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History of Violence as a Predictor of HIV Risk among Multi-Ethnic, Urban Youth in the Southwest

Flavio Francisco Marsiglia, PhD,

Distinguished Foundation Professor of Cultural Diversity & Health, School of Social Work and Director of the Southwest Interdisciplinary Research Center, Arizona State University.

Tanya Nieri, PhD,

Assistant Professor of Sociology, University of California, Riverside.

Elizabeth Valdez, MD,

Executive Director, Concilio Latino de Salud.

Maria Gurrola, PhD, and

Assistant Professor, California State University, Long Beach.

Catherine Marrs, PhD

Graduate Student, School of Social Work, Arizona State University.

Abstract

This community-based exploratory study examined the effects of a history of violence, ethnic identification, and acculturation status on HIV risk among a majority Latino sample of youth living in a large metropolitan area of the Southwest in the United States. The participants reported high rates of violence and attitudes that put them at risk for HIV/AIDS infection. They participated in 1 of 2 prevention interventions offered by a local non-governmental organization. The first intervention was tailored for adjudicated youth (N=49) who were either institutionalized or were returning to the community after involvement with the criminal justice system. The second intervention targeted youth (N=32) who were homeless/runaway and/or self-identified as gay, lesbian, bisexual, or transgender (GLBT). T-tests and linear regression were used to determine the differences between youth reporting a history of violence by type of perpetrator, its relationship with HIV risk, and the role of ethnic identification and acculturation status as potential protective factors. Violence by a family member was the most common type of violence reported, with a history of violence positively related to HIV risk. Ethnic identification and linguistic acculturation had a protective effect against HIV risk among the homeless and GLBT youth but not among the adjudicated youth.

Keywords

HIV/AIDS; adjudicated youth; homeless/runaway; GLBT; youth; violence

INTRODUCTION

HIV/AIDS continues to be a serious threat to the wellbeing of young people in the United States and around the world (Beyrer, 2007). Approximately 5% of people living with HIV in the United States are between the ages of 13 and 24; they represent 46,500 persons (Centers for Disease Control and Prevention [CDC], 2008). Youth constitute a vulnerable group because

they are passing through a period of sexual development in which curiosity and lack of accurate information are commonly coupled with sexual initiation and experimentation (Kreipe, Ryan, & Seibold-Simpson, 2004).

Nationwide, HIV prevalence data demonstrates the existence of health disparities in the rates of infection among the gender, ethnic and racial groups. African American and Latino women account for 81% of AIDS diagnoses, and yet, they represent 25% of all women in the United States (CDC, 2006.). After African Americans, Latinos are the ethnic group with the highest percent of persons living with HIV. Latinos account for 15% of the US population, but they represent 18% of the people living with HIV (CDC, 2008). Latino teens are at increased risk for HIV infection due to their lower levels of contraception use in general and less consistency of condom use overall (Franzetta, Terry-Humen, Manlove, & Ikramullah, 2006).

As the Latino population continues to grow, there is an increased need to advance knowledge about vulnerable subgroups of youth within the Latino community. Violence is frequently associated with greater HIV risk (Johnson, Cunninham-Williams, & Cottler, 2003). Homeless and runaway youth, adjudicated youth, and youth who are questioning their sexual identity are, for various reasons, more likely to experience violence which adds to their already elevated levels of risk for HIV/AIDS (Gangamma, Slesnick, Toviessi, & Serovich, 2008; Heintz & Melendez, 2006; Haber & Toro, 2004; Voisin, 2005).

HIV/AIDS among Youth

The centrality of young people to the HIV/AIDS epidemic is reflected in the broad and growing literature on risk and protective factors associated with HIV infection among youth. The research has documented the relationship between HIV infection among youth and risky sexual practices, such as having unprotected sex (Lawrence, Crosby, Brasfield, & O'Bannon, 2002), sex with multiple partners (Magura, Kang, Shapiro, & O'Day, 1993), or sex while under the influence of drugs or alcohol (Rotheram-Borus et al., 2004). In addition, it has documented the influence of HIV-related knowledge and attitudes, such as misconceptions about modes of HIV transmission (Herek & Capitanio, 1999), negative attitudes about condom use (Beckman, & Harvey, 1996), and low self efficacy for negotiating condom use (Mustanski, Donenberg, & Emerson, 2006; Newcomb & Carmona, 2004)). Poor HIV knowledge and risky HIV-related attitudes are important precursors of risky sexual behavior (Lauby, Bond, Eroglu, & Batson, 2006).

The Department of Health and Human Services reported that the total number of new HIV cases dropped slightly from 2001 to 2005; yet, there was an increase in new cases among people aged 15–19 years and people aged 20–29 years (CDC, 2005). The risk for HIV is particularly acute among some ethnic minority youth. For example, among Latinos, HIV/AIDS was the leading cause of death for people aged 25–34 in 2001 (Delgado, 2007).

Adjudicated, Homeless/Runaway and GLBT Youth

Research on adjudicated, homeless/runaway and GLBT youth show how they have unique vulnerabilities to HIV infection. In the United States, approximately 5.5% of youth 10 years and older are referred every year to juvenile court; most of them are male and belong to and ethnic minority community (Williams & Khan, 2007). Adjudicated youths share many sexual risk factors with youths in the general population, including low rates of condom use, high rates of sex with multiple partners, and early onset of sexual activity (Clark et al., 2000). However, the level of risk is higher for adjudicated youth; particularly among indirect markers of HIV risk (Lux & Petosa, 1994), such as early unwanted pregnancy, intravenous drug use, and sexually transmitted diseases (Lanier & McCarthy, 1989; Council on Scientific Affairs, 1990). Because of the lack of screening for sexually transmitted diseases (Feldmann, 2008),

the HIV status of incarcerated youth is often unknown, and there is a concern that once they return to their communities of origin, uninformed infected youth spread the disease (Romero et al., 2007). These concerns are heightened by research indicating that adjudicated youth often lack motivation and a realistic orientation about the future (Whitbeck, Chen, Hoyt, Tyler, & Johnson, 2004). On the other hand, a set of protective factors have been identified within this population. For example, social bonding with other juvenile detainees can be an effective protective factor against HIV infection (Broaddus & Bryan, 2008).

An estimated 500,000 to one million youth can be considered homeless every year in the United States (The National Coalition for the Homeless, 2007). Homeless or runaway youth experience increased HIV/AIDS risk due to the stressful contextual variables affecting them. The vulnerability they experience due to a lack of permanent home is aggravated by their relatively high rates of alcohol and other drug use, sexual activity, and high numbers of sex partners (Rew & Horner, 2003). Homeless or runaway youth, including GLBT youth who have been rejected by their families and become homeless (Whitbeck, et. al., 2004), face a high HIV/AIDS risk because they may engage in survival sex, exchanging sex for money (LaLota, Kwan, Water, Hernandez, & Liberty, 2005), drugs (Clatts, Goldsamt, Yi, & Gwadz, 2005), or food (Rew & Horner, 2003) in order to survive while living on the street.

Sex under these circumstances is risky because the youth have less power to negotiate condom use or other methods of safer sex (Heintz & Melendez, 2006). Young males who have sex with males, in particular, are considered to be at high risk for HIV because the HIV transmission rates in that group continue to be disproportionately high (United Nations Programme on HIV/AIDS, 2006). In a study conducted with homeless youth, survival sex emerged as the most significant predictor of sexual health risk among homeless females regardless of their sexual orientation and among gay males (Gangamma et al., 2008). A meta-analysis estimating HIV prevalence and risk behaviors of transgender persons in the U.S. concluded that transgender persons of ethnic minority backgrounds experience a disproportionally high risk for HIV infection (Herbst et al., 2008). More research is needed in order to better identify key processes associated with the protective and risk factors related to these vulnerable subgroups of youth.

HIV/AIDS and Violence

Prior research has linked the experience of violence with a greater risk for HIV/AIDS. People involved in violent relationships may have less power to negotiate safer sex (Voisin, 2005). Others who have experienced violence may have less motivation to engage in safer sex (Heintz & Melendez, 2006). Violence thus undermines the ability to act on knowledge of HIV risk and to exercise skills in preventing transmission; as such, it is an important risk factor, especially for women and girls (Murdaugh, Hunt, Sowell, & Santana, 2004; Gutierrez, Joo Oh, & Gillmore, 2000).

Youth involved with the criminal justice system often experience high rates of violence (Anderson, Nyamathi, McAvoy, Conde, & Casey, 2001). They may have experienced violence as a victim, perpetrated violence, or witnessed violence in their home or community (Theall, Elifson, Sterk, & Stewart, 2007). Youth who experience or witness violence are more likely to engage in risky behaviors, such as sex without a condom and illicit drug use (Wingood et al., 2006).

GLBT youths are the targets of violence due to their sexual orientation. According to the FBI, 1,244 or 16% of hate crimes were committed against individuals due to sexual orientation in 2002 (Hate Crime, 2007), and many such crimes go unreported. GLBT youth who are homeless experience high rates of victimization in the form of bullying and beating due to their stigmatized sexual identity (Haber & Toro, 2004; Whitbeck et al., 2004). In addition, rates of sexual victimization are particularly high in this population. The rate of sexual victimization

among GLBT youth is 7 times the rate among heterosexuals (Haber & Toro; Whitbeck et al.). GLBT youth may also experience violence within their romantic relationships, and this can lead to greater HIV risk. GLBT persons in abusive relationships may experience difficulties negotiating safer sex due to fear of violence or as a result of an unequal power distribution (Heintz & Melendez, 2006). These processes can lead to very high levels of risk. For example, men involved in same-sex relationships characterized by intimate partner violence are 50% to 60% more likely to be HIV positive (Greenwood et al., 2002). Also, among the GLBT population, men are more often victimized by strangers than women.

Homeless youth may have experienced violence prior to becoming homeless, and they may experience violence while they are homeless. Physical abuse and sexual abuse are common factors precipitating the homeless or runaway youths' separation from home (Haber & Toro, 2004). Once on the street, homeless youth are often subjected to violence. Homeless persons are often targeted for violence, and the level of violence committed against them is more severe than the level of violence committed against the general population (The National Coalition for the Homeless, 2007). For example, violent acts, 31% of which were lethal, included attacks with golf clubs and setting a person on fire while s/he was sleeping. Homeless females are especially vulnerable to sexual pressure, violence, and rape (Halcon & Lifson, 2004).

In summary, homeless/runaway, GLBT, and adjudicated young people experience high rates of violence which may, in turn, influence their attitudes toward safer sex and their sexual behavior, putting them at risk for HIV – a risk that is compounded when they are also female or a member of a minority ethnic group.

THEORY

A Resilience Framework

Despite the risks they face, some adjudicated, homeless or runaway, and GLBT youth are able to capitalize on their strengths to engage in risk-free or low-risk sexual relationships. According to a resiliency approach (Bogenschneider, 1996), a resilient person develops over time various social competencies that enable him or her to successfully confront stressful situations (Benard, 1993), even if that person lives in a context whose characteristics (e.g., violence) override personal strengths, placing him or her at risk (Bronfenbrenner, 1992; Okamoto et al., 2006).

Resiliency and its protective effects are difficult to identify when the social context is characterized by many vulnerabilities. Applying the resiliency approach with a targeted community sample offers the valuable opportunity to advance knowledge about groups of youth who are perceived by the larger society and its institutions to be marginalized. Cultural variables are considered from a resiliency perspective to advance knowledge about the influence of acculturation and ethnic identity on the well being of vulnerable youth. For example, familism – the strong bond with family – has been identified as a strong cultural factor that protects against HIV infection across different subgroups of Latino youth (Jacobs, 2008).

Acculturation and Ethnic Identification as Protective Factors

Research on ethnic minority youth has given considerable attention to acculturation and ethnic identification as possible protective or risk factors associated with social and health outcomes (Turjeman, Mesch, & Fishman, 2008; Le & Stockdale, 2008). Acculturation can be both a risk and a protective factor associated with HIV risk. Lower acculturation to mainstream culture has been associated with less sexual activity – which is associated with lower HIV risk – whereas higher acculturation has been associated with greater HIV knowledge among Latinos but more sexual activity (Marsiglia & Navarro, 1999). Less acculturation is often associated with more traditional attitudes concerning virginity, children, love and marriage, as well as

later onset of sexual activity (Upchurch, Aneshensel, Mudgal, & McNeely, 2001) and with fewer sexual partners (Villarruel, Jemmott, Jemmott, & Ronis, 2004). On the other hand, less acculturation is associated with less condom use among the sexually active (Villarruel et al., 2004). In Latino samples, acculturation status has been identified as a strong predictor of risky sexual behavior (Newcomb et al., 1998). Acculturation status - in combination with other protective and risk factors - appears to be an important variable to include in studies examining HIV prevalence among vulnerable Latino youth.

Ethnic identification – that is, a high degree of affiliation with one’s ethnic group – is considered to have potentially protective effects on youth by strengthening social ties, instilling personal pride, and creating a positive image young people can live up to. However, the empirical evidence has been inconsistent in documenting the benefits of ethnic identification for HIV prevention. Some research has shown ethnic involvement and affiliation to have no effect on HIV-related outcomes (Marsiglia, Nieri, & Stiffman, 2006; Chewning et al., 2001). Other studies suggest that a strong identification with culture of origin may be associated with lower HIV risk (Mitchell, Kaufman, Pathways of Choice, & Healthy Ways Project Team, 2002). Ethnic identification and acculturation measure different constructs, but together, they help us better understand the dynamic process of identity formation.

Using a predominantly Latino multi-ethnic youth sample from a large metropolitan area of the Southwest in the United States, this secondary data analysis examines the relationship between a history of interpersonal violence and HIV/AIDS risk and the role of linguistic acculturation and ethnic identity as possible protective factors against risk.

METHODS

Data and Sample

This article presents results from a secondary data analysis. The data came from a program evaluation study conducted by a 501 (c) (3) non-profit, community-based agency in a large Southwestern city. The evaluation examined the effectiveness of two evidence-based, early intervention HIV prevention programs for youth. One program was geared toward adjudicated youth who were either institutionalized or returning to the community after involvement with the criminal justice system, and the other program was geared toward homeless, runaway, and GLBT youth. The GLBT group was included because they frequented a drop-in youth center; while some were runaway, others lived with their families but spent most of their time away from home. Data for the present analysis came from a pretest, collected between September 2003 and September 2004. The adjudicated sample consisted of 49 youth, and the homeless and GLBT sample consisted of 32 youth.

Participation in the interventions was voluntary. Parental consent and participant assent were obtained in accordance with the human subjects requirements of both the agency and its funder, the Substance Abuse and Mental Health Administration of the U.S. Department of Health and Human Services. The Arizona State University Internal Review Board conducted its own human subjects review and granted approval for the secondary data analysis study.

Context of the Study Sites

The community-based agency that implemented the two programs has been in operation since 1989, serving local Latino community by providing culturally competent and linguistically appropriate advocacy and health education on a wide range of health topics, including HIV/AIDS. It has pioneered neighborhood coalitions, mobilizing a people-centered network of health liaisons, youth and adult peer leaders, and *promotoras* (lay health workers) who conduct outreach and education in the communities where they live.

After many years of intensive HIV prevention field work, it became apparent that there were subgroups of difficult-to-reach youth in need of targeted outreach. An award was received from SAMSHA to implement two evidence-based prevention interventions. The agency partnered with three additional community organizations, each serving a youth population that is unique in terms of its risks and was identified as being underserved by a community-based health assessment. All of the organizations serve central-city neighborhoods characterized by large numbers of low-income residents.

While state and private HIV services, mostly testing and counseling, were available in the targeted neighborhoods, existing services did not specifically target youth and did not address the risk-specific needs of the youth in the sample. That is, they did not address post-adjudication challenges, GLBT issues, and issues of homelessness. Furthermore, they did not generally include formal HIV prevention education, other than distribution of informational brochures. Hence, the demonstration project aimed to fill a need for youth-specific prevention programming and, in particular, programming for vulnerable youth. The HIV serostatus of the targeted youth was unknown.

The collaboration between the agency and the university-based researchers on this secondary data analysis aimed to capitalize on the availability of data from hard-to-reach and understudied youth and young adult populations. The goal of the analysis was to better understand the relationship between youth's violence histories and HIV risk to inform future programming. University staff and agency personnel together selected the research topic. As part of the collaboration, the university team supplied the agency with 20 hours per week of research assistance provided by a graduate student. The student assisted with data entry and provided technical assistance on matters of data collection, data cleaning, and compilation for the evaluation study, from which the data for this analysis came.

Measures

HIV risk was measured by an index created by averaging several items provided by the evaluation instrument of the two curricula (see Appendix A for item content). The index was similar but not the same across the two samples because each had a slightly different set of indicators. Response options ranged from one to four: 1 = Agree a lot, 2 = Agree a little, 3 = Disagree a little, 4 = Disagree a lot, with higher values indicating greater HIV risk. The index for the adjudicated sample had a Cronbach's alpha of .682, indicating a moderate degree of reliability. The index for the homeless and GLBT sample had a Cronbach's alpha of .578, indicating weak reliability. Results from this second group should be viewed with caution, but they are presented in order to allow for comparisons across groups.

History of violence was measured with three dichotomous items that captured whether the young person had ever been physically or sexually assaulted by a partner, family member, or stranger. Response options were 1 = yes and 2 = no. The items were measured as separate dichotomous variables in descriptive analyses but were combined into a single dichotomous variable for the regression analysis.

Ethnic identity was measured by Phinney's ethnic identity scale (1992). Responses to the seven items were averaged to provide a single score of ethnic identity. The scale's Cronbach's alpha was .863, indicating good reliability. Scores were used as a continuous variable in the regression analysis. For the descriptive analyses, the variable was dichotomized: high ethnic identity (1) and low ethnic identity (0).

Linguistic acculturation was represented by the average of three items: language use with family, language use with friends, and language of consumed media. Response options were: 5 = English only, 4 = mostly English, 3 = English and another language equally, 2 = mostly

some other language and 1 = some other language only. As with the ethnic identity scale, the scale was dichotomized (high and low linguistic acculturation) for descriptive analyses, but the continuous scale was used in regression analyses.

The control variables used in the analyses included gender, race/ethnicity, and living arrangements. Gender was a dichotomous variable, with 1 = female, 0 = male. Seventeen percent of the adjudicated sample was female; 83% was male. In the homeless and GLBT sub-sample 63% was female and 37% was male. In both sub-samples some cases were missing on gender. Reports from program staff provided an explanation for this situation in the homeless/GLBT sample. They said that some of the youth in the homeless and GLBT sample did not feel comfortable choosing between male and female and consequently, left the question blank.

For race/ethnicity the youth could choose from the following categories: Hispanic, Black or African American, Asian, American Indian, White, or Other. Based on the self-reported information, three dummy variables were created: Hispanic, non-Hispanic White, and non-Hispanic Other ethnicity. The third category included people who self identified as Black or African American Asian, American Indian, or Other ethnicity. Non-Hispanic White was the reference group in regression analyses. The distribution of race/ethnicity in the adjudicated sample was as follows: 57% Hispanic, 34% White, and 9% Other. In the homeless and GLBT sample 57% were White, 33% Hispanic, and 10% Other. As these figures indicate, the adjudicated sample was predominantly Hispanic whereas the homeless and GLBT sample was predominantly White.

The measure of living arrangements was based on a question asking with whom the youth was currently living. Three dummy variables were created: Living with non-parent family members (grandmother, grandfather, brothers, sisters, or other family), living with people other than family members (e.g., foster parents or friends), and living in a shelter or a group home. Living with parents (mother, father, stepmother, or stepfather) was the reference group in regression analyses. Living arrangement was viewed as an important control variable because prior research has shown it to relate to risky sexual behavior (Young & Jensen, 1991).

Statistical Analyses

The two sub-samples were analyzed separately. We employed t-tests to examine differences between groups in terms of HIV-related attitudes. Regression analysis was used to determine the relationship between risky HIV-related attitudes and a history of violence, controlling for gender, ethnic identity, ethnicity, linguistic acculturation, and living arrangements. Five regression models were generated. The first model included controls only. The second included controls and history of violence. The third included controls and ethnic identity. The fourth included controls and linguistic acculturation. The fifth and final model included all predictors within each subgroup.

RESULTS

One-third (28%) of the adjudicated sample reported having a history of violence. Fifty percent of adjudicated females and 31% of adjudicated males experienced some type of violence. In the homeless and GLBT sample 55% (35% of females and 65% of males) reported a history of violence. In both sub-samples some young people experienced more than one type of violence. Table 1 shows the distribution of violence by type of violence and by gender in each sub-sample.

Among adjudicated youth, family violence was the most common type, and more females than males experienced each type of violence. Family violence was the most common type among the adjudicated males, and stranger violence was the most common type among adjudicated

females. In the homeless and GLBT sample stranger violence was the most common type of violence experienced, followed by family violence, and then partner violence. Among females in this sample, partner and stranger violence were the most common type of violence whereas among males, family violence was the most common type.

Table 2 shows the mean level of HIV risk by gender and history of violence for each sub-sample. Given that the HIV risk scale ranged from one to four, with higher values indicating greater risk, the means reported in the table represent a relatively low level of HIV risk in the two sub-samples. However, the means for the homeless/GLBT sample were somewhat higher than the means for the adjudicated sample. The overall mean HIV risk was the same for males and females in the adjudicated sample but slightly higher for males than females in the homeless and GLBT sample. This difference was not statistically significant ($t = 1.144$, $p = .264$). In the adjudicated sub-sample, the overall mean HIV risk was slightly lower among youth with a history of violence than among youth without a history of violence. The converse was true in the homeless/GLBT sub-sample. These differences were not statistically significant in either sub-sample ($t = 1.018$, $p = .315$ and $t = -1.637$, $p = .113$, respectively).

Table 3 reports the results of an ordinary least squares regression of HIV risk for the adjudicated sub-sample. The coefficient for history of violence was positive, suggesting that an experience of violence was associated with riskier HIV attitudes. Neither this effect nor others in the model were statistically significant, perhaps due to the small sample size and consequent low statistical power.

Table 4 shows the results of an ordinary least squares regression of HIV risk for the homeless and GLBT sub-sample. As predicted, young people with a history of violence reported riskier HIV attitudes relative to their peers with no history of violence. In addition, ethnic identification and linguistic acculturation appeared to protect them against HIV risk. The negative coefficient for ethnic identification in the preliminary (1) and final (5) models indicated that the homeless or GLBT young people who identified more with their ethnic group reported less risky HIV attitudes. Although the coefficient was negative, it was statistically significant only in the final model. Similarly, the effect of linguistic acculturation was statistically significant only when the other predictors were included in the model. Young people with higher linguistic acculturation had less risky HIV attitudes. Given the small sample size, the finding of statistical significance suggests that these effects are robust.

The control variables were not statistically significant in preliminary models (1 – 3). However, ethnicity became statistically significant in the final model which controlled for all variables simultaneously. Relative to non-Hispanic Whites, non-Hispanic Other ethnicity youth reported riskier HIV attitudes, but there was no statistically significant difference in HIV attitudes between Whites and Latinos. While the gender coefficients were consistently negative, suggesting lower risk for females, they were not statistically significant. Finally, living arrangement was found not to be related to the outcome.

DISCUSSION

This study examined self-reported attitudes of a multi-ethnic sample of vulnerable young people living in a large metropolitan area of the Southwest. The hypothesized positive association between a history of violence and HIV risk was supported only for the homeless and GLBT sub-sample. The hypothesized protective effects of ethnic identity and acculturation were partially supported. Although the results were tentative, they provided important insights into the relationship between a history of interpersonal violence, cultural variables, and risky HIV-related attitudes. Furthermore, while the study's cross-sectional analyses could not

determine causal relationships, they could serve as the basis for the design of future longitudinal studies with larger samples.

Several statistically significant relationships emerged in the homeless and GLBT subgroup. History of violence was positively associated with HIV risk; participants who experienced any type of violence reported riskier HIV attitudes. Consistent with the findings of other studies (Gangamma et al., 2008), the experience of violence was as prevalent among females as it was among males, although male participants reported more family violence than females did. The most frequent exposure to violence reported by the homeless and GLBT participants was also consistent with the literature (Heintz & Melendez, 2006). The high rates of family violence may be due to males' coming out or being outed to their families. In the sample as a whole, family violence was more common than partner or stranger violence.

African American, American Indian and Asian American participants were at a higher risk for HIV infection. Given the relatively small size of their ethnic communities in the study area, these youth may have had fewer opportunities to develop a sense of community and build support among each other. However, these results need to be interpreted with caution due to the groups' small numbers within the sample.

Acculturation and ethnic identity emerged as protective factors against HIV risk within the homeless and GLBT subgroup but not within the adjudicated subgroup. Previous research has identified the close connections that homeless and runaway youth build as a means to compensate for what they lost in their family environment (Lalota et al., 2005). Some youth were both homeless *and* self-identified as GLBT, indicating some intersectionality between the two statuses. Participants appeared to value their connections with each other and their ability to develop a community or family of choice as they cope with the challenges associated with sleeping on the streets or in shelters. These findings confirmed the protective effects of social bonding against HIV risk for homeless and GLBT youth, although they were less clear for the sub-sample of adjudicated youth (Broaddus & Bryan, 2008).

The failure to find the same significant relationships among the adjudicated youth may be the result of underreporting of intimate relationships. The youth in this group had already spent time in detention and/or were on probation at the time they completed the survey for the study. The experiences of detention and/or probation may have affected how youth related to each other and with their families and communities. Adolescents involved in the adjudication process might have had reservations about reporting on their intimate relationships with others or their experiences of violence. They may have wanted to protect others or to avoid making themselves appear vulnerable or in trouble.

Higher ethnic identification was negatively associated with HIV risk. Participants with more connection to their ethnic background reported lower HIV risk. For these participants their ethnic group affiliation may reflect maintenance of their connections with their group of origin which served to reduce their HIV risk.

Higher linguistic acculturation predicted lower HIV risk. Latino participants who communicated with friends and family more in English than in Spanish reported lower HIV risk. This finding may be due to corresponding differences in access to prevention messages. The more English youth speak, the higher the chances they have to access HIV prevention information (Marsiglia & Navarro, 1999). Spanish speakers may have less access to prevention information in their native language. Some adjudicated youth reported higher levels of acculturation and a weaker link to culture of origin which was associated in their case with risky HIV attitudes, although these results did not reach statistical significance.

These findings highlighted different sources of resiliency among participants and the potential consequences of strong family and community bonds across the acculturation continuum. Strong ethnic identification and higher acculturation were both identified as having a protective effect for certain subgroups in the study, suggesting that biculturalism and bilingualism may protect against HIV risk.

Limitations

When examining specific highly vulnerable groups, there is often the challenge of small sample sizes which may limit the power of the statistical analyses. Due to its focus on three specific highly vulnerable groups of young people, this study was not spared this challenge. These results may not generalize to similar high-risk youths in other ecological contexts or to youths experiencing different types of stressors. Thus, it would be important to compare these results with future studies focusing on these specific populations to identify trends and/or differences before making generalizations. Furthermore, a more reliable HIV risk index is needed before definitive conclusions can be drawn.

Recruitment and retention of vulnerable youth is difficult. Since many of the participants were homeless, some moved before they completed the program and thus, they did not provide complete data. Although youth in the two sub-samples shared some characteristics, they were sufficiently distinct to prevent a combined analysis. This affected the statistical power while running the regression models.

In addition to the small sample size, the evaluation study did not involve randomization, and the program implementors recruited the youth that were available at the participating centers at a particular place and time. The findings cannot be generalized to youth and young adults nationwide because the participants constituted a non-probability sample and were recruited from a specific area in the Southwest on the United States-Mexico border. The identified trends, however, may be useful to practitioners and policy makers in other parts of the nation that are experiencing dramatic growth in their Latino immigrant communities.

In addition the small size of the adjudicated sub-sample, the variables in the model may have been more salient for members of the homeless and GLBT sub-sample. Other variables not included in the survey may better predict HIV risk attitudes among adjudicated youths.

Another limitation related to the study of protective factors is that only linguistic acculturation was measured. Other domains of acculturation, such as attitudes and values, may be important to include in the future as they may show different attitudinal patterns. Furthermore, it may be relevant to include acculturation covariates, such as time lived in the United States and generation status.

Future Research

From a resiliency perspective, more information about the different social contexts in which the youth live will help researchers and practitioners integrate the youth's experiences with specific social environments and potential interventions. Future research needs to take into account the various types of violence that may be experienced by the youth: partner violence, family violence, and stranger violence. The family and home as contexts for violence and HIV risk are of special concern since the family is a primary support for adolescents and young adults before they set up their own families. Future research on the experiences of homeless, GLBT, and adjudicated youth should employ a resiliency perspective, as greater knowledge is needed about the strengths of vulnerable youths. Such research can inform the development and refinement of interventions that help vulnerable youth stay healthy.

This community-based dataset merits future analysis since the current study only utilized baseline data. Adding data from the following years of the evaluation will increase the number of participants and consequently the statistical power of the models to better explore the risk and resiliency factors associated with HIV attitudes.

More in-depth research about acculturation and HIV risk is also needed. The Southwest United States provides an ideal social context for such efforts due to its high Latino presence and its proximity to the international border. Many immigrant youth live within two cultures and could benefit from culturally tailored prevention messages. Protective and risks factors are fluid and ever changing. For example, strong family identification and connections (i.e., familism) can protect a young person until he/she questions her/his sexuality and that same strong family bond becomes a risk factor (Jacobs, 2008). These findings can help preventionists avoid one-dimensional, static approaches to factors that are affected by culture.

It is imperative that community-academic research partnerships continue to better capture the experiences of young populations such as ethnic minorities, GLBT youth, homeless youth, and substance-abusing adolescents. The resiliency perspective challenges practitioners, policy makers, and researchers to approach different sub-populations of youth as having their own solutions to prevent HIV/AIDS. Those community-specific strategies need to be identified and supported at the same time that the risks are better understood and addressed.

Social Work Implications

In this study participants reported experiencing violence in the family environment, a setting in which they need support and guidance. Social workers are well suited to implement services providing the support adolescents need during their transition into adulthood. Some services should be geared towards the consequences of violence, such as the effect on intimate, and particularly sexual, relationships with others.

Social workers should consider a youth's acculturation level and family relationships when setting goals with their clients. Because acculturation level varies so widely in Southwestern populations, it is essential to tailor services to the individual's level of acculturation. For example, a person's language skills and knowledge of mainstream culture need to be taken into account. Furthermore, social workers need to be aware of the different dimensions of acculturation, such as linguistic acculturation, time in the country, since they vary in their effects on individual experience.

Community-university research continues to be a worthwhile strategy for obtaining the information directly from community participants and as a strategy to develop research and evaluation capacity among non-governmental organizations. The findings emerging from this type of research partnership can be translated into evidence-based practice, building a bridge between the community and universities to provide the culturally grounded services communities need.

Finally, there is a need to continue research with GLBT and homeless youth to gain more insight into how group members behave within their own communities. Once more information about the processes and mechanisms that protect these youth becomes available, it can be integrated into effective and culturally grounded prevention interventions.

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Appendix A

Description of Items in the HIV Risk Index

Items in the index that were the same for both groups included: “I know how to protect myself from HIV/AIDS”, “I can tell if someone has HIV/AIDS”, “Using alcohol and other drugs increases your risk of getting HIV/AIDS”, “Using condoms to prevent STDs is more trouble than it is worth”, “A person who is drunk or high is more likely to have sex without a condom/rubber”, “HIV is transmitted through needles”, “If I insist on a condom, my partner will think I don't trust him/her”, “If people put me down for wanting to have safer sex, I can stand up for

myself”, “I know how to say no to unsafe sex”. Items only in the index for the adjudicated subgroup included: “There is a cure for HIV/AIDS”, “Low chances of HIV even when no condom”, “Uncomfortable if partner wants condom”, “Go along to use a condom”, “Multiple use of condom is OK if store in same pack”, “It is OK to use an old condom”, “Using drugs increases risk of HIV/AIDS”, “Proposing to use condom will make my partner think that I am infected with HIV”, “Having unprotected sex is a health threat”, “I know how to use a condom”. Items only in the index for the homeless and GLBT subgroup included: “I decide about intercourse and later worry”, “A condom can be use more than one time”, “Worried about getting HIV”, “OK with using condom if asked”, “Important to use condom each intercourse”, “If partner wants to use a condom I’ll go along”, “Rape is more likely if drunk or high”, “Important not to get STDs.”

Table 1
Youth Reporting A History of Violence in Each Sub-Sample, By Gender and Violence Type

Type ^b	Adjudicated Sample		Homeless/GLBT Sample	
	All ^a (N=49)	Gender (N=29)	All ^a (N=32)	Gender (N=19)
Partner violence	10%	7%	19%	11%
Family violence	24%	24%	29%	32%
Stranger violence	13%	3%	32%	32%

^aThe number of cases in the gender sub-samples will not equal the number of cases in the total samples due to missing data on gender.

^bSome youths experienced more than one type of violence.

Table 2
HIV Risk Mean and Standard Deviation by Gender and Experience of Violence

	Adjudicated Sub-Sample			Homeless/GLBT Sub-Sample		
	All	Female	Male	All	Female	Male
All	1.72 (.340)	1.67 (.248)	1.67 (.341)	2.12 (.303)	2.03 (.262)	2.15 (.303)
History of violence	1.65 (.195)	1.73 (.157)	1.65 (.198)	2.20 (.295)	2.18 (.109)	2.21 (.176)
No history of violence	1.73 (.370)	1.60 (.344)	1.68 (.393)	2.03 (.294)	1.85 (.286)	2.06 (.176)

Table 3

OLS Regression for Predicting HIV Risk among Adjudicated Youth

	1	2	3	4	5
Female	.047 (.159)	.045 (.160)	-.075 (.179)	.043 (.159)	-.114 (.203)
Ethnic identification	-.004 (.103)				.030 (.119)
Hispanic	-.073 (.130)	-.079 (.141)	-.016 (.137)	-.084 (.131)	-.047 (.157)
Non-Hispanic Other Ethnicity	-.311 (.223)	-.315 (.224)	-.358 (.225)	-.334 (.229)	-.414 (.254)
Linguistic Acculturation		.005 (.019)			-.027 (.100)
Living with family, not parents			.034 (.154)		.025 (.163)
Living with people other than family			-.001 (.207)		-.045 (.277)
Living in a shelter or group home			.259 (.173)		.271 (.185)
History of violence (any type)				.046 (.125)	.074 (.144)
N	49	49	49	49	49
Adjusted R ²	-.063	-.063	-.038	-.058	-.149

Table 4

OLS Regression Predicting HIV Risk among Homeless/GLBT Youth

	1	2	3	4	5
Female	-.109 (.126)	-.125 (.123)	-.227 (.145)	-.154 (.116)	-.155 (.119)
Ethnic identification	-.105 (.078)				-.172* (.087)
Hispanic	.109 (.117)	.007 (.133)	.076 (.131)	.101 (.109)	-.011 (.120)
Non-Hispanic Other Ethnicity	.249 (.206)	-.157 (.196)	.180 (.223)	.238 (.187)	.369* (.195)
Linguistic Acculturation		-.134 (.089)			-.151* (.080)
Living with family, not parents			.108 (.15)		.137 (.132)
Living with people other than family			.020 (.161)		.016 (.148)
Living in a shelter or group home			.046 (.209)		.093 (.172)
History of violence (any type)				.237* (.101)	.238* (.110)
N	32	32	32	32	32
Adjusted R ²	.013	.027	-.080	.132	.288

*
p < .05 (1-tailed)