Self-stigma of mental illness among Latino people on the U.S.-México border

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Author Note

The research presented here was funded by a grant from ConTex, an initiative of The University of Texas System and México's National Council of Science and Technology (CONACYT), to Drs. Eno Louden, Esparza, and Jung. We thank Hebert Rocha and Rhiannon Perez for their assistance with data collection. We have no known conflicts of interest to disclose.

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Abstract

People with serious mental illness often internalize society's negative attitudes towards mental illness via self-stigma. Although stigma is a culturally defined construct, little is known about how stigma manifests among cultural subgroups in the United States. Negative consequences of self-stigma, such as reluctance to seek mental health treatment, may be particularly deleterious for members of certain ethnic groups, such as Latino people, who are already disproportionately at risk for not receiving mental health treatment. The goal of the present study was to examine how facets of culture explain variance in self-stigma among Latino people, and whether culture explained variance in self-stigma beyond socio-cultural and mental health variables identified by prior research. We conducted a cross-sectional survey with a sample of 343 Mexican and Mexican American people who self-identified as having a mental health concern living in the U.S.-México border region. The survey assessed self-stigma, culture, mental health, and socio-demographics. We found that multiple facets of culture, namely collectivism, power distance, and long-term orientation, were significant predictors of variance in self-stigma even after controlling for mental health and socio-demographic factors. Although some factors identified by prior research can be used to understand self-stigma among Latino people, facets of culture appear important to consider. Cultural factors should be incorporated into anti-stigma interventions targeting the Latino community.

Keywords: stigma, self-stigma, culture, Latino people

Mental illness is one of the most widely stigmatized conditions in Western society (DePierre et al., 2013). This stigma is pervasive—so much so that people with mental illness often direct society's negative attitudes about mental illness towards themselves. This is known as internalized- or self-stigma (Corrigan & Kosyluk, 2014). Self-stigma has numerous negative effects on people with mental illness, including lowered levels of self-esteem, lowered self-efficacy, and reluctance to seek mental health treatment (Link, 1987; Link et al., 2001; Livingston & Boyd, 2010; Sickel et al., 2014). Importantly, self-stigma is associated with worse quality of life for people with mental illness (Corrigan et al., 2013; Sirey et al., 2001; Staring et al., 2009).

Interventions to ameliorate self-stigma can be effective in improving quality of life among people with mental illness but must be tailored to the needs of ethnic and cultural subgroups to effectively reduce stigma for members of these groups (Knifton, 2012). As such, it is necessary to examine how self-stigma manifests among people of diverse backgrounds, particularly Latino people, who are disproportionately less likely to receive mental health services and are more affected by stigma in their treatment-seeking decisions than non-Latino White people (Fripp & Carlson, 2017; Nadeem et al., 2007). The present study seeks to further our understanding of self-stigma among Latino people, specifically those who identify as Mexican and Mexican American, and explore the extent to which facets of culture may relate to self-stigma.

Inter-individual differences in self-stigma within and across cultures

Self-stigma is the process by which individuals or groups feel marginalized, excluded, "marked," tainted, "flawed," and are outside of the "norms" of society (Goffman, 1986). Although community members hold negative attitudes towards people with mental illness to a

high degree, not all people with mental illness experience self-stigma. Research seeking to explain differences in levels of self-stigma among people with mental illness has primarily focused on socio-demographic and mental health characteristics. For example, people with more severe symptoms experience higher levels of self-stigma (Drapalski et al., 2013; Livingston & Boyd, 2010; Schrank et al., 2013). In addition, some research suggests that men (vs. women) and older (vs. younger) people have higher rates of self-stigma (Topkaya, 2014; Vogel et al., 2011; West et al., 2011). Although people with lower levels of education and lower socio-economic status hold comparably more stigmatizing attitudes towards people with mental illness (Corrigan & Watson, 2007; Papadopoulos et al., 2013), the evidence regarding whether this relationship extends to self-stigma is mixed (see Livingston & Boyd, 2010, for a review). These mental health and socio-demographic factors explain variation in self-stigma for members of the same culture, where some individuals internalize stigmatizing attitudes, some remain unaffected by self-stigma, and others become empowered (righteously angry) by society's negative beliefs (Corrigan & Watson, 2007; Livingston & Boyd, 2010).

Stigma itself is a culturally defined construct, since it is derived from shared attitudes held by individuals within a culture (Abdullah & Brown, 2011). However, studies comparing rates of stigma across cultures have produced inconsistent results. Some studies suggest that people of color have more stigmatizing attitudes towards people with mental illness than non-Latino White people, whereas other studies suggest the opposite (Corrigan & Watson, 2007; Parcesepe & Cabassa, 2013; Rao et al., 2007). This suggests that the experience of stigma may be more complicated than simply being a function of racial, ethnic, or cultural group membership and highlights the need to examine the mechanisms by which people experience stigma. Some researchers have suggested that people who experience discrimination due to their culture, race,

or ethnicity may be particularly sensitive to stigmatization based on their mental health, consistent with an intersectionality approach (Sue et al., 2016). Others have pointed to the fact that some factors related to inter-individual differences in self-stigma, such as lower levels of education, lower socio-economic status, and less access to mental health services (Corrigan & Watson, 2007; Papadopoulos et al., 2013) tend to be disproportionately experienced by people of color (Cook et al., 2017; Creedon & Cook, 2016; Pew Research Center, 2018). Although acculturation (the extent to which a person identifies with their culture of origin versus an alternate culture; see Cuellar et al., 1995) is a frequently studied construct in cultural research, the findings regarding the relationship between acculturation and stigma are inconsistent: Some studies report that those who are more acculturated or less enculturated are likely to experience lower levels of stigma (Choi et al., 2019; Hirai et al., 2015; Rojas-Vilches et al., 2011) whereas others find the opposite (Bauer et al., 2010; Wong et al., 2017). This suggests that beliefs and practices related to culture, rather than acculturation itself, may be more important to understanding self-stigma.

The effect of culture on stigma of mental illness

Prior research has pointed out the distinction between examining the relationship between culture and stigma at the individual level versus the group level (Gillespie-Lynch et al., 2019). For the purposes of this study, we were interested in examining the relationship between different aspects of culture and the self-stigma of mental illness among Mexican and Mexican American people with mental illness living in the U.S- México border region at the individual level. With this aim in mind, we summarize existing research in the area of group-level culture, which is best aligned with Hofstede's dimensions of culture (Hofstede, 2011), including individualism-collectivism, power distance, uncertainty avoidance, masculinity, and long-term

orientation. It is worth noting that some researchers have argued against using Hofstede's dimensions to describe culture at the level of the individual since they were developed to capture constructs at the group level (AlBannay et al., 2013). However, several studies have incorporated an adapted measure of Hofstede's dimensions designed to measure these dimensions at the individual level (Hendricks, 2018; Yoo et al., 2011), some of these with Mexican and American samples (Hample et al., 2021; Sawicki & Chapa, 2018). Further, several of Hofstede's dimensions overlap with constructs that are common to other models of culture and have been examined in prior research of self-stigma or align conceptually with key constructs of stigma.

The most well-studied cultural dimension related to self-stigma is collectivism, a construct that is represented in Hofstede's model as well as other models of culture and refers to the extent to which people in a society are integrated into tightly knit groups (Kagitcibasi, 1997; Triandis, 2018). Within societies that are highly collectivistic, a "contamination effect" exists, where if an individual has a characteristic that is deemed undesirable by society (such as mental illness), the individual's family members are stigmatized as well (see Ran et al., 2021, for a review). The stronger the ties within a society, the stronger this effect may be. Papadopoulos and colleagues (2013) found some evidence for this in a study conducted in the United Kingdom, where people from more collectivist backgrounds (e.g., Chinese, Greek) had more stigmatizing attitudes towards mental illness than did European White individuals (see Chan et al., 2018).

Other facets of culture from Hofstede's model align conceptually with concepts important to the study of stigma. For example, power distance, which refers to the extent to which people within a society are accepting of the fact that power is not equally distributed within society (Hofstede, 2011; Taras et al., 2010), may affect stigma because people with mental illness are marginalized, and thus lack power compared to others (Corrigan et al., 2015;

Rüsch et al., 2005). People who value power distance may have more stigmatizing attitudes towards people with mental illness because they are more accepting of this power differential. According to Modified Labeling Theory (Link & Phelan, 2013)—a widely used theory of stigma—social, economic, and political power are essential in the production of stigma, and contribute to "separation of us versus them," one of the initial steps of the stigma process.

In addition, uncertainty avoidance, which refers to a lack of tolerance for ambiguity (Hofstede, 2011; Taras et al., 2010), is often expressed in the form of the adoption of strict rules. Some people with mental illness act in ways that may not align with social norms; for example, a person who is hallucinating may speak to people who are not there, or a person with agoraphobia may refuse to leave their home (American Psychiatric Association, 2013). For members of society who value uncertainty avoidance, symptoms of mental illness that deviate from societal norms may relate to more stigmatizing attitudes. Another potential connection between stigma and uncertainty avoidance is the certainty that is offered by endorsing and acting upon commonly held stereotypes (Andersen et al.,1990).

Finally, masculinity, which encompasses many characteristics associated with stereotypically male traits—admiration for strength, not showing emotions, and emphasizing distinct gender roles (Hofstede, 2011; Taras et al., 2010)—may also be related to stigma given the fact that men experience higher rates of self-stigma than women (Topkaya, 2014; Vogel et al., 2011), though this relationship would only be expected if stigma were a function of gender roles rather than biological sex, which is yet unclear. Other facets within Hofstede's model aren't as clearly related to self-stigma conceptually. For example, long-term orientation, which is related to adhering to tradition and persevering in one's goals (Hofstede, 2011), may be less directly related to self-stigma than the other facets.

The present study

Given that little is known about how self-stigma manifests among Latino people, the goal of the present study was to examine self-stigma among a subgroup of Latino people. We focused on Mexican and Mexican American people living in the El Paso-Juárez U.S.-México border region due to the pressing need to develop anti-stigma interventions in this region. Issues such as increased political rhetoric surrounding immigration (Newton, 2017), the overwhelming number of asylum seekers in El Paso, Texas (Malkin, 2019), and the unprecedented levels of violence in Ciudad Juárez, Chihuahua, México, over the past several years (Aguilar, 2018) have undoubtedly led to high levels of trauma exposure and mental health concerns for residents of this bi-national community. Facilitating access to mental health care for members of this community by reducing self-stigma is therefore essential.

Our overarching research question was: What are the determinants of self-stigma among Mexican and Mexican American people living on the U.S.-México border? Within this broad question, we addressed three specific research aims. First, since so little is known about self-stigma among Latino people generally and Mexican and Mexican American people specifically, we examined the extent to which sociodemographic (e.g., level of education, income) and mental health (e.g., experience with mental health treatment, level of symptoms) factors identified by prior research are associated with self-stigma in this group. Second, we examined the extent to which facets of Latino culture relate to self-stigma. Specifically, we hypothesized that collectivism, which was found in prior research with non-Latino people to be associated with externalized stigma across cultures (Papadopoulos et al., 2013) would be associated with variability in self-stigma within members of the same culture. We also hypothesized three additional facets of culture—power distance, masculinity, and uncertainty avoidance—would be

related to variation in self-stigma among Latino people. Finally, we examined the extent to which the cultural facets explain self-stigma after controlling for the mental health and sociodemographic factors identified by prior research.

Method

The aims of the present study were addressed via a cross-sectional design using survey methodology. Data were collected in El Paso, Texas, in the United States and Ciudad Juárez, Chihuahua, in México. The survey consisted of validated measures of the constructs of interest, and those that did not have a Spanish version available were translated into Spanish by the research team using a back-translation procedure (see Yu et al., 2004). All translated measures were refined using feedback from focus groups composed of bilingual undergraduate students drawn from the psychology subject pool at The University of Texas at El Paso.

Procedure

Two research teams recruited participants for the study, one located in El Paso and the other in Ciudad Juárez. IRB approval was granted by one university in each country. Participants were recruited from mental health treatment facilities and social service agencies both in person and by posting fliers in English and Spanish. We also employed a snowballing sampling strategy, where participants were given additional recruitment fliers to distribute to friends and family members if they felt comfortable doing so. Although we attempted to keep the recruitment procedure as similar as possible across the two sites, most of the participants in Juárez came from psychotherapists' offices, whereas most of the participants in El Paso came from social service agencies.

Those who expressed interest in the study were screened for eligibility: all participants were required to be at least 18 years of age, live in the El Paso-Juárez border region, and self-

identify as being Latino and having a mental health concern. We did not specify during recruitment what qualified as a mental health concern because we did not want to limit the sample to people who had diagnoses, since this would require a history of mental health treatment. We verified that potential participants expressed some degree of psychological distress by administering the K-10 scale (Kessler et al., 2002) and verifying that the individual scored above a clinical cutoff as described below. Eligible participants met with a research assistant in a public location to complete the survey, which was administered via a paper and pencil questionnaire. Surveys were completed anonymously and participants received U.S. $30.00.

Participants

Participants were recruited from both sides of the border in the El Paso-Juárez region. More than half of participants (n = 208) were recruited from El Paso while the rest were recruited from Juárez (n = 137). Two participants recruited from México were deleted from the dataset because they either did not indicate where they lived, or indicated they lived in both México and the U.S. The majority (67.6%) of participants chose to complete the survey in Spanish. Descriptive information of participants is presented in Table 1.

[INSERT TABLE 1]

To inform our sample size, we conducted power analyses informed by the primary objectives of the study (Cohen, 1992; Fritz & MacKinnon, 2007). The largest required sample to detect a small to medium effect was 258 participants. We oversampled to allow for more nuanced analyses.

Measures

Demographics. Participants were given a brief demographics questionnaire where they were asked to report their age, ethnicity, education level, income, country of origin and residence. This section also included a yes/no item assessing whether the participant had prior contact with mental health services ("Have you ever received mental health treatment?").

Kessler Psychological Distress Scale (K10). The K-10 scale is a 10-item self-report questionnaire utilized as a screening tool to determine severity of distress associated with psychological symptoms of depression and anxiety in the past 30 days (e.g., "During the past month, how often did you feel depressed?"). Items are scored on a 5-point Likert scale from "none of the time" to "all of the time" where higher scores signify higher distress. Scores can range from 10 to 50 and a score of 16 was used to indicate at least moderate distress (see Fullbrook & Lawrence, 2014) and eligibility for participating in the study. We used the Spanish version of the K-10 that was developed and validated in México (Vargas Terrez et al., 2011). For this study, there was high internal consistency for both the English and Spanish K-10 ($\alpha = 0.89$; $\alpha = 0.90$).

Individual Cultural Values Scale (CVSCALE). Yoo and colleagues (2011) developed the CVSCALE to assess Hofstede's five cultural domains at an individual level. It is composed of 26 items (e.g., "Individuals should sacrifice self-interest for the group.") and five subscales. All five scales were used: Power Distance, Uncertainty Avoidance, Collectivism, Long-term orientation, and Masculinity. Each scale is evaluated on a Likert scale ranging from "strongly disagree" to "strongly agree" where high scores for each subscale signify an inclination to adhere to the cultural value (e.g., collectivism vs. individualism). Some of these scales (Power Distance, Long-term Orientation, and Masculinity) are rated on a 5-point scale, where scale scores could range from 4 – 50, whereas the others are rated on a 4-point scale where scale scores ranged

from 4 – 24. A Spanish translation of the CVSCALE was developed for the present study. Internal consistencies for English scales in the present study were moderate to high (α = 0.71-0.79) and high in Spanish (α = 0.79-0.82).

Internalized Stigma of Mental Illness Scale (ISMI). The ISMI is a 29-item self-report questionnaire assessing perceived stigma due to mental illness (Boyd Ritsher et al., 2003). Items are rated (e.g., "I feel out of place in the world because I have a mental illness.") on a four-point Likert scale where 1 = "strongly disagree" and 4 = "strongly agree". The ISMI is a multidimensional scale consisting of five subscales: Alienation, Stereotype Endorsement, Discrimination Experience, Social Withdrawal, and Stigma Resistance. Total scale scores in the ISMI could range from 29 - 116. We used a Spanish translation of this scale developed for a prior study (Or et al.; Boyd et al., 2014). For the present study, consistent with previous research, internal consistency for the first four English scales were high (α = 0.82-0.89) while Stigma Resistance had moderate internal consistency (α = 0.58). Similar findings were found in the Spanish version (α = 0.76-0.86, and α = 0.54 respectively).

Approach to Analyses

To address the first two aims (assessing the degree to which self-stigma was related to socio-demographic and mental health variables [aim 1] and cultural constructs [aim 2]), we conducted bivariate analyses. Specifically, we used Pearson's correlations to examine the relationship between self-stigma and most of the socio-demographic and mental health variables: age, time living in the El Paso-Juárez region, time living in the U.S. (for participants living in El Paso), income, and mental health symptoms. For categorical indicators with two possible values (gender and having received mental health treatment), we used t-tests to compute comparisons between groups. For categorical variables with more than two possible values (educational level

and household income) we used Spearman's correlations due to the ordinal nature of these indicators. To assess the relationship between self-stigma and culture, we computed Pearson's correlations between the ISMI and the subscales of the CVSCALE. To address the third aim, where we sought to determine the relationship between culture and self-stigma after controlling for the socio-demographic and mental health variables, we used hierarchical regression analyses where self-stigma as measured by the ISMI (full scale) was the dependent variable. Variables were entered in accordance with the extent to which they demonstrated significant association with internalized stigma in prior research (see Tabachnick & Fidell, 2007). We added site as a predictor to the regression analysis because there was a moderate difference in stigma between the sites ($M_{El\ Paso}$ = 58.03, $SD_{El\ Paso}$ = 15.12 vs. $M_{Juárez}$ = 63.16, $SD_{Juárez}$ = 16.13, $t(244)$, $p < .01$, d = 0.33).

Results

Do socio-demographic and mental health characteristics relate to self-stigma among Latino people?

To address the first research question, we examined the relationship between self-stigma and socio-demographic and mental health characteristics in the sample as a whole (see Table 2). Income was assessed using the currency of the participant's country of residence, and since these were not equivalent, income was transformed to z-scores to make it possible to compare scores from different distributions (Gravetter & Wallnau, 2017). Household income had the strongest relationship to self-stigma (r = -.20, $p < .001$ for ISMI total score). Education was also negatively correlated with self-stigma total scores and three of the subscale scores (r = -.17, p = .002 for ISMI total score, r = -.20; $p < .001$ for Stereotype Endorsement; r = .19, $p < .001$ for Stigma Resistance; and r = -.16, p = .004 for Discrimination Experience).

[INSERT TABLE 2]

For analyses focused on gender, we held out one participant who reported that their gender was neither male nor female. As shown in Table 3, men reported higher levels of self-stigma on three of the five subscales ($t(340) = 2.06$, $p = .04$, $d = .24$ for Stereotype Endorsement; $t(340) = 2.43$, $p = .02$, $d = .29$ for Social Withdrawal; $t(340) = 2.14$, $p = .03$, $d = .25$ for Discrimination Experience) but not self-stigma total score.

[INSERT TABLE 3]

Finally, we examined the relationship between mental health indicators and self-stigma. As shown in Table 3, participants who had received mental health treatment reported higher levels of self-stigma than those who had not received treatment ($t(311) = 3.48$, $p < .01$, $d = .42$). Further, as shown in Table 2, symptom level as measured by the K-10 was correlated with total score on the ISMI ($r = .419$, $p < .001$) and four of the five subscale scores were correlated (rs from .33 to .39). These were medium effects.

The relationship between self-stigma and cultural constructs

Although we hypothesized that self-stigma would be correlated with collectivism, power distance, and uncertainty avoidance, we examined the relationship between self-stigma and all five dimensions of the CVSCALE for descriptive purposes. As shown in Table 4, the self-stigma total score and most subscales were correlated with Power Distance, Collectivism, Long-Term Orientation, and Masculinity (rs from .23 to .40, $p < .01$). As hypothesized, greater endorsement of power distance and collectivism was associated with greater levels of self-stigma. Contrary to our hypothesis, uncertainty avoidance was not significantly related to self-stigma. Although we did not form a hypothesis regarding long-term orientation, it was significantly correlated with self-stigma ($r = .22$, $p < .01$).

[INSERT TABLE 4]

What relationship do cultural facets have to self-stigma after controlling for mental health and sociodemographic factors?

As noted earlier, we used hierarchical regression analyses to examine the relationship between culture and self-stigma after controlling for the other variables. Here, the first block included sociodemographic variables (age, gender, education, income, and site) and the second block included mental health as measured by the K-10. In addition, whether the participant had ever received mental health treatment was included in the second block as this varied by site and was a potentially relevant control variable. The third block included the cultural facets from the CVSCALE (power distance, uncertainty avoidance, collectivism, long-term orientation, and masculinity).

At each of the three steps, the regression equation was significant, and each step represented a significant improvement over the prior step, with all p values < .001. The final model explained more than 42% of the variance in self-stigma ratings ($F(12, 299) = 18.19$, p <.001). As shown in Table 5, mental health symptoms as assessed by the K-10 were a significant predictor of self-stigma for every step of the analyses. Although education and income predicted variance in self-stigma in the first two steps, these were not significantly related to self-stigma after the cultural factors were considered. Three of the cultural facets—power distance, collectivism, and long-term orientation—were significant predictors of variance in self-stigma after controlling for the mental health and socio-demographic factors. Results for regressions computing using the ISMI subscale scores were largely similar, with the same three cultural facets remaining significant predictors of variance in self-stigma in four of the five subscales; only long-term orientation was a significant predictor of variance in self-stigma as measured by

the stigma resistance subscale after controlling for sociodemographic variables and mental health.

[INSERT TABLE 5]

Discussion

This study is the first we are aware of to examine cultural factors underlying self-stigma among Latino people and lays the groundwork for future research and the development of anti-stigma interventions, particularly for Mexican and Mexican American people. We had two key findings. First, many of the socio-demographic and mental health factors found by prior research to be related to internalized stigma were associated with self-stigma among Latino people in the U.S.-México border region, though only mental health was a significant predictor in multivariate analyses. Second, multiple facets of culture, namely collectivism, power distance, and long-term orientation, were significant predictors of variance in self-stigma even after controlling for mental health and sociodemographic factors. Next, we discuss these findings, as well as the limitations and implications for this research.

Sociodemographic and mental health factors found in prior research on self-stigma are weakly related to self-stigma among Latino people

Several socio-demographic characteristics identified in prior research with other ethnic groups were related to variance in self-stigma among Latino people in our study, though some relationships were more robust than others. For example, those with lower levels of income and education reported higher levels of self-stigma at the bivariate level, a finding consistent with prior research, primarily on externalized stigma, conducted with diverse samples (Corrigan & Watson, 2007; Rao et al., 2007). In addition, the relationships we found between age and gender and self-stigma were weak, as these were only at the subscale level rather than at the total score

level. None of these socio-demographic variables emerge as significant predictors of variance in self-stigma in our multivariate analyses. This is surprising, as women are often found to have lower levels of externalized stigma and more positive views of treatment seeking than men (Corrigan & Watson, 2007; Parcesepe & Cabassa, 2013), and masculinity is an important component of Latino culture (Hofstede, 2011).

It could be that our findings reflect a nuanced relationship among self-stigma, socio-demographic variables, and mental health variables. For example, it could be that the relationship between age and self-stigma is better accounted for by treatment experiences in our sample. It could be that those who are older experience higher degrees of self-stigma because they have had more opportunities to experience treatment over their lifetime. This in turn could be related to mental illness severity, where those with the most severe symptoms reported higher levels of self-stigma. This was the most robust predictor in our multivariate analyses besides culture and is consistent with findings of prior research (Drapalski et al., 2013; Livingston & Boyd, 2010; Schrank et al., 2013) and as proposed by Schrank and colleagues (2013), this relationship may be bidirectional, where insight into one's symptoms increases self-stigma, which in turn increases distress.

Facets of culture underlie self-stigma among Latino people

We found that three facets of Latino culture underlie self-stigma of mental illness, even after controlling for the sociodemographic and mental health characteristics identified by prior research. First, as hypothesized, those who endorse greater levels of collectivism experience greater self-stigma. Research conducted among members of highly collectivistic cultures, such as in India and China, has shown that the stigma connected to mental illness extends beyond the person with mental illness to their family as well (Raguram et al., 2004; Tsang et al., 2003).

Further, across multiple cultural groups living in the United Kingdom (English, American, Greek/Cypriot, and Chinese), those who reported higher levels of collectivism at the individual level reported more stigmatizing attitudes towards people with mental illness (Papadopoulos et al., 2013). Our results suggest that the relationship between collectivism and stigma extends to self-stigma among Latino people.

Second, as hypothesized, we found that those who more strongly endorse power distance, meaning that they are more accepting of the fact that power is unequally distributed in society (Hofstede, 2011), experience greater self-stigma. Some have described powerlessness as a key component of self-stigma, noting that members of stigmatized groups are discriminated against, lose social status, and are generally disempowered by society (see Krajerski et al., 2013). Empowerment has been conceptualized as the opposite of self-stigma (Corrigan & Kosyluk, 2014; Corrigan et al., 2015), suggesting that those who are stigmatized may be, by definition, comparatively lacking in power. Our results suggest that those who are more accepting of this powerlessness experience a greater degree of self-stigma. Cross-cultural research in Europe suggests that the perceived powerlessness dimension of empowerment is a significant predictor of self-stigma (Brohan et al., 2011), and our results are consistent with this notion.

Finally, although we did not form a hypothesis regarding the relationship between long-term orientation and self-stigma, we found that those with a lesser degree of long-term orientation experienced more self-stigma. The concept of long-term orientation initially stemmed from research in China and initially reflected values consistent with Confucianism but has since been broadened to reflect a number of concepts including persistence, having a sense of shame, and a de-emphasis on saving face (Hofstede & Bond, 1988). On a more practical note, in their essay on how Latino cultural values might affect rehabilitation for people with disabilities, Zea

and colleagues (1994) suggested that short-term orientation was detrimental to rehabilitation because people become distracted by immediate, practical problems and fail to plan for long term challenges. All of these concepts are likely relevant to self-stigma of mental illness: attention to immediate problems (such as discrimination) could lead to higher degrees of self-stigma, as could higher emphases on shame and saving face. The concept of hope may also explain the relationship between long-term orientation and self-stigma. Prior work has shown that hope plays an essential role in recovery for people with serious mental illness (Poster, 2001) and that lower levels of hope are associated with greater self-stigma (Corrigan et al., 2011). Long-term orientation is central to the concept of hope (Benzein & Saveman, 1998), which may be important in future research on the relationship between culture and self-stigma.

Limitations

The findings of the present study are not without limitations. First, due to the nature of the cross-sectional study design, it is not possible to draw causal inferences about the relationships between variables. Although the present study advances knowledge about multiple factors related to self-stigma among Mexican and Mexican American people in the U.S.-México border region, further research is needed to examine causal relationships of the factors to self-stigma. Second, the present study used a non-probability sampling; hence, the study is not free from sampling bias. It is possible that those who might experience lesser stigma towards mental illness were more willing to participate in the study. It is worth noting that more participants in Juárez were recruited from psychotherapists' offices, compared to participants in El Paso who came mostly from social service agencies, which may have influenced the findings, though we did control for this in multivariate analyses. In addition, the participants of the present study were specifically Mexican and Mexican American people living in the U.S.-México border

region. Therefore, it is unknown the extent to which our findings may generalize to those who may experience a greater degree of self-stigma, Mexican American people living in other regions, and other Latino subgroups. Future research is needed to determine if our findings replicate in more diverse samples of Latino groups utilizing a probability sampling method. In addition, it should be noted that, consistent with findings from prior studies (Boyd et al., 2014), the internal consistency of the Stigma Resistance subscale was low, and as such, any findings related to this subscale should be interpreted cautiously. Finally, given the nature of self-reported study, there may be a tendency to under-report some of the constructs that we assessed due to social desirability, especially because the topics were sensitive in nature, though to reduce social desirability bias, we made significant efforts to ensure participant awareness of confidentiality associated with responses.

Implications and conclusions

Several of the mental health and socio-demographic factors identified by prior research were associated with self-stigma in our sample, which suggests that prior research on self-stigma with other ethnic and cultural groups may be helpful in understanding self-stigma among Mexican and Mexican American people. However, we did find some differences. Notably, age and gender were not consistently related to self-stigma. It is not clear why we did not find the hypothesized relationship with gender, especially given the emphasis on masculinity in Latino cultures. Yet, due to the nature of voluntary participation in the present study, it is possible that the male participants in our study were more open to discussing mental illness stigma than what is typically seen among men with mental health concerns, which may influence the findings. This will need to be further examined in future research.

The cultural facets that were found to have robust relationships to self-stigma—power distance, collectivism, and long-term orientation—should be taken into account when designing or adapting anti-stigma interventions for Latino people. Several evidence-based self-stigma reduction programs exist that might be considered as a starting point for cultural adaptation work to produce culturally competent programs to address self-stigma among Latino people, including Narrative Enhancement and Cognitive Therapy (NECT), Ending Self-Stigma (ESS), and Honest, Open, Proud (HOP; see Yanos et al., 2015 for a review). To address the importance of power distance in mental health stigma among Latino people, it may be useful to select an intervention that has at least some focus on empowerment, such as NECT. This intervention targets self-stigma among people with mental illness using structured, group-based treatment that combines (a) psychoeducation to help replace stigmatizing views about mental illness with beliefs about recovery using empirical findings, (b) cognitive restructuring geared towards teaching skills to challenge negative beliefs about the self, and (c) narrative therapy focused on enhancing one's ability to narrate one's life story (Yanos et al., 2015). Because collectivism is salient to many in Latino communities, it may be beneficial to focus such an intervention on family members in addition to the individual with mental illness since families may be particularly affected by stigma among people who highly endorse collectivism. In addition, modifications to an existing program may be warranted to help participants see the "big picture" of stigma and recovery process in addition to dealing with more immediate concerns given the importance of long term orientation among Latinos. It is possible that the portion of NECT focusing on narrating one's life story may meet this goal, but research is needed to examine the extent to which this is the case. Regardless of which program is chosen, the results of the present research suggest that it is likely that cultural adaptation, rather than simply translating an intervention into Spanish, is

needed for such programs to meet their full potential to reduce self-stigma among Latino people with mental illness.

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Table 1

Characteristics of Participants

Variable	El Paso (*n*= 208)	Juárez (*n* = 135)
Age M (*SD*)	41.4 (15.0)	35.9 (14.2)
Gender		
% Male	29.8	29.9
% Female	70.2	70.1
% Other	0.0	0.7
Education		
% 8th grade or less	7.2	14.1
% Less than high school	9.1	8.9
% High school graduate	24.0	35.6
% Some college	25.5	14.8
% College degree	33.2	26.7
Income*		
Less than $10k	38.9	37.0
$10k-14.9k	8.7	4.4
$15k-$24.9k	28.9	12.6

$25k-34.9k	6.3	10.4
$35k-49.9k	8.7	9.6
$50k or more	6.3	18.5
% Received treatment	47.4	89.6
K-10 total	29.6 (8.1)	31.1 (8.1)
ISMI Total	58.0 (15.1)	63.2 (16.1)
ISMI Alienation	12.1 (4.2)	14.1 (3.9)
ISMI Discrimination	10.0 (3.5)	10.5 (3.7)
ISMI Withdrawal	12.2 (4.4)	13.3 (4.7)
ISMI Resist	10.7 (2.9)	10.6 (2.6)
ISMI Stereotype	13.1 (4.1)	14.6 (4.8)
Power Orientation	9.3 (3.7)	10.2 (4.8)
Uncertainty avoidance	16.0 (2.9)	16.0 (3.0)
Collectivism	15.1 3.5)	14.9 (3.5)
Long term Orientation	25.3 (3.9)	24.0 (4.2)
Masculinity	9.2 (3.9)	9.8 (4.5)

Note. Income is reported in U.S. dollars for participants recruited from the United States, and in pesos for participants recruited from México.

Table 2

Correlations Among Self-stigma and Socio-demographic and Mental Health Variables

Self-stigma variable	Age	Years living in the U.S. (U.S. only)	Years living in the El Paso/ Juárez region	Education	Income	K-10
Total score	-.048	.106	.013	-.173**	-.230**	.419**
Alienation	-.140**	.134	-.038	-.063	-.156*	.386**
Stereotype endorsement	-.011	.054	.033	-.209**	-.218**	.376**
Discrimination experience	.024	.201**	.062	-.167**	-.186**	.328**
Social withdrawal	-.111*	.083	-.007	-.102	-.186**	.392**
Stigma resistance	.114*	-.087	.011	-.181**	-.153**	.102

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

Table 3

Self-stigma by Gender and Mental Health Treatment Status

	Male	Female			Never received treatment	Received treatment		
Self-stigma variable	Mean (*SD*)	Mean (*SD*)	*t*(*p*)	*d*	Mean (*SD*)	Mean (*SD*)	*t*(*p*)	*d*
Total Score	62.19 (15.74)	59.09 (15.63)	1.67 (.10)	0.20	55.35 (13.80)	61.97 (16.46)	-3.48 (<.01)	-0.42
Alienation	13.14 (4.07)	12.77 (4.35)	.74 (.46)	0.09	10.92 (3.82)	13.79 (4.24)	-5.76 (<.01)	-0.70
Stereotype Endorsement	14.44 (4.55)	13.35 (4.43)	2.06 (.04)	0.24	12.50 (4.04)	14.10 (4.71)	-2.94 (<.01)	-0.36
Discrimination Experience	10.82 (3.64)	9.92 (3.51)	2.14 (.03)	0.25	9.21 (3.26)	10.56 (3.70)	-3.14 (<.01)	-0.38
Social Withdrawal	13.55 (4.70)	12.24 (4.47)	2.43 (.02)	0.29	11.22 (3.99)	13.29 (4.76)	-3.78 (<.01)	-0.46
Stigma Resistance	10.25 (2.65)	10.82 (2.88)	1.72 (.09)	0.21	11.51 (2.96)	10.23 (2.69)	3.81 (<.01)	0.46

Note. Male $N = 102$, female $N = 240$. Never received treatment $N = 100$, received treatment $N = 212$.

Table 4

Correlations Among Cultural Indicators and Self-stigma

	Cultural facets				
Self-stigma variable	CPD	CUA	CC	CLO	CM
Total score	.396**	-.021	.194**	-.220**	.234**
Alienation	.283**	.043	.163**	-.163**	.159**
Stereotype endorsement	.415**	-.021	.205**	-.198**	.237**
Discrimination experience	.381**	.016	.213**	-.122*	.225**
Social withdrawal	.333**	-.002	.188**	-.184**	.168**
Stigma resistance	0.099	-.166**	-.066	-.210**	.129*

Note. CPD = Culture-Power distance; CUA = Culture-Uncertainty avoidance; CC = Culture-Collectivism; CLO = Culture-Long-term orientation; CM = Culture-Masculinity; * $p<.05$; ** $p<.01$.

Table 5

Coefficients of Hierarchical Multiple Regression Predicting ISMI Total Score

Model	Variables	Beta	Std Beta	*p*
1	(Constant)	63.027		<.001
	Age	-.075	-.067	.251
	Gender	-2.223	-.065	.241
	Education	-1.193	-.126	.037
	Income	-3.174	-.198	.001
	Site	4.573	.140	.013
2	(Constant)	39.869		<.001
	Age	-.038	-.034	.524
	Gender	-2.459	-.072	.159
	Education	-1.062	-.112	.047
	Income	-2.366	-.148	.005

	Site	2.647	.081	.163
	K-10 total	.740	.371	<.001
	Received mental health treatment?	2.601	.088	.128
3	(Constant)	37.937		<.001
	Age	-.079	-.072	.146
	Gender	-1.555	-.045	.318
	Education	-.182	-.019	.711
	Income	-1.284	-.080	.094
	Site	.429	.013	.802
	K-10 total	.687	.344	<.001
	Received mental health treatment?	2.231	.075	.142
	Culture: Power distance	1.296	.335	<.001

Culture: Uncertainty avoidance	-.149	-.027	.568
Culture: Collectivism	.681	.152	.002
Culture: Long term orientation	-.734	-.182	<.001
Culture: Masculinity	.267	.069	.188