

# EDUCATING HISPANIC WOMEN ABOUT CERVICAL CANCER PREVENTION: FEASIBILITY OF A PROMOTORA-LED CHARLA INTERVENTION IN A FARMWORKER COMMUNITY

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Hispanic women suffer disproportionately from cervical cancer incidence and mortality compared with non-Hispanic Whites in the United States. Peer-led health education and coaching via charlas (talking circles) may improve cervical cancer screening and early detection rates among specific subgroups such as farmworker communities. This pilot study sought to collect preliminary evaluation data about the feasibility of implementing a promotora-led cervical cancer education intervention among women from a farmworker community. The study took place between April 2014 and November 2014. Created based on an established network (Tampa Bay Community Cancer Network, TBCCN), in partnership with a local farmworker organization (Farmworkers Self-Help, Inc.), the project entailed refinement of a curriculum guide including Spanish-language educational resources (teaching cards). Social Cognitive Theory and the Health Belief Model provided the conceptual framework for the study. Six women from the farmworker community helped to refine the intervention and were trained as promotoras. They successfully delivered the program via charlas to a total of 60 participants who completed baseline and post-intervention measures on knowledge (cervical cancer/HPV), beliefs, self-efficacy, and intentions. Findings demonstrated gains in knowledge and self-efficacy among charla participants ( $P < .0001$ ), and support the promise of a community-driven intervention that is delivered by promotoras who use their cultural knowledge and trustworthiness to educate women about cancer screening practices. Results also add to the literature on the use of a charla approach for cancer prevention education within a farmworker community to prompt discussions about health. Future research should evaluate peer-led programs on a larger scale and

## INTRODUCTION

Cancer screening rates have improved among some Hispanic women living in the United States in recent years; yet, certain subgroups of Hispanic women may be less likely to receive cervical cancer screening, including migrant and seasonal farmworker (MSFW) women living in the United States<sup>1,2</sup> because of health care access issues and unfamiliarity with the US health care system.<sup>3-5</sup> Factors known as barriers to receiving a Pap test include knowledge, acculturation, self-efficacy, fear, embarrassment, health literacy,

insurance status, income, and cancer fatalism, as well as practical issues such as transportation.<sup>3,6-8,9-12</sup> More recently, anti-immigration policies, including increased enforcement, have been linked with negative health care seeking behaviors such as unfilled prescriptions and missed medical appointments.<sup>13,14</sup> Thus, the use of a community-driven intervention led by promotoras (community outreach workers) may be a useful approach in that it uses trustworthy peer-to-peer relationships to provide education and promote healthy behaviors, with an emphasis on cancer prevention and primary care.<sup>15</sup>

among other at-risk groups in other community settings. *Ethn Dis*.2018;28(3):169-176; doi:10.18865/ed.28.3.169.

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## Background: The ¡Es Por Mi Bien! Intervention

¡Es Por Mi Bien! (It is For My Own Good) was born from discussions between academic researchers and community members involved in a longstanding partnership (The Tampa Bay Community Cancer Network, TBCCN) in west-central Florida and was informed by community-based participatory research (CBPR) principles.<sup>16-18</sup> One of TBCCN's community partners, Farmworker Self-Help, Inc. (FSH) organized more than 30 years ago, identified the need to

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teach women about Pap tests and resources for cervical cancer screening. This was viewed as a natural complement to an existing FSH breast cancer education outreach program.

¡Es Por Mi Bien! builds on the team's prior research with local farmworker communities including navigator-delivered cervical cancer and HPV educational interventions,<sup>4,19,20</sup>

and the development of a Cervical Cancer Education Resource (CCER), a series of Spanish-language teaching cards. Although research demonstrates the impact and effectiveness of promotoras for promoting Pap test screening in 1-on-1 settings,<sup>21</sup> our study centered on delivering effective education within group settings by utilizing charlas. Charlas are small tailored group discussions (chats) on targeted health topics.<sup>22, 23</sup>

## Theoretical/Conceptual Framework

The development of ¡Es Por Mi Bien! was informed by Social Cognitive Theory (SCT),<sup>24</sup> Health Belief Model (HBM),<sup>25</sup> and health coaching approaches.<sup>26</sup> Underlying tenets of SCT provided a platform to contextualize cervical cancer education within the scope of myriad cultural, interpersonal, and intrapersonal factors that impact Pap testing.<sup>4</sup> As posited by HBM, individuals make decisions regarding their engagement in protective health behaviors based upon numerous cognitions eg, perceived risks, cues to action, etc.<sup>27-29</sup> The constructs of the SCT and HBM were carefully and systematically mapped to the content of the curriculum, eg, how Pap testing aids in early detection of cervical cancer, etc. Health coaching was operationalized through promotoras' genuine engagement and motivating interactions about health with charla attendees.

## METHODS

### Overview

This pilot single-arm study used a pretest-posttest design and was ap-

proved by Liberty Institutional Review Board, Inc, affiliated with Moffitt Cancer Center. The study was conducted between April 2014 and November 2014 and included three key elements: training of health ambassadors, conducting of charlas and acquisition of 3-month follow up information. Six promotoras were identified by FSH and participated in cervical cancer/HPV-related training by the TBCCN community health educator (CHE). Charla participants were then recruited from the FSH community. Since a key goal of FSH was to educate all women on their health care, participants included women who were both not up-to-date as well as those who were currently up-to-date with cervical cancer screening. Primary outcomes were cervical cancer/HPV knowledge, Pap test beliefs, cervical cancer screening self-efficacy and Pap test intentions. At 3 months post-charla, FSH leaders provided self-reported aggregate data about the number of women who had received a Pap and/or had a Pap scheduled.

### Promotora Selection and Training

Promotoras were identified and selected by leaders of FSH and were highly trusted Hispanic women who were familiar with the local community culture and values and had an interest in health improvement for their community. Once trained, promotoras were tasked with disseminating cervical cancer/HPV information, materials, and resources to community members and implementing charlas in community sites. Due to scheduling and time constraints, two women were not able

to complete promotora training. Subsequently, two additional women were trained as promotoras and completed separate promotora training.

### Curriculum

The curriculum drew from an existing cervical cancer curriculum and educational resource (CCER) used in prior research in another neighboring farmworker community.<sup>4</sup> To capture unique and emerging learning needs, FSH leaders and promotoras identified additional information that would be helpful in the curriculum for our current study. For example, promotoras wanted more details on the functions of the reproductive organs and HPV transmission. While HPV was mentioned in our prior CCER, it did not address specific information related to the HPV vaccine. As such, additional informational refinements were made.

Promotoras received knowledge and skills-based training through three educational sessions. Knowledge-based training centered on: role and function of promotoras; significance of health disparities in their community; cervical cancer screening guidelines; HPV transmission; HPV vaccines; cervical cancer causation; and local Pap testing resources. Promotoras were educated on the step-by-step process of the Pap test, (eg, what takes place during the test, medical instruments used, etc.) Also, promotoras completed human subjects training through the IRB to become oriented to the research process, and thus, the significance of this pilot study. Promotora skills-based training focused primarily on the effective use of the CCER and strategies

to effectively educate and motivate others with charlas. Health coaching approaches<sup>26</sup> included teaching how to encourage a dialogue with charla attendees about health practices. Role-playing provided opportunities for the promotoras to gain confidence through practice and responding to scenarios about possible factors (such as fear, embarrassment, etc.) that hinder women from getting a Pap test. Training also included how to schedule a Pap test through community resources and how to conduct reminder phone calls as cues to action for charla participants.

At the conclusion of the training, promotoras stated that they “felt confident in their role as a promotora for their community” and liked the CCER as a teaching tool. Yet, the promotoras also stated that their comfort with conducting the charlas would increase if allowed to facilitate the charlas in pairs. As a result, the charlas were subsequently facilitated by pairs of promotoras.

### Charla Intervention Procedures

Eligibility criteria for charla participants included: female; self-identified as Hispanic/Latino; able to speak and read in Spanish or English; aged 21-70 years; and able to provide written informed consent. Since a key imperative of our community partner was to increase reach and awareness to all age-appropriate women regardless of screening status, this was not an inclusion/exclusion criteria. Women were recruited by the promotoras and the TBCCN community health educator (CHE) at FSH community events including health fairs, weekly

food banks, and word-of-mouth via FSH neighborhood channels.

A total of six charlas were conducted, lasting about 75 minutes each, with an average of 10 attendees per charla for a total of 60 participants. All charlas were conducted in FSH community-based facilities (eg, FSH youth center, church, etc.). After determining eligibility, the TBCCN CHE obtained informed consent. Next, to account for diverse literacy levels, the CHE and/or the research assistant administered and read aloud the demographic form and additional assessment surveys (cervical cancer/HPV knowledge, beliefs, self-efficacy, and intentions), at two time points (baseline and post-charla). The promotoras provided education using the CCER as a structured and organized way to deliver the content. Paired promotoras facilitated at least one charla during the project. The CHE observed all of the charlas to ensure consistency in delivery of content components. At the conclusion of the charlas, attendees received \$20 for their participation.

Consistent with the outreach practices of FSH, promotoras followed-up with women who were interested in screening and assisted them with scheduling appointments. The promotoras followed up with women to determine if they completed a Pap test or had scheduled one. After three months, FSH leaders provided the study team with this aggregate information.

### Measures

Sociodemographic characteristics included variables such as age, marital status, education, employ-

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**Table 1. Charla participant demographic characteristics, N=60<sup>a</sup>**

Variable / Levels	M (SD) or n (%)
Age (range: 21-70)	39.9 (11.5)
Years living in U.S. (range: 2-70)	19.4 (12.1)
Race	
White	17 (28)
Other	21 (36)
Unsure/Prefer not to answer	12 (20)
Did not answer	10 (17)
Marital status	
Married	25 (42)
Separated/divorced/widowed	14 (23)
Single/never married	19 (32)
Did not answer	2 (3)
Education	
<High school diploma	41 (68)
≥High school diploma	19 (32)
Employment	
Employed	20 (33)
Unemployed	36 (60)
Did not answer	4 (7)
Annual household income	
<\$20,000	39 (65)
≥\$20,000	9 (15)
Did not answer	12 (20)
Country of birth	
Colombia	1 (2)
Honduras	1 (2)
Mexico	50 (83)
U.S.	8 (14)
Confidence completing health forms by oneself	
Very confident	19 (32)
Somewhat confident	18 (30)
Always ask for help	21 (35)
Did not answer	2 (3)
Assistance with reading health materials	
Never	8 (13)
Sometimes	30 (50)
Always	20 (33)
Did not answer	2 (3)
Time since last Pap test	
Within the last year	35 (58)
Within the last 1-3 years	11 (18)
More than 3 years ago	9 (15)
Do not know/Not sure	2 (3)
Have not had a Pap test	3 (5)

a. Percentages may not add to 100% due to rounding.

Cancer Institute's Health Information National Trends Survey (eg, HPV causes cancer)<sup>31</sup> and a total knowledge score was calculated by summing points earned; total score ranged from 0-5. We evaluated **Pap test beliefs** using adapted questions from a validated survey of Pap test beliefs used previously with Mexican American women.<sup>32</sup> A subscale consisted of 4 items with a 'true' or 'false' response format. For instance, "only women with many sex partners need Pap tests" was one item used to assess Pap test beliefs. A total score was calculated by summing the points earned for all items; total score ranged from 0-4. **Screening self-efficacy** was measured using adapted items from the Cervical Cancer Screening Self-Efficacy Scale,<sup>33</sup> a reliable instrument validated in a sample of Mexican American women. This 9-item subscale used a 5-point Likert-type scale (from "very sure" to "very unsure") to determine confidence in scheduling and keeping a Pap test appointment. **Pap test intentions** gauged: both past Pap test history (yes, no, don't know); intentions to get screened again (yes, no, don't know); and when they would complete their next Pap test (within the next 2 months, 3-6 months, or more than 6 months, etc.). These responses were later collapsed into two categories: within six months or more than six months. These survey items were used previously in a sample of Mexican American women.<sup>33</sup>

### Data Analysis

Statistical analyses were conducted using SAS software (version 9.4, 2012, SAS Institute Inc., Cary, NC). Sociodemographic characteristics of

ment, years in the United States, and time since last Pap test. (Table 1)

To assess **health literacy**, two questions were drawn from the Single Item Literacy tool,<sup>30</sup> which has been

found to be acceptable in prior research (eg, need help when reading materials). **Cervical cancer/HPV knowledge** was measured by five items (yes/no) from the National

charla participants (such as age, sex, education, and country of origin), and health literacy measured at baseline were summarized using descriptive statistics. Responses to the Pap test intention question of “When do you plan on having your next Pap test?” were analyzed as either <6 months or >6 months. Repeated measures ANOVA was utilized to examine potential changes in knowledge, health beliefs, and self-efficacy. Change in intention to receive Pap testing was evaluated using the sign test following charla participation. Repeated measures ANOVA (rANOVA) were used to evaluate the change from the pre-test to the post-test assessment for outcomes in this single-arm study.

## RESULTS

All participants self-identified as Hispanic/Latino during the recruitment screening process. While not all charla participants were farmworkers, all charla participants resided within a MSFW community. Average age was aged ~40 years, more than half reported less than a high school diploma, and most were born outside of the United States (87%), with Mexico being the most frequent country of origin. In total, 50 of the 60 women (83%) stated that they ‘always’ or ‘sometimes’ needed help reading health materials, and 21 (35%) stated that they ‘always ask for help’ when having to complete health forms by themselves, suggesting that many were at risk for limited health literacy. (Table 1)

Pre-test and post-test means and standard deviations for knowledge,

**Table 2. Descriptive statistics for knowledge, beliefs, self-efficacy and Pap test intentions at baseline (enrollment) and post-charla, N=59**

Variable (range)	Baseline	Post-charla
	M (SD)	M (SD)
Knowledge (0-5) <sup>a</sup>	2.93 (1.16)	3.67 (0.95)
Beliefs (0-4)	3.12 (0.92)	3.10 (0.93)
Self-efficacy (0-45) <sup>a</sup>	40.32 (5.46)	43.15 (4.09)
	n (%)	n (%)
Intentions to have next Pap test <sup>b</sup>		
Within the next 6 months	38 (63%)	37 (62%)
More than 6 months	21 (35%)	22 (37%)

a. Pre/post changes statistically significant, P<.0001.

b. Percentages do not add to 100% due to rounding and because 1 participant did not provide data at baseline.

health beliefs, and self-efficacy and intentions are presented in Table 2. Repeated measures ANOVAs revealed a significant increase in HPV knowledge and Pap test self-efficacy (F[1,59]>22.7, Ps< .0001) following participation in the charla, but not for health beliefs (F[1,59]=.49, P=.48).

The sign test revealed no significant change in the intention to have a Pap test within the next 6 months (M=.5, P=.99). All but three participants reported the same intentions to receive a Pap test pre- and post-charla: Two changed from within to more than 6 months and one changed from more than to within 6 months. However, at baseline, 35 women (58%) reported a Pap test within the past year; 11 within the past three years; 9 more than 3 years; and 2 did not know or were unsure. This suggests that most (n=46) were up-to-date at baseline. It is important to note, however, that we do not know what an individual’s specific adherence to cervical cancer guidelines might be based on date of prior screening or personal history of abnormal Pap tests.

At 3-months post-charla, aggregate data from FSH about fol-

low-up screening behaviors indicated that, of the 31 women who indicated interest in getting Pap screening after the charlas, 20 had received a Pap test (65%), 4 had scheduled appointments (13%) and 3 had plans to schedule an appointment (9.7%). Four women (13%) could not be reached for follow-up.

## DISCUSSION

Our study provides information about the feasibility and acceptability of a community-driven promotora-led intervention as shown through the participation of 60 women in charlas about cervical cancer screening. Our findings further illustrated the value of trustworthy community-academic partnerships for promoting community health through education and engagement. Although prior cervical cancer interventions<sup>20</sup> for Hispanic populations have shown that promotoras can be effective in promoting Pap testing in 1-on-1 settings,<sup>21</sup> our study adds research on the value of promotoras from the community to educate about Pap testing in group

settings (*charlas*). This is consistent with findings of a home-based promotora-led group intervention (home parties) that showed improvements in breast cancer knowledge and mammography intentions.<sup>34</sup> Overall, our study adds to the understanding of how promotora-led cervical cancer interventions should be structured, delivered, and evaluated for women residing in MSFW communities.

Among charla attendees, our pilot increased cervical cancer/HPV

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*Our findings further illustrated the value of trustworthy community-academic partnerships for promoting community health through education and engagement.*

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knowledge and self-efficacy. These findings suggest that promotoras may play an important role in cancer prevention and chronic disease management.<sup>35</sup> As we did not collect dates of prior screening or assess past history of abnormal findings, the results of the Pap test intentions should be interpreted with caution. The absence of an increase in intentions could be attributed to this limitation. Thirty-five women reported having had a Pap test in the last year. Thus, some women may not have needed, and thus did not intend to receive a Pap test in the next six months.

It is important to note that the educational information was shared in a limited time frame, with many women hearing this information for the first time. Instead, multiple charlas may be more effective for screening intentions and behavior change. That said, many indicated interest in receiving a Pap test post-charla. Likewise, after the charlas, promotoras in collaboration with FSH personnel, were instrumental in scheduling Pap tests for interested women. Overall, the use of promotoras to deliver cervical cancer/HPV screening information and resources appears to be a favorable and realistic educational approach to improve and expand access and availability of culturally pertinent information and services to a particularly at-risk group.<sup>21</sup> Promotoras may offer an essential culturally acceptable and supportive network for women to discuss sensitive and private health content within a comfortable and familiar context.<sup>15</sup>

### Strengths and Limitations

Primary strengths include the training and utilization of promotoras from the community to provide cervical cancer/HPV education, cultural and language considerations when designing the curriculum and delivery, and adherence to CBPR principles. A high level of trust already existed between the TBCCN researchers and the community partner because of longstanding collaborations. Limitations include the small sample size of participants in the study and the single arm study design. In addition, the study was conducted among one farmworker community in a limited geographic region. Thus,

findings may not generalize to larger more diverse populations within other regions and settings. While limited variables were assessed, future studies would benefit from assessments of other factors such as insurance status and the extent to which promotoras could expand their role and function as navigators. Furthermore, as noted above, only self-report Pap test receipt status was obtained at baseline and information about prior abnormal Pap test results was not obtained. Thus, the ability was limited to indicate which participants were due for screening at baseline, which may have subsequently affected the need to schedule and/or complete a Pap test after the educational intervention. Finally, post-charla screening data were provided in aggregate form so Pap test intentions and behaviors cannot be directly linked to individual participants and their responses.

### Future Directions

Additional work is needed to examine promotora-led intervention approaches on a larger scale and to disentangle intervention components such as different levels of coaching. Future work also might examine the potential of programs that combine cancer screening education with other health promotion programs of relevance to the Hispanic community (eg, diabetes prevention or management, mental health services). Also, a strong desire was expressed by the charla attendees, promotoras, and FSH representatives to replicate this education with men and teenagers. Many participants recommended expanding the program to include more information on HPV

vaccine and HPV infection in men.

Similar to the work of Livaudais et al,<sup>34</sup> a number of key community benefits resulted from our study and included increased community engagement research. This was evident from community collaboration in the design of the study, refinement of the curriculum, training of promotoras, and evaluation. FSH has reported that the intervention is being sustained by the trained promotoras who continue to utilize the educational resources for education in the community.

## CONCLUSIONS

The ¡Es Por Mi Bien! pilot project demonstrated initial acceptability and feasibility of a community-driven promotora-led approach to provide education on cervical cancer/HPV to groups of Hispanic women who predominantly lived in a farmworker community. The intervention delivered via charlas increased participants' knowledge of cervical cancer/HPV and improved self-efficacy. These findings underscore the importance of drawing upon the strengths of community peers to educate its members about cancer prevention and health. Findings further support the inclusion of additional HPV and vaccination content in future refinements of the promotora curriculum with education expanded toward men and youth. Such programs might be combined with other important topics for MSFW communities such as farmworker safety. In summary, findings support promotora-led group interventions delivered via charlas as a potential useful approach to en-

gage communities in their health to mitigate cancer health disparities.

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### CONFLICT OF INTEREST

No conflicts of interest to report.

### AUTHOR CONTRIBUTIONS

Research concept and design: Meade, Gwede, Fleming, Romo; Acquisition of data: Fleming, Romo, Meade, Gwede; Data analysis and interpretation: Sutton, Meade, Gwede, Christy, Fleming, Wells, Luque, Romo, Simmons; Manuscript draft: Fleming, Simmons, Christy, Sutton, Romo, Luque, Wells, Gwede, Meade, Sutton; Statistical expertise: Sutton; Acquisition of funding: Meade, Gwede; Administrative: Meade, Gwede; Supervision: Meade, Gwede

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