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Mental Health Stigma in English and Spanish-Speaking Countries

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Mental Health Stigma in English and Spanish-Speaking Countries

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Mental Health Stigma in English and Spanish-Speaking Countries

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List of Tables ii

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Mental health stigma, defined as negative attitudes and behaviors targeted towards individuals that appear to have a mental health disorder, is one of the most pressing issues faced by individuals with mental disorders (Corrigan, 2004). As a result, many individuals facing psychological health issues elect not to seek treatment due to fears of how they will be perceived and treated by other members of society. Research has shown that mental health stigma is a global phenomenon and is not limited to the US and other English-speaking nations (Pescosolido et al. 2013). The aim of this study was to examine differences in mental health stigma between an English-speaking in the United States and a South American Spanish-speaking population. Given the exploratory nature of this cross-cultural study, we hypothesized that there would be unspecified differences in stigma perception between populations. In addition, we hypothesized that high levels of stigma would predict high levels of psychological distress, and the relationship between these variables would differ between populations. Analysis (N = 98) revealed that there was no significant difference in stigma between populations, t (96) = 1.18, p = .239, suggesting cultural equivalence of stigma. Contrary to expectations, higher stigma levels were found to predict lower levels of psychological distress (r = .30, p = .003), with the relationship between stigma and distress stronger in the Spanish-speaking population, r = -.39, p = .005, than the English-speaking population, r = -.20, p = .308. Implications of these findings and directions for future research will be discussed.

Mental Health Stigma in English and Spanish-Speaking Countries

Mental health stigma is one of the most pressing issues faced by individuals with mental disorders. Mental health stigma is commonly defined as negative attitudes and/or behaviors targeted toward individuals that appear to have a mental health disorder (Corrigan, 2004). Corrigan (2004) identified four core processes of mental health stigma: cues, or perceived abnormalities in a person's appearance or behavior that lead an observer to conclude that the observed has some form of mental disorder; stereotypes about people with mental illness (e.g., all mentally ill people are violent or are responsible for their own condition, etc.); prejudice, or the embracing of negative stereotypes about mentally ill individuals; and finally, discrimination, negative actions taken against a person with a mental disorder on the basis of one's prejudice, such as avoidance of mentally ill people. Corrigan (2000) also offers a model of social attribution to explain why people experience mental health stigma. Corrigan says that when most people observe cues from people with mental illness, they are predisposed to seek out or come up with an explanation for these strange behaviors. In addition, peoples' attitudes toward those with mental illness are often determined by the perception of control over a person's symptoms. If one believes someone is not in control of their symptoms, they are more likely to display helping behavior driven by pity, whereas someone believed to be controlling their symptoms and acting out deliberately is more likely to be met with punishing behavior driven by anger.

Mental health stigma can manifest itself in many ways, and can have a negative impact on others in society, not just individuals with psychological difficulties. Sharac et al. (2009) found that people with mental disorders were more likely to face discrimination in the hiring process, leading to fewer mentally ill people being employed. This discrimination led to not

only less income for the mentally ill individuals, but caused workers who were both willing and able to contribute to the economy to not be able to do so. In addition, some mental disorders are more likely to draw stigma than others. Wahl (1999) found that individuals with schizophrenia were more likely to experience stigma than individuals with depression. Most likely, this is due to the fact that schizophrenia has the potential to manifest itself with positive symptoms such as abnormal behavior and speech patterns, as opposed to the more negative symptoms, such as social withdrawal and depressed affect, of individuals with depression. Mental health stigma has also proven to be a barrier to treatment, with many affected individuals declining to seek treatment because they are afraid of how they will be perceived by the rest of the population (Corrigan 2004).

Distress and Self-Stigma

Other individual factors such as environment and psychological set may also exert some influence on the experience of stigma. One of the factors that seems to be most related to stigma is psychological distress, typically defined as any sort of uncomfortable feeling or emotion experienced by an individual. Hoyt et al. (1997) men in rural environments were more likely to hold more stigmatized views of mental health care and were, in turn, less likely to seek psychological help. Masuda et al. (2009) discovered that individuals that held stigmatizing attitudes were more likely to display higher levels of psychological distress. The researchers hypothesize this is due to psychological flexibility; individuals with higher levels of psychological flexibility who exhibit greater judgment and behavior regulation seem to be able to better understand the disadvantage of holding stigmatizing views.

This study and other lines of research seem to suggest that the act of seeking psychological help can in fact influence one's levels of mental health stigma, specifically one's

levels of self-stigma. Corrigan (2004) defined self-stigma as "the reduction in a person's self-esteem or sense of self-worth due to the perception that he or she is socially unacceptable." Research seems to show that some individuals experience higher levels of self-stigma when they seek psychological help. Tucker et al. (2013) found evidence to suggest that help-seeking stigma is distinct from mental health stigma. In addition, the researchers found that levels of help-seeking stigma predicted levels of self-blame in individuals, while levels of mental health stigma did not.

A meta-analysis conducted by Griffiths et al. (2014) concerning the effectiveness of interventions to reduce stigma found that there was no effective way to reduce levels of self-stigma. While personal stigma (an individual's attitude toward someone with a mental illness) could be reduced through most kinds of interventions (including education and consumer contact), there was no intervention effective in helping someone reduce stigmatizing attitudes toward themselves.

Stigma across Culture

Mental health stigma is widespread among many different populations and environments. Gary (2005) proposed the concept of "double stigma," the idea that individuals with mental illness that are also members of a minority ethnic group face twice the amount of stigma as others, as the result of both their race and their illness. In an examination of stigma among African Americans, Native Americans, Asian Americans, and Hispanic Americans, the researcher highlighted the unique challenges faced by members of these minority communities. African Americans, Native Americans, and Hispanic Americans are disproportionately incarcerated for their mental illness in lieu of treatment. All minority groups were less likely to seek treatment than were Caucasians. Asian Americans, facing the stereotype of being the

"model minority," are also less likely to seek treatment for mental health problems due to the stigma and discrimination they would face for doing so. Greene-Shortridge et al. (2007) studied mental health stigma among members of the United States military, a population that is vulnerable to post-traumatic stress disorder (PTSD). Many soldiers and personnel in the military who would benefit from mental health treatment are concerned that seeking help would be viewed by others as a sign of weakness, and by extension, a sign of an inability to perform their required duties.

Mental health stigma is not a cultural phenomenon specific to the United States. Pescosolido et al. (2013), in conducting their global survey of mental health stigma, found that nearly all cultures in the world are beginning to adopt a more westernized approach to mental health treatment, recognizing the need for trained mental health professionals, such as psychiatrists, psychologists, and counselors. However, through their survey of preexisting prejudice and knowledge of mental health disorders in citizens from 16 countries, they also found that certain "core" perceptions of mentally ill people existed across cultures; namely, that mentally ill people had an innate predisposition toward self-directed violence and unpredictability, and that mentally ill people should not provide child care or teach children.

One case study conducted in Uganda serves to illustrate many somewhat extreme stigmatizing attitudes that are widespread in low-and-middle-income countries (Shaw & Middleton, 2013). Through interviews conducted with residents in rural and urban areas of the country, the researchers found that many individuals with mental disorders are not treated humanely, citing two examples of mentally ill people being stoned to death for their actions. Mental illness is treated as an almost-exclusively spiritual condition; *muzungu* (white) medicine is seen as only making one's condition worse. The idea of mental illness being contagious is

also widespread, with many individuals not trusting psychiatrists and counselors because, as one interviewee states, "if you work with the *mularu* (mentally ill) you are bound to become *mularu* yourself- if you do it long enough" (Shaw & Middleton, 2013). Many individuals prefer seeing traditional healers for their problems; ironically, these healers, acknowledged as having good counseling skills and rapport with the citizens, face stigma from mental health professionals for their non-scientific and non-American methods of dealing with mental health problems (Arnett, 2008).

Stigma in the Spanish-Speaking World

In Mexico, approximately 25% of people have a lifelong mental illness; of these, only about 30% seek lifelong treatment (Medina-Mora et al., 2005). This is at least in part due to the cultural attitudes toward mental illness in the country, similar to other perceptions of mental illness: seeking help is a sign of weakness. Additionally, mental illnesses are significantly less visible in Mexican society; they are seen as something that needs to be hidden and not shown to the world, leading to increased stigma. Selles et al. (2015) found that parents in El Salvador were more receptive to seeking mental help for their children, especially if they had received some form of therapy themselves. However, seeking help through medication was seen as being as acceptable as drinking alcohol to solve mental problems, citing an overall mistrust in Salvadoran society in using substances to alter mental functioning. In Spain, Crespo et al. (2008) found that participants from a sample in Madrid had good general knowledge about mental illness; however, many participants were unsure of the differences in what constituted mental illness versus mental retardation. In addition, many participants did display some stigmatizing attitudes. These attitudes were mostly pity and a desire to help a mentally ill person, through

coercion if necessary, to follow a medical treatment plan. This is similar to many other "Western" perceptions of mental illness, similar to the perspective seen in Corrigan (2004).

Mexican immigrants to the United States also face challenges in seeking help for mental illness, especially when in the country without documentation. Undocumented Mexican immigrants may be more at risk for mental illness due to events that caused or forced their immigration and others' attitudes toward them; however, the fear of being discovered to be in the country without documentation or significant language barriers prevent many from seeking the help they need (Sullivan & Rehm, 2005).

Folsom et al. (2007) found significant differences between Spanish and English-speaking Latinos living in the United States. Participants in this study were recruited from three groups: Spanish-speaking Latinos, English-speaking Latinos, and Caucasians. All participants were initiating treatment for either schizophrenia, bipolar disorder, or major depression during the 2001-2004 period. The Spanish-speaking population, while being the least likely to seek services as compared to English-speaking Latinos and Caucasians, were more likely to seek outpatient treatment for disorders such as major depression. Spanish-speaking Latinos and Caucasians, in contrast, were more likely to receive treatment through jail or emergency services for disorders such as schizophrenia and bipolar. Interian et al. (2011) found that low-income Latinos living in the US who scored higher on measures of general and Latino antidepressant stigma were less likely to comply in taking antidepressant medication.

Current Study

The goal of the present study is to take a closer look at the differences in perceptions of mental health stigma and distress levels among English and Spanish-speaking populations.

While this may seem to suggest that I am interested in the differences in language spoken, my primary purpose for this study is to explore the cultural differences in mental health stigma between Spanish-speaking countries and the US. I hypothesize, first, that there will be a difference in stigma perception between populations, but with the direction of the difference unspecified given the exploratory nature of this research. Second, I hypothesize that high levels of psychological distress will predict high levels of stigma. Third, I hypothesize that the relationship between psychological distress and stigma will vary between the two populations. Ideally, this difference would serve to illuminate our current culture-based understanding of why people form mental health stigmas, in addition to providing insight into the best way to diminish psychological distress and dispel many of the stereotypes and misinformation on which these stigmas are based.

Method

Participants

For this study, participants were recruited from two distinct populations. The English-speaking participants were recruited through SONA from the student population at Murray State University (n = 79). These students were enrolled in undergraduate psychology courses and received either class credit or extra credit for their participation. The Spanish-speaking participants were recruited through advertisements placed in online forums of the website Reddit (n = 55). The advertisement, in Spanish, was placed on the "sub-Reddit" of some South American countries that have Spanish as their official or primary language: Chile, Colombia, Ecuador, Paraguay, and Uruguay. Participants recruited in this manner had the opportunity to enter into a drawing for five $10 gift cards as compensation.

Procedure

Participants began the study by reading an informed consent form, available in both English and Spanish, and providing consent to participate. Both populations, in addition to completing standard demographic information (see appendix A), completed an online survey in their respective language. The survey was accessed either through SONA, the psychology department's online research tool (for the English-speaking participants), or Reddit (for the Spanish-speaking participants). The survey was created through the Lyceum survey creation tool and consisted of the King Stigma Scale (KSS) followed by the Depression Anxiety Stress Scale-21 (DASS-21), both discussed in detail below. Participants were debriefed concerning the purpose of the study on completion of the survey. All necessary materials, including informed consent and debriefing, requiring translation from English into Spanish were translated with the assistance of faculty from the Department of Global Languages and Theatre Arts at Murray State University.

Measures

Demographics. Participants completed standard demographic information, including age in years, gender, and race/ethnicity. Participants from the English-speaking sample were asked their current year in school, as all participants were enrolled at MSU. Participants from the Spanish-speaking sample were asked to provide their highest level of education completed. Additionally, participants from both samples were asked if they or a close family member of friend has ever been diagnosed with a mental health disorder.

King Stigma Scale (KSS). The KSS (King et al., 2007) was developed with the intention of creating a standardized measure of mental health stigma. In its final form, the scale

consists of 28 self-report items designed to assess an individual's experience of stigma. The scale is divided into three sub-scales, each testing a specific aspect of mental health stigma: discrimination (e.g., I have been discriminated against in education because of my mental health problems), disclosure (e.g., I worry about telling people I receive psychological treatment), and possible positive aspects of mental illness (e.g., Having had mental health problems has made me a more understanding person). The KSS has been shown to have high internal reliability, with Cronbach's α above 0.88. Each of the subscales has also been proven to be reliable, with Cronbach's α at 0.87 for the discrimination scale, 0.85 for the disclosure scale, and 0.64 for the positive aspects scale. In the current sample, overall reliability of the KSS was good, with Cronbach's α at 0.86. Good reliability was also seen in the English-speaking sample, with Cronbach's α at 0.83, and in the Spanish-speaking sample, with Cronbach's α at 0.88. The overall scores for the reliability of the subscales in the current sample are as follows: 0.87 for the discrimination scale, 0.79 for the disclosure scale (acceptable), and 0.67 for the possible positive aspects scale (questionable). In the English-speaking sample, the scale reliabilities were 0.91 for the discrimination scale (excellent), 0.71 for the disclosure scale, and 0.68 for the possible positive aspects scale. In the Spanish-speaking sample, the scale reliabilities were 0.82 for the discrimination scale, 0.84 for the disclosure scale, and 0.66 for the possible positive aspects scale. The scale's validity has also been demonstrated through a negative correlation with self-esteem (The Self-Esteem Scale; Rosenberg, 1965, cited in King et al., 2007). The Spanish-speaking participants will complete the Spanish translation of the KSS completed by Reynoso, Dávalos, and García (2011) and validated in the US. This translation has been demonstrated to have reliability very similar to the original version, with a Cronbach's α of 0.87.

Depression Anxiety Stress Scale-21 (DASS-21). The DASS-21 is a more compact version of the DASS (Lovibond & Lovibond, 1995). The measure was designed to measure and discriminate against the distinct negative affective states of depression (e.g., I couldn't seem to experience any positive feeling at all), anxiety (e.g., I was aware of dryness of my mouth), and tension/stress (e.g., I found it hard to wind down). The measure has high reliability in measuring each of these factors, with Cronbach's α scores of 0.91 (depression), 0.81 (anxiety), and 0.89 (stress). The measure has good validity as well, correlating with other measures of depression and anxiety (0.81 with the Beck Anxiety Inventory, 0.74 with the Beck Depression Inventory). Spanish-speaking participants will complete the Spanish translation of the DASS-21 that was translated by Daza et al. (2002) and validated in Mexico. The measure has comparable reliability to the original DASS-21, with a coefficient α of 0.96. The subscale translations are also reliable (depression = 0.93, anxiety = 0.86, and stress = 0.91). This measure also has comparable validity, with strong correlations with the BDI (r = 0.82) and the BAI (r = 0.60). In the current sample, the obtained Cronbach's α for overall distress was 0.93, suggesting excellent internal consistency. Reliability within the English-speaking sample was 0.96, and within the Spanish-speaking sample was 0.91.

Analytic Strategy

All analyses were conducted using SPSS version 21. Prior to study analysis, variables were screened for outliers and normality. Cases with missing data or univariate/multivariate outliers were excluded from analysis. No outliers, with $z < 3.29$ or a Mahalnobis distance of greater than 20.52 ($\alpha = .001$), were discovered. Two attention check items were also included in the measures; failure to pass one or both of these items resulted in exclusion of participant data from analysis. 30 participants recruited from SONA (37.97% of subsample) and six participants

recruited from Reddit (10.91% of subsample) were excluded in this manner, leaving the final populations as follows: English $n = 49$, Spanish $n = 49$, total $N = 98$.

Hypothesis 1. In order to test the differences in stigma levels between the two populations, a t-test was conducted comparing participants' overall scores on the KSS (combined scores on the discrimination, disclosure, and positive aspects subscales). In addition, three follow-up comparison tests were conducted in order to compare participants' results on the each of the three subscales of the KSS. While running multiple comparisons in this manner does increase the probability of encountering a Type I error or "false positive," the minimal risk of encountering this error was deemed to be acceptable in this exploratory research. Additionally, due to the exploratory nature of the hypothesis the risk of encountering a Type I error is a much better alternative than encountering a Type II error; that is, it would be much better to for the purposes of this study to encounter a possible future research opportunity than to miss an actual cultural difference. A power analysis run using G*Power v3.1.9.2 with an alpha of .05, power of .80, and an assumed medium effect size ($d = .5$) indicated that 102 participants were needed to adequately power this analysis. The obtained sample of 98 participants indicates that this analysis was slightly underpowered.

Hypothesis 2. A Pearson correlation coefficient was conducted in order to test if high levels of distress do indeed predict high levels of stigma. The correlation compared the overall scores of participants on both the KSS and the DASS-21. A power analysis run using G*Power v3.1.9.2 with an alpha of .05, power of .80, and an assumed correlation size of $r \geq .3$ indicated that 67 participants were needed to adequately power this analysis. The obtained sample of 98 participants indicates that this analysis was adequately powered.

Hypothesis 3. Finally, to test if the relationships between stigma and distress vary between the English and Spanish-speaking populations, a Fisher Z-Transformation was conducted. After calculating the correlation coefficients between the KSS and DASS-21 in both the English-speaking and Spanish-speaking subsamples, this procedure will change the correlations to z-scores, which will allow for the strength and significance of the correlations within the two groups to be compared. A power analysis run using G*Power v3.1.9.2 with an alpha of .05, power of .80, and an assumed large effect size (q = .5) indicated that 106 participants were needed to adequately power this analysis. The obtained sample of 98 participants indicates that this analysis was slightly underpowered.

Results

Demographics

Analyses were undertaken to compare the samples on various demographic characteristics. There was a significant difference in age between samples, with the English-speaking sample (M = 18.75, SD = .89) being younger and less varied in age relative to the Spanish-speaking sample (M = 25.22, SD = 5.80); t (50.29) = -7.72, p < .001.

Samples also differed on reported country of origin: in the English-speaking sample, 46 participants (93.88%) reported the United States as their country of origin. It is important to note that six participants simply reported “America” as their country of origin; the investigator recognized that America is not a country and inferred from the cultural context that the participants meant to say “the United States of America.” Additionally, 2 participants (4.08%) did not report a country of origin, and 1 participant (2.04%) reported China. Within the Spanish-speaking sample, 36 participants (73.47%) reported their country of origin as Chile, with 7

(14.29%) reporting Uruguay, 4 (8.16%) reporting Colombia, 1 (2.04%) reporting Venezuela, and 1 (2.04%) reporting Paraguay.

Reported ethnicity also varied between samples. In the English-speaking sample, 44 participants (89.80%) listed their ethnicity as White/Caucasian, 3 (6.12%) as African-American, 1 (2.04%) as Hispanic, and 1 (2.04%) as Asian. In the Spanish-speaking sample, 15 participants (30.61%) reported their ethnicity as White/Hispanic, 14 (28.57%) as Latina/o, 6 (12.24%) as Mestiza/o, defined as having equal parts Latina/o and European ancestry, and 1 (2.04%) as Castizo, defined as having mostly European ancestry with some Latina/o ancestry. Additionally, 7 participants (14.29%) referenced country of origin as their ethnicity (6 Chilean, 1 Colombian), 2 (4.08%) referenced some form of European ancestry (1 Creole, 1 Spanish/Italian), 2 (4.08%) reported no race/ethnicity, and 2 (4.08%) failed to report race/ethnicity.

Also as expected, primary and secondary language varied by sample. In the English-speaking sample, 48 participants (97.96%) reported English as their primary language, with 1 (2.04%) failing to report. In the Spanish-speaking sample, 47 participants (95.92%) reported Spanish as their primary language, with 1 (2.04%) reporting specifically Castilian Spanish and 1 (2.04%) failing to report. In the English-speaking sample, 35 participants (71.43%) reported having no secondary language, 5 (10.20%) reported Spanish, 2 (4.08%) reported German, and 7 (14.29%) failed to report. In contrast, in the Spanish-speaking sample, all 49 participants (100%) reported having a secondary language, with some reporting more than one. 48 participants (97.96%) reported English, 3 (6.12%) reported French, 2 (4.08%) reported Portuguese, 1 (2.04%) reported German, and 1 (2.04%) reported Spanish. Other analyses of demographic variables, including gender and participant familiarity with mental illness, can be seen in Table 1. Gender of participants was significantly different across samples, with the English-speaking

sample mainly female and the Spanish-speaking sample mainly male. The percentage of participants who knew someone with a mental illness diagnosis were not significantly different across samples; however, rates of participant diagnosis were significantly different, with few English-speaking participants reporting a diagnosis and more than half of the Spanish-speaking participants reporting one.

Table 1. Demographic characteristics of sample.

	N (%)			
Characteristics	Overall	English	Spanish	Chi-Square
Gender				21.6***
Male	48 (49.0%)	12 (24.5%)	36 (73.5%)	
Female	50 (51.0%)	37 (75.5%)	13 (26.6%)	
Know Someone with Diagnosis				1.2
Yes	75 (78.1%)	34 (72.3%)	41 (83.7%)	
No	21 (21.9%)	13 (27.7%)	8 (16.3%)	
Diagnosed with Mental Illness				15.24***
Yes	34 (35.4%)	7 (14.9%)	27 (55.1%)	
No	62 (64.6%)	40 (85.1%)	22 (44.9%)	

*** = p <.001

Hypothesis 1

An independent samples t-test was conducted to compare mental health stigma (defined as total scores on the KSS) in the English-speaking and Spanish-speaking samples. There was not a significant difference in the scores for the English-speaking sample (M = 57.65, SD = 14.00) and the Spanish-speaking sample (M = 54.02, SD = 16.29); t (96) = 1.18, p = .239. Additionally, there were no significant differences on the subscale scores of discrimination for the English-speaking sample (M = 28.78, SD = 10.72) and Spanish-speaking sample (M = 27.14, SD = 9.90); t (96) = .78, p = .435. There were also no significant differences on the subscale scores of disclosure between the English-speaking sample (M = 18.18, SD = 6.33) and the Spanish-speaking sample (M = 16.59, SD = 7.80); t (96) = 1.11, p = .270. Finally, there were no significant differences on the subscale scores of positive aspects between the English-speaking

sample (M = 10.69, SD = 3.92) and the Spanish-speaking sample (M = 10.29, SD = 3.49); t (96) = .54, p = .587.

Hypothesis 2

A Pearson correlation was computed to assess the relationship between mental health stigma (as measured by total scores on the KSS) and psychological distress (as measured by total scores on the DASS-21). The total mean score on the DASS-21 was 40.88, with a standard deviation of 27.04. There was a statistically significant negative correlation between the two variables, r = -.302, p = .003.

Hypothesis 3

A Fisher's Z-Transformation was conducted to test the difference in the correlations between mental health stigma and psychological between the English-speaking sample and the Spanish-speaking sample. The total mean score on the DASS-21 in the English-speaking population was 38.61, with a standard deviation of 29.00. In the Spanish-speaking population, the total mean score on the DASS-21 was 43.14, with a standard deviation of 25.03. Mental health stigma and psychological distress were not significantly correlated in the English-speaking sample, r = -.202, p = .163, but were significantly correlated in the Spanish-speaking sample, r = -.394, p = .005. The difference between these correlations was not statistically significant, z = 1.02, p = .308.

Discussion

Mental health stigma levels were not greatly different between populations. Instead, levels of stigma were nearly identical between the two populations. This is surprising given the vast differences in age, gender, and presence of a mental health disorder in the participant.

These seems to suggest a sort of cultural equivalence in mental health stigma between the US and these South American countries. This idea is elaborated upon by Alonso et al. (2008), where it was found that stigma was strongly associated with mental disorders, as opposed to physical disorders, across 16 countries. This seems to suggest that ideas about mental health may actually be fairly similar across different cultural populations. A similar finding was found in the original validation of the Spanish translation of the King Stigma Scale (Reynoso et al., 2011). The researchers found that the average level of stigma was very similar to the average of the original: 60.15 on the original and 62.5 on the Spanish translation (an interesting note that the stigma levels of both populations in this study were slightly lower than these averages: 57.65 in the English-speaking sample and 54.02 in the Spanish-speaking sample). This is similar to the findings of Pescosolido et al. (2013) in that it supports the idea of core concepts of mental health stigma being common across countries, and supports the idea that some countries with vastly different cultures share similar ideas about mental health. This implies that a global intervention regarding mental health could be effective in reducing levels of stigma throughout the world.

The finding that high stigma levels are related to low distress levels is somewhat harder to explain. This finding was the opposite of the hypothesized result: instead of individuals with higher levels of stigma also experiencing higher levels of psychological distress, they experienced lower distress levels. Essentially, these findings suggest that individuals with higher levels of stigma had lower levels of depression, anxiety, and tension/stress in their lives. This is directly in conflict with Masuda et al. (2009), who posited that individuals with higher levels of stigma also experienced more psychological distress. One possible explanation for the findings of this study is that only about 35% of the total sample had actually been diagnosed with a mental health disorder, whereas about 78% of the sample knew someone with a diagnosis.

Quinn and Chaudoir (2009) made the distinction between personal and associative stigmatized identities. According to the researchers, a personal stigmatized identity is possessed by an individual, and concerns aspects of the self and their own history with mental illness. In contrast, an associative stigmatized identity is one that is possessed because of one's familiarity with an individual with some form of mental illness. In their study, the researchers found that individuals with an associative stigmatized identity had lower levels of psychological distress than individuals with a personal stigmatized identity. It is possible that due to the nature of our sample, these results could be due to an effect of associative, rather than personal, stigmatized identities.

This idea could begin to explain why this relationship between stigma and distress was significant in the Spanish, but not the English-speaking sample. The percentage of participants that knew someone with a mental health diagnosis, and the percentage of participants that themselves had a diagnosis, were higher in the Spanish-speaking sample than in the English-speaking sample. Additionally, the fact that the analysis was slightly underpowered could affect the fact that differences between the correlations were non-significant.

Limitations

This particular study is not without its limitations. The primary limitation of this study comes from unequal samples recruited from two distinct populations. While we did have the exact same number of participants in each group, participants were different in many ways other than language. These include age (18 years average in the English-speaking sample and 25 years average in the Spanish-speaking sample) and gender (about 76% female in the English-speaking sample and about 74% male in the Spanish-speaking sample) as the most striking differences. It

is notable that despite these differences stigma levels were not significantly different, further supporting the idea of cultural similarities in mental health stigma.

The samples were also widely different on attention. 93% of the Spanish-speaking sample passed the two built-in attention checks. In contrast, only 70% of the English-speaking sample from Murray State passed the checks. This does not reflect well on our younger students. Additionally, two of the three analyses conducted in this study were underpowered due to the need to eliminate participants that failed an attention check. Hauser and Schwarz (2015) encountered a similar problem. Over the course of three online studies, the researchers found that participants recruited from Amazon's Mechanical Turk (MTurk), an online research recruitment tool that allows individuals to participate in research studies for a small monetary incentive, were significantly more likely to pass attention checks and follow written instructions than college students participating in the same study. This is indicative of a problem of attention with undergraduate subject pools in general. Future research is needed to explore the attention differences between these populations.

A further limitation was the need to alter the instructions of the KSS due to not recruiting from populations with established mental illnesses. Although it was a very slight change, the wording of the instructions had to be changed to accommodate participants that did not have a mental illness; this resulted in the phrase "have you experienced" (in regards to stigma) being changed to "would you experience." This no doubt affected the results of this study, and future research should draw from only populations with mental illnesses. Additionally, the possible positive aspects subscale of the KSS was shown to have questionable reliability within the current sample, demonstrating that this may not be a good measure to actually test possible

positive aspects of mental health stigma. Future studies should employ a more reliable measure of stigma.

Finally, the variety of countries surveyed also serves as a limitation. Even among countries that speak the same language, cultures can show some dramatic differences. While most of the Spanish-speaking data was collected from Chilean participants, allowing a more direct cultural comparison, future research should limit cultural comparison to two countries. Additionally, we cannot be certain that all Spanish-speaking participants were actually living in South America; although we asked participants to report their country of origin, we had no way to ascertain that participants were currently living in the country they reported. This could limit the strength of the cultural comparisons being made, as participants may not be representative of the country in which they were born.

Future Directions

In conducting research in this area in the future, it would be prudent to form partnerships with researchers and universities located in the country from which data will be collected. While data collection for this study turned out well given the circumstances of its collection, evidence indicates that this was what might be called, in technical terms, a "lucky break." The only population from which substantial feedback was received was from the Chilean sub-Reddit; other sub-Reddit communities showed only marginal interest or did not allow the survey to be posted. A partnership with a particular research team or university in one of these countries would eliminate any risk of uncertainty regarding data collection, including the elimination of the need for convenience sampling. A partnership with a university in a particular country could allow for more representative sampling through methods such as stratification that cannot be conducted easily in an online sample.

Future research in this area could explore more in-depth the ideas of personal and associative stigmatized identities in distinct cultural populations. It is possible that differences in stigma levels may be discovered when these boundaries are more clearly defined. López and Guarnaccia (2000), in their review of cross-cultural psychopathology research, indicated an increase in research articles and reports seeking to examine cultural differences in mental illness and how they can be used to better understand mental illness (for example, reconciling the Latino concept of *ataques de nervios* with a Western perception of anxiety disorders). Part of this analysis could include an examination of portrayals of mental health in the popular cultures of each population being studied. This could allow researchers a better understanding of how the population as a whole perceives mental illness, and what differences exist in these portrayals between cultures. Along with other research investigating stigma of any kind, future research must be especially conscious of the social desirability bias and other response biases. Researchers must work to develop methods to more accurately obtain data about stigmas from participants, and not simply receive non-offensive responses from participants who simply want to be perceived as non-stigmatizing.

Another construct in need of increased clarity is the idea of race and ethnicity. This research has shown that cultural perceptions of what define race and ethnicity varied widely between the English and Spanish-speaking samples; it is likely that similar differences exist between other cultures as well. Future research should be more conscious of these distinctions in order to more accurately obtain data concerning participant race and ethnicity. Finally, a future study in a similar vein to this has been planned to look at stigma levels and other related variables in African populations, which may help future researchers explore whether mental illness stigma is a cultural universal or a culturally-bound construct.

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Appendix A: IRB Approval Letter

MURRAY STATE UNIVERSITY

Institutional Review Board

328 Wells Hall
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TO: Michael Bordieri
Department of Psychology

FROM: Institutional Review Board
Jonathan Baskin, IRB Coordinator

DATE: 10/16/2017

RE: Human Subjects Protocol I.D. – IRB # 18-050

The IRB has completed its review of your student's Level 1 protocol entitled *Mental Health Stigma & Culture*. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.

Your stated data collection period is from 10/16/2017 to 10/15/2018.

If data collection extends beyond this period, please submit an Amendment to an Approved Protocol form detailing the new data collection period and the reason for the change.

This Level 1 approval is valid until 10/15/2018.

If data collection and analysis extends beyond this date, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 10/15/2018. You must reapply for IRB approval by submitting a Project Update and Closure form (available at murraystate.edu/irb). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.