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**Proyecto Interconexiones**: A Pilot Test of a Community-Based Depression Care Program for Latina Violence Survivors

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Abstract

**Background**: Latina intimate partner violence (IPV) survivors often face great barriers to depression care. We sought to use a community-based participatory research (CBPR) approach to create and evaluate a community-based depression care program for Latina IPV survivors.

**Methods**: We created a multifaceted, culturally tailored intervention, based on principles of chronic illness management. A promotora provided case management services and led 12 weekly group sessions. Participants completed surveys at baseline and 6 months and participated in open-ended exit interviews.

**Results**: Ten Spanish-speaking Latina women participated in the intervention. The program had excellent attendance, with 100% of women attending at least 10 group sessions, and high satisfaction. We found a large decrease in depression severity (Patient Health Questionnaire [PHQ]-9, 17.3–7.2; \( p = .001 \)), as well as improvements in depression self-efficacy, self-esteem, and stress.

**Conclusion**: This study offers promising preliminary data to support the use of community-based approaches to reducing depression disparities in Latina IPV survivors.

**Keywords**
Community-based participatory research, depression, violence, Latinos, community health services, mental health services, women’s health

Latinos are less likely than non-Latino Whites to receive adequate depression care, even when controlling for sociodemographic differences.¹⁻³ The well-recognized, strong association between depression and IPV is also noted in Latina women.⁴⁻⁷ Given the additional barriers to care for women experiencing violence, and the known negative association between IPV history and use of mental health services,⁴⁻⁹ Latina IPV survivors are particularly vulnerable to not having their depression effectively treated. Little is known about how to improve depression care services for Latina IPV survivors, many of whom do not have access to traditional health services, but owing to a lack of health insurance, safety issues, or cultural barriers.

Our academic–community partnership (**Proyecto Interconexiones**/the Interconnections Project) previously conducted focus groups with White,¹⁰ African-American,¹¹ and Latina¹² IPV survivors with symptoms of major depressive disorder. Although participants in all groups felt that their physical health, mental health, and experiences of violence were interrelated, the three communities had distinct conceptualizations of health, barriers to effective healthcare, infrastructure strengths and needs, and recommendations for interventions. As such, we decided to create separate interventions that were tailored to each community’s needs. This paper focuses on the development and preliminary evaluation of a depression care intervention for Latina IPV survivors.
The African-American intervention is described elsewhere.\textsuperscript{13}

\section*{METHODS}

\subsection*{Academic–Community Partnership}

We used a CBPR approach throughout the project. Proyecto Interconexiones is an academic–community partnership between an academic healthcare center and a grassroots nonprofit organization serving the Latino community. Team members included the principal investigator (PI), who is a Greek-American physician with expertise in CBPR, IPV, and depression; the project coordinator/group co-facilitator, who is a Honduran-born woman with a master’s degree in sociology; the \textit{promotora} who led the intervention, who is a Mexican-born woman with several decades of experience serving as a domestic violence advocate and community health worker; the Mexican-American executive director of our community-based organization; and three Mexican-born or Mexican-American women with interest in or experience with depression and/or IPV. An additional Salvadorian research assistant helped with data collection.

The full team conducted regular meetings to design and implement the intervention and evaluation. The group collaboratively discussed priorities, brainstormed solutions, thought through pitfalls, discussed issues of cultural relevance and scientific validity, made choices, and decided on next steps. The PI, project coordinator, and \textit{promotora} then implemented the decisions and brought products back to the group for revisions or final approval. We used this process to define our research questions and objectives, design our intervention, identify constructs to measure, choose and culturally tailor instruments for the intervention assessment, create recruitment materials and protocols, interpret findings, and co-author presentations and publications.

\subsection*{Translation and Interpretation Issues}

Team meetings were conducted in Spanish. Whenever possible, we used survey instruments that had previously been translated and validated in Spanish. The remaining data collection instruments, as well as all recruitment and consent materials, were translated from English into Spanish and then back-translated by a different native Spanish speaker to ensure accuracy and cultural relevancy. All intervention and data collection activities occurred in Spanish via Latina team members or research assistants.

\subsection*{Development of the Intervention}

In the past, the PI had collaborated with a psychiatrist, a psychologist, and a counselor to develop and pilot test an abuse-sensitive depression care program based on the Chronic Care Model\textsuperscript{14} for use within an academic primary care clinic. A masters-level counselor had served as the care manager, coordinating care, referring participants to community services, and leading a manualized 8-week group cognitive-behavioral therapy program.

Community members of the \textit{Interconexiones} team thought that such a program would be very useful for Latina IPV survivors, but did not believe we could base the program in the healthcare system, given the community’s lack of access, especially for women without insurance, who are undocumented, or who may have violence-related or cultural barriers to seeking mental healthcare. As such, we decided to base the program within our partnering community agency and rely primarily on resources available within the community.

We collaboratively adapted the original program so that it could be led by a community health worker (“\textit{promotora}”) and more fully meet the needs of Latina IPV survivors. The \textit{promotora} served as the care manager, helping women to gain access to or navigate the healthcare system and providing

\begin{table}[h]
\centering
\begin{tabular}{|c|p{10cm}|}
\hline
\textbf{Week} & \textbf{Sessions} \\
\hline
1 & Introduction to the 12-week intervention \\
2 & What is domestic violence? \\
3 & Making a safety plan \\
4 & Goal setting and planning for the future \\
5 & What is depression? \\
6 & Maintaining a mood diary \\
7 & Truths and myths about depression and other mental disorders \\
8 & Learning about automatic thoughts \\
9 & Defeating automatic thoughts \\
10 & Using core beliefs and fundamental truths \\
11 & Self-care \\
12 & Putting lessons into action \\
\hline
\end{tabular}
\caption{Twelve-Week Group Program Topics}
\end{table}
case management services as needed. The project coordinator served as the *promotora’s* assistant and co-facilitator. From our qualitative needs assessment, we hypothesized that participants would greatly appreciate culturally tailored information about depression and practical self-management skills. Given the lack of local domestic violence support groups for Spanish-speaking women, we increased the group program to 12 sessions, regrouping some of the original material and adding 4 new sessions to the beginning of the program focusing on domestic violence (instead of referring them to domestic violence support groups, as in the original program). Table 1 provides an outline of the session topics.

We changed the structure of all sessions to use more creative approaches. All sessions started with a *dinamica* or ice-breaker and included a facilitated discussion on the day’s topic and a fun group activity. Several sessions included socio-dramas acted out by the co-facilitators. Others included craft projects highlighting the day’s topic—for example, participants painted stones with statements about their core beliefs. To teach basic facts about depression, we created two jigsaw puzzles with identical backgrounds. Each piece had a statement on it. One puzzle only had true statements and the other only had myths. The academic and community members of the team worked together to choose the statements and make sure they were accurate, easy to understand, culturally sensitive, and addressed important information. During the intervention, the *promotora* led a group activity where women had to work together to assemble the two separate puzzles, discussing as a group why statements were true or false.

In the spirit of CBPR, we wanted to build capacity within our partnership and the community. Thus, instead of just training the *promotora*, we conducted a full-day training on depression and other mental health issues common in domestic violence survivors and a 3-day training on motivational interviewing with fifteen community-based domestic violence advocates. The *promotora* attended those trainings and also met individually with the PI to ensure that she felt comfortable leading the intervention.

**Participant Recruitment and Eligibility**

Community partners led recruitment efforts using fliers, announcements, and word of mouth. Eligible participants were Spanish-speaking Latina women in the Portland, Oregon, metropolitan area, aged 18 or older, with moderate to severe depressive symptoms and a current or past history of IPV. Potential participants completed a screening questionnaire including the depression scale PHQ-9, the Women’s Experiences of Battering Scale (modified to ask about lifetime experiences), and two items about lifetime experiences of physical or sexual IPV. Women were considered to have moderate to severe depressive symptoms if their PHQ-9 score was greater than or equal to 15. This cutoff has a specificity of 0.92 for major depressive disorder. They were considered to have a lifetime experience of IPV if they answered yes to at least one of the items on physical or sexual IPV, or had a score of 20 or higher on the Women’s Experience of Battering Scale.

**Data Collection**

Before starting, participants gave written informed consent and completed a baseline survey. At the end of the intervention period, women were asked to complete a follow-up survey and, if possible, to participate in a semistructured interview. To not bias results, a Latina community member who had not been a part of the project team conducted the follow-up assessments. Women received $20 for each assessment.

Our primary outcome was depression severity, as measured by the PHQ-9. Secondary and intermediate depression-related outcomes included Patient’s Attitudes Toward and Ratings of Care for Depression, acceptability of antidepressant medications and mental health counseling, self-efficacy related to depression care, and the self-esteem and stress scales from the Prenatal Psychosocial Profile. We used the Conflict Tactics Scale—Revised and the Women’s experience of Battering Scale to measure lifetime and past 6-month experiences of IPV. We also collected demographic information and information about healthcare utilization.

During the exit interviews, participants rated aspects of the program using 5-point Likert scales. Open-ended questions were asked to further explain ratings, life impact, or, if applicable, why they did not participate in that aspect of the program.

**Data Analysis**

Survey data were analyzed using summary statistics. To assess for changes in outcome measures, we compared pre- and postintervention data using paired t-tests and the
McNemar test, for continuous and dichotomous variables respectively. Analyses were conducted using STATA software (version 11, College Station, TX). Exit interviews were recorded and transcribed. The PI and the project coordinator reviewed transcripts for common themes, reconciling differences by consensus.

RESULTS

Participant Characteristics and Process Measures

Ten women participated in the pilot intervention. Two additional women originally consented, but withdrew before the beginning of the intervention owing to logistical reasons (e.g., obtaining a job that conflicted with group meetings). All 10 women who participated in the intervention completed the pre- and postintervention surveys. Six women also completed an open-ended exit interview. All 10 women were foreign born and had annual household incomes of less than $30,000. Only one had gone to high school and only two spoke English. Only two had health insurance that covered any non-emergency services. Only two had used antidepressants or counseling within the past 6 months (Table 2).

All 10 women attended at least 10 of the 12 group sessions, with an overall attendance rate of 88%. On average, women received 16 hours of individualized case management services, although there was great variability (range, 1–31 hours per participant).

Health and Healthcare Outcomes

There was a large change in our primary outcome, depression severity, with mean PHQ-9 scores decreasing from 18.8 to 7.4 ($p = .002$). Participants also had a significant increase in depression self-efficacy scores and self-esteem, as well as a decrease in stress (Table 3).

Acceptability of antidepressant medications increased from 60% to 80% and there was no change in the 100% acceptability of counseling. Two women began using antidepressants during the intervention and three women who had not already been in counseling started counseling.

Satisfaction With the Program

All women who participated in an exit interview rated the program as useful, with 83% rating it as "very useful." All

<table>
<thead>
<tr>
<th>Table 2. Participant Characteristics</th>
<th>n (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (y), mean (range)</td>
<td>38 (28–65)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>6 (60)</td>
</tr>
<tr>
<td>Junior high school</td>
<td>1 (10)</td>
</tr>
<tr>
<td>Attended high school, but no degree</td>
<td>2 (20)</td>
</tr>
<tr>
<td>High school degree and some college</td>
<td>1 (10)</td>
</tr>
<tr>
<td>Percentage that attended U.S. schools</td>
<td>1 (10)</td>
</tr>
<tr>
<td>Foreign born</td>
<td>10 (100)</td>
</tr>
<tr>
<td>Country of origin</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>9 (90)</td>
</tr>
<tr>
<td>Guatemala</td>
<td>1 (10)</td>
</tr>
<tr>
<td>Age of arrival to U.S. (y), mean (range)</td>
<td>25 (14–49)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>5 (50)</td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>3 (30)</td>
</tr>
<tr>
<td>Single/never married</td>
<td>2 (20)</td>
</tr>
<tr>
<td>Language</td>
<td></td>
</tr>
<tr>
<td>Spanish only</td>
<td>8 (80)</td>
</tr>
<tr>
<td>Spanish and English</td>
<td>2 (20)</td>
</tr>
<tr>
<td>Annual household income ($U.S.)</td>
<td></td>
</tr>
<tr>
<td>&lt;10,000</td>
<td>3 (30)</td>
</tr>
<tr>
<td>10,001–20,000</td>
<td>2 (20)</td>
</tr>
<tr>
<td>20,001–30,000</td>
<td>5 (50)</td>
</tr>
<tr>
<td>Health insurance</td>
<td></td>
</tr>
<tr>
<td>Citizen Alien Waiver for Emergency Care</td>
<td>3 (30)</td>
</tr>
<tr>
<td>Private insurance</td>
<td>1 (10)</td>
</tr>
<tr>
<td>Unknown type</td>
<td>1 (10)</td>
</tr>
<tr>
<td>None</td>
<td>5 (50)</td>
</tr>
<tr>
<td>Used any antidepressants in the last 6 months</td>
<td>1 (10)</td>
</tr>
<tr>
<td>Sought counseling for depression in last 6 months</td>
<td>2 (20)</td>
</tr>
<tr>
<td>Lifetime experiences of intimate partner violence</td>
<td></td>
</tr>
<tr>
<td>Physical, minor</td>
<td>10 (100)</td>
</tr>
<tr>
<td>Physical, severe</td>
<td>7 (70)</td>
</tr>
<tr>
<td>Sexual, minor</td>
<td>5 (50)</td>
</tr>
<tr>
<td>Sexual, severe</td>
<td>4 (40)</td>
</tr>
<tr>
<td>Injury, minor</td>
<td>7 (70)</td>
</tr>
<tr>
<td>Injury, severe</td>
<td>3 (30)</td>
</tr>
<tr>
<td>Any</td>
<td>10 (100)</td>
</tr>
<tr>
<td>Child abuse</td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>6 (60)</td>
</tr>
<tr>
<td>Sexual</td>
<td>6 (60)</td>
</tr>
<tr>
<td>Any</td>
<td>7 (70)</td>
</tr>
<tr>
<td>Community violence</td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Sexual</td>
<td>1 (10)</td>
</tr>
<tr>
<td>Any</td>
<td>1 (10)</td>
</tr>
</tbody>
</table>

PARC-D16, Patients Attitudes Toward and Ratings of Care for Depression; PHQ-9, Depression Scale of the Patient Health Questionnaire.

* Unless otherwise noted.
were likely to recommend the program to a friend. All found the individual meetings with the *promotora* and the group sessions to be "very useful." Half felt that meeting with the *promotora* "helped a lot" in finding healthcare services, and half stated that they did not need to meet with her to find healthcare services.

**Participants’ Impressions of the Program**

Participants expressed great enthusiasm for the program and how much they had learned. For example, one woman explained:

The help they gave us was very good. The information and the knowledge that was passed on to us—we did not know anything, because, if we felt sad we would say, "We are sad, that is all." We did not know how to recognize anything. Right now after this [program], it lets us help other people—like me, with my sister—I help them a little bit by passing on what I have learned here.

Many felt that this program was unlike any other they had attended and largely attributed the difference to the program’s emphasis on practical tools.

This program helped me better overcome depression and have tools to better manage depression. All the information that she gave us helped me a lot.

[The program] gives us—how can I say this—how to get out of domestic violence. . . . [Past domestic violence programs were] like, "what happened to you" and this and that. We would not leave that topic. And what one would want is to heal.

Most of the women who participated in exit interviews invoked the issue of personal responsibility to heal their depressed selves. They felt that their control of distorted perceptions and thoughts would have a lot to do with overcoming their depression. Many of them also talked about how the program allowed them the opportunity to distinguish these distorted emotions from their current realities.

Well, I really liked the workshops. . . . They were important to me . . . because they made you think differently, act differently, and see a [different] reality.

All participants stressed how supported and understood they felt by the *promotora* and the group co-facilitator. Participants appreciated that the program was community-based and targeted to Latina women, but they saw the involvement of a physician in the design of the intervention as a very positive aspect of the program, despite the physician not being Latina.

The main dislike they noted was the program was too short. Many did not have others to talk to and lamented losing this opportunity to meet with women who understood them when the program ended.

**DISCUSSION**

This study takes an important step toward developing a culturally tailored, community-based depression care program for Latina violence survivors. We endeavored to effectively integrate Latino cultural values and strengths, social and feminist empowerment ideals, and existing community resources into the depression care program to reach a socially, culturally, and economically vulnerable group facing many barriers to receiving mental healthcare. To our knowledge, this is the first community-based intervention to date to address depression in Latina women IPV survivors.

<table>
<thead>
<tr>
<th>Table 3. Intervention Outcomes</th>
<th>Baseline Mean (SD)</th>
<th>Follow-Up Mean (SD)</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Outcome</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression severity (PHQ-9)</td>
<td>17.3 (4.6)</td>
<td>7.2 (5.8)</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>Secondary Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression self-efficacy</td>
<td>30.8 (13.2)</td>
<td>44.7 (9.9)</td>
<td>0.02</td>
</tr>
<tr>
<td>Attitudes toward depression (PARC-D16)</td>
<td>32.4 (3.8)</td>
<td>38.1 (4.4)</td>
<td>0.005</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>14.8 (4.7)</td>
<td>20.6 (3.7)</td>
<td>0.01</td>
</tr>
<tr>
<td>Stress</td>
<td>27.1 (6.4)</td>
<td>20.8 (6.3)</td>
<td>0.006</td>
</tr>
</tbody>
</table>
Our preliminary assessment using pre–post comparisons showed decreasing depression severity scores. Intermediate outcomes, process measures, and qualitative data suggest that changes in Latina women’s depressive symptoms were likely related to changes in their own attitudes, knowledge, self-management skills, and self-management behaviors. There was also change in use or acceptability of antidepressants. Several studies have documented low acceptability of antidepressants among Latina women, potentially owing to perceived stigma. The puzzle exercise and the groups’ conversations dispelling misconceptions about antidepressants may have resulted in participants’ cautious acceptance of psychotropic medications.

Participants did not feel shy to express that they derived great benefit from the program. Common themes related to why the program was helpful included the use of practical skills to address their depression symptoms. They confirm the themes from our earlier focus groups, where participants asked for a culturally tailored, community-based program that offered practical information and strategies to concurrently address their depression and experiences of violence.

Team member backgrounds as socially progressive community members (social justice workers, feminists, grassroots organizers) greatly informed how the sessions would be delivered, aiming to not only teach participants how to control their depression, but also to empower them to critically think about their experiences as Latina women. In one of the sessions, for example, we asked participants to reflect on how patriarchal cultural practices in our Latino communities affected their depressed selves. This was an important component of how later sessions were organized and delivered.

Our study has some important limitations. As a small, single-site, pilot study, we primarily aimed to assess the feasibility and acceptability of the intervention. Our pre–post intervention study design did not include a control group; therefore, it is uncertain whether changes in outcomes were affected by the intervention or by changes in the natural course of participants’ depression. However, qualitative interviews indicate that participants learned specific strategies to understand and manage their depression symptoms and address related social stressors. All but one of the study participants were from Mexico. Women from different Latin-American origins may have diverse understandings of what is considered a mood disorder or what are appropriate ways to treat mental illness.

Despite these limitations, this study offers preliminary support that a culturally tailored, community-based intervention employing promotoras could help Latina IPV survivors who may not be utilizing the mainstream healthcare system to treat their depression. Larger scale, randomized trials are needed to further evaluate the effectiveness and generalizability of interventions such as this one.

ACKNOWLEDGMENTS

The authors thank Familias en Accion for their support throughout the project. We also thank Stefanie Cruz for her assistance in data collection and Dr. Benton McFarland for his mentorship. The original depression care program that we adapted in this intervention was created by Dr. Nicolaidis, Ms. Anita Lesser, Dr. Benton McFarland, and Dr. Paula Truax.
REFERENCES


