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Stigma and Depression Treatment Utilization Among Latinos: Utility of Four Stigma Measures

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Abstract

Objectives—Stigma associated with mental illness is an important yet understudied issue among Latinos. This study examined the psychometric properties of four stigma measures with a sample of Spanish-speaking Latino primary care patients. The study evaluated the scale for Perceived Discrimination Devaluation (PDD), Stigma Concerns About Mental Health Care (SCMHC), the Latino Scale for Antidepressant Stigma (LSAS), and the Social Distance (SD) scale.

Methods—Participants (N=200) were low-income Latinos who were screened for depression with the Patient Health Questionnaire (PHQ-2) and asked about their depression treatment history, and they completed the four stigma measures at two time points. The four stigma measures were examined for internal consistency, convergent validity, construct validity, and criterion-related validity.

Results—The factor-analytic results generally provided support for the construct validity of the measures. The four stigma measures also demonstrated internal consistency between two time points. Patients who reported greater social distance from individuals with depression were more likely to have been receiving treatment for emotional care in the past three months (OR=.70, $p < .05$). Also, Latinos who scored high on the SCMHC (OR=.64, $p < .05$) and LSAS (OR=.77, $p < .05$) were less likely to have been taking antidepressant medications.

Conclusions—The SCMHC, LSAS, and SD scales received support for their reliability and construct validity. Results also showed some support for their criterion-related validity. A more

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mixed picture emerged for the PDD. Stigma ratings were associated with depression treatment utilization. Stigma ratings changed over time and were associated with treatment experiences.

Depression stigma among Latinos is an important issue but one that is considerably understudied. Given the increasing size of the U.S. Latino population, the relatively common occurrence of major depression, and the significant treatment-seeking barriers posed by stigma, more research on this topic among Latinos is needed (1–3). Stigma research in the Latino culture requires adequate measures for key stigma constructs in order to investigate processes by which stigma beliefs deter treatment utilization (4). Concerns about the cultural and linguistic appropriateness of measures underscore the need to ensure that adequate stigma measures are available for Latinos.

Depression stigma among Latinos may be an underlying factor in deterring help seeking. The label of depression can signify a number of stereotypes (personal weakness, for example). Therefore, people may seek social distance from stigmatized persons and impede their social role development and occupational mobility (5). This type of social labeling negatively affects patients and their families (6–10). In addition, stigma further affects individuals by reducing their interest in and adherence to depression treatment (11–13).

Understanding how stigma affects Latinos and persons from other U.S. racial-ethnic minority groups is a priority for reducing disparities in care (14,15). Latina, black, and immigrant women are more likely to endorse stigma concerns pertaining to depression treatment (12,16,17). Among Latinos, use of antidepressants is likely to be interpreted as a sign of severe depression, being “crazy” or weak, or as a sign of illicit drug use (18). Thus stigma is a prominent concern among racial-ethnic minority groups and a major contributor to lesser treatment involvement and lower adherence (14,15).

This study examined the psychometric properties of four stigma measures with a sample of predominantly Spanish-speaking Latino primary care patients. The measures selected for this analysis are a balance between established measures and group-specific measures. This balance permitted us to draw from existing knowledge and simultaneously incorporate constructs specific to a particular ethnic minority group. Of the four measures, three have been studied previously—Perceived Discrimination-Devaluation (PDD), Stigma Concerns About Mental Health Care (SCMHC), and Social Distance (SD) (19–21)—and one—the Latino Scale for Antidepressant Stigma (LSAS)—was generated specifically for Latinos on the basis of qualitative work (18). The analyses used depression treatment utilization outcomes to examine the measures’ internal consistency reliability, convergent validity, construct validity, and criterion-related validity.

Methods

Study design

The data were collected at two large primary care clinics for underserved populations between November 2007 and June 2008 and have been reported elsewhere (22). Participants were eligible if they screened positive for depression, with a Patient Health Questionnaire (PHQ-2) score of 3 or higher (23); were 18 years of age or older; spoke English or Spanish; and consented to a review of their medical record. Those enrolled (N=220) participated in baseline interviews, which were conducted in their preferred language. The interviews were repeated again six months (wave 2), 16 months (wave 3), 25 months (wave 4), and 30 months (wave 5) after baseline. Stigma beliefs were assessed during the final two assessment points (waves 4 and 5; N=200). All participants signed a consent form approved by the University of California, Los Angeles (UCLA), Institutional Review Board, which also approved the study procedures.

Measures

The stigma measures are described briefly here. [Appendixes providing full descriptions and scoring of the stigma measures are available as an online supplement to this article at ps.psychiatryonline.org.] All measures were translated into Spanish by a bilingual research assistant. Translations were inspected by two of the researchers (AI and WV) to ensure language equivalency. Problematic translations were modified by reaching consensus between the two researchers and the research assistant. The PDD includes 12 statements pertaining to ways in which others may devalue or discriminate against patients with mental illness; these items are scored on a 4-point Likert scale (7,20). Half of the items contain negative statements about how a person with mental illness would be treated, and the other half contain positive statements (reverse scored). PDD items were modified to be specific to depression and depression treatment. The PDD has been reported to be internally consistent (.82–.86) (4) and convergent with relevant constructs (20,24).

The SCMHC was adapted from a measure assessing broader barriers to depression treatment utilization (12,25). The three items of the SCMHC assessed stigma-related barriers to depression treatment (sample item: “embarrassed to talk about personal matters”). Convergent validity for this measure has been supported in regard to desire for mental health treatment (12). Items were reworded for this study so that they would be specific to depression treatment.

The LSAS was formulated from a qualitative analysis of antidepressant stigma concerns of a sample of Latinos (18). It contains seven items with stigma-related statements pertaining to use of antidepressants. Participants indicate the degree to which they feel others might agree with each statement, according to a 3-point Likert scale.

The SD assesses desire for social distance from someone with mental illness (19–21). Its internal consistency reliability has ranged from .75 to .90 (4). The six items were reworded so that they more appropriately measured social distance specifically from an individual with depression or a history of depression treatment. The items assessed the degree to which respondents were willing to interact with someone who has had or who currently has depression. Respondents answered no, maybe, or yes to each item. Lower scores indicated greater social distance.

Two types of utilization were reported during wave 4, and three were reported during wave 5. In both waves, participants indicated yes or no to whether they were currently taking antidepressants and whether they had received any emotional care in the past three months. In addition, they indicated whether they were ever treated for depression during wave 5.

The PHQ-9 assessed depression levels and was used as a covariate in the analyses. The validity of the PHQ-9 has been supported, including criterion-related validity with a clinician diagnostic interview for depression and convergence with other depression measures (26,27).

Analyses

Independent t-tests examined the association of continuous variables with independent predictor variables. Pearson’s chi-square analyses also examined the association among binary dependent and independent variables. Internal consistency analyses were conducted for all stigma measures. Correlations between the four stigma measures and the PHQ-9 examined their interrelationship. Also, because correlations were generated separately for each time point, we tested for whether these correlations significantly varied between waves 4 and 5. A factor analysis with a varimax rotation was performed for all four stigma questionnaires, with all items examined simultaneously. A series of multivariate logistic

regressions examined criterion-related validity via the relationship between the stigma measures and various utilization outcomes. All four stigma measures were entered simultaneously into the regression equations. In all multivariate logistic regressions, we adjusted for level of depression and sociodemographic variables, including age, gender, marital status, education, and health insurance status.

Results

The characteristics of the sample are reported in Table 1. Most Latinos in the sample were female, monolingual Spanish speakers with less than a high school education and with health insurance. At wave 4, the PDD, SCMHC, LSAS, and SD demonstrated internal consistencies that were nearly acceptable or adequate (α =.68, .69, .66, and .74, respectively). Internal consistency at wave 5 was acceptable for the SCMHC (α =.71) and SD (α =.75) and nearly acceptable for the LSAS (α =.69) and PDD (α =.69). Comparison between wave 4 and wave 5 alpha coefficients showed that internal consistency was stable between time points.

The correlations between the stigma measures ranged from .03 to .36, indicating that the questionnaires shared some common variance but also measured unique constructs (Table 2). Furthermore, significance tests showed that most correlations were not significantly different between waves 4 and 5. The exception was the correlation between the LSAS and the SD (and trends for the LSAS and SCMHC). All stigma measures demonstrated similar correlations with depression (PHQ-9 score), which were stable between the time points.

The factor analysis produced a five-factor solution that accounted for 91% of the total variance of the stigma measures. [A table SUMMARIZING THE FIVE-FACTOR SOLUTION is available as an online supplement at ps.psychiatryonline.org.] The items of the SCMHC, LSAS, and SD emerged onto three separate factors, with each stigma measure represented by a single factor. Two factors were produced for the PDD; one related to perceived discrimination and negative evaluation, and the other related to perceived acceptance and nonnegative evaluation. Two items from the PDD (item 1, “Most people would be close friends with a person who once had serious depression,” and 10, “Most people I know would treat a person who has been treated for depression the same”) did not load onto any factor, and one (item 5, “Most people believe that receiving treatment for depression is a sign of personal failure”) loaded onto a factor for another scale (SCMHC). The factor analysis was repeated for wave 5 (not shown) and produced similar results, indicating a stable factor structure between time points.

Table 3 displays the logistic regression models separately by utilization outcome for wave 4. The first model examined the correlates of having received any emotional care in the past three months and revealed no statistically significant predictors. The second model examined the correlates of currently taking antidepressants. This model showed that social distance was significantly associated with current use of antidepressants after the analysis was adjusted for covariates (gender, age, marital status, education, health insurance status, and PHQ-9 score). Individuals reporting higher social distancing (lower scores) were 18% more likely to be taking antidepressants.

Table 4 shows the wave 5 logistic regression results for each of the utilization outcomes. The first model showed that receipt of emotional care in the past three months was significantly related to the SD, after adjustment for the covariates. Individuals who reported higher social distancing (lower scores) were 30% more likely to have received emotional care during the prior three months. In the second model, current use of antidepressants was significantly related to the SCMHC and LSAS, after adjustment for covariates. On this

outcome, higher scores on the SCMHC and LSAS were 36% and 23% less likely, respectively, to be associated with current use of antidepressants. The third model, which examined whether participants had ever received treatment for depression, showed a significant relationship with SCMHC (40% lower treatment utilization).

The factor analyses revealed three problematic items with the PDD (items 1, 5, and 10). The logistic regressions in Tables 3 and 4 were therefore reanalyzed with a reduced version of the PDD that omitted these three items. The results were nearly identical to those from the first factor analysis, indicating that these items did not account for the PDD's lack of relationship to the utilization outcomes.

The differences between wave 4 and wave 5 time points prompted ad hoc analyses of the role of previous treatment exposure. The wave 5 regressions were reanalyzed to examine the role of previous treatment during wave 4. Specifically, the same set of predictors reported in Tables 3 and 4 were regressed on receiving any emotional care during the past three months at wave 5. However, during wave 4 we adjusted for receipt of any emotional care during the past three months. This same analysis was conducted for current use of antidepressants. The results at wave 5 for emotional care during the past three months showed that the relationship between SD score and emotional care was no longer significant. Also, the results for current use of antidepressants showed that the LSAS and SCMHC were no longer significant predictors.

Discussion

Main findings

The results describe the reliability and validity of four measures that correspond to different stigma constructs for a mostly Spanish-speaking sample of Latinos with depression. Overall, three measures received support across the psychometric domains evaluated: the SCMHC, LSAS, and SD. For the most part, the criterion-related validity was supported for the three measures, with the exception of an inconsistent pattern of correlations over time. The PDD received the least support; it was not associated with any of the utilization outcomes and produced mixed results in the factor analysis. The results also indicate that SCMHC and LSAS have potential clinical utility, given the finding that greater expressed stigma concerns were associated with clinically significant reductions in utilization rates (18%–40%).

The SCMHC was found in a previous study to predict desire for depression treatment but not to predict currently being in treatment (12). A closer look at our results, along with those of the other study of the SCMHC (12), reveals some consistency. Specifically, both studies found no association between SCMHC scores and current involvement in any depression treatment. In this study, we found significant associations with current use of antidepressants and with history of any treatment. A potential explanation is that concerns about stigma are greater in regard to antidepressant usage than psychotherapy, which seems supported by research on treatment preference (17,28). Overall, the SCMHC performed reasonably well, with the exception of its lack of relationship to wave 4 outcomes.

The fact that the LSAS demonstrated a significant association only with antidepressant utilization shows that the measure is specifically assessing its intended construct of stigma associated with antidepressant usage. Also, our results provide some support for the measurement development strategy of the LSAS, which relied on qualitative data to uncover the domains related to stigma of antidepressant use among Latinos (18). These data provide quantitative support for a measure with items constructed on the basis of patients' perspectives.

The PDD's lack of relationship with depression treatment utilization in this study contrasts with previous findings (13). The most salient explanations for the divergent findings pertain to differences in sample characteristics and the specific utilization outcome between the two studies. One possibility is that the PDD has limitations for Spanish-speaking respondents or for examining treatment utilization (in contrast to nonadherence). The instrument's performance in this study may also be related to depression-specific item modifications.

The SD is a well-studied measure in stigma research (4). The relationship with utilization that emerged was intriguing, because greater social distancing (lower SD scores) was associated with greater treatment utilization. On the one hand, this type of relationship, where higher stigma is related to higher treatment utilization, has been reported previously (29). On the other hand, this finding should be carefully interpreted. In doing so, one ought to consider that the SD assesses a construct domain different from the domains assessed by the LSAS, SCMHC, and PDD. The SD taps the desire for social distance from others with depression, and the other instruments tap concerns about being stigmatized. One possibility is that persons with greater desire for social distance may perceive stigmatizing views of depression as legitimate (30). Thus participants who reported greater stigma concerns (on the SCMHC and LSAS) may have utilized treatments less because of worries about how their treatment involvement would be viewed by others. However, somewhat consistent with a model of self-stigmatization, those who perceive the stigma beliefs as legitimate may utilize depression treatments more because of increased depression and loss of self-esteem that results from internalized stereotypes (30). Another possibility may be that treatment experiences in and of themselves contribute to an increased desire for social distance from others with depression.

This study revealed inconsistent correlation patterns between the two time points—a finding that also requires careful interpretation. One possible explanation pertains to the reliability of the measures. However, the measures received support for internal consistency reliability, which was stable over time. Also, the same factor structure emerged for both time points, indicating that it was stable. Finally, the correlations we reported did not significantly differ from one time point to the next.

Therefore, it is possible that the stigma measures assessed statelike constructs that are subject to changing with time. This second explanation is consistent with a number of observations. First, the longitudinal design of this research permitted an examination of how previous treatment contact related to subsequent ratings of stigma. In considering the impact of previous treatment contact, we found that the associations between various stigma measures and treatment utilization at wave 5 were attenuated after adjustment for the corresponding utilization outcomes at wave 4. This finding suggests that the relationship between stigma and utilization may have changed as a result of treatment experiences. Such an explanation is broadly consistent with research on social distance, wherein exposure to the stigmatized context (that is, treatment) can lead to decreases in desired social distance (19). Second, the results are also consistent with research showing that levels of stigma change in association with treatment (31). Finally, the relationship between PDD and depression had already been established (7), and the current measures' correlations with depression were comparable with those of the PDD. In fact, despite the statelike nature of depression, all four stigma measures demonstrated a stable relationship with the PHQ-9. The overall pattern of findings suggests that stigma ratings change over time and that respondents' treatment experiences may be associated with these changes.

Future research

The findings should be considered preliminary and should be more directly tested in future research. Future research could also examine the clinical context variables that contributed

to the attenuated relationship between stigma and the utilization outcomes. In particular, the question of exposure to the stigmatized context (specifically, depression treatment) is a potentially informative area of study, in that it can reveal the types of treatment experiences that are especially effective for decreasing stigma.

Limitations

The design of this study was limited in its ability to prospectively examine the relationship between stigma and depression treatment utilization. It was instead more informative in describing this relationship after opportunities for treatment involvement occurred. This helped determine that treatment experiences may have attenuated the relationship between stigma and treatment utilization. An additional limitation is that stigma measures were not available for 20 participants who were lost to follow-up. However, 90% of participants were assessed at waves 4 and 5, which significantly exceeds estimated figures for nonadherence (32) and suggests that our sample likely contained nonadherent participants. Also, future studies could examine different utilization outcomes, such as not accepting an offer for treatment or treatment discontinuation. Such outcomes may reveal a tighter relationship with the stigma measures, given that they more closely represent treatment rejection. Although no language effects were observed, the number of Latinos who predominantly spoke English was limited. Future studies with a more adequate sample size of English- and Spanish-speaking Latinos should further explore the effects of language of administration. These results are mostly related to assessing stigma among Spanish-speaking Latinos, which may have utility for cross-national research in Latin America and Spain.

Conclusions

Addressing stigma as a barrier to care among Latino patients with depression requires adequate measures for improving research. This study provides support for the reliability and construct validity of three stigma measures and some support for their criterion-related validity (for the SCMHC, LSAS, and SD). Support that emerged for the PDD was more mixed. This study provides information for assessing various stigma concepts among Spanish-speaking Latinos, particularly within the context of treatment utilization. These measures support the study of important clinical concerns, including Spanish-speaking Latinos' desire for social distance from individuals with depression, stigma concerns related to antidepressant use, and depression treatment in general.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Sociodemographic characteristics of 200 Latinos screened for depression and concerns about stigma associated with depression treatment

Variable	N	%
Age		
18–29	7	3
30–49	85	43
50–64	87	43
65 and older	21	11
Female	165	83
Spanish-language interview	190	95
Education		
Less than high school	121	61
Some high school	26	13
High school graduate	31	15
Some college	10	5
College graduate or additional higher education	12	6
Employment		
Full-time or part-time	68	34
Retired	12	6
Disabled	24	12
Homemaker	38	19
Unemployed	54	27
Full-time or part-time students	4	2
Marital status		
Single or never married	54	27
Married or living with partner	92	46
Separated or divorced	40	20
Widowed	14	7
Insured	179	90
Depression care utilization ^a		
Received emotional care in the past 3 months (wave 4)	78	39
Received emotional care in the past 3 months (wave 5)	73	37
Currently taking antidepressants (wave 4)	65	33
Currently taking antidepressants (wave 5)	59	30
Ever treated for depression (wave 5)	86	43
Depression and stigma measure (M±SD score) ^a		
PHQ-9 score (wave 4) ^b	8.9±6.7	
PHQ-9 score (wave 5) ^b	9.0±6.7	
PDD score (wave 4) ^c	2.3±.2	
PDD (wave 5) ^c	2.3±.2	

Variable	N	%
SCMHC (wave 4) ^d	.7±1.1	
SCMHC (wave 5) ^d	.5±1.0	
LSAS (wave 4) ^e	7.6±1.9	
LSAS (wave 5) ^e	7.3±1.9	
SD (wave 4) ^f	2.1±2.5	
SD (wave 5) ^f	2.2±2.6	

^aWave 4, follow-up 25 months from baseline; wave 5, follow-up 30 months from baseline

^bPatient Health Questionnaire–9. Possible scores range from 0 to 27, with higher scores indicating greater depression.

^cPerceived Discrimination-Devaluation scale. Possible scores range from 0 to 3, with higher scores indicating greater perceived stigma.

^dStigma Concerns for Mental Health Care. Possible scores range from 0 to 3, with higher scores indicating greater stigma concerns.

^eLatino Scale for Antidepressant Stigma. Possible scores range from 0 to 14, with higher scores indicating greater antidepressant stigma concerns.

^fSocial Distance scale. Possible scores range from 0 to 12, with lower scores indicating more social distance.

Table 2

Correlations between stigma measures and depression at two time points for 200 Latino participants^a

Stigma measure	Stigma measure ^b												
	PDD		SCMHC		LSAS		SD		PHQ-9 ^c				
	Wave 4	Wave 5	Wave 4	Wave 5	Wave 4	Wave 5	Wave 4	Wave 5	Wave 4	Wave 5			
PDD	—	—	.19	.12	.48	.23	.23	.98	.35	.96	.08	.18	.31
SCMHC	.19	.12	—	—	—	.22	.03	.06	.22	.04	.06	.08	.11
LSAS	.22	.23	.22	.03	.06	—	—	—	.12	.36	.01	.14	.22
SD	.35	.35	.22	.04	.06	.12	.36	.01	—	—	—	.12	.16
													.68

^aWave 4, follow-up 25 months from baseline; wave 5, follow-up 30 months from baseline

^bPDD, Perceived Discrimination-Devaluation scale; SCMHC, Stigma Concerns About Mental Health Care; LSAS, Latino Scale for Antidepressant Stigma; SD, Social Distance scale

^cPHQ-9, Patient Health Questionnaire

Table 3

Relationship between stigma measures and mental health treatment at wave 4, 25 months from baseline^a

Measure	OR	95% CI	SE	z	p
Received emotional care in the past 3 months					
Female	.62	.21–1.87	.35	-.85	.40
Age	1.01	.97–1.06	.02	.64	.52
Perceived Discrimination-Devaluation scale	1.00	.84–1.18	.09	-.05	.96
Stigma Concerns for Mental Health Care	1.17	.77–1.79	.25	.74	.46
Latino Scale for Antidepressant Stigma	1.08	.84–1.39	.14	.64	.53
Social Distance scale	.91	.74–1.12	.10	-.86	.39
Depression	1.05	.98–1.12	.04	1.35	.18
Insured	.90	.22–3.70	.65	-.14	.89
Currently taking antidepressants					
Female	.85	.32–2.27	.43	-.33	.74
Age	1.03	.99–1.06	.02	1.40	.16
Perceived Discrimination-Devaluation scale	.94	.81–1.09	.07	-.78	.44
Stigma Concerns for Mental Health Care	1.23	.84–1.79	.24	1.07	.28
Latino Scale for Antidepressant Stigma	.93	.75–1.15	.10	-.68	.49
Social Distance scale	.82	.67–.99	.08	-2.05	.04
Depression	1.08	1.01–1.15	.03	2.34	.02
Insured	1.58	.44–5.66	1.03	.70	.48

^a Analyses adjusted for gender, age, marital status, education, insurance and PHQ-9 score.

Table 4

Relationship between stigma measures and mental health treatment at wave 5, 30 months from baseline^a

Variable	OR	95% CI	SE	z	p
Received emotional care in the past 3 months ^b					
Female	1.04	.26–4.23	.74	.06	.96
Age	1.05	.99–1.11	.03	1.62	.11
Perceived Discrimination-Devaluation scale	1.08	.88–1.33	.11	.73	.47
Stigma Concerns for Mental Health Care	.57	.30–1.07	.18	-1.75	.08
Latino Scale for Antidepressant Stigma	1.07	.80–1.42	.16	.44	.66
Social Distance scale	.70	.49–.99	.13	-1.96	.05
Depression	1.01	.92–1.11	.05	.25	.81
Insured	—	—	—	—	—
Currently taking antidepressants					
Female	1.59	.55–4.56	.86	.86	.39
Age	1.07	1.03–1.11	.02	3.17	<.01
Perceived Discrimination-Devaluation scale	1.09	.94–1.26	.08	1.16	.25
Stigma Concerns for Mental Health Care	.64	.45–.93	.12	-2.38	.02
Latino Scale for Antidepressant Stigma	.77	.62–.97	.09	-2.22	.03
Social Distance scale	.94	.80–1.12	.08	-.69	.49
Depression	1.05	.99–1.12	.03	1.64	.10
Insured	2.82	.58–13.7	2.27	1.29	.20
Ever treated for depression					
Female	2.26	.67–7.64	1.40	1.31	.19
Age	1.01	.98–1.06	.02	.73	.46
Perceived Discrimination-Devaluation scale	1.08	.93–1.25	.08	.98	.33
Stigma Concerns for Mental Health Care	.60	.39–.92	.13	-2.33	.02
Latino Scale for Antidepressant Stigma	.87	.70–1.09	.10	-1.18	.24
Social Distance scale	.87	.71–1.05	.09	-1.45	.15
Depression	1.07	1.00–1.15	.04	2.02	.04
Insured	1.49	.37–6.03	1.06	.57	.57

^a Analyses adjusted for gender, age, marital status, education, insurance and PHQ-9 score.

^b Insurance was dropped from the model because most participants were insured.