxiety
Anxiety is an emotion that leads to unpleasant feelings and/or thoughts of dread over certain events. Occasional anxiety is an appropriate reaction to stressful events in your life. These occasional episodes of anxiety can be managed with self-care and do not require a visit to a health care provider or mental health professional.

Symptoms:
- Feelings of fear and uneasiness
- Muscle tension
- Restlessness
- Fatigue
- Problems concentrating
- Chest pain or tightness
- Feeling that you are having difficulty breathing
- Abdominal pain
- Dizziness
- Headache

Self-care measures:
- Talk with supportive friends/family
- Do something fun!
- Create a routine
- Journal
- Schedule time to nourish your spirit with reading, prayer, meditation or music
- Get 7-8 hours of sleep each night
- Exercise
- Try a calming app
- Use a guided meditation app
- Use campus resources: The Counseling Center’s Oasis or Studio, Madison Meditates provided through MAD4U, get a UREC massage, explore nature at the Arboretum, visit the Interfaith Chapel in Madison Union
- Avoid excessive caffeine
- Avoid self-medicating with alcohol or drugs

When to seek professional help:
- You have thoughts of hurting yourself or others
- You are experiencing ongoing irrational fear and dread (irrational feelings that are generalized and not linked to a specific event/events)
- You have frequent severe anxiety that lasts at least six months
- You have physical symptoms including but not limited to chest pain, shortness of breath, dizziness, fainting spells
- Symptoms are interfering with your normal daily activities

If you feel you are having a mental health emergency:
- During business hours - Call the JMU Counseling Center at 540-568-6552 or walk-in to the Counseling Center located on the 3rd floor of the Student Success Center
- After hours or on the weekend - Call public safety at 540-568-6911 or go to a local emergency department (Sentara Medical Center located at 2010 Health Campus Drive)

For more resources and self-help information visit the Counseling Center Website at http://www.jmu.edu/counselingctr/index.shtml

UHC self-care guidelines are based on the most recent recommendations of national medical authorities.
Appendix C

Fever

Fever is when a person’s body temperature rises above the normal range. Normal body temperature for adults is 97.6°F to 99.6°F. Adults with a temperature over 101.0°F would be described as having a fever. A fever is an important way for your body to fight infection. Causes of fever included viruses, bacterial infections, exposure to heat/sun, and other conditions. Having a fever is usually not cause for alarm in adults. Fevers most often go away without treatment from a health care provider.

Symptoms:
- Hot and cold chills
- Sweating
- Shivering
- Headache
- Muscle aches
- Weakness
- May also experience symptoms of a cold, flu, or gastrointestinal illness (see self-care guides for systems related to these conditions)

Self-care measures:
- Rest
- Drink plenty of non-alcohol fluids
- Use Ibuprofen (Advil®) 600 mg every 6-8 hours or Acetaminophen (Tylenol®) 650 mg every 6 hours as needed to reduce fever/discomfort

Preventing spread to others:
- Stay home and away from others until fever-free for more than 24-hours (temperature should be less than 100 degrees Fahrenheit without medication)
- Do not go to class or dining facilities. If you live in a residence hall, call 540-568-6949 for dining options
- Wash hands frequently

When to see a medical provider:
- Fever is over 103.0°F
- Fever over 102.0°F for more than 3 days
- Confusion or disorientation
- Severe or persistent vomiting
- Severe headache
- Unusual skin rash
- Sensitivity to light
- Seizure
- Abdominal pain
- Pain when urinating
- Other unexplained symptoms

UHC self-care guidelines are based on the most recent recommendations of national medical authorities.