Increasing HIV-related Knowledge, Communication, and Testing Intentions among Latinos: *Protege tu Familia: Hazte la Prueba*

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I ℀a HIV- ℀oa ℀ K ℀o ℀9 C a , a T℀ I ℀ a La : *P , e e Fa a: Ha , e a P eba*

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Abstract: Latinos are less likely to be aware of their HIV seropositivity than African Americans and Whites. *Protege tu Familia: Hazte la Prueba* is a culturally and linguistically-sensitive HIV/AIDS prevention and testing program targeting Latino families. Using community-based participatory research techniques, Spanish-speaking bicultural community health workers helped develop and then used an educational ip chart and materials to conduct outreach and HIV prevention education in diverse settings. e intervention was created to increase HIV/AIDS-related knowledge, to improve communication regarding sexual risk, and to augment intentions to use condoms and test for HIV. A secondary purpose was to decrease HIV-related stigma by improving knowledge about transmission and reducing

The Centers for Disease Control and Prevention's[1] improved HIV incidence surveillance system documented that 56,300 people were newly HIV-infected in the U.S. in 2006, compared with prior estimates of 40,000. In addition, recent prevalence estimates indicate that 1.1 million adults and adolescents, including nearly 200,000 Latinos, were living with diagnosed or undiagnosed HIV infection in 2006,[1] and an estimated 21% of those infected are not aware of their infection.[2,3] Although the HIV epidemic has stabilized to some extent, CDC's revised estimates indicate an underreporting of new HIV infections and portend the need to expand HIV prevention and treatment programs and HIV testing to reach populations who may not perceive themselves as at-risk for HIV.[1,3,4]

According to the revised CDC HIV prevalence and incidence data, Latinos* continue

only a ects homosexuals, sex workers, and injection drug users.[12,17] Consequently, they are o en unaware that they are at risk for HIV until their partners become ill, they are tested during pregnancy, or they develop symptoms.[18,19] Furthermore, homophobia within the Latino culture o en contributes to male sexual risk-taking behaviors that remain hidden from primary partners and exacerbate the e ects of HIV/AIDS on Latinas and the Latino family overall.[16]

e risk of HIV infection within a heterosexual relationship is compounded by cultural factors in uencing gender roles in Latino families including *machismo* and its gendered opposite *marianismo*, limited communication and education about sexual health and risks, denial of in delity, and the socioeconomic dependence of women on their male partners.[35,50–53] *Machismo*, or the cultural expectations of male dominance, virility and protection, and *marianismo*, the perception that women should remain

values due to acculturation, the in uence of media and the Internet, a lack of clarity regarding information received from health care professionals and teachers about sexual health and risk, homophobia, and sexual stereotypes. Parents also expressed concern about their lack of knowledge regarding sexual health and HIV/AIDS and reported doubting their ability to educate their children e ectively about sexual risk. e points that elicited discussion despite the gender and generational diversity of the focus group members were seen as triggers for facilitating HIV prevention and sexual risk-related dialogue. Overall, the formative research data, combined with previous research nd-ings, strongly indicated that a broader, more socio-environmental approach would help to address Latino-speci c HIV risks.[26,35–37]

C . e *Protege tu Familia: Hazte La Prueba* intervention was developed using community-based participatory research (CBPR) techniques.[38]

e speci c models guiding the intervention were the Community Health Outreach Model[39] and the Information, Motivation, Behavioral Skills (IMB) Model,[40–42] combining social action and behavioral change theories that have proven e ective among diverse populations.[39,43] ese models encourage the integration of community-based recommendations, such as those garnered through the focus group research and through collaboration with community-based health care workers and bilingual, bicultural health *promotores* (peer health educators).

Sta and *promotores* at both intervention sites contributed to the creation of the bilingual educational curriculum, instruction manual, recruitment instrumentation, and to the pre, post and follow-up data collection instrumentation, integrating the recommendations, cultural values, and beliefs of the community gained from the

age, marital status, language preference, country of birth, number of years in the U.S.,

evaluation data were collected for each participant, not all surveys had complete data. Select missing demographic data ranged from 6.3% to 7.8%; missing sexual and HIV testing behavioral data ranged from 9.5% to 27%; and missing data on the constructs of interest ranged from 7.8% to 24.5%. Each outcome of interest was assessed separately, and only those participants with complete data at time points of interest were included in the analyses.

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DEMOGRAPHIC CHARACTERISTICS, BASELINE[a]

	N	%
Gender (n=432)		
Female	280	64.8
Male	150	34.7
Female-to-male transgender	2	0.5
Marital status (n=428)		
Married or living with partner	225	52.6
Single/separated/divorced/widowed	203	47.4
Country of birth (n=430)		
US-born	113	26.3
Foreign-born	317	73.7
Preferred language (n=432)		
Spanish	373	86.3
English	59	13.7
Highest level of education (n=425)		
No formal schooling	26	6.1
Some to elementary graduate	109	25.6
Middle to some high school	167	39.3
High school graduate/GED	76	17.9
Some college to graduate work	47	11.1

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SEXUAL AND HIV TESTING BEHAVIORS[a]

	N	%
Sexual behaviors		
Ever had vaginal sex (n=421)	325	77.2
Vaginal sex, past 6 months (n=343)	236	68.8
Condom use during vaginal sex, past 6 months (n=219)		
Never	84	38.4219)219)343)[illegible]

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PRE CHARLA DIFFERENCES WITH POST CHARLA AND FOLLOW UP[a]

	P a a . - a a				P a a . F -				
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HIV knowledge	425	6.67	8.75	−16.99***	91	6.71	8.36	−6.80***	1–11
Safer sex and HIV testing intentions									1–5
Use condom every time I have sex	348	3.52	3.84	−5.26***	68	3.62	3.82	−1.33	
Suggest that my partner and I use condoms in the future	389	4.00	4.24	−4.68***	69	4.16	4.18	−0.20	
Willing to talk to my partner about sex in the future	391	4.13	4.29	−3.17**	88	4.23	4.17	0.49	
Willing to suggest to my partner that s/he take an HIV test in the future	389	4.21	4.35	−3.12**	88	4.31	4.26	0.40	
Willing to take an HIV test	352	4.15	4.26	−1.69*	69	4.-0.06.833 0.0528(lin)8.05n (n)4(doSa)9od[(P)r			

care of an HIV-infected family member, hosting an HIV-infected person in one's home, or sharing a cup with an HIV-positive individual.

B% a a - . Since the *charla,* most participants had talked with friends (n=62/85; 72.9%); children (n=40/57; 70.2%); and/or parents (n=42/80; 52.5%)

males and females warrant additional exploration if we are to demonstrate success in overcoming communication barriers and moving both genders toward HIV testing. is is particularly important given the high rates of heterosexual infection among married Latinas.

One of the most encouraging ndings was the impact of the intervention on reducing HIV-related stigma as measured by comfort levels with caring for and interacting with HIV-positive individuals and those perceived to be at risk. As Latino participants increased their understanding of HIV transmission, their willingness to work with someone with HIV, take care of a family member with HIV, have an HIV-positive guest, have a friend who is gay or lesbian, and hug a person with HIV are promising ndings (particularly due to the culturally appropriate manner of greeting, which includes both hugging and kissing on the cheek). e only cross-section of participants not to demonstrate a signi cant reduction in stigma from pre-*charla* to follow-up had a limited sample size (participants living in the U.S. for 17 or more years, n=19).

At the 90-day post-*charla* follow-up, comfort levels were signi cantly sustained despite the small sample of follow-up participants. While participants reported feeling comfortable being tested for HIV, their intention to test actually decreased slightly. is may be due to the fact that close to half of the follow-up sample reported having been tested for HIV since participating in the *charla*. Although comfort levels did signi cantly increase and remained signi cantly increased at follow-up, these changes were not enough to sustain participants' comfort level in terms of having a friend who is gay or lesbian at the 90-day follow-up, indicating that a greater emphasis on eradicating homophobia was needed in the intervention.

Further research to determine how comfort levels and reduction in HIV/AIDS-related stigma can a ect testing intentions and actual testing behaviors is imperative if we are to improve early detection among Latinos. e integration of an actual HIV test demonstration in the intervention itself may result in improved understanding of the ease of HIV testing. Experiencing an HIV test vicariously may provide the opportunity for test role-modeling and improve testing rates during the intervention. However, given that within-person variability has been found to in uence both intention and actual risk reduction behavior,[45] it may be that a vicariously experienced HIV test would not render enough self-e cacy to shi behavior among Latinos. Without doubt the diversity of the Latino population (in terms of geography, country of origin, immigration experience, level of acculturation, age, and risk history) will render multiple and diverse interventions necessary to mitigate the steady rise of HIV among this population. Clearly however, upon consideration of the synergy of the highh2whheswuerie-dou risk reduction behavior,

communication, and assured participants that sex and sexuality are natural aspects of our lives and that it is important to be able to talk openly about these issues with our partners. Moreover, the *charla* promoted openness and honesty between partners as two of the main traits of healthy sexual relationships.

Although most participants reported using condoms post-*charla*, with close to half reporting consistent condom use, only one-third reported refusing unprotected sex since the *charla* and the majority had engaged in unprotected sex. However, without knowing the number of sexual partners each participant had experienced since the *charla*, it is di cult to determine if they had engaged in high-risk sexual activity. Having one sexual partner and opting for monogamy in lieu of safer sex behaviors may be a viable HIV risk-reducing choice.

L a . e results of this intervention, although promising, must be interpreted with caution due to a number of limitations. A convenience sample of participants in Long Beach and San Ysidro represent those demonstrating interest in HIV/AIDS and do not necessarily re ect the opinions or behaviors of the general Latino population. In addition, given the geographic region of the intervention, the sample was predominantly Mexican and Mexican American, and this subgroup does not represent the Latino immigrant population universally. Furthermore, the community-based setting has a number of limitations, and *charlas* within communities are known for possibly disruptive atmospheres and are not necessarily conducive to a focused educational setting, much less data collection.

e small number of individuals who engaged in the 90-day telephone follow-up interview strongly a ected the analysis and illuminated the need for additional follow-up strategies to ensure the involvement of a larger sample size. e sample was reduced by 25% at follow-up because one-fourth of enrolled participants did not provide valid contact information, had disconnected telephones, or had moved by the time of the

unable to read it well, not asked for assistance, and therefore have le it unanswered.

e issue of substantial missing data beyond what can be statistically imputed might be ameliorated by interviewer-administered surveys or by having a project sta member review all surveys for completeness.

An additional limitation is the lack of a variable to measure perception of risk. It may be that intention to test was due to participant perceptions that they were not at risk for HIV infection. Discerning why Latinos do not perceive themselves to be at risk may provide insight into strategies to increase acceptance of universal HIV testing. Although further testing is needed in distinct contexts and with diverse Latino populations, *Protege tu Familia: Hazte la Prueba* demonstrates promise in delivering a culturally and linguistically tailored, family-based and community-driven intervention targeting Latinos who may not otherwise perceive themselves at risk. e extent to which the intervention was able to build capacity within speci c communities by providing community members the skills needed to promote healthier lifestyles is also noteworthy.

B ‰ a ‰. Employing community-based participatory research strategies, this pilot study sought to increase HIV-related knowledge, communication, stigma,

Standards* and the integration of HIV testing into routine medical screening practices,

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