

Reducing HIV risk among Hispanic/Latino men who have sex with men: qualitative analysis of behavior change intentions by participants in a small-group intervention

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Abstract:

Objective: The southeastern United States has the fastest-growing Hispanic/Latino population in the country and carries a disproportionate HIV burden. Among Hispanics/Latinos, men, and men who have sex with men (MSM) in particular, are at elevated risk of HIV infection; however, very few efficacious behavioral HIV prevention interventions are available for use with this vulnerable population. To address this shortage of prevention resources, our communitybased participatory research (CBPR) partnership developed and is currently evaluating the efficacy of the HOLA en Grupos intervention to increase condom use and HIV testing among Hispanic/Latino MSM.

Methods: We recruited 304 Hispanic/Latino MSM who were randomized to receive the small group HOLA en Grupos intervention that was implemented during four 4-hour long sessions over four consecutive Sundays, or a 4-session small group general health education comparison intervention. At the end of the fourth session of the HOLA en Grupos intervention, the intervention facilitators asked participants to write down the sexual health-related behaviors they intended to change as a result of their participation.

Results: Qualitative analysis of the participants' responses identified six types of intended behavior changes: increasing and maintaining condom use; identifying strategies to support correct and consistent condom use; increasing communication and negotiation with sexual partners about condom use; getting tested for HIV and other sexually transmitted infections; applying other sexual health promotion strategies; and sharing newly learned sexual health information with their peers.

Conclusion: Most risk-reduction intentions aligned with the intervention's key messages of using condoms consistently and getting tested for HIV. However, participants' stated intentions may have also depended on which behavior changes they perceived as most salient after participating in the intervention. Participants' intentions to share information with their peers may result in elements of the intervention content reaching others within their social networks, and potentially contributing to a broader community-level impact.

Keywords: HIV | STI | Hispanic/Latino | Men who have sex with men | Intentions | Prevention | Intervention

Article:

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Reducing HIV Risk among Hispanic/Latino Men Who Have Sex with Men: Qualitative Analysis of Behavior Change Intentions by Participants in a Small-group Intervention

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Background

Hispanic/Latino population in the United States

The Hispanic/Latino population is the largest ethnic minority in the United States (USA), having reached more than 55 million in 2014 and expected to reach 76 million by 2050 [1]. States in the southern USA that had small numbers of Hispanics/Latinos prior to the 1990s have experienced rapid Hispanic/Latino population growth since then. Much of this growth has occurred in rural communities. North Carolina (NC) has one of the fastest-growing Hispanic/Latino populations in the USA, having increased by 111% from 2001 to 2010 [2-4].

Jobs in farm work, construction, and factories, coupled with dissatisfaction with the quality of life in states that have a history of Hispanic/Latino immigration (e.g. Arizona, California, and Texas), led many immigrant Hispanics/Latinos to leave higher-density regions of the USA and relocate to the South and NC in particular [5]. Immigrant Hispanics/Latinos are also increasingly arriving in the South directly from their countries of origin, bypassing more traditional Hispanic/Latino destinations. Compared to Hispanics/Latinos in states that have been traditional Hispanic/Latino destinations (e.g. California, Arizona,

Hispanics/Latinos in the South tend to be younger, disproportionately male, foreign-born and from southern Mexico and Central America, and have lower educational attainment. Furthermore, new Hispanic/Latino destination states such as NC tend to lack the infrastructure to meet the needs of Hispanics/Latinos [5-8].

HIV among Hispanics/Latinos

Hispanics/Latinos in the USA are disproportionately impacted by HIV/AIDS and other sexually transmitted infections (STIs). Hispanic/Latinos have the second highest rate of HIV and AIDS diagnoses of

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all racial and ethnic groups, and despite representing 16% of the population, account for approximately 20% of people living with HIV in the USA [9]. Approximately 1 in 36 Hispanic/Latino men will be diagnosed with HIV in their lifetime [10]. States in the southern USA, including NC, that have experienced rapid recent growth of Hispanic/Latino populations also have some of the highest reported number of cases of AIDS and STIs such as gonorrhea, chlamydia, and syphilis in the USA [11,12]. NC ranked eighth among the 50 states in the number of HIV diagnoses in 2012, and the rate of new HIV diagnoses for Hispanic/Latino men in the state was nearly three times the rate among white men [13].

Men who have sex with men (MSM) of all races and ethnicities are most affected by HIV. Although infection rates have declined for many groups, between 2009 and 2013, the annual number of diagnosed HIV infections attributed to male-to-male sexual contact increased [9]. MSM represent about 4% of the adult male population in the USA [14], yet they accounted for 63% of all new infections and 78% of new HIV infections among men in 2010 [15]. Among Hispanics/Latinos in the USA, men accounted for 87% of all estimated new HIV infections, most of which (79%) were attributed to male-to-male sexual contact [16].

Multiple factors can contribute to such HIV disparities among Hispanics/Latinos, including a lack of understanding of HIV transmission and prevention strategies and how to utilize healthcare services for which they are eligible; the high cost of medical care; lack of a regular healthcare provider or health insurance; limited availability of bilingual and bicultural services; limited transportation options; low health literacy; and restrictive immigration enforcement policies [4,17-23]. Furthermore, attitudes and beliefs common among some Hispanics/Latinos may not support safer sex or the discussion of condom use [24-27].

Socio-cultural values and norms such as machismo [28] promote the need among some Hispanic/Latino men to be perceived as powerful and dominant and thus to engage in risk behaviors to prove their masculinity [29,30]. Examples of these risks include not using condoms and having multiple sex partners. Hispanic/Latino MSM in particular may feel compelled to take these types of risks to “prove” their manhood in a social environment where they are vulnerable to discrimination due to their ethnicity or their sexual orientation, and attempt to overcome their feelings of internalized homophobia [31,32]. In addition, Hispanic/Latino MSM may lack family support and experience rejection based on their sexual orientation. This lack of support and rejection can lead to depression, substance use and abuse, and HIV risk [33,34].

Despite the disproportionate impact of HIV and other STIs on Hispanic/Latino MSM, very few evidence-based behavioral interventions for HIV and STI prevention have been identified for this vulnerable population, and even fewer have been designed within the context of newer Hispanic/Latino destinations in the South [35-37]. To address the shortage of prevention resources, our CBPR partnership, which includes Hispanic/Latino MSM community members, developed HOLA en Grupos, a small-group four-session Spanish language intervention to increase condom use and HIV testing by Hispanic/Latino MSM [35]. This paper presents qualitative data collected from HOLA en Grupos participants during intervention delivery concerning their intentions to change their risk behaviors based on participation in the intervention.

Methods

Intervention development through community-based participatory research (CBPR)

Academic researchers tend to be community “outsiders” and may not understand the complexity of health needs and priorities, including those related to HIV and STIs, within a particular community; thus, their perspective alone may result in interventions that have limited effectiveness [38-42]. CBPR allows for more informed understandings of communities’ health needs and priorities, thereby increasing the likelihood that interventions being developed are impactful and promote community health [40,42].

For more than fifteen years, our CBPR partnership has been developing interventions for heterosexual persons in Hispanic/Latino communities of NC. Partnership members include representatives from community-based organizations, public health departments, local businesses, community members, federal scientists, and academic researchers, each with their own perspectives, experiences, and expertise, working as equal partners throughout the research process.

The impetus to develop HOLA en Grupos began in 2003, when our CBPR partnership began to implement a community-level HIV prevention intervention for heterosexual Hispanic/Latino men, known as HoMBReS [43,44]. HoMBReS has been listed as a best-evidence community-level behavioral HIV prevention intervention in the CDC Compendium of Evidence-Based Interventions and Best Practices for HIV Prevention (<http://www.cdc.gov/hiv/prevention/research/compendium/rr/hombres.html>). A group of Hispanic/Latino MSM who had learned about HoMBReS approached our partnership about working collaboratively with them to develop an HIV prevention intervention designed for Hispanic/Latino MSM. The eventual result was HOLA en Grupos.

With CDC support beginning in 2010, our partnership enhanced HOLA en Grupos based on the results of prior research blended with information concerning factors that have been identified as influencing HIV risks among Hispanic/Latino MSM. We are currently evaluating the efficacy of the enhanced intervention using a randomized control trial design that includes follow-up assessments at 6 months post-intervention [35]. Toward the end of the intervention delivery process, we collected qualitative data from HOLA en Grupos participants concerning their intentions to change risk behaviors, as a means of better understanding their priorities for changing risk behaviors based on their experiences with the intervention. Given that the best predictor of behavior is an individual’s intention to perform that behavior, we characterized the intervention effects on HIV prevention behavioral intentions of Hispanic/Latino MSM as one way to examine the potential impact of HOLA en Grupos.

Human subject oversight for this study was provided by the Institutional Review Board of Wake Forest School of Medicine.

Recruitment

Potential participants were recruited by setting up tables and distributing recruitment materials (e.g. posters, flyers, and brochures) at gay bars and clubs, community colleges, Latino-owned businesses, neighborhoods with high Latino censuses, and community events (e.g. gay pride parades and Latino cultural festivals). We also used social media websites frequented by gay men and word of mouth when participants enrolled in the study invited friends to participate.

Persons who self-identified during the initial participant screening

process, as a Hispanic/Latino male or transgender person, were 18 years of age or older, spoke fluent Spanish, reported MSM contact since age 18, and provided informed consent were eligible to participate. We use the term MSM to include gay and bisexual men along with those who engage in sexual activity with men but may self-identify as heterosexual or straight. Although HOLA en Grupos was designed for Hispanic/Latino MSM, Hispanic/Latina transgender women were also included as participants because of their high rates of HIV infection, their expressed interest in the intervention, and data suggesting that the social networks of these two subgroups overlapped [45]. We enrolled 304 participants in 16 waves.

Intervention delivery

After participants were enrolled, they completed an initial baseline assessment, which included demographic and health behavior items such as age, country of birth, sexual orientation, gender identity, educational attainment, employment status, and sexual behaviors with men and women. After each wave of participants was recruited, individual participants were randomized to groups of about 10 persons each to receive the HOLA en Grupos HIV prevention intervention or an attention-equivalent general health education comparison intervention. This intervention was designed to increase knowledge about prevention and treatment of other health issues, including: high cholesterol and hypertension; diabetes; prostate, colorectal, and lung cancers; and alcohol use and abuse. Both the HOLA en Grupos intervention and general health education comparison groups received

four sequential 4-hour sessions over four consecutive Sundays. Both HOLA en Grupos and the comparison interventions were delivered in Spanish by intervention facilitators recruited from the community who reflected the intervention's population focus (e.g. Hispanic/Latino, MSM, and native Spanish speakers) and had received training on implementation.

Features of HOLA en Grupos intervention modules and collection of data on behavior change intentions: HOLA en Grupos is based on social cognitive theory [46] and the theory of empowerment education [47]. It is designed to be interactive and uses various teaching modes, including group discussions, viewing and discussing DVD segments that we developed, role-playing scenarios, games and group activities, and PowerPoint presentations. We have described the development of the intervention and its components in detail elsewhere [35]. Briefly, the topics and activities covered in the four intervention modules, each of which is delivered during a separate session, are presented in a manner that considers the participants' various identities as Hispanics/Latinos, as immigrants, and as MSM (including gay and bisexual men and non-self-identifying MSM) and transgender persons. *HOLA en Grupos* intervention modules and content are described in Table 1.

Module 1 provides an introduction to the purpose of the intervention and information about HIV and STIs, including sexual risk behaviors and the impact of HIV and STIs on Hispanic/Latino MSM globally and in Latin America, the USA, and NC.

Module Title	Abbreviated Content
(1) General Information about the Intervention and an Introduction to Sexual Health	<p>Topics: Purpose of the intervention; magnitude of HIV and STIs among Hispanics/Latinos and Hispanic/Latino MSM internationally, nationally, and in NC; information about HIV, STIs, and healthcare services; HIV and STI-related vocabulary.</p> <p>Activities:</p> <ol style="list-style-type: none"> 1. Icebreaker, introduction to <i>HOLA en Grupos</i>, participant introductions; 2. Group discussion to establish ground rules; 3. DVD presentation and group discussion on magnitude of HIV and STIs among Hispanics/Latinos and Hispanic/Latino MSM; 4. "Find someone who" game to encourage participants to get to know one another; 5. HIV/STI PowerPoint and group discussion, distribution of wallet-sized STI brochure and brochure about local health departments; 6. HIV/STI vocabulary game
(2) Protecting Yourself and Your Partners	<p>Topics: Demonstration of the correct use of condoms; developing and practicing condom use skills; how to negotiate condom use; deciding what type of condom(s) participants prefer.</p> <p>Activities:</p> <ol style="list-style-type: none"> 1. Group discussion reviewing previous Module; 2. Demonstrating and practicing how to correctly use a condom using penis models; 3. PowerPoint on practical advice about condom use; 4. Interactive activity to identify the correct steps to use a condom; 5. DVD presentation and group discussion on negotiating condom use; 6. DVD presentation and group discussion on female condoms; 7. Activity in pairs on why some people use condoms and why some people do not use condoms; 8. Condom negotiation role plays; 9. Homework assignment (learning about different types of condoms)
(3) Cultural Values that Affect Our Health	<p>Topics: What does it mean to be a Hispanic/Latino gay man or an MSM? Hispanic/Latino cultural values and how they influence health; how to overcome socio-cultural barriers to health.</p> <p>Activities:</p> <ol style="list-style-type: none"> 1. Group discussion reviewing previous Module; 2. Group discussion of what it means to be Hispanic/Latino and gay/MSM or transgender; 3. PowerPoint and group discussion on how Hispanic/Latino cultural values influence behaviors; 4. Interactive activity to practice confronting health-compromising attitudes and beliefs; 5. DVD presentation and discussion on overcoming socio-cultural obstacles to accessing medical services discussion, and accessing health department HIV and STI testing services.
(4) Review/Bringing it all together	<p>Topics: Transmission of HIV and STIs; what it is like for someone living with HIV; abstinence; goal-setting for behavior change.</p> <p>Activities:</p> <ol style="list-style-type: none"> 1. Group discussion reviewing previous Module; 2. Review of HIV and STI transmission and prevention; 3. PowerPoint, game, and group discussion on distinguishing between HIV and STI myths and realities; 4. DVD presentation and group discussion on living with HIV; 5. Group discussion about abstinence; 6. Sharing behavior change intentions; 7. Conclusions

Table 1: *HOLA en Grupos* HIV prevention intervention modules and abbreviated content.

Module 2 includes multiple activities, some conducted in dyads, designed to help participants negotiate and practice correct condom use and develop strategies to overcome barriers to condom use. For example, participants develop skills to correct misconceptions and respond to reasons that sexual partners may use to assert not using a condom (e.g. “I’m a top, so I don’t need it”; “You can’t get infected because I won’t ejaculate inside you”; “I work out every day, so I must be healthy and not sick”; and “I don’t look like I have something like AIDS or another disease, do I?”).

Module 3 explores Hispanic/Latino cultural values, such as familismo, the strong sense of respect and loyalty to immediate and extended family; machismo, an exaggerated sense of manliness and power; marianismo, the view of women as pure, passive and self-sacrificing; and fatalismo, the belief that all events are inevitable and cannot be changed. These values that can negatively affect sexual risk behaviors and impact sexual behavior and health in general. Activities in this module are designed to help participants understand how behavior is affected by interactions between an individual and his/her environment and identify ways to bolster positive and reframe negative values and norms. This module also includes activities designed to increase use of available health resources, particularly HIV and STI testing, and help participants overcome practical challenges Hispanics/Latinos may face accessing these resources.

Finally, Module 4 reviews concepts covered in the previous modules, encourages participants to set goals for behavior change based on what they have learned, and includes viewing and discussing, through a facilitated process, a DVD segment that documents the experiences of a local Hispanic/Latino MSM living with HIV. This segment is designed to provide participants with a firsthand account of what it is like living with HIV as a Hispanic/Latino. Information about abstinence is also provided in this module.

At the end of Module 4, facilitators provided index cards to participants and asked them to write down the sexual health behaviors they intended to change as a consequence of their new knowledge and understanding acquired through the intervention. To increase the likelihood that their responses were genuine and not affected by social desirability bias, facilitators asked participants not to write their names on the cards to ensure that the information shared was completely anonymous. The facilitators collected each participant’s list of written behavior change intentions and read them aloud to the group. Participants frequently made comments after each intention was read, positively reinforcing the intention statements.

Analysis of behavior change intentions

After implementation of all intervention waves was completed, the intention statements were translated into English, summarized, and grouped by topic in a matrix. Four members of the research team then carefully reviewed this data matrix to identify recurring themes, which was inductively coded and organized into themes [48]. Discrepancies in coding were resolved via discussion among the research team.

Results

Participant characteristics

The 304 study participants included 288 Hispanic/Latino MSM and 17 transgender women. Of these, 152 participants were randomized to receive the HOLA en Grupos intervention.

Because this analysis is designed to describe HIV-related behavior change intentions among those who received the HOLA en Grupos

intervention, we do not include data from those randomized to the general health education comparison group (n=152). Demographic characteristics of HOLA en Grupos participants were characterized using descriptive statistics, including frequencies and percentages or means and standard deviations (SDs) using SAS 9.3 (SAS Institute, Cary, NC). The mean age of intervention participants, largely immigrants, was 30.4 years (SD=9.02); 62% reported Mexico as their place of birth; 83% were employed; and nearly half had less than a high school diploma. Over 68% self-identified as gay; 21% as bisexual; 5% as heterosexual; and 6% as other. Participants who self-identified as heterosexual/straight were included based on the eligibility criteria of having had sex with a man. Over 80% of participants reported sex with men in the past 12 months. Participant characteristics are summarized in Table 2.

Participant attendance to intervention sessions was high; 75% (n=114) of participants in the intervention group completed all 4 HOLA en Grupos sessions.

Behavior change intentions qualitative themes

HOLA en Grupos participants shared a total of 234 behavior change intentions (range: 1-9 intentions per person). Qualitative analysis of the participants’ stated intentions identified six themes.

Characteristic	Mean ± SD; range or n (%)
Age	30.4 (± 9.02; range 18-55)
Age first came to live in the US	18.1 (± 8.28; range 0-42)
Birthplace	
Mexico	92 (62)
Countries other than Mexico ^a	56 (38)
Total months lived in the US	157.9 (± 92.04; range 1-516)
Sexual Identity	
Gay	100 (68)
Bisexual	31 (21)
Heterosexual/Straight	7 (5)
Transgender	9 (6)
Education	
Less than high school	70 (46)
High school diploma or GED	31 (21)
Some college	17 (11)
2-year college degree	18 (12)
4-year college degree	15 (10)
Employment	
Employed	122 (83)
Unemployed	20 (14)
Retired/Disabled not working	5 (3)
Sexual behaviors	
Had male sexual partner in past 30 days	73 (50)
Had male sexual partner in past 3 months	95 (65)
Had male sexual partner in past 12 months	124 (84)
Had both male and female sexual partners in past 12 months	18 (13)

SD: standard deviation; n: number

^aArgentina (2), Colombia (1), Costa Rica (9), Cuba (1), El Salvador (6), Guatemala (7), Honduras (9), Italy (1), Peru (3), Puerto Rico (2), USA (14), Venezuela (1).

Table 2: Selected characteristics of HOLA en Grupos HIV prevention intervention participants (N=152), Central NC, 2012-2015.

Increase and maintain consistent condom use: The majority of participants reported intentions to use condoms “each time” and “all the times” they had sex and would “never miss (using condoms).” Several participants reported that they would start using condoms immediately, or that they had already started. For example, a participant said, “I have already started (to use condoms); my life has already changed.” Some participants who already used condoms occasionally reported that they now would use them “more often.” A participant noted, “I used to use condoms on very few occasions. With the new information, I have realized how important using condoms is.”

Identify strategies to support correct and consistent use of condoms: Participants also expressed that they would employ specific and individually relevant strategies, including those emphasized in the HOLA en Grupos intervention, to support their condom use. For example, participants stated that they would prepare in advance to have condoms on hand in case the possibility of having sex arose. A participant noted, “I will use condoms and will always have them with me.” Another participant said, “I will always carry condoms that are not expired, making sure they haven’t been in the cold or heat for long.”

Increase communication and negotiation with partners about condom use: Several participants reported that they would reduce their sexual risk by communicating and negotiating with sexual partners about safer sex. Some participants focused on not being “manipulated” by partners to not use a condom. For example, one participant indicated that he was more empowered and stated, “I will be able to say ‘no’ when my sexual partner doesn’t want to use condoms.” Another participant acknowledged potential challenges but confirmed his commitment to increasing communication with sex partners rather than avoiding discussions about safer sex, “I will communicate, even if (it is) uncomfortable.” Another one said, “(I) will always use condoms, even when they tell me they are healthy, no matter who the person is.” Other participants considered the possibility of not using condoms only if they and their partner had conversations about being in a committed monogamous relationship and had both been tested for HIV and STIs and discussed their results.

Get tested for HIV and other STIs: Several participants reported intentions to get tested for HIV. A participant noted, “I will get tested every 3 or 6 months to feel calm and without worries and live a healthy life.” Another said, “(I) will get tested for HIV frequently.” However, testing intentions were less frequent than stated intentions to use condoms or engage in other sexual health-promoting behaviors, such as those described below.

Use other sexual health promotion strategies: Participants also indicated that they intended to use other strategies to reduce sexual risks, including limiting their number of sexual partners, practicing monogamy or abstinence, avoiding sex while using alcohol and drugs, being aware of their partners’ HIV and STI status, and not relying on their perceptions of whether potential partners look like they may or may not be infected with HIV or an STI. Some participants described using these strategies in combination with consistent condom use; for example, one participant stated, “I will try to have sex only with one person or with my partner, always using condoms.” Participants reported valuing their health more than they previously had, planning to take care of themselves more, and intending to be “cautious” and “responsible.” Other participants’ statements included: “I will say ‘no’ to temptations,” “I won’t mix alcohol and drugs,” and “I will be more responsible.”

Share sexual health information with their peers: Several participants indicated they had been sharing and intended to continue

to share information that they learned during their participation in the HOLA en Grupos intervention with members of their social networks. A participant commented, “I’m already giving information about STIs and recommending testing sites to my friends, even to those who are married.” Intentions described by other participants included “I will help all transgender women learn how to take care of themselves using condoms” and “(I) will talk to Latino community members about their health and health behaviors to (make them) change their sexual behavior.”

Discussion

Participants in the HOLA en Grupos intervention reported a wide variety of behavior change intentions, with increasing condom use being the most frequently identified intention. Increased consistent condom use is a primary outcome of the intervention, along with HIV testing, so it is promising and may be anticipated that by the end of the intervention the majority of participants intended to use condoms. HOLA en Grupos has several activities aimed specifically at increasing condom use, including an opportunity for participants to practice putting on a condom correctly using a penis model and presentations describing the “dos and don’ts” of correct condom use. Other activities include a DVD segment that models a Latino male couple negotiating condom use, and condom negotiation role-playing activities in which participants are given a scenario and roles to practice having a dialogue with a sexual partner to negotiate condom use. The intention among many participants to talk to their sexual partners about condom use is also important, given that previous studies have identified lack of communication or negotiation about condom use among MSM, including Hispanic/Latino MSM, to be a factor contributing to low levels of condom use and increased HIV and STI transmission [29,49,50]. In addition, some participants who did not specifically mention intentions to use condoms reported that they would practice safer sex, and their interpretation of practicing safer sex most likely included using condoms.

Fewer participants reported HIV testing as an intention, despite the fact that testing was the other primary behavioral outcome for HOLA en Grupos. The intervention was designed to provide information and strategies to overcome obstacles to getting tested for HIV and utilizing other healthcare resources; however, Hispanic/Latino MSM face significant practical barriers to accessing testing (e.g. lack of transportation and language). Furthermore, many Hispanic/Latino MSM hesitate to seek and access health services because of experiences of stigma related to being gay or transgender; discrimination and racial profiling in general and in healthcare settings associated with being Hispanic/Latino; and concerns related to confidentiality. Other reasons for not seeking health services include concerns regarding whether patients are protected from being reported to immigration authorities; fears related to potential detention or deportation due to their real or perceived immigration status; and high levels of fear produced by immigration enforcement policies that are perceived as condoning racism [4,51]. The finding that intentions to seek HIV testing services were less prominent than other behavior change intentions may be an indication that greater efforts are needed to promote awareness of and participation in HIV testing, potentially as a gateway to HIV treatment for those who are HIV infected. This observation, together with findings from the ongoing evaluation of HOLA en Grupos, may identify approaches for strengthening the HIV testing component of the intervention. Activities could be added to the intervention to strengthen those that address the practical barriers that Hispanic/Latino MSM can face when accessing HIV testing.

Other intentions mentioned by HOLA en Grupos participants included practicing abstinence or monogamy, avoiding sex while using alcohol and drugs, and reducing the number of sexual partners. Although not primary intervention outcomes, these risk-reducing behaviors were addressed briefly in the HOLA en Grupos modules and may have resonated with some participants, depending on their own behaviors, relationship statuses, and perceived risk. Such diversity in participant intentions could be attributed to the fact that the HOLA en Grupos intervention uses a comprehensive approach that considers the unique circumstances of the population it is designed for by addressing and acknowledging cultural values, individual contexts, and other factors that may influence the sexual health of participants.

Participants' intentions to share the sexual health information learned during the intervention with peers (e.g. friends) within their social networks highlights the potential for the diffusion of intervention effects [52,53]. Given that MSM and transgender persons are disproportionately affected by HIV [54], approaches that have a broad reach are needed, and the sharing of this information with peers may help these other individuals reduce their HIV/STI risks. Determining the quality of information shared and effects of information sharing on the behaviors of non-intervention participants requires further study; however, social networks have been found to be efficacious for promoting health behavior change among vulnerable groups [44,55,56].

Participants' intentions to share sexual health information with peers are similar to intervention strategies that our CBPR partnership has used successfully to increase condom use and HIV testing in other studies with Hispanic/Latino men and with Hispanic/Latina transgender women in which participants have been trained as lay health advisors to engage their social networks and promote positive sexual health behaviors [44,57-61]. Finally, participants' interest in sharing risk-reduction information with their peers suggests that the intervention was particularly meaningful for them. Participants may have identified strongly with HOLA en Grupos and intended to share the intervention content because the intervention was designed specifically for the Hispanic/Latino MSM community, a group with unique needs that have not been fully addressed.

A potential limitation of this analysis is that intentions were collected only from HOLA en Grupos participants and not from those in the comparison intervention. The activity in which participants wrote down and publically declared their behavior change intentions was a theory-based component of the intervention adapted from the concept of "contracting", which is linked to social cognitive theory. Contracting serves to promote behavior change. The person wishing to change a behavior declares his or her intended behavioral change. In this case, these intentions also served as a form of data collection. Because the comparison group participants received information about general health which did not include sexual health topics, we concluded that collecting information on sexual behavior change intentions did not make sense. Consequently, we were unable to present and compare intention findings between groups. There is also the risk that participants may have provided responses that they considered more socially desirable; however, efforts were made to reduce social desirability bias (e.g. asking participants to report their intentions anonymously).

Overall, HOLA en Grupos participants' stated health-promoting behavioral intentions suggest the potential for their rapid application of the new knowledge acquired during the intervention regarding sexual health, correct use of condoms, and overcoming misconceptions about

HIV and STI transmission. Given that behavioral intentions are closely linked to health behaviors [62,63], this culturally congruent HIV/STI prevention intervention for Hispanic/Latino MSM and transgender women may contribute to reducing the disproportionate HIV and STI burden borne by these groups [16]. If the current evaluation of HOLA en Grupos determines that it is efficacious, it will provide another needed tool to those potentially available for use with Hispanic/Latino MSM, a population that is at once extremely vulnerable to HIV and STIs and underserved by evidence-based behavioral interventions to prevent infection from HIV and other STIs.

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