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An Intervention to Address Interpersonal Violence Among Low-Income Midwestern Hispanic-American Teens

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Abstract

This paper reports pilot testing of “Familias En Nuestra Escuela”, an in-school interpersonal violence prevention intervention targeting Hispanic-American teens. The intervention, based on the hypothesis that the preservation and reinforcement of Hispanic cultural values can serve as a protective factor against violence, focused on the enhancement of ethnic pride. Researchers formed a partnership with a midwestern Hispanic community to test the feasibility, receptivity and preliminary impact of the intervention in a pre/post test, no control group design. Participants were low-income, predominantly first-generation Hispanic-American freshmen and sophomore students from one Hispanic-serving high school. Findings revealed a statistically significant increase in the intervention's mediator, ethnic pride. Changes in the desired direction occurred on measures of perceptions of self-efficacy for self-control, couple violence, and gender attitudes. The incidence of physical fighting and dating violence behaviors decreased over the course of an academic school year. Results provide preliminary evidence for the use of interventions based on ethnic and cultural pride as a violence prevention strategy among Hispanic-American teens, especially those who are first generation Americans.

Keywords

Participatory action research; Teen violence; Latino; Ethnic pride

Introduction

There are over 44 million Hispanics in the United States and they represent the fastest growing group of Americans, accounting for half the population increase between 2000 and 2006 [1]. By 2050, Hispanics are projected to constitute 30% of the U.S. population. Hispanics are a heterogeneous group, with the majority being Mexican–American. In the United States, Hispanics have traditionally lived in large cities throughout Florida,

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California, Arizona and Texas. More recently, however, Hispanic populations have been geographically dispersing and concentrating in destinations across the U.S. While the Midwest U.S. has not traditionally been viewed as an area with a large Hispanic population, this region now represents a “new gateway” destination. In the U.S., Midwest states had the largest percentage increase in Hispanic population between 2000 and 2006 [1, 2].

Community violence is an important public health problem that negatively impacts health. Exposure to violence and involvement in violent relationships has been associated with increased incidence of acute and chronic health problems [3]. While Healthy People 2010 [4] developed goals to address the negative health outcomes that are associated with violence, 10 years later high rates of violence persist in many communities throughout the United States. Both community and interpersonal violence disproportionately impact U.S. Hispanics [5, 6].

A variety of risk factors and social inequities have been documented that are associated with high rates of interpersonal violence among Hispanics. This population typically have high rates of poverty, high rates of un/underinsured status, and low education levels when compared to other racial/ethnic U.S. groups [7, 8]. As the Hispanic population has grown, interpersonal violence and intentional injury among Hispanic youth has become a significant problem in a number of communities throughout the United States. The correlation of educational level and violence is of particular concern because Hispanic-Americans traditionally have elevated school dropout rates and adolescents who drop out of school during grades six through twelve are two to three times more likely to be victims of violent crimes than those who complete high school [9, 10].

Violence is prevalent in Hispanic-American communities. Hispanic-American youth are at a greater risk for violent injury than whites [11]. Hispanic-American teens experience disproportionate rates of violence when compared to other ethnic/racial groups of youth living in the United States [12]. Injury rates are compounded by substance abuse, which has increased in Hispanic youth while it has declined for non-Hispanic white and African-American youth. In addition there are high rates of teen suicide attempts, alcohol and drug abuse, and self-reported gun possession among Hispanic teens: each higher than in any other racial/ethnic group [13, 14]. Finally, homicide is the second leading cause of death among Hispanics between the ages of 15 and 34, and Hispanic-American youth are at greater risk for violent injuries than whites [5, 12, 15, 16].

Recently, dating violence has become a public health concern among U.S. teens [17, 18]. Dating violence is common among all populations of adolescent girls, including U.S. Hispanic-American adolescent females [19]. In a large U.S. study of dating violence prevalence that included varied geographic and ethnic/racial representation, 1 in 10 girls reported dating violence within the past 12 months [20]. The incidence of dating violence increased to 1 in 5 for adolescent females who had ever experienced sexual intercourse [19]. Black non-Hispanic teens are the most likely to be victims of dating violence (14%); however they are followed closely by Hispanic-American teens (11%) [21]. For Hispanic-American adolescent females, acculturation increases the risk for both sexual activity and dating violence victimization. Experiencing ethnic discrimination is also associated with

increased risk for dating violence victimization among Hispanic-American adolescent females [22].

Despite documentation of high risk and prevalence, very few intervention programs have been specifically designed to address the problem of interpersonal violence among Hispanic-American teens. This paper describes the pilot testing of a school-based intervention, *Familias En Nuestra Escuela* (Families in our School), which aimed to enhance interpersonal violence prevention efficacy among a group of low-income Midwestern Hispanic-American teens. The intervention, based on the hypothesis that the preservation and reinforcement of Hispanic cultural values can serve as a protective factor against violence, focused on the enhancement of ethnic pride. The pilot study used a pretest, posttest, no control group design and was guided by the following research questions:

- *Research Question 1:* What are the feasibility and acceptability of an in-school interpersonal violence prevention intervention in a Hispanic serving high school setting?
- *Research Question 2:* What is the impact of the intervention on ethnic pride, self-efficacy for self-control, acceptance of couple violence, gender attitudes, physical fighting behaviors and incidence of dating violence?

Methods

Background

The *Familias En Nuestra Escuela* teen violence prevention intervention stemmed from the parent intervention, *Familias En Acción* (*Families in Action*), developed in a clinical trial by Kelly and colleagues [23]. These researchers used participatory action research (PAR) methodology and partnered with members of a Southwestern Hispanic community to develop the culturally relevant violence prevention intervention with elementary school children. PAR is a research method that engages the target population in the design, implementation and evaluation of its own primary prevention programs [24]. Intervention content was adapted from the grass roots character-building curriculum, *El Joven Noble* (*The Noble Young Man*), developed for Hispanic-American teenage boys in Los Angeles by Tello [25]. Guided by the constructs of Social Cognitive Theory [26], the intervention activities were designed to change attitudes toward violence and dating violence as well as improving prevention efficacy by enhancing ethnic pride (i.e. respect for self, the extended family, the community and Hispanic culture). Preliminary findings from the parent intervention study conducted with a group of Hispanic elementary school children suggested that the intervention could be efficacious among older Hispanic youth, which led to the pilot study described in this paper.

Researchers partnered with a midwestern Hispanic-serving charter high school community to tailor the parent intervention for use with teens. Because the high school had already identified teen violence as a priority issue and because the researchers already had a relationship with the high school's lead counselor, the partnership was straightforward. A baseline assessment was conducted to formally document the need for a violence prevention program in the high school. This assessment consisted of parents and students from the high

school completing a cross-sectional survey during a parent/student/teacher evening event. Both parents (n = 48) and students (n = 112) who voluntarily completed the baseline survey reported high levels of recent engagement in physical fighting behaviors and students reported occurrences of dating violence. Parents self-reported being in a physical fight an average of four times over the past 12 months (mean 4.23; SD 0.69, 4.00–7.00). Students reported a similar incidence of involvement in physical fighting, however with greater variability (mean 6.91; SD 4.16, 4.00–22.00). When asked if they had ever experienced a violent act by a dating partner, students self-reported an average of 1.62 (SD 0.57) dating violence occurrences.

Collective input from the high school's teachers suggested that younger teens might benefit more from a prevention program and resulted in the principal's recommendation to pilot the *Familias En Nuestra Escuela* intervention with 9th and 10th grade students. The decision to focus on younger students supported the idea of implementing primary prevention programs with populations who have had minimal participation in violence. There was consensus that holding the program during school would enhance participation. In addition, the decision was made to have teachers facilitate the intervention based on reports from other adolescent researchers that supported the hypothesis that teachers can have a positive impact on adolescent behavior [27, 28]. In summary, the parent intervention's content was tailored for teens, the format was modified to an in-school program, and intervention facilitators were changed to volunteer teachers (in contrast, the parent intervention had targeted elementary school aged children, had used an after-school program format and had been facilitated by members of the research team).

Measures

The goals of the *Familias En Nuestra Escuela* intervention were to increase ethnic pride, enhance self-efficacy for self-control, and change attitudes about couple violence and gender. The *Familias En Nuestra Escuela* pilot project aimed to increase prevention efficacy and decrease the incidence of physical fighting and dating violence among a group of low-income Hispanic-American teens. Quantitative data measures collected for the pilot study (Table 1) were the following:

- Ethnic pride hypothesized mediators were self-efficacy for self-control and attitudes about couple violence and gender. The 15-item Ethnic Identity Scale measured *Ethnic Pride*. Scores for this scale ranged from 1 to 4: four items are reverse scored. The point values were summed for each participant and then divided by the number of items. A higher score indicated a greater sense of ethnic pride and a positive outlook on one's future in a multiracial society. Perception of self-control was measured with the *Self-efficacy for Self-control* scale. The scale has 13 items with a maximum possible score of 52, which indicated a high sense of self-control. The minimum score, 13, indicated a relatively low sense of self-control. *Attitudes about Couple Violence* were measured with the Acceptance of Couple Violence 11-item scale. Point values were summed and then divided by the number of responses to calculate a score. A low score indicated a low level of acceptance of couple violence and a high score indicated a high level of acceptance of couple violence. *Attitudes about Gender* were measured with the Gender

Attitudes 12-item scale. Point values were summed with a high score indicating a high level of gender stereotyping, and a low score a low level of gender stereotyping.

- *Hypothesized moderators* were acculturation and personal characteristics. *Acculturation* was measured with the Short Acculturation Scale for Hispanics (SASH), a tool that had been widely used in research with the Hispanic population [29]. The scale had 5 items with a range in scores of 1–4 and responses were averaged across items. An average score of 2.99 indicated a less acculturated individual and a score of greater than 2.99 indicated a more acculturated individual. A score at the mid-point did not necessarily indicate biculturalism. Personal characteristics were collected with a data collection form developed for this pilot study.
- *Outcome variables* were self-reported physical fighting behaviors and dating violence incidence. *Incidence of Physical Fighting* was measured with the Physical Fighting Behavior 5-item scale. The incidence was calculated by multiplying the frequency of a behavior, or by using a midpoint if there is a range. *Incidence of Dating Violence* was measured with the Victimization in Dating Relationships 18-item scale. A score was calculated by summing the point values of the participant's responses and then dividing by the number of responses. High or low scores indicated increased or decreased victimization in dating relationships respectively. Personal and demographic characteristics collected were age, gender, grade in school, and ethnicity.

All measurement tools utilized in this study, except the measure of acculturation, were taken from the CDC's Compendium of Assessment Tools for Measuring Violence-Related Attitudes, Behaviors and Influences Among Youths [30]. In addition to the collection of these quantitative measures, detailed field notes were also kept throughout the course of the study and participant observation occurred. One investigator observed intervention sessions, at random, throughout the course of the study.

Procedures

Freshmen and sophomore students were recruited for this study pilot from one Hispanic-serving Midwestern high school where the majority of students were first generation Hispanic-Americans. Parents and students were informed about the study in writing. A letter, written and signed by the school's principal, was mailed to parents and also sent home with students to inform parents about the study. The letter included background information about the violence prevention intervention project as well as instructions about how to voluntarily participate in the study. Students could volunteer to participate in the intervention study during their regularly scheduled once a week study/advisory period, or could choose to continue to use that period as a study hall. Parental consent and student assent was obtained from the freshmen and sophomore students ($n = 51$) who volunteered to participate.

Intervention

Participants received the *Familias En Nuestra Escuela* intervention over the course of an academic school year. The intervention was delivered during school in a small group format. The small groups consisted of students who were the same gender and in the same grade. A teacher facilitated each small group and the same teacher stayed with the same group of students throughout the intervention period. The teacher facilitator gave an explanation about the purpose of the study and an overview of intervention activities to his/her small group before the intervention began. Intervention sessions (Table 2) were held in order once weekly for 45 min on the same day of the week over the course of an academic school year. Data measures were collected immediately pre and post intervention using pencil and paper questionnaires. Participants received a \$10 department store gift card each time they completed evaluation measures.

Data Analysis

Changes from pre to post-intervention for each measure were calculated and treated as response variables in a linear mixed model to estimate and test the significance of the changes. This analytic strategy provided a modeling advantage by accounting for the grouping effect in the analysis, resulting in more accurate estimates for the study [31]. All analyses were conducted using SAS version 9.2 with alpha level equals 0.05. Qualitative data (i.e. field notes) were transcribed and examined for common themes related to feasibility and receptivity.

Results

Participants

The majority of freshman ($n = 26$) and sophomore ($n = 25$) high school students who participated in this study identified themselves as Latino (88%). Other participants identified as African American (8%) or Caucasian (4%). More females (58%) than males (42%) participated. The average length of time that student's families had lived in the community was 15 years and their average household size was 4.5 (range 2.00–8.00).

Changes on Study Measures

All variables of interest to this study changed in the desired direction over the course of the academic school year in which the *Familias En Nuestra Escuela* intervention was implemented. Tables 3 and 4 summarize the results on pre- and post-intervention main outcomes and the results from the linear mixed model. The data analysis showed a statistically significant increase in ethnic pride (primary intervention mediator) from pre to post intervention over the course of the academic school year. The other hypothesized mediators of behavior change (i.e. self-efficacy for self-control, attitudes about couple violence, gender attitudes) also changed in the desired direction. Moreover, the incidence of physical fighting and dating violence decreased from pre to post intervention. However, statistical significance was not reached on these additional mediators and on the outcome measures, most likely due to the small sample size ($n = 51$). Estimates from the linear mixed model showed that older participants (sophomores) demonstrated a greater decrease in

physical fighting than did freshmen. These positive attitude and behavior changes occurred concomitantly with participants' increased level of acculturation during the course of the academic school year in which the intervention was implemented.

Qualitative Findings

Analysis of the field notes that were taken over the course of the pilot study and about the observations made during interventions indicated high receptivity to the intervention. Students, parents and teacher facilitators were positive about the intervention. The adolescents that participated in the study were highly engaged in the intervention's activities. Findings from the qualitative observations included:

- A high level of teacher knowledge of the students in their intervention groups, evidenced by
 - Calling all students by name;
 - A sense of knowing when to settle the “chit chat” in the room, and when it was felt to be topic focused and productive;
 - An “in control” yet non-punitive attitude typical of adult to adult communication versus adult to child;
 - Praising open participation but not chastising silence or non-participation in the activity of the session; allowing students to make their own choices;
 - Knowledge by teachers that certain topics could be sensitive based on what some students had confided about their own personal experiences.
- A high level of trust and respect of teacher facilitators by student participants, evidenced by:
 - Teachers called by Mr. _____ or Ms. _____
 - A comfort in inviting and listening to the teachers' experiences as a comparison to their own.

Nevertheless, engagement in the intervention activities by participants was a growth curve, which was more influenced by peers than by the adult teacher facilitators. Those students who held back from participating in intervention activities, such as the mask making activity in intervention sessions 6, 7 and 8, soon showed regret that they had not joined the activity based on the “fun” that other students were having. Further, the attention that the masks drew from others (i.e. other students in the school, other teachers who were not facilitators, and parents) contributed to a decision to engage by some students who did not initially participate in intervention activities. Discussions held during intervention sessions were difficult at the onset (i.e. first few intervention sessions). Students were mostly quiet, but when a few shared feelings or experiences, this seemed to give permission or affirm feelings that others might have; discussions near the end of the intervention sessions were quite lively.

The final intervention session (i.e. celebration of success) did not excite the student participants at first, but enthusiasm grew when students were asked to become involved in

the planning process. At the final celebration session, participants chose to display some of the art and crafts they had made during the intervention sessions. Awards were given for exemplary participation and modeling of the intervention's aims. Student participants came out of the celebration seeming to have a more internalized sense of having accomplished and having gained something from participation in the intervention program. Celebration presenters (i.e. principal and teacher facilitators) articulated more clearly the sum value of the intervention program at the final celebration session than at any one session over the course of the in-school intervention. One sophomore student shared this perception about *Familias En Nuestra Escuela* with a group of fellow students who had not participated in the intervention: “you find out you like people that you didn't think you liked”.

Discussion and Implications

The aims of this pilot study were to examine the feasibility, receptivity and preliminary impact of an interpersonal violence prevention intervention among Midwestern Hispanic-American adolescents. *Familias En Nuestra Escuela*, an in-school small group intervention facilitated by teachers, was found to be feasible and was extremely well received by the target community. The analysis of the field notes taken and the observations that were made throughout the course of the study confirmed that participants and facilitators were highly engaged in the project.

The intervention's impact was positive. Changes occurred in the desired direction on measures of participants' self-efficacy for self-control, acceptance of couple violence, gender attitudes and incidence of dating violence. A significant finding of this pilot study was that even while participants' level of acculturation increased, their ethnic pride (primary intervention mediator) was enhanced over the same period of time. The intervention had a greater impact on the reduction of physical behaviors that occurred in the incidence of physical fighting for older participants (i.e. sophomores vs. freshmen) over the course of the study. The findings from this pilot study supported the hypothesis that for Hispanic-American adolescents, the preservation and reinforcement of Hispanic cultural beliefs and a sense of ethnic pride can serve as a protective factor for violence. Other researchers have also demonstrated that the enhancement of ethnic/cultural pride can mediate healthful behavior change among at-risk adolescent minority populations [32].

Limitations to this study included a small sample, recruitment of participants from a single location, lack of a control group and lack of long-term follow-up after the intervention ended. The strengths included the intervention's roots in participatory action research methodology and its inherent ability to engage teachers, parents and students. Another strength was the intervention's theoretical underpinnings. In addition, the utilization of teachers as facilitators and the intervention's comprehensive perspective on violence prevention, character building and the fostering of prosocial behaviors were also felt to be strengths.

Despite its limitations, the findings from the *Familias En Nuestra Escuela* pilot study are promising. Very few culturally specific interventions currently exist to address the problem of teen violence among U.S. Hispanic adolescents. Further, few studies have focused on the

population of first generation Hispanic-American adolescents living in smaller Midwestern cities. Thus, we report an innovative and novel approach to addressing the population of Midwestern Hispanic adolescents who are at risk for or are involved in interpersonal violence. The next step in the development of the *Familias En Nuestra Escuela* intervention is a controlled efficacy trial to examine its impact and sustainability among a larger group of Hispanic-American adolescents.

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Table 1Measures for *Familias en Nuestra Escuela* pilot study

Variable; * measurement tool	Variable type	Scoring	+Alpha	# of items	Tool developed by
Sense of ethnic pride/identity; ethnic identity scale	Mediator	Higher score indicates greater ethnic pride; score range 1–4	0.66	15	Phinney
Perception of self-control; self-efficacy for self-control	Mediator	Maximum score 52 indicates high sense of self-control; minimum score 13 indicates low sense of self-control	0.71	13	Phillips & Pringer
Level of acculturation; SASH	Moderator	<2.99 less acculturation, >2.99 more acculturation	0.88	5	Marin et al.
Attitudes about couple violence; acceptance couple violence	Outcome variable	Low score indicates low level of acceptance of couple violence, score range 1 to 4	0.87	11	Foshee, Fothergill & Stuart
Attitudes about gender; gender attitudes	Outcome variable	Higher score indicates high level of stereotyping, score range 1 to 4	0.74	12	Galambos, Peterson, & Richards
Incidence of physical fighting; physical fighting behavior	Outcome variable	Number of physical fights over the past 12 months	0.70	5	DASH, CDC
Incidence of dating violence; victimization in dating	Outcome variable	Number of times experienced dating violence	0.91	18	Foshee, Linder, Bauman et al.

+ Alphas are from our *Familias En Nuestra Escuela* pilot study

* All measurement tools, except the SASH (Marin et al. [17]), are from the CDC's Measuring Violence-Related Attitudes, Behaviors and Influences among youth: a Compendium of Assessment Tools (Dahlberg et al. [30])

Table 2*Familias En Nuestra Escuela* intervention content and activities

Session	Content and activities (conducted over an academic school year)
1	Content: Introduction to the intervention program. Activity: Collection of pre-intervention/baseline evaluation data.
2	Content: “Palabra (word)”: Giving and keeping one's word, Activity: Palabra Table
3	Content: Stereotypes Activity: Mexican Yarn Art
4	Content: Who are you as a person and who are we as a people. Activity: Palabra Circle
5	Content: Gender specific roles and rites of passage. Activity: Spirit necklace
6, 7, 8	Content: “Masks”—what they are and why and how people use them. Activity: Make plaster masks, paint and decorate Note: the 'mask' activity takes 3 sessions to complete
9	Content: How teen violence impacts the individual, family and community Activity: Spirit bracelet
10	Content: Alternatives to violence: self-control Activity: Make tote bag for a special person in your life
11	Content: Relationships—family, friends, society and the media Activity: Who am I?
12	Content: My culture, my life and my destiny: making destiny a reality. Activity: What makes you proud of your culture?
13	Content: Giving thanks/giving back, making commitments/goals. Activity: Where do I want to be in 10 years?
14	Content: Celebration of success Activity: Social event with family, teachers, community

Table 3

Baseline (pre-intervention) and post-intervention scores (n = 51 teens)

Measure	Variable type	Baseline mean (SD)	Post- mean (SD)
Level of acculturation	Moderator	2.84 (1.01)	2.93 (1.04)
Sense of ethnic pride/identity	Mediator	2.96 (0.31)	3.10 (0.32)
Self-efficacy for self-control	Mediator	39.75 (5.90)	41.23 (5.02)
Acceptance of couple violence	Outcome variable	1.63 (0.61)	1.39 (0.47)
Gender attitudes	Outcome variable	2.00 (0.53)	1.95 (0.45)
Incidence of physical fighting	Main outcome	7.17 (4.54)	6.55 (4.18)
Incidence of dating violence	Main outcome	0.23 (0.44)	0.20 (0.36)

Table 4

Linear mixed model results for intervention effect

Effect from baseline to post-intervention	Variable type	Estimate (SE)
Acculturation	Moderator	0.05 (0.09)
Ethnic pride/identity	Mediator	0.13 (0.05)*
Self-efficacy for self-control	Mediator	1.11 (0.80)
Attitudes about couple violence	Outcome	-0.15 (0.08)
Gender attitudes	Outcome	-0.04 (0.07)
Physical fighting (by grade in school, 9th vs. 10th)	Main outcome	3.59 (1.34)*
		-2.13 (0.65)*
Incidence of dating violence	Main outcome	0.06 (0.04)

* $P < 0.05$