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¡Venga Y Relájese! Pilot Stress Reduction Program for Migrant Latina Women Living in Low-Resource Settings From Milwaukee to Lima

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ABSTRACT

Latina women living in low-income communities frequently report a high prevalence of feeling physically and/or emotionally "unwell." Formative focus groups were used to design a 3-session stress reduction curriculum called ¡Venga y Relájese! (Come and relax yourself!). Survey data from 5 Milwaukee cohorts and 1 Peruvian cohort revealed statistically significant improvements in general health status, perceived stress status, and confidence to manage future stress among women who completed all sessions (n=54). The pilot ¡Venga y Relájese! stress reduction curriculum yielded benefits for Latina women living in low-income neighborhoods in Milwaukee, Wisconsin and Lima, Peru.

OBJECTIVE

The Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) program was a result of the 1993 congressional legislation that expanded the services offered within the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) to include cardiovascular prevention, screening, and referrals for medical services. In 2013, the Wisconsin Department of Health Services received a cooperative agreement from the Centers for Disease Control and Prevention (CDC) to implement the WISEWOMAN Program in various low-resource clinics across Wisconsin. According to preliminary community conversations and responses to initial WISEWOMAN intake questions, many Latina women living in these low-resource settings endorsed disproportionately high feelings of physical and/or emotional "unwellness."

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Women living in poverty, especially those with a history of migration, often live with chronic stress affected by psychological, economic, and environmental factors.[1] Stress results in a complex of physical and emotional responses that can increase risk for depression, anxiety, insomnia, weight gain, and cardiovascular and gastrointestinal problems.[2,3] Social support, meditation, and self-compassion have been shown to mitigate the negative effects of stress, reduce health risks, and provide pathways to healing.[4-6] This study aimed to evaluate stress in a cohort of Latina women in Wisconsin, design a sustainable stress mitigation program, and ultimately reduce chronic disease morbidity.

METHODS

Study Design

This study evaluated a pilot program implemented from March 2015 through June 2016 in a WISEWOMAN provider site in Milwaukee, Wisconsin and in a low-income community in Lima, Peru. Approval was obtained from the Institutional Review Board of the Universidad Nacional Mayor de San Marcos and deemed exempt by the University of Wisconsin-Madison. All parts of the pilot study were held in the Spanish language.

Formative focus groups with community women identified their perception of physiological and emotional causes of stress and access to coping strategies. These groups were also used to determine necessary factors for the successful implementation of a pilot intervention. These discussions were audio recorded and transcribed for qualitative analysis to aid the development of a community-responsive stress reduction program.

The intervention was modeled off of Professor Jon Kabat-Zinn's Mindfulness-Based Stress Reduction (MBSR), an 8-week program shown to reduce anxiety, depression, and pain in diverse patient populations by introducing participants to meditation, body awareness, mindfulness, and yoga.[4,5] Each session included didactic periods for group discussion, deep breathing, therapeutic movement, goal setting,

Figure 1. Implementation and Evaluation of ¡Venga y Relájese! Stress Reduction Program

Initial Focus Group (n = 10): What is stress for you?

Program Cohort (n = 20): ¡Venga y Relájese!

Week	Method of Evaluation
1	Demographic survey • Age, civil status, occupation, migratory history, education, past medical history Pre-intervention questionnaire • Perception of health, stress, effect on physical and emotional wellness, known stress reduction techniques • Likert Scale (1=good, 7= bad); reduction in posttest number viewed as improvement.
2	Life Change Index (1, 2) • Participants mark the presence of stressors and life changes within the last year. • Each "life change" carries a particular weight and provides an overall score. • Higher score correlates to probability of future illness.
3	Post-intervention questionnaire • Same questions as pre-intervention Testimonies • What did you learn? What tools will you use? • Open-ended

and guided meditation.[7,8] The second and third classes expanded upon lessons in mindful eating, self-compassion, and aromatherapy. Each cohort participated in 90-minute classes for 3 consecutive weeks and was encouraged to attend all sessions (detailed curriculum available in English-language, upon request).

Instruments

We collected demographic information regarding age, educational status, medical history, home environment, and migration history (country of origin, reason for immigration). During the first and last class, we quantified participants' perceived stress status and emotional and physical well-being on 7-point Likert scales. Open-ended questions evaluated present stressors, coping strategies, and awareness of community resources. During the second class, we applied the Homes and Rahe Life Change Index[9] to evaluate the presence of chronic stressors within the last year to predict probability of future illness; a score greater than 300 correlates to an 80% likelihood of enduring an illness in the near future.

No Spanish-language validated forms were available. However health professionals at Aurora Walker's Point Community Clinic who are native Spanish speakers helped revise numerous iterations of all program materials for language accuracy and cultural relevancy. Details of our qualitative and quantitative evaluation process are illustrated in Figure 1.

Participants

Latina women attending Aurora Walker's Point Community Clinic in Milwaukee were informed of the stress reduction class by posters in clinic, or by verbal invitations from clinic staff after responding to WISEWOMAN intake questions. If interested, clients provided contact information to the clinic receptionist for a reminder call prior to the first session. A comparable cohort in the peri-urban shantytown of Lomas de Zapallal, Puente Piedra, Lima, Peru was recruited by an invitation poster left outside of the community's secondary school, Colegio Pitagoras 8183. Attendance was voluntary and participants were informed their responses would be used for program evaluation.

Data Analysis

Data were collected and managed using REDCap, a secure web-based electronic data capture tool[10] and analyzed using STATA, version 14.1 (STATA Corp, Collegetown, TX). We analyzed qualitative data by thematic analysis to design our curriculum. Descriptive statistical analysis and paired *t*-tests were used to evaluate population demographics and behavioral change pre- and post-intervention both within and between geographical sites.

RESULTS

Thematic analysis of formative focus group data revealed the need for social support and stress reduction. One group member highlighted how she "always did everything for others and nothing" for herself. Immigration experiences negatively impacted by economic struggle and lost cultural identities were acknowledged as major sources of stress, as many participants noted "our culture is not important to our children." Many women identified church, being outside, and music as means of coping with stress. Further, they identified the need for brief, socially interactive, and fun activities to enhance their quality of life.

The mean age of participants (from both Milwaukee and Lima) was 45 years with a range of 29 to 77 years. Many women were married (39.1%); 21 (30.9%) identified as "housewives" and 17 (25%) reported unemployment. Nearly one-third (29.6%) reported primary school (1st -6th grade) as their highest education level; however, 23.9% had completed high school and 21.1% had some higher education. Fifty-nine (80.8%) were of Mexican nationality living in the United States and 11 (15.1%) were Peruvian living in Peru. All women endorsed a migratory history (to the United States or within Peru); 87.5% migrated more than 10 years ago (vs more recently) for economic reasons (46.5%) or to reunite with families (35.2%).

On average, Milwaukee participants reported that they spent 8.8 days (SD 9.2) physical and 7.9 days (SD 9.9) emotionally "unwell" each month. They noted being unable to complete activities secondary to stress-related illness an average of 6.6 days (SD 8.5) in the last month. Further, all but 2 surveyed women (96.7%) reported that their health could be improved. When Life Change Index scores were categorized, 38.9% scored between 150 and 299 and 11.1% greater than 300, reflecting an increased probability of illness within the next year by 50% and 80%, respectively.[9] No differences were found between women living in Peru or the United States in present or chronic stress indicators on pre-intervention questioning. The highest Life Change Index score was 495 among a Peruvian participant. Demographic and Life Change Index data are presented in Table 1.

Of participants who completed the program, significant changes in mean and SD were observed between pre- and posttest general perceived health (t = 2.03, P = 0.02), current stress level (t = 5.80, P <0.0001), and their confidence in their ability to reduce future stress (t = 2.43, P <0.01). Pre- and posttest data are presented in Table 2.

Table 1. Demographic and Life Change Index Data for ¡Venga Y Relájese! Stress Reduction Participants

Demographic Variable	N	n (%) Mean, SD	95% CI Range
Age (years)	70	45.3, 11.3	29-77
Civil Status	69		
Single		12 (17.4)	10.0, 28.5
Married		27 (39.1)	28.1, 51.2
Co-living		10 (14.5)	7.9, 25.2
Separated		12 (17.4)	10.0, 28.5
Divorced		6 (8.7)	3.9, 18.4
Widowed		2 (2.9)	7.0, 11.2
Vocational Status	68		
Housewife		21 (30.9)	20.9, 43.1
Fully employed		6 (8.8)	3.9, 18.6
Employed part-time		7 (10.3)	4,9, 10.4
Unemployed		17 (25.0)	16.0, 36.9
Number of people in house	56	3.8, 1.6	1-8
Educational level (n=71)	71		
0-6 (some primary school)		21 (29.6)	19.9, 41.5
7-12 (some secondary school)		36 (25.4)	16.4, 37.0
Completed secondary school		17 (23.9)	15.3, 35.5
13-16 (college) or higher degree		15 (21.1)	13.0, 32.4
Nationality	73		
Mexican		59 (80.8)	
Peruvian		11 (15.1)	
Other		3 (4.1)	
Duration in United States (or Urban Peru)	72		
≥ 10 years (4)		63 (87.5)	77.4, 93.5
< 10 years (1-3)		9 (12.5)	6.5, 22.6
Reason for Migration	71		
Economic		33 (46.5)	35.0, 58.3
Political		1 (1.4)	0.01, 9.7
Study		6 (8.5)	3.8, 17.9
Reunite with family		25 (35.2)	24.8, 47.2
Past Medical History (Self-Reported)	68		
Depression		23 (33.8)	
Anxiety		15 (22.1)	
Diabetes Mellitus		7 (10.3)	
Hypertension		6 (8.8)	
Life Change Index	54	128, 121.3	0-495
≥ 300 (80% to have illness in next year)		6 (11.1)	4.94, 23.1
150-299 (50% to have illness in next year)		21 (38.9)	26.6, 52.8
< 150 (30% to have illness in next year)		27 (50.0)	36.6, 63.4

DISCUSSION

The ¡Venga y Relájese! pilot stress reduction class enabled participants to achieve short-term reductions in stress, enhanced self-perceptions of wellness, and significantly improved participants' perceived control of their stress. Further, it achieved our goal to create constructive social spaces for Latina women to reduce isolation and share their stories while learning healthy stress reduction coping strategies.

The strength of this study is the evidence of positive effects on participants through a brief experience. The brevity of the curriculum helped attract many participants who may view longer wellness programs as too intensive or time-consuming. However, the brevity also may be considered a weakness if the coping strategies are only adopted in the short-term. As such, we plan to continue to evaluate the effects of the course 3, 6, and 12 months after completion. However, as many participants may be lost to follow-up, the long-term effects may be difficult to measure.

Table 2. Paired Pre- and Posttest Data from Milwaukee and Lima Women Who Completed the 3-Week Program Where Lower Scores Relate to Better Health

Variable	n	Pretest (Mean, SD)	Posttest (Mean, SD)	*t*	*P*-value
General perceived health	54	3.46, 1.13	3.17, 1.16	2.03	0.02
Present stress	52	4.37, 1.44	3.17, 2.78	5.80	<0.0001
Physical stress	52	4.27, 1.30	4.04, 1.63	1.02	0.156
Emotional stress	53	4.57, 1.39	4.23, 1.51	1.52	0.07
Confidence to reduce stress	45	3.76, 1.48	3.16, 1.54	2.43	0.009

The benefits reported by participants in Peru, albeit a small cohort, confirm that this curriculum may be beneficial for Latina women living in low-income communities both within and outside of the United States. No significantly statistical differences in baseline characteristic or program outcomes were found between geographical program sites. Of note, participant recruitment was easier and more sustainable in Milwaukee. This finding is most likely attributable to Wisconsin participants' relationship to the community health center, but perhaps also due to participants' higher comparative socioeconomic status and greater access to preventive health services.

We plan to sustain and advance this work by integrating class recruitment into primary care and mental health visits as well as training alumni to serve as future instructors. As we refined the curriculum, and gained experience and feedback from participants, we sought certification as an evidence-based Lifestyle Program (LSP) under the CDC's WISEWOMAN program and have created an English-language version of the program. These promising results provide evidence that pilot programs such as ¡Venga y Relájese! may benefit disadvantaged populations locally and globally.

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