

# Comparing the Impact on Latinos of a Depression Brochure and an Entertainment-Education Depression *Fotonovela*

Leopoldo J. Cabassa, M.S.W., Ph.D., Hans Oh, M.S.W., M.Ed., Jennifer L. Humensky, Ph.D., Jennifer B. Unger, Ph.D., Gregory B. Molina, B.A., Melvin Baron, Pharm.D.

**Objective:** The purpose was to evaluate the impact of a depression *fotonovela* in increasing knowledge of depression symptoms and treatments and reducing stigma among Latinos.

**Methods:** Data were from a randomized controlled trial in which Latinos from adult schools (N=132) were assigned to receive the *fotonovela* or a depression brochure and were assessed on knowledge and stigma measures before and after reading the material and one month later. Random-effects linear and logistic regression models assessed changes within and between groups.

**Results:** No significant differences were found between groups in symptom knowledge, social distance, and perceptions of dangerousness. Gains in depression treatment knowledge were significantly greater for the *fotonovela* than for the depression brochure group.

**Conclusions:** Findings suggest that a depression *fotonovela* informed by an entertainment-education approach is a useful tool for improving depression treatment knowledge among Latinos but is limited in improving symptom knowledge and reducing stigma related to social distance and perceptions of dangerousness.

*Psychiatric Services* 2015; 66:313–316; doi: 10.1176/appi.ps.201400146

Mental health stigma among Latinos is fueled by fears, cultural norms that view mental illness as a sign of weakness, low health literacy, and lack of knowledge about mental illness and treatments (1). Improving knowledge and reducing stigma in the Latino community are important goals because these are persistent barriers that prevent many Latinos from seeking, using, and engaging in mental health care (1–3). Few studies have compared the effectiveness of different health communication approaches for improving mental health knowledge and reducing stigma in the Latino community. In this study, we used data from an existing randomized controlled trial (RCT) (4) to compare the effectiveness between an entertainment-education *fotonovela* about depression and a standard depression brochure in increasing knowledge of depression symptoms and treatments and reducing stigma among Latino adults.

*Fotonovelas* are popular health education tools that use posed photographs, captions, and soap opera narratives to engage audiences and raise awareness about health or social issues (5). We have developed a depression *fotonovela* written in English and Spanish entitled “Secret Feelings” that counteracts misconceptions and stigmatizing attitudes about depression and its treatments that are common among Latinos (6). “Secret Feelings” achieves cultural relevance through the

use of characters, language, and common expressions familiar to Latinos and by placing the plot of the soap opera within a family context (6). This *fotonovela* uses an entertainment-education framework that incorporates educational messages into popular entertainment media to increase knowledge, create favorable attitudes, and motivate behavioral change (7). Raising awareness and increasing knowledge are important first steps toward information seeking and in changing attitudes, which ultimately influences behavior. Integrating entertainment-education into health communication tools can also be an effective antistigma strategy because it facilitates the processing of new information and reduces counter-arguing by allowing the audience to be emotionally and cognitively involved with the new information while simultaneously challenging maladaptive social norms and attitudes (8). “Secret Feelings” uses education and vicarious contact with characters who are coping with mental illness, two strategies known to reduce stigma (9).

“Secret Feelings” has been shown to improve overall depression knowledge and to decrease some indicators of stigma (for example, stigma in regard to mental health care and to antidepressants) (4,10). In this study, we extended this work by examining the impact of “Secret Feelings” on various dimensions of depression knowledge and two common

public stigma indicators—social distance and perceptions of dangerousness—that have not been evaluated in previous studies. Because “Secret Feelings” was designed to increase both knowledge of depression symptoms and depression treatments and reduce stigma, we hypothesized that this *fotonovela* would be more effective than a depression brochure in increasing both of these knowledge outcomes and in reducing the desire for social distance and perceptions that people with depression are dangerous.

## METHODS

The data for this study were drawn from an RCT comparing the effectiveness of “Secret Feelings” and a depression brochure developed by the National Institute of Mental Health (NIMH) (4). Institutional review boards approved all study procedures. Study methods have been described elsewhere (4) and are briefly summarized here. The study was conducted between January and April 2011 with a convenience sample of students at three adult night schools in Los Angeles that offer a variety of classes to a predominantly Latino population. All students at the schools were invited to participate except those in medical education classes (for example, medical assistants). A total of 222 students were eligible and present on the data collection day at the three schools. A total of 185 (83%) agreed to participate and completed pre- and posttests. Of these, 157 (85%) completed the one-month follow-up, and 25 were excluded (seven did not self-identify as Hispanic and 18 did not answer the ethnicity question). The analytical sample consisted of 132 participants (66 in the depression brochure group and 66 in the *fotonovela* group).

Bilingual data collectors visited each class, explained the study, answered students’ questions, and obtained informed consent. Participants received a sealed envelope containing a pretest survey, a randomly inserted depression *fotonovela* or brochure, and a posttest survey. Participants were directed to open their envelopes and fill out the pretest survey without looking at the other materials. After approximately 25 minutes, the pretest surveys were collected and participants were then given 30 minutes to read the brochure or *fotonovela*. After 30 minutes, participants were instructed to put the reading materials aside and were given 20 minutes to complete the posttest survey. Posttest surveys were collected, and participants were able to keep their reading materials. A month later, data collectors returned to the schools and distributed follow-up surveys in the students’ classrooms. Students who were absent at that time had an opportunity to complete the follow-up surveys during the next week’s class.

The development of the depression *fotonovela* is described in detail elsewhere (6). “Secret Feelings” is written at a fourth-grade reading level in English and Spanish and uses posed photographs of Latino and Latina actors and text bubbles to depict a soap opera story of a Latina wife and mother experiencing depression and her pathway to seeking care. The NIMH depression brochure (National Institutes of Health publication 08 3561) is publicly available in English and Spanish

and provides basic information about depression symptoms and treatments. The brochure was chosen as the comparison condition because it is widely used, designed for low-literacy audiences, and is approximately the same length as the *fotonovela* (26 versus 30 pages, respectively). Participants received the English and Spanish versions of their respective reading materials and were instructed to read the materials in their preferred language.

Surveys were available in English and Spanish. Information about participants’ demographic characteristics was collected at the pretest. Knowledge, attitudes, and behavioral intentions were assessed at all time points. For the study reported here, we focused on two depression knowledge measures and two common indicators of public stigma. Participants were presented a list of ten symptoms, including five *DSM-IV* symptoms of depression and five symptoms not related to depression, and asked to correctly identify depressive symptoms. Participants received 1 point for each symptom correctly identified. The items were summed, and possible scores ranged from 0 to 10, with higher scores indicating higher knowledge. Depression treatment knowledge was assessed with seven knowledge items (for example, “antidepressants are addictive”) derived from the D-Lit Measure (11). Each item was scored as true, false, or don’t know. Participants received 1 point for each correct answer and 0 for an incorrect answer. Answers were summed, and possible scores ranged from 0 to 7, with higher scores representing greater treatment knowledge (Cronbach’s  $\alpha$ : pretest=.50; posttest=.67; and one-month follow-up=.65).

Two public stigma measures were used. Desire for social distance was assessed with three true-false items derived from previous stigma studies (12,13) that asked participants whether they would be friends with, work closely with, and marry a person who is or has been in treatment for depression. Responses to these items were reverse-scored and summed so that higher scores represented more desire for social distance. Possible scores ranged from 0 to 3 (Cronbach’s  $\alpha$ : pretest=.58; posttest=.52; and one-month follow-up=.55). The perception that people with depression are dangerous was assessed with a true-false question. Iterations of this item have been used in previous stigma studies (12,13).

We examined whether knowledge and stigma outcomes differed between the *fotonovela* and brochure groups over time (pretest to posttest to one-month follow-up) by using random-effects linear and logistic regression models. Random effects were included for person and school because participants had an observation at each of the three time points and were nested within schools. For statistically significant findings between the brochure and *fotonovela* groups, we calculated effect sizes using Cohen’s *d*. All analyses were conducted in Stata, version 12.0

## RESULTS

No significant differences in demographics characteristics were noted between the depression brochure and *fotonovela*

groups. The mean  $\pm$  SD age of the overall sample was  $36 \pm 13$ , and 49% of participants were male. No data on race were collected; all participants self-identified as Latino—most of Mexican descent. [A table summarizing demographic data for the groups is included in an online data supplement to this report.]

At baseline, no significant differences on the outcome measures were noted between the brochure and *fotonovela* groups. For both groups, scores on the depression symptom knowledge and social distance measures were fairly consistent across the three time periods, and no significant differences between time periods or groups were noted. In the *fotonovela* group, a smaller proportion of participants over time reported perceiving individuals with depression as dangerous (35% at pretest, 24% at posttest, and 28% at one-month follow-up), but these reductions were not statistically significant compared with reductions in the brochure group. [A table presenting mean scores for both groups on the knowledge and stigma measures at three time points is included in the online supplement.]

We found significant differences across time and between groups for depression treatment knowledge (Table 1). At posttest, participants in the *fotonovela* group had significantly higher depression treatment knowledge scores than participants in the brochure group ( $B=1.22$ ,  $p<.001$ ); the scores were slightly lower but the difference remained significant at the one-month follow-up ( $B=.81$ ,  $p<.01$ ). Cohen's  $d$  for these two differences were .91 at posttest and .53 at one-month follow-up, suggesting large and medium effect sizes, respectively.

## DISCUSSION

We found partial support for our hypothesis. Although no statistically significant differences were observed between the depression brochure and *fotonovela* groups on depression symptom knowledge, social distance, and perceptions of dangerousness, the *fotonovela* group showed significantly greater gains than the depression brochure group in knowledge about depression treatment at posttest and one month follow-up. Previous studies have found that “Secret Feelings” produced significant improvements in depression knowledge; the studies used a measure that combined symptom and treatment knowledge into one score (4,10). This approach confounded two knowledge indicators that are independently linked to help-seeking behaviors and targeted

**TABLE 1. Effects on depression knowledge and stigma outcomes in the *fotonovela* (N=66) and depression brochure (N=66) groups<sup>a</sup>**

Variable	Depression knowledge				Stigma			
	Symptoms <sup>b</sup>		Treatments <sup>c</sup>		Social distance <sup>c</sup>		Perceptions of dangerousness <sup>d</sup>	
	B	SE	B	SE	B	SE	OR	95% CI
<i>Fotonovela</i> (reference: brochure group)	.02	.25	.13	.27	-.03	.14	.67	.17–2.65
Time (reference: pretest)								
Posttest	-.11	.21	1.14**	.23	-.6	.09	.89	.33–2.43
1-month follow-up	.02	.21	.92**	.22	-.17	.09	1.27	.48–3.40
Group $\times$ time								
<i>Fotonovela</i> $\times$ posttest	.53	.30	1.22**	.32	-.08	.13	.37	.08–1.59
<i>Fotonovela</i> $\times$ 1-month follow-up	.02	.30	.81*	.32	.003	.13	.37	.08–1.32

<sup>a</sup> All models included random effects for person and schools.

<sup>b</sup> Random-effects linear regression model (N=132)

<sup>c</sup> Random-effects linear regression model (N=122)

<sup>d</sup> Random-effects logistic regression model (N=124)

\* $p \leq .01$ , \*\* $p \leq .001$

by the *fotonovela*. Our study extends previous work and indicates that the gain in knowledge produced by the *fotonovela* seemed to be driven by improvements in depression treatment knowledge rather than symptom knowledge.

A ceiling effect may explain why we found no significant changes in depression symptom knowledge because participants in both groups reported, on average, high levels of symptom knowledge both at baseline and at the one-month follow-up. The treatment knowledge finding is relevant for improving psychoeducation efforts in the Latino community because it suggests that communication tools that use entertainment-education approaches rather than the textual approaches commonly used in health brochures are helpful in this community. This finding is consistent with studies documenting the effectiveness of culturally based narrative approaches to communicating health information to underserved communities (14).

We found no significant differences between the two groups on the stigma outcomes. The null finding for social distance can be partially explained by a floor effect in which both groups reported, on average, low scores in the social distance scale and sustained these scores at posttest and follow-up. A recent meta-analysis of antistigma studies indicated that contact approaches, particularly direct contact versus vicarious contact (for example, video), were more effective than educational approaches in reducing public stigma among adults (8). More intensive antistigma approaches that combine “Secret Feelings” with direct contact with a person recovering from a mental disorder (for example, a peer specialist) may be needed to reduce public stigma indicators in the Latino community.

Study findings should be interpreted in light of several limitations. The study used a small convenience sample, and thus findings cannot be generalized to other Latino groups. Study measures focused on knowledge and attitudes, some of which had low Cronbach's alphas, and the follow-up period was

short. Future studies should include more reliable measures and a longer follow-up period and should measure behavioral outcomes. We could not rule out the possibility of contamination between groups at the one-month follow-up because participants may have discussed with each other the information they learned. In fact, the *fotonovela* was more likely than the brochure to be shared and discussed with others (4), which may have reduced differences in outcomes between the two groups. Despite this potential contamination issue, we found significant gains only in depression treatment knowledge.

## CONCLUSIONS

The failure of health information to reach Latinos in a manner that is relevant, engaging, and appealing contributes to health and mental health disparities in this growing population (15). The use of “Secret Feelings” can help reduce this communication gap because it has a narrative-based format that is contextualized to the realities, preferences, and cultural norms of Latino audiences. The findings suggest that a depression *fotonovela* informed by an entertainment-education approach is a useful tool for improving depression treatment knowledge in the Latino community but is limited in improving depression symptom knowledge and reducing stigma indicators related to social distance and perceptions of dangerousness.

## AUTHOR AND ARTICLE INFORMATION

Dr. Cabassa and Mr. Oh are with the School of Social Work, Columbia University, New York City (e-mail: ljc2139@columbia.edu). Dr. Humensky is with the Center of Excellence in Cultural Competence, New York State Psychiatric Institute, New York City. Dr. Unger is with the Department of Preventive Medicine, Mr. Molina is with the School of Pharmacy, and Dr. Baron is with the School of Pharmacy, all at the University of Southern California, Los Angeles.

This work was supported in part by the New York State Office of Mental Health and by National Institutes of Health (NIH) grants K01 MH091108 and UL1TR000130. The content of this report is solely the responsibility of the authors and does not necessarily represent the official views of NIH.

The authors report no financial relationships with commercial interests.

## REFERENCES

1. Cabassa LJ: Community mental health services to Latinos; in *Community Mental Health: Challenges for the 21st Century*, 2nd ed. Edited by Rosenberg J, Rosenberg S. New York, Routledge, 2013
2. Interian A, Ang A, Gara MA, et al: Stigma and depression treatment utilization among Latinos: utility of four stigma measures. *Psychiatric Services* 61:373–379, 2010
3. Vega WA, Rodriguez MA, Ang A: Addressing stigma of depression in Latino primary care patients. *General Hospital Psychiatry* 32: 182–191, 2010
4. Unger JB, Cabassa LJ, Molina GB, et al: Evaluation of a *fotonovela* to increase depression knowledge and reduce stigma among Hispanic adults. *Journal of Immigrant and Minority Health* 15:398–406, 2013
5. Valle R, Yamada AM, Matiella AC: Health literacy tool for educating Latino older adults about dementia. *Clinical Gerontologist* 30:71–88, 2006
6. Cabassa LJ, Molina G, Baron M: Depression *fotonovela*: development of a depression literacy tool for Latinos with limited English proficiency. *Health Promotion Practice* 13:747–754, 2012
7. Singhal A, Rogers E: *Entertainment-Education: A Communication Strategy for Social Change*. Mahwah, NJ, Erlbaum, 1999
8. Ritterfeld U, Jin SA: Addressing media stigma for people experiencing mental illness using an entertainment-education strategy. *Journal of Health Psychology* 11:247–267, 2006
9. Corrigan PW, Morris SB, Michaels PJ, et al: Challenging the public stigma of mental illness: a meta-analysis of outcome studies. *Psychiatric Services* 63:963–973, 2012
10. Hernandez MY, Organista KC: Entertainment-education? A *fotonovela*? A new strategy to improve depression literacy and help-seeking behaviors in at-risk immigrant Latinas. *American Journal of Community Psychology* 52:224–235, 2013
11. Griffiths KM, Christensen H, Jorm AF, et al: Effect of web-based depression literacy and cognitive-behavioural therapy interventions on stigmatising attitudes to depression: randomised controlled trial. *British Journal of Psychiatry* 185:342–349, 2004
12. Link BG, Phelan JC, Bresnahan M, et al: Public conceptions of mental illness: labels, causes, dangerousness, and social distance. *American Journal of Public Health* 89:1328–1333, 1999
13. Martin J, Pescosolido B, Tuch S: Of fear and loathing: the role of “disturbing behavior,” labels, and causal attributions in shaping public attitudes toward people with mental illness. *Journal of Health and Social Behavior* 41:208–223, 2000
14. Hinyard LJ, Kreuter MW: Using narrative communication as a tool for health behavior change: a conceptual, theoretical, and empirical overview. *Health Education and Behavior* 34:777–792, 2007
15. Wilkin HA, Valente TW, Murphy S, et al: Does entertainment-education work with Latinos in the United States? Identification and the effects of a telenovela breast cancer storyline. *Journal of Health Communication* 12:455–469, 2007