Published in final edited form as:

Cult Health Sex. 2014 May ; 16(5): 533–546. doi:10.1080/13691058.2014.891049.

Development and preliminary evaluation of a behavioural HIV prevention program for teenage girls of Latino descent in the USA

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Abstract

National data suggests that teenage girls of Latino descent in the USA are disproportionately affected by HIV with the rate of new infections being approximately 4 times higher compared to White women of comparable age (Centers for Disease Control and Prevention 2013). This paper highlights the need for an effective single-sex HIV prevention program for teenage girls of Latino descent and describes the development and preliminary evaluation of Chicas Healing, Informing, Living and Empowering (CHILE), a culturally-tailored, HIV prevention programme exclusively for teenage girls of Latino descent that was adapted from Sisters Informing, Healing, Living, and Empowering (SiHLE), an evidence-based HIV prevention program that is culturally tailored for African American young women. Theatre testing, a pre-testing methodology to assess consumer response to a demonstration of a product, was utilised to evaluate the relevance and utility of the HIV program as well as opportunities for the integration of cultural constructs. Future directions for the evaluation of *CHILE* are discussed.

Keywords

HIV; prevention; Latino; young women; USA

Introduction

Risky sexual behaviour has been linked to increased incidence and prevalence of HIV and other sexually transmitted infections (STIs), especially among USA young people aged 15–24 years who have higher rates of STIs compared to other rich countries (Jimenez, Potts, and Jimenez 2002). While the incidence and prevalence of STIs among 15–24 year olds account

for approximately half of the 19 million STI cases reported each year in the USA (Centers for Disease Control and Prevention 2007), the rates of STIs are approximately two times higher among Latina (defined by the US Census as any person who identifies his or her familial origins as Mexico, Puerto Rico, Cuba, Spanish-speaking Central and South American countries, or other Spanish cultures; US adolescents. Census Bureau, 2011) than among their Caucasian counterparts. Similarly, the US Centers for Disease Control and Prevention (CDC) estimate that Latinos represent 21% of new HIV infections in the USA, with the rate of new HIV infections among Latinas being four times greater than White females. Research also suggests that other sexual health related disparities exist between and among the Latino youth community, with Latinos experiencing more negative reproductive health outcomes compared to non-Latino counterparts (Cardoza et al. 2012). As such, the development and evaluation of culturally appropriate sexual health behavioural interventions for young people of Latino heritage is a major public health priority.

Integration of Culture and Evidence-Based Interventions

Over the last few years there has been an increased awareness of the importance of cultural issues as they relate to efficacious treatment for racial/ethnic minorities. As a result, experts have advocated for the adaptation of evidence-based interventions, defined as the systemic modification of interventions (Bernal, Jiménez-Chafey, and Domenech Rodríguez 2009), to take into account culture in an effort to improve access and quality of care for racial/ethnic minorities. To date, research has supported the development and evaluation of a range of culturally appropriate HIV behavioural interventions (Alvarez et al. 2009) that account for an individual's social and cultural context by addressing culturally-relevant risk behaviours related to gender roles, attitudes, and beliefs (Organista et al. 2013; Quevedo-Gómez et al. 2013; Sutterhein et al. 2013) to provide culturally-competent care and address the specific needs of the target population (Lum 2003; McNair and Prather, 2004; Scott, Gilliam, and Braxton 2005). For example, Sisters Informing, Healing, Living, and Empowering (SiHLE) is an evidence-based HIV prevention programme for young African American women (DiClemente et al. 2004). The development and implementation of SiHLE was guided by both social cognitive theory (Bandura, 1994) and the theory of gender and power (Wingood and DiClemente 2000). SiHLE emphasises ethnic and gender pride as well as enhanced awareness of HIV risk reduction strategies, strategies to increase confidence in initiating safe-sex conversations and refusing unsafe sexual encounters, the importance of abstinence and proper condom use, and the importance of healthy relationships in the practise of safer sex (DiClemente et al. 2004). The inclusion of ethnic and gender pride into intervention activities was integral in enhancing the programme's relevance. This included praising the strengths of African American teenagers, identifying positive African American role models, reading poetry written by and depicting strong African American women, discussing challenges of dating older men, and exploring HIV vulnerabilities such as stereotypical media messages (Wingood and DiClemente 2006). Results from an efficacy evaluation demonstrated that young people who completed the SiHLE program reported greater condom use up to 12-month follow-up compared to the control group. These results suggest that HIV interventions that are gender-tailored and culturally congruent can enhance HIV preventive behaviours.

HIV Prevention

To date, there has only been a handful of behavioural HIV prevention programmes developed for young people of Latino descent (for review see Cardoza et al. 2012). Preliminary findings from these programmes have shown positive outcomes with regard to reduction of risky sexual behaviour (e.g., fewer sexual partners, more frequent condom use at last sexual intercourse), attitudinal and behavioural change (e.g., increase in intentions of using condoms), and increased sexual health knowledge (e.g., greater condom use knowledge and AIDS knowledge). For example, results from Project CHARM show that participants' condom use during last sexual episode increased from 16% at baseline, to 48% at the 12 month follow-up (Koniak-Griffin et al. 2003). Similarly, when another programme entitled Cuidate was compared to a health-promotion control group, young people in the HIV risk-reduction group (Cuidate) were more likely to report using condoms consistently (odds ratio 1.91, 95% CI, 1.24–2.93; Villarruel, Jemmott, and Jemmott 2005). However, current limitations still exist, including: (1) studies that do not define a theoretical framework for the interventions, (2) limited culturally tailored programmes that include culturally focused components (e.g., bilingual/bicultural facilitators, integration of cultural values that affect sexual health, ethnic pride), (3) narrow emphasis on specific population sub-groups (e.g., only young women with children), (4) limited focus on teenage pregnancy, and (5) the inclusion of both males and females in the group intervention, which may negatively affect programme engagement and within-group interactions (Strange, Oakley, and Forrest 2003).

The limited focus on the integration of cultural variables, such as adherence to cultural values and gender norms, is particularly concerning given that the integration of culturally-tailored content has been shown to heighten programme engagement, adherence, retention, and completion (DiClemente et al. 2004; Smith, Domenech Rodriguez, and Bernal 2011). As such, researchers have strongly recommended that HIV prevention activities targeting Latino youth incorporate cultural factors, such as religious affiliation, adherence to the cultural values (e.g., *familismo* or the importance of family), and the cultural gender norms of *machismo* and *marianismo* -- as well acculturation and enculturation—because these are associated with adoption of health-protective practices (Alvarez et al. 2009; Gomez and Marín 1996; Rhodes et al. 2008). To this end, this paper describes our concept for the development of Chicas Healing, Informing, Living and Empowering (CHILE), a culturally-tailored, HIV prevention programme for young women from Latino backgrounds in the USA that was adapted from SiHLE. Our decision to adapt SiHLE was based on a number of factors: its cultural emphasis, focus on gender pride, and effectiveness demonstrated in community settings. A review of available interventions led us to conclude that it would be an ideal intervention to adapt.

The ADAPT-ITT model provides a framework for adapting HIV-related evidence-based interventions (Wingood and DiClemente 2008), and has received considerable support for use with diverse populations of adults and adolescents (Copenhaver et al. 2011; Latham et al. 2010; Wingood et al. 2011). The ADAPT-ITT model consists of 8 phases: (1) Assessment of the needs of the target population, (2) Decisions around which empirically supported HIV programme to use or adapt, (3) Administration of novel methods (e.g.,

theater testing) to adapt the chosen intervention, (4) *Production* of a first draft of the adapted intervention, (5) *Identification* of topical experts, (6) *Integration* of content provided by topical experts for the second draft of the adapted intervention, (7) *Training* staff to implement the adapted intervention, and (8) *Testing* the adapted intervention. While this model has been successfully applied to the adaptation of an HIV programme for older women of Latino descent (Wingood et al. 2011), to our knowledge, it has yet to be applied to an intervention for those who are younger. The purpose of the present study was to collect preliminary data to begin to address this critical gap by exploring the utility of this intervention with young women.

Theatre Testing

As mentioned above, our decision to adapt SiHLE (step 2 in the ADAPT-ITT framework) was based on a number of factors including its focus on cultural processes and gender pride as well as its demonstrated effectiveness in community settings. This intervention is conducted over four 4-hour weekly sessions in community organisations (e.g., family clinics). Each session has approximately 10–12 participants and 2–3 female facilitators from the same ethnic background. In a comparative study of 522 African American young women, participants who completed SiHLE reported increased condom use, increased frequency of communication with sexual partners, increased protected sex acts, and decreased reports of self-reported pregnancy and Chlamydia infections at 12-month follow-up (DiClemente et al. 2004).

We applied the ADAPT-ITT model (Wingood and DiClemente 2008) to guide the adaptation process and, more specifically, to assess potential cultural modifications to be made to the SiHLE protocol. As described in step 3 of the model (Wingood and DiClemente 2008), this included speaking with several key stakeholders in the community (e.g., health care providers working with Latino families; family advocates) to assess perceived need for an HIV prevention program for young women. The existing literature on the cultural modification of evidence-based interventions recommends the gathering of information regarding potential cultural adaptations from the desired population (Hwang 2009; McCabe et al. 2005; Wingood and DiClemente 2008) as a necessary step in the development of the adapted intervention (i.e., step 2- Decide whether adaptation is needed). As part of step 3 (Adapt, using the selected evidence-based interventions as a starting point), studies have utilised focus-groups to collect qualitative data regarding the relevance of cultural considerations, feasibility of implementation, and possible efficacy of the adapted intervention in addressing the mental health needs of a specific cultural group.

To this end, we conducted a focus group with a number of teenage girls of Latino background in the form of theatre testing (Wingood and DiClemente 2008). Theatre testing is a pretesting methodology utilised to assess consumer response to a product (Department of Health and Human Services 2004), and has been successfully implemented in previous studies to assess participants' reactions to HIV prevention interventions (e.g., Latham et al. 2010; Wingood and DiClemente 2008; Wingood et al. 2011). Using such an approach, members of the target population participate in the original version of the evidence-based intervention and provide feedback that will guide refinement to the intervention to enhance

its relevance and efficacy for the new target population (Wingood and DiClemente, 2008). In the current study, participants participated in the un-adapted SiHLE intervention (culturally tailored for African American young women) and provided feedback on the relevance and utility of the information presented as well as opportunities for the integration of cultural constructs, such as cultural values and gender norms.

Study Design

As part of the theatre-testing focus group technique, participants were presented with open-ended questions with follow-up probes at the end of every session in an attempt to elicit (1) impressions about the un-adapted content (e.g., helpfulness, relevance, language and word choice), (2) perceptions regarding the need to adapt the content, and (3) potential adaptations participants would like incorporated into the content (e.g., activities, educational materials). The original SiHLE protocol was structured with 4 weekly, 4 hour sessions. Because the current project is to be conducted during after-school hours, we restructured program delivery to consist of 11 weekly, 1.5 hour sessions. The teenage girls participated in the SiHLE program for 60 minutes, with the additional 30 minutes consisting of discussion and feedback regarding the session. At this time, participants had the opportunity to comment on potential modifications or additions to the protocol.

Recruitment

The Ethnic Minority Preventative Outreach and Web-Based Education for Risk Reduction (EMPOWER) Program formed a partnership with an ethnically diverse (70% Black, 13% White, 10% Hispanic, 1% Asian/Pacific Islander), urban high school in the Southeastern United States that is well known locally for a high pregnancy rate among its students. High school personnel (i.e., teachers, guidance counselors) were informed of the programme's purpose, goals, and procedures. School personnel were provided with informational flyers to distribute to potential participants and caregivers instructing interested parties to contact EMPOWER Program staff for more information. Programme staff members were provided with a list of teen/caregiver names who were interested in learning more about the project and followed-up with them by phone. One hundred percent of teenagers and caregivers who were contacted agreed to participate. Staff then met with the caregivers and adolescents in the community (i.e., in the home or some other convenient location for the family) prior to participation to review and attain written, informed consent/assent. Upon giving consent/assent, participants completed a self-report assessment at pre-intervention. Satisfaction surveys were completed at mid-intervention and post-intervention. Participants were compensated USD 10 for the pre-intervention assessment and USD 15 for mid-and post-intervention surveys. Participants were also given food during the programme, and the school provided transportation home. All procedures were approved by the Institutional Review Board at the Medical University of South Carolina (MUSC).

Participants

Ten young women, who self-identified as being from a Latino background were recruited to participate in an after-school HIV Prevention Program through which the SiHLE curriculum would be delivered. Three participants dropped out of the program in total; two dropped out

prior to the first session, and one dropped out half-way through the programme due to scheduling conflicts with family and work. Thus, the final sample consisted of 7 participants with an age range of 15 to 18 years ($M = 16.43$; $SD = .98$). Participants were in their second (28.6%), third (42.9%) or final year (28.6%) of high school. Over half of the participants reported their family to be from Mexico (57.1%), 28.6% reported being from Honduras, and 14.3% from Puerto Rican descent. Similarly, over half of the participants were recent immigrants (57.1%; born in Mexico) with the remainder born in the USA (42.9%). With regard to caregiver education, 57.1% indicated that their mother did not complete high school and 71.4% indicated that their father did not complete high school. All participants reported that both of their parents were currently employed outside of the home. The majority of participants were bilingual, reporting speaking English extremely well (85.7%) and Spanish either very well or extremely well (71.5%). Most participants self-identified as Catholic or Christian (71.4%) and reported practising their spirituality (e.g., by attending church, praying, etc) at least once per week (57.1%).

Data Analysis

We used a constructivist grounded theory approach (Charmaz 2006) for coding data and to identify both emerging and pre-identified themes from the focus group data. First, a content analysis of the responses was conducted through multiple close readings of the transcriptions by two independent coders. Each coder generated an independent list of thematic categories and subcategories based on their review of the data. These themes were then further developed and ordered by the first author and reviewed. The authors then met in a consensus conference to discuss the categories, resolve questions, and refine the thematic categories prior to developing the final thematic categories (Table 1). Recent projects evaluating pilot data and focus group feedback for adapting interventions have used similar analytic approaches to qualitative research (e.g., Davidson, de Arellano, and Ruggiero 2012; Grubaugh et al. in press; Hanson et al. 2013).

Results

Throughout the study gained valuable insight into the perceptions of young women regarding the relevance and usefulness of CHILE. Generally speaking, participants clearly and enthusiastically viewed the intervention as a valuable programme for people like themselves and made several suggestions to increase participant engagement and cultural relevance as well as potential topics to integrate into the content. These are discussed in greater detail below.

Participant engagement

As can be seen in Table 1, participants stated that the programme would be more engaging and relevant if content depicted pictures and visuals of women from Latino backgrounds (3 participants) and role models (4 participants). Similarly, they voiced wanting to include Latino music, poems and art (6 participants). For example, when reading the poem 'A Room Full of Sisters' by Mona Lake Jones, the participants inserted the word 'Latina' for African or Black, and several participants expressed the need for using poems written by women of Latino descent, whom they could also look to as role models.

Knowledge of reproductive health

Participants consistently expressed the utility of more information regarding reproductive health, including the proper use of contraceptives (4 participants) and how to teach correct use to others in their peer group or family (3 participants). Additionally, participants indicated that they would like to learn proper tampon use (3 participants) as well as information to dispel various myths related to menstruation in general (3 participants). One participant said: ‘my mother does not allow me to use tampons so I can’t ask her.’ Other participants reported similar experiences, noting that their mothers would tell them that they ‘would not be virgins anymore’ if they used tampons.

Furthermore, participants reported that they were misinformed by their mothers and other female family members about menstruation in general, including diet regiments (e.g., ‘we should not eat eggs or seafood;’ ‘we should eat cucumbers because they have water’) and daily behaviours and routines (e.g., ‘...it is not good to walk around without shoes and socks during your period’). Overall, participants indicated that they would like information about effective female hygiene tips related to menstruation included in the programme content as well as role-plays about how to effectively communicate with their mothers about tampon and contraceptive use since, for many of them, ‘asking teachers or experienced girls’ are their only sources of sex education (5 participants). Interestingly, participants also indicated that Spanish translations for female anatomy and STDs/STIs should be included, not only for easier communication with their mothers, caregivers/other female community members, but also because many of them act as translators during their mother’s physician appointments (3 participants).

Interpersonal relationships

In general, participants felt that cultural factors influenced their conversations regarding safe sex practices with their partners. For example, some participants reported that their families held the view that being a virgin and abstaining from sexual relations until marriage was the socially acceptable norm. For others, religious teachings were against premarital sex; for example, one participant stated that sexual relationships ‘...were wrong to God.’ As such, they were unsure how to discuss their cultural and/or religious values with their partner and emphasised the need for additional role plays highlighting how to assertively communicate their needs without offending their partner (3 participants).

Some participants reported experiencing jealousy and anger within their relationships and recommended the inclusion of information on how to manage jealousy and how to identify and safe-guard against potentially abusive relationships (3 participants). Some participants vocalised the frustration with feeling disempowered and embarrassed when speaking to partners about sexual health because, among Latinos, both men and women endorse the belief that women should not know as much (or more) about sex as men. As a result, they requested additional role-plays practicing assertive responses to sexual health with partners (4 participants).

Integration of Latino culture

Participants strongly advocated for the discussion of acculturation (6 participants), defined as the process of adaptation to mainstream culture while maintaining connections with native culture (Berry 1980); as well as enculturation, defined as the process of being socialised into and/or retaining one's indigenous cultural norms (Kim 2007). These processes may influence adherence to cultural values and interactions with their caregivers regarding sexual health.

All of the participants felt that cultural values should be incorporated more fully throughout the programme content to increase information relevance and participant engagement. Participants provided several examples for how values that are held within their families could be incorporated. For example, participants stated that while they 'respect and love' their mothers and found their caregivers to be a source of support for everyday problems, suggesting adherence to the Latino value of *familismo* (i.e., attachment and loyalty to immediate and extended family; Sabogal et al. 1987), they had difficulty speaking to them about sexual health and romantic relationships. Because of this, it was suggested that CHILE include role-plays about how to respectfully speak to their caregivers about their relationship and sexual health (5 participants).

For example, various participants stated that they hesitated to engage in positive sexual health practices (e.g., keeping condoms at home, setting up a gynaecology visit) because they did not want their parents to feel disrespected or disappointed by learning that they were sexually active. Participants also felt that addressing the traditional gender norms of *machismo* (i.e., dominant, head of household; Cuéllar et al. 1995) and *marianismo* (i.e., chastity before marriage, sexual passivity, subservience after marriage, devotion to motherhood, self-sacrificing, self-silencing; Vazquez 1998) would be useful to incorporate into programme content (3 participants). Finally, respondents felt it important to address religiosity and spirituality in the content (4 participants), particularly in the context of discussing sexual health with caregivers and/or sexual partners. For example, one participant said that, being Catholic, she did not believe in premarital sex, but was unsure about how to assertively communicate her feelings to her partner.

As previously discussed, nearly all of the participants endorsed the view that they were not able to communicate with their mothers about relationships and sexual health due to cultural and/or spiritual values. For example, one participant stated: '...I can't ask my mum to take me to the doctor to get a check-up; I am not supposed to be having sex...' Others disclosed that conversations with their mothers in the past about sexual relationships have led to conflict within the family. Because of this, six participants suggested that CHILE include a separate, parent-only component in which parents are presented with education about adolescent sexual health, and learn strategies for effectively communicating with their teens about sexual health. Participants also suggested that the information include differences in adherence to cultural values between teens and their parents as well as ways of managing those differences when discussing sexual health and relationships.

Conclusions

This paper describes our first steps toward addressing a meaningful gap in resources available to teenage girls of Latino descent at risk for HIV and teen pregnancy. Data collected from the theater testing focus groups will meaningfully inform the development of Chicas Healing, Informing, Living, and Empowering (CHILE), an empirically supported HIV prevention program exclusively targeting young Latina adolescents. Using the ADAPT-ITT framework for this cultural adaptation (Wingood and DiClemente 2008), CHILE aims to incorporate the effective strategies for empowering young adolescent girls with knowledge of healthy sexual practices while addressing cultural barriers that affect adoption of safe sex behaviours and increasing gender pride. Because national data indicates that 1 in 4 new HIV infections in the USA occur in young people ages 13–24 years old and that Latinos/as are at increased risk for contracting HIV and other STIs, development and identification of effective prevention programs that result in changes in sexual behaviour of this at-risk population warrants further attention. Given previous research demonstrating that sexual health education/HIV prevention programmes may be more effective in single-sex groups (Strange, Oakley, and Forrest 2003), this is the first Latino focused HIV prevention programme specifically targeting teenage girls of Latino descent.

Guided by the ADAPT-ITT model for adapting evidence based HIV interventions, we have successfully completed the first three steps of the adaptation process (Assessment, Decision, and Administration of theatre test). In order to complete the remaining steps (Production of adapted intervention, Topical experts, Integration of feedback, Training staff, and Testing the adapted intervention), we plan to distribute the current draft of the CHILE curriculum to colleagues with expertise in behavioural health and/or familiarity with working in Latino communities (step 5). In addition, integration of feedback resulting in a second draft (step 6) will also include responses from a focus group of Latino parents with adolescent girls, which will be conducted to collect reactions and opinions about how they would feel most comfortable speaking with their daughters about sexual health. After conducting readability testing of the second draft and producing the third and final draft, we will begin training recruiters, facilitators, and assessment staff (step 7). Finally, external funds will be sought to conduct a pilot study and test whether the adaptation of SiHLE to CHILE was successful in reducing high-risk sexual behaviours in teenage girls of Latino decent (step 8).

Much like *Cuídate* (Villarruel, Jemmott, and Jemmott 2005), an empirically supported and culturally based intervention to reduce HIV sexual risk among Latino and Latina youth that is based on the Be Proud! Be Responsible! curriculum (Jemmott, Jemmott, and McCaffree 1995), CHILE was developed by also building on what already works, specifically a curriculum that has been effective for a single-sex, ethnic minority group (i.e., African American young women). In order to decide which evidence based intervention to use (step 2 of ADAPT-ITT), research suggesting that single-sex sex education may provide better outcomes (Strange, Forest, and Oakley 2003) ruled out evidence-based interventions taught in mixed-sex settings.

Because adherence to traditional gender roles may increase Latinas' vulnerability to HIV (Gómez and Marín 1996), particular emphasis was placed on selecting an intervention that

incorporated cultural values as well as gender pride. For instance, because sex in Latino culture is viewed as an arena for men to prove their masculinity and for women to comply with the expected role of acquiescing to men's desires (Diaz 1998; Marín and Gómez 1996), discussing different relationship dynamics in the context of traditional Latino gender roles and incorporating this information into role-plays might help young women focus on how to effectively communicate their opinions about healthy sexual practices with their partner in a culturally sensitive manner. For example, girls adhering strongly to norms of *marianismo* may feel that it is not their place to discuss the use of contraceptives with their male partner and will leave the decision to their partner. Developing a role play in which a young woman can express her opinions about contraception in a manner congruent with *marianismo* (e.g., she does not want to get pregnant until she can fully devote herself to motherhood) could be very effective.

Furthermore, Latinas may be more likely than girls from some other ethnic groups to have older male partners which could act as a risk factor for early sexual activity (Marín et al. 2000). This could result in further disempowerment as the older male partner is the one who wields more power and is ultimately in charge of sexual decision making--another contributory risk factor (Villarruel, Jemmott, and Jemmott 2005). Some Latino parents may even encourage such relationships, assuming that older men will be more responsible.

Perhaps as a result of this growing concern for age difference of sexual partners, there have been calls for the design and implementation of separate preventive interventions for adolescent boys and girls (e.g., Amaro et al. 2001; Blake et al. 2001). However, the only randomised study to have evaluated a gender-specific HIV prevention programme for teenage girls of Latino descent was specifically designed for pregnant teenagers (Project CHARM; Koniak-Griffin et al. 2003). It is our hope that the integration of an effective, evidence-based HIV programme (i.e., SiHLE) and cultural considerations (ADAPT-ITT model) results in a culturally sensitive and potentially effective behavioural HIV prevention program. There are several implications and lessons learned from the current study that can be applied to future work with teenage girls of Latino descent. We believe a strength of CHILE is the gender-tailored framework that highlights underlying social processes, such as the dyadic nature of sexual interactions, relationship power, and emotional commitment that may promote and reinforce risk behaviours. Much of the feedback that participants provided is related to interpersonal styles within sexual relationships and is consistent with other gender-specific interventions. In prevention work with African American girls, DiClemente and colleagues (2004) emphasise that tailoring intervention components toward relationship dynamics, such as power differential and relatedness, is critical in maximising the efficacy of a single-sex curriculum. Given the hesitancy and discomfort that some of the participants of the CHILE theater testing focus group demonstrated during role plays (e.g., giggling and uncertainty what to say) early on in the intervention, the presence of men in a group context discussing sex might have prevented active participation of most of the girls in the group. In addition, opinions about CHILE with regard to *familismo* and *respeto* were consistent with responses obtained during the development of Cuídate (Villarruel, Jemmott and Jemmott 2005); however, CHILE participants provided additional feedback emphasising women's sexual reproductive health/menstruation.

Of note, while Latino youth involved in the preliminary studies and focus groups of *Cuídate* did not state a preference for Latino versus African American spokespersons, music, and videos, feedback conducted with CHILE participants resulted in multiple girls mentioning that modifications should include more representative female spokespersons of Latino descent, writers/artists, and music (e.g. teenage heart throb, Prince Royce). A potential explanation for these slightly different results from *Cuídate* could be that CHILE's focus on gender pride as well as cultural pride resulted in a stronger sense of empowerment and commonality, thus leading participants to voice their preference for spokespersons of Latino descent to reflect this solidarity. Personal disclosures also seemed to promote a sense of solidarity and gender pride. Although much success has been seen in co-educational group interventions, gender differences in the risk factors associated with HIV vulnerability in youth of Latino descent merit further investigation of different mechanisms that may be responsible.

Another important lesson learned was the willingness of Latino parents to permit their daughters to participate in a sexual education curriculum outside of school. Snacks and transportation were provided (a factor that might have affected parental consent) to help maintain engagement and retention of participants; however, it was surprising that no resistance was met with any of the parents. Despite the taboo nature of discussing sex between Latino parents and their children and the emphasis on chastity before marriage, all of the parents stated that they wanted their daughters to be aware of safe sex practices. Additionally, while Guzmán and colleagues (2003) found that youth of Latino descent report less communication with their parents about sexuality, an important protective mechanism against unsafe sex, results from our theater testing focus group suggest that teenage girls from Latino backgrounds want to open up the discussion of sex and sexual health with their parents, but do not know how to do so respectfully and in a culturally congruent manner.

This study is not without limitations. A common challenge in designing interventions for Latinos is the diversity among Latino sub-groups. While there are some shared characteristics such as Spanish language and values, the diversity among Latino groups, particularly with regard to acculturation status, adherence of cultural values, and sexual behaviours and sexual cultures, is important to consider in relation to young people's risk, as it has been proposed to directly and indirectly influence health status and health outcomes (Carrillo 2012; Portillo et al. 2001). Similar to *Cuídate*, CHILE addresses the heterogeneity among young people by acknowledging that Latinos are in some ways different, but also share a number of important similarities with others, including values. Further research that identifies different mechanisms of vulnerability among different subgroups is needed to assist in modifying the focus of prevention and treatment. In addition, we found strong engagement and high satisfaction with our theater testing in a school environment, but we do not know if retention rates would remain as high at a community center. While school support of the program helped with credibility and trust, many schools may not be amenable to providing sexual education and/or culturally specific programs on school grounds. In those cases, an alternative setting would need to be used. However, schools that do permit similar programmes do not necessarily need to restrict participation to Latinas if there are other girls who could benefit from the sexual health skills and knowledge.

Overall, feedback of participants in CHILE suggests that a gender-specific, culturally tailored intervention for teenage girls of Latino descent may have utility. Although evidence-based interventions are available for wider dissemination, adoption of evidence-based interventions often requires agencies to modify existing interventions to facilitate implementation, encourage ownership, and enhance acceptability of the intervention for new target populations. In response to the continuing HIV epidemic, there is a compelling urgency to develop and implement prevention interventions. This paper describes our first steps toward addressing a meaningful gap in resources available to teenage girls of Latino descent at risk for HIV and other STIs. Plans for continued evaluation include refining the intervention in response to the theater testing responses followed by rigorous evaluation of the intervention via randomised controlled trial methodology. Data from these studies will guide further refinements to the intervention.

References

- Alvarez ME, Jakhmola P, Painter TM, Taillepierre J, Romaguera RA, Herbst JH, Wolitski RJ. Summary of comments and recommendations from the CDC consultation on the HIV/AIDS epidemic and prevention in the Hispanic/Latino community. *AIDS Education and Prevention*. 2009; 21(5):7–18. [PubMed: 19824831]
- Amaro H, Blake SM, Schwartz PM, Flinchbaugh LJ. Developing theory-based substance abuse prevention programs for young adolescent girls. *Journal of Early Adolescence*. 2001; 21:256–293.
- Bandura, A. Social cognitive theory and exerside of control over HIV infection. In: DiClemente, RJ.; Peterson, J., editors. *Preventing AIDS: Theories and Methods of Behavioral Interventions*. New York: Plenum Publishing Corp; 1994. p. 25-59.
- Bernal G, Jiménez-Chafey M, Domenech Rodríguez M. Cultural adaptation of evidence-based treatments for ethno-cultural youth. *Professional Psychology: Research and Practice*. 2009; 40:361–368.
- Berry, JW. Acculturation as varieties of adaptation. In: Padilla, A., editor. *Acculturation: Theory, models and some new findings*. Boulder: Westview; 1980. p. 9-25.
- Blake SM, Amaro H, Schwartz PM, Flinchbaugh LJ. A review of substance abuse prevention interventions for young adolescent girls. *Journal of Early Adolescence*. 2001; 21:294–324.
- Cardoza VJ, Documét PI, Fryer CS, Gold MA, Butler JB. Sexual health behavior interventions for U.S. Latino adolescents: A systematic review of the literature. *North American Society for Pediatric and Adolescent Gynecology*. 2012; 25:136–149.
- Carrillo, H. Sexual culture, structure, and change: A transnational framework for studies of Latino/a migration and HIV. In: Organista, KC., editor. *HIV Prevention with Latinos: Theory, Research, and Practice*. New York: Oxford; 2012. p. 41-61.
- Center for Disease Control and Prevention. HIV in the United States: At a glance. 2013. http://www.cdc.gov/hiv/resources/factsheets/PDF/stats_basics_factsheet.pdf
- Center for Disease Control and Prevention. Trends in Reportable Sexually Transmitted Diseases in the United States. 2007. <http://www.cdc.gov/std/stats07/trends.htm>
- Charmaz, Kathy. *Constructing grounded theory: A practical guide through qualitative analysis*. New York: Sage Publications; 2006.
- Copenhaver MM, Lee I, Margolin A, Bruce RD, Altice FL. Testing an optimized community-based human immunodeficiency virus (HIV) risk reduction and antiretroviral adherence intervention for HIV-infected injection drug users. *Substance Abuse*. 2011; 32(1):16–26. [PubMed: 21302180]
- Cuéllar I, Arnold B, González G. Cognitive referents of acculturation: Assessment of cultural constructs in Mexican Americans. *Journal of Community Psychology*. 1995; 23:339–356.
- Davidson, TM.; Ruggiero, KJ.; de Arellano M, M. Development of a web-based depression resource for Latino adolescents. In: Herbert, chair J., editor. *Developing High Quality Remote Interventions*

for Youth; Symposium conducted at the annual conference of the Association for Behavioral and Cognitive Therapies; Washington D.C.. 2012.

Department of Health and Human Services. Making Health Communication Program Work. Bethesda: MD: 2004. National Cancer Institute. Publication No. 04-5145.

Diaz, Rafael. Latino gay men and HIV: Culture, sexuality and risk behavior. Boston: Routledge Kegan Paul; 1998.

DiClemente RJ, Wingood GM, Harrington KF, Lang DL, Davies SL, Hook EW, Oh KM, et al. Efficacy of an HIV prevention intervention for African American adolescent females: A randomized controlled trial. *Journal of the American Medical Association*. 2004; 292:171–179. [PubMed: 15249566]

Gómez CA, Marín BV. Gender, culture and power: Barriers to HIV prevention strategies. *Journal of Sex Research*. 1996; 33:355–362.

Grubaugh A, Gros K, Davidson TM, Freuh C, Ruggiero KJ. Providers' perspectives regarding the feasibility and utility of an Internet-based mental health intervention for Veterans. *Psychiatric Services*. In press.

Guzmán BL, Schlehofer-Sutton MM, Villanueva CD, Stritto MED, Casad BJ, Feria A. Let's talk about sex: how comfortable discussions about sex impact teen sexual behavior. *Journal of Health Communication*. 2003; 8:583–598. [PubMed: 14690890]

Hanson RF, Stauffacher Gros K, Davidson TM, Barr S, Cohen J, Deblinger E, Mannarino AP, Ruggiero KJ. National Trainers' Perspectives on Challenges to Implementation of an Empirically-Supported Treatment: Implications for Technology-Based Solutions. *Administration and Policy in Mental Health and Mental Health Services Research*. 2013 [serial online].

Hwang WC. The formative method for adapting psychotherapy (FMAP): A community-based developmental approach to culturally adapting therapy. *Professional Psychology: Research and Practice*. 2009; 40:369–377.

Jemmott, LS.; Jemmott, JB.; McCaffree K, K. Be proud! Be responsible! Strategies to empower youth to reduce their risk for AIDS. New York: Select Media Publications; 1995.

Jimenez J, Potts MK, Jimenez DR. Reproductive Attitudes and Behavior Among Latina Adolescents. *Journal of Ethnic & Cultural Diversity in Social Work: Innovation in Theory, Research & Practice*. 2002; 11:221–249.

Kim BSK. Adherences to Asian and European American cultural values and attitudes toward seeking professional help among Asian American college students. *Journal of Counseling Psychology*. 2007; 54(4):474–480.

Koniak-Griffin D, Lesser J, Nyamathi A, Uman G, Stein JA, Cumberland WG. Project CHARM: An HIV Prevention Program for Adolescent Mothers. *Family and Community Health*. 2003; 26:94–107. [PubMed: 12802115]

Latham TP, Sales JM, Boyce LS, Renfro TL, Wingood GM, DiClemente RJ, Rose E. Application of ADAPT-ITT: Adapting an evidence-based HIV prevention intervention for incarcerated African American adolescent females. *Health Promotion Practice*. 2010; 11(1):53–60.

Lum, Doman. Culturally competent practice: A frame work for understanding diverse groups and justice issues. Pacific Grove, CA: Brooks Cole-Thompson; 2003.

Marín B, Coyle K, Gómez C, Carvajal S, Kirby D. Older boyfriends and girlfriends increase risk of sexual initiation in young adolescents. *Journal of Adolescent Health*. 2000; 27:409–418. [PubMed: 11090743]

Marín, BV.; Gómez, CA. Latino culture and sex: Implications for HIV prevention. In: Zea, MC.; García, J., editors. *Psychological interventions and research with Latino Populations*. Boston: Allyn and Bacon; 1996. p. 73-93.

McCabe K, Yeh M, Garland A, Lau A A, Chavez G. The GANA program: A tailoring approach to adapting parent child interaction therapy for Mexican Americans. *Education & Treatment of Children*. 2005; 28:111–129.

McNair LD, Prather G. African American women and AIDS: Factors influencing risk and reaction to HIV disease. *Journal of Black Psychology*. 2004; 30:106–123.

- Organista KC, Worby PA, Quesada J, Arreola SG, Kral AH, Khoury S. Sexual health of Latino migrant day labourers under conditions of structural vulnerability. *Culture, Health & Sexuality*. 2013; 15(1):58–72.
- Portillo CJ, Villarruel AM, Siantz ML, Peragallo N, Calvillo ER, Eribes CM. Research agenda for Hispanics in the United States: A nursing perspective. *Nursing Outlook*. 2001; 49(6):263–269. [PubMed: 11753292]
- Quevedo-Gómez M, Krumeich A, Abadía-Barrero C, Pastrana-Salcedo E, van den Borne H. Machismo, public health and sexuality-related stigma in Cartagena. *Culture, Health and Sexuality*. 2012; 14(2):223–235.
- Rhodes SD, Hergenrather KC, Zometa C, Lindstrom K, Montaña J. Characteristics of immigrant Latino men who utilize formal healthcare services: Baseline findings from the HoMBReS study. *Journal of the National Medical Association*. 2008; 100(10):1177–1185. [PubMed: 18942279]
- Sabogal F, Marín G, Otero-Sabogal R, Marín B, Pérez-Stable EJ. Hispanic familism and acculturation: What changes and what doesn't? *Hispanic Journal of Behavioral Sciences*. 1987; 9:397–412.
- Scott KD, Gilliam A, Braxton K. Culturally competent HIV prevention strategies for women of color in the United States. *Health Care for Women International*. 2005; 26:17–45. [PubMed: 15764459]
- Smith TB, Domenech Rodríguez M, Bernal G. Culture. *Journal of Clinical Psychology: In Session*. 2011; 67:166–175.
- Strange V, Oakley A, Forrest S. Mixed-sex or single-sex sex education: How would young people like their sex education and why? *Gender and Education*. 2003; 15(2):201–214.
- Stutterheim SE, Bertens M, Mevissen F, Schaalma HP. Factors contributing to inconsistent condom use among heterosexual men in Curacao. *Culture, Health & Sexuality*. 2013; 15:420–433.
- U.S. Census Bureau. U.S. Department of Commerce, Economics and Statistics Administration. Washington, DC: 2011. *The Hispanic Population: 2010*.
- Vazquez MD. Silencing the self, relationship satisfaction and marianismo: An analysis of depression of Latinas. *Dissertation Abstracts International: Section B: The Sciences and Engineering*. 1998; 59:1871.
- Villarruel AM, Jemmott LS, Jemmott JB. Designing a Culturally Based Intervention to Reduce HIV Sexual Risk for Latino Adolescents. *Journal of the Association of Nurses in AIDS Care*. 2005; 16:23–31. [PubMed: 16438123]
- Wingood GM, DiClemente RJ. Application of the theory of gender and power to examine HIV related exposures, risk factors and effective interventions for women. *Health Education Behavior*. 2000; 27:539–565. [PubMed: 11009126]
- Wingood GM, DiClemente RJ. Enhancing adoption of evidence-based HIV interventions: Promotion of a suite of HIV prevention interventions for African American women. *AIDS Education and Prevention*. 2006; 18(A):161–170. [PubMed: 16987097]
- Wingood GM, DiClemente RJ. The ADAPT-ITT Model: A Novel Method of Adapting Evidence-Based HIV Interventions. *Journal of Acquired Immune Deficiency Syndrome*. 2008; 47:S40–S46.
- Wingood GM, DiClemente RJ, Villamizar K, Er DL, DeVarona M, Taveras J, Painter TM, et al. Efficacy of a health educator-delivered HIV prevention intervention for Latina women: A randomized controlled trial. *American Journal of Public Health*. 2011; 101(12):2245–2252. [PubMed: 22021297]

Table 1

Themes emerging from focus groups with teenage girls of Latino descent (n=7)

Core themes	Sub-themes	# of participants raising theme
Participant engagement	Use Latina role models	4
	Use more pictures of women/ couples of Latino descent	3
	Referring to participants as hermanas instead of sisters	3
	More diagrams/visuals	3
	Include Latino music, poems, art	6
Knowledge of reproductive health	Proper use of tampons	3
	Addressing menstruation misinformation	3
	Proper use of contraceptives	4
	How to teach peers and family about birth control	3
	Spanish translation for female anatomy and STDs/STIs	3
	Role-plays practicing communication of sexual health	5
Interpersonal relationships	Discuss jealousy/anger within romantic relationships	3
	Discussing virginity and religiosity with partner	3
	Additional role plays practicing assertive responses	4
Integration of Latino culture	Incorporate Latino values (e.g., familismo)	4
	Incorporate traditional gender norms (i.e., machismo, marianismo)	3
	Addressing religiosity/spirituality	4
	Addressing acculturation and enculturation	6
Interaction with caregivers	Need for parent-only education component	6