Published in final edited form as:

Sex Res Social Policy. 2015 March 1; 12(1): 15–23. doi:10.1007/s13178-014-0170-9.

A Comparison by Sexual Orientation of Sexual Health and Sexual Behaviors among Hispanic Men

Joseph P. De Santis, PhD, ARNP, ACRN⁽¹⁾ [Associate Professor], Beatriz Valdes, MSN, MBA, RN⁽¹⁾ [Nurse Specialist], Elias Provencio-Vasquez, PhD, RN, FAAN⁽²⁾ [Dean and Professor], and Karina A. Gattamorta, PhD⁽¹⁾ [Research Assistant Professor]

⁽¹⁾University of Miami School of Nursing & Health Studies Coral Gables, FL USA 33146

⁽²⁾University of Texas at El Paso School of Nursing El Paso, TX USA 79968

Abstract

Background/Significance—High rates of HIV infection and other sexually transmitted infections (STIs) related to high risk sexual behaviors are a public health problem in the U.S. Hispanics have the second highest rates of HIV infection among racial/ethnic minorities. Previous research with Hispanic men has identified a number of factors that influence sexual risk and render Hispanic men at risk for HIV/STIs. These factors vary by sexual orientation. Despite these differences in sexual risk by sexual orientation, no study to date has compared the sexual behaviors of Hispanic men by sexual orientation.

Objective—The purpose of this study was to compare the sexual behaviors of a sample of Hispanic men by sexual orientation.

Method—A descriptive, cross-sectional design was used to collect data from 163 Hispanic men in South Florida, 80 heterosexual and 83 MSM. Participants completed measures of sexual health, sexual behaviors, and demographics.

Results—No statistically significant differences were found between the two groups of men in terms of age of sexual debut, number of sexual partners during the previous 3 months, condom usage during the previous 3 months, HIV testing history, and substance use during sex. Statistically significant differences were found between the two groups of men in terms of certain STIs.

Implications—Hispanic men as a population may engage in high risk sexual behaviors that place them at risk for HIV/STIs. More research is needed to develop both culturally tailored and sexual orientation appropriate interventions to assist Hispanic men reduce high risk sexual behaviors.

Keywords

Hispanics; men; men who have sex with men; sexual behaviors

Sexual health is an extensive area that includes a number of health and health-related issues. One of these key issues is sexually transmitted infections (STIs). One of the methods of promoting or advancing sexual health is addressing a sexual health concern of contracting and transmitting STIs through high risk sexual behaviors (Collumbien, Busza, Cleland & Campbell, 2012). High risk sexual behaviors may result in acquisition of HIV and other STIs. Traditionally, high risk sexual behaviors include sexual intercourse without condoms which results in contact with semen, blood, or vaginal secretions (Goedert, 1987). This definition has been expanded to include sexual behaviors under the influence of drugs or alcohol (Stall & Leigh, 1993).

Although it is impossible to know how many people participate in high risk sexual behaviors, these behaviors are reflected in HIV/STIs rates. The Centers for Disease Control and Prevention (CDC) (2013) estimate that nearly 50,000 new cases of HIV infection annually in the United States. Among Hispanics, MSM account for 81% of HIV rates, and 20% of the HIV cases among all MSM (CDC, 2011).

In terms of STIs rates, data are collected by the CDC on a number of STIs such as chlamydia, gonorrhea, and syphilis. Despite the monitoring of STIs, only cases of syphilis are consistently stratified by sexual orientation in the United States (U.S.). The rates of syphilis in the U.S. are expressed in terms of cases per 100,000 people. The rate of syphilis for the general population is 14.9, while the rate for the general population of MSM is 40.4 (CDC, 2012). This indicates that rates of HIV and syphilis are higher in MSM (CDC 2012, 2013), possibly indicating that MSM engage in more high risk sexual behaviors when compared to heterosexual men.

Some evidence suggested that Hispanic men may be at an increased risk for HIV and STIs related to high risk sexual behaviors. Among heterosexual Hispanic men, some researchers have documented correlates of high risk sex. Two qualitative studies were conducted with samples of immigrant heterosexual Hispanic men. Winnett and colleagues (2011) interviewed 49 of these men, and noted that participants reported that unstable employment and housing, decreased social support, loneliness, and a desire for sexual experimentation were related to inconsistent condom use with non-primary partners. Among men who engaged in high risk sex (i.e., sex without condoms), sexual behaviors was related to a lack of access to healthcare, multiple sexual partners, and sex with commercial sex workers (Apostolopoulos et al., 2006).

The results of these two qualitative studies were supported by quantitative studies that examined factors that influenced high risk sexual behaviors. Low socioeconomic status, low acculturation, alcohol and/or drug use, low levels of knowledge about sexual risks, and a lack of confidence in condom negotiation resulted in high risk sexual behaviors (Organista & Kubo, 2005). High risk sexual behaviors also resulted because of condoms not being readily available and poor sexual negotiation skills (Ibanez et al., 2005), poor family cohesion (Mills et al., 2013), high STI rates, sex under the influence of drugs such as cocaine, and binge drinking (Zellner et al., 2009).

Six studies over the past decade have examined correlates of high risk sex among Hispanic MSM (HMSM). Fernandez and colleagues (2007) enrolled 272 HMSM to study the influence of crystal methamphetamine use on unprotected anal intercourse (UAI). Participants reporting crystal methamphetamine use were not only more likely to engage in UAI, but also reported high rates of suicide attempts, linking mental health factors to high risk sex. These findings were supported by a larger study of 566 HMSM by Akin and colleagues (2008) which noted that 41% of the sample used substances during sexual activity, and that 44% of the sample engaged in UAI. Psychological distress, substance use, and acculturation resulted in more sexual partners and higher rates of UAI.

A study of 155 HMSM researched the relationship of depression and self-esteem on sexual behaviors. In this study, nearly one-third of the participants were depressed. Less acculturated HMSM were less depressed and engaged in fewer episodes of high risk sexual behaviors when compared to more acculturated HMSM (De Santis et al., 2009).

Mental health factors such as depression, low self-esteem, and alcohol use have been linked to high risk sexual behaviors. Using structural equation modeling with a sample of 100 HMSM, De Santis and colleagues (2011) reported that the only direct path to sexual behaviors was the mental health variables of depression and self-esteem. Alcohol use was only indirectly related to high risk sexual behavior via the mental health path.

Childhood sexual abuse (CSA) has been reported among MSM, and HMSM appear to have experienced high rates of CSA (Dolezal & Carballo-Diequez, 2002). One study surveyed 912 HMSM to understand the effects of CSA on sexual behaviors using path analysis. The researchers reported that CSA and childhood/adulthood homophobia influenced high risk sexual behaviors (Arreola et al., 2009).

In addition to psychosocial/mental health issues, other factors have been reported to have an effect on sexual behaviors of HMSM. Certain demographic factors of HMSM influence high risk sexual behaviors. These include education, employment status, sexual orientation, and relationship status (Schnarrs et al., 2012).

Despite the available literature on correlates of high risk sexual behaviors among heterosexual Hispanic men and HMSM, no studies could be located that compared sexual behaviors of heterosexual Hispanic men and HMSM. This identified gap in the research knowledge base provided the rationale for this examination of sexual behaviors of Hispanic men by sexual orientation.

Method

Design

A descriptive, cross sectional design was used for this pilot study. This design allowed collection of data from Hispanic men to compare sexual behaviors by sexual orientation. Data reported in this study were part of a larger funded pilot study (Project VIDA) with the aims of exploring the relationship of sexual behaviors/sexual health, substance use, and

intimate partner violence among community-dwelling Hispanic men in Miami, and to compare these issues among heterosexual Hispanic men and HMSM.

Participants

Participants were recruited from a variety of settings in Miami-Dade County, Florida, an area with a large Hispanic population. Participants were recruited from settings such as health clinics, immigration offices, barbershops, home improvement stores, and bars/clubs that cater to Hispanic men. Participants met the following inclusion criteria: a) age 18 or above; b) identify as Hispanic or Latino; c) reside in the South Florida area for at least 1 year before enrolling in the study, and d) be willing to disclose sexual orientation.

The sample consisted of 164 Hispanic men, 80 heterosexual men and 84 MSM. One MSM participant was eliminated from data analysis because the participant's number of sexual partners and sexual behavioral responses were extreme outliers. Data from this participant were excluded from data analysis, resulted in a sample size of 163 participants, 80 heterosexual men and 83 MSM.

Procedures

Members of the research team traveled to sites to recruit participants. Participants were approached by a member of the research team and invited to enroll in the study if inclusion criteria were met. Participants who were interested in enrolling in the study were provided with a telephone number to call to schedule an appointment. Once a participant called to schedule an appointment, they were offered an appointment at a private office on the University campus, or they were offered the option of completing the interview in their home setting.

The interviews were conducted in the participant's language preference. If participants opted to complete the interview in the office setting, the interview was conducted in a private office free of interruptions. In the home setting, the participant was required to provide a quiet area free of interruptions. Data were collected using a computerized data collection system with the interviewer asking questions, participants providing responses, and the interviewer entering the responses in the computerized data collection system.

Before the interview began, participants were provided with a detailed description of the study. Participants were asked to provide written informed consent before enrolling in the study. The interviews were approximately one to 1.5 hours in length. At the end of the study, participants were provided with study business cards to distribute to their social networks so that future participants could be recruited using snowball sampling.

Ethical Issues

The study was approved by the University's Institutional Review Board. Protection of confidentiality was an important consideration in this study. Because participants were asked to report extremely sensitive information regarding high risk sexual behaviors and substance use, a certificate of confidentiality was obtained by the National Institutes of

Health. To further protect the participants' confidentiality, data were collected in a private room at the University or in the participant's home setting.

Measures

During the interview, participants completed two measures of sexual behaviors as well as a demographic questionnaire. The interview collected data about participants' demographic characteristics and sexual behaviors.

Sexual Health History—Participants completed the Sexual Health History (SHH) (Peragallo et al., 2005). The SHH collects both continuous and categorical data on a number of sexual health topics that allows a descriptive assessment of sexual behaviors. These behaviors include age at first consensual vaginal intercourse, age at first consensual anal intercourse, number of partner during the last 3 months, condom usage during the last 3 months, and sex under the influence of drugs or alcohol during the last 3 months. The SHH also asked participants to report their HIV status as well as information on diagnosed STIs as reported by participants. The SHH has been used in previous studies with Hispanic women (Gonzalez-Guarda et al., 2011; Peragallo et al., 2005; Peragallo et al., 2012).

Partner Table—The Partner Table asks participants to report information about the three most recent sexual partners. Information is collected on condom use during all types of sex (oral, anal, and vaginal), sex under the use of drugs, and sex under the influence of alcohol. Because many participants had difficulty remembering details with accuracy about more than one sexual partner, data regarding the most recent sexual partner was used in this analysis. The Partner Table has been used in previous studies with Hispanic populations (Gonzalez-Guarda et al., 2011; Peragallo et al., 2005; Peragallo et al., 2012). Sample questions from the Sexual Health History and the Partner Table are included in Table 1.

Demographic Questionnaire—The demographic questionnaire collected both continuous and categorical data. Continuous data included age, number of years living in the U.S, and number of years of education. Categorical data included relationship status, monthly income, and sexual orientation/identification. Because of the wide range of possible responses, the variables of relationship status, monthly income, and sexual orientation/identification, were collapsed and converted to dichotomous variables. Relationship status was dichotomized to 'single' or 'in a relationship.' Monthly income was dichotomized to 'less than \$500/month' or 'more than \$500/month.'

Sexual orientation/identification was dichotomized to 'heterosexual' or 'gay/bisexual' because only 20 participants identified as bisexual. The small number of bisexual men made meaningful comparisons to the heterosexual and MSM participants difficult given the study's relatively small sample size. Including bisexual men in the MSM category is consistent with the generally-accepted definition, which notes that MSM is used to describe any man who has sex with another man, regardless of sexual identity, orientation, etc. (United Nations Programme on AIDS, 2006).

Results

The purpose of this study was to compare the sexual behaviors of Hispanic men by sexual orientation. In order to compare sexual behaviors by sexual orientation, statistical analyses were conducted using *t*-tests for continuous variables and *chi*-square analyses for categorical variables.

Demographic Variables

The sample consisted of 163 Hispanic men, 80 heterosexual men and 83 MSM. A complete demographic profile of participants can be found in Table 1. The two groups of Hispanic men were compared in terms of the demographic variables. The demographic variables of age, education, and income varied significantly by sexual orientation. MSM were older, had more years of education, and had higher incomes than heterosexual men. A complete comparison of the two groups of men in terms of demographic variables can be found in Table 2.

Sexual Debut

Participants were asked to report age of sexual debut in terms of consensual vaginal sex and anal sex. All 163 participants reported that they have engaged in both vaginal and anal sex at some point in their lives. Differences were found in terms of the mean age for first vaginal sex. The mean age for heterosexual men was 14.61 ($SD \pm 2.96$) compared to 13.88 ($SD \pm 6.80$) for MSM, but these differences were not statistically significant ($t = .861, p = .391$).

Differences were also found among the participants in terms of age of sexual debut of anal sex. Heterosexual men had an earlier mean age for sexual debut ($M = 16.09, SD \pm 10.28$), when compared to MSM ($M = 17.16, SD \pm 5.72$); however, these differences were not statistically significant ($t = -.781, p = .436$).

Number of Sexual Partners

Participants were asked to report the number of lifetime sexual partners and the number of sexual partners during the last three months. Participants had difficulty reporting the number of lifetime sexual partners; therefore, the data were missing for a number of the participants and were not included in this analysis.

Despite difficulty in reporting the number of lifetime sexual partners, all 163 participants were able to recall the number of sexual partners during the past three months. Slight differences were found in that heterosexual men reported a mean of 2.95 ($SD \pm 8.37$) when compared with MSM ($M = 2.22, SD \pm 3.40$). However, these differences were not statistically significant ($t = .737, p = .462$).

Condom Usage

Participants were asked if they used condoms during the past three months. Two participants who identified as heterosexual refused to answer this question, but all MSM participants responded. Over half of the heterosexual participants (56.41%; $n = 44$) and 40.96% ($n = 34$) of the MSM participants reported that they did not use condoms during the last three

months. Despite the differences in the numbers of heterosexual men versus MSM who did not use condoms during the last three months, these results were not statistically significant [$X^2 (1, N = 78) = 3.84, p = 0.50$].

Because participation in unprotected anal sex is the sexual behavior associated with the greatest risk of transmission of HIV infection, both groups of men were asked if condoms were used during the last episode of anal sex. Differences were noted in the numbers of men from each group who engaged in anal sex. Only 21 heterosexual men (26.25%) engaged in anal sex as compared to 72 MSM (86.75%). Of the 21 heterosexual men who reported engaging in anal sex, 16 (76.19%) did not use condoms during anal sex. Of the 72 MSM who engaged in anal sex, only 20 (27.78%) did not use condoms during anal sex. These differences in condom usage during anal sex were statistically significant [$X^2 (2, N = 72) = 17.04, p < .001$].

HIV Testing History

All MSM participants answered questions regarding HIV testing. Three heterosexual participants refused to discuss their HIV testing history. Nearly all heterosexual men ($n = 66$; 88.31%) and MSM ($n = 75$; 90.36%) had been tested for HIV infection. No differences were found in terms of HIV testing history by sexual orientation [$X^2 (1, N = 141) = .177, p = .674$].

History of Sexually Transmitted Infections

Participants were asked to report sexually transmitted infection history. This included a history of Chlamydia, gonorrhea, genital herpes, Hepatitis (A, B and C), HIV/AIDS, pubic lice, syphilis, trichomoniasis, and warts (anal or genital). Table 3 provides a comparison of the numbers of heterosexual men and MSM who reported being diagnosed with a STI during their lifetime.

Relatively few men reported very low numbers of four STIs (Chlamydia, genital herpes, trichomoniasis, and warts (anal or genital)). No heterosexual men and 4 MSM were diagnosed with Chlamydia. One heterosexual man and seven MSM reported a diagnosis of genital herpes. Two heterosexual men and one MSM reported a diagnosis of trichomoniasis. One heterosexual man and seven heterosexual men reported a diagnosis of anal or genital warts. Because of these small numbers, meaning comparisons were not possible; therefore, these STIs were excluded from data analysis.

When comparing the history of STIs by sexual orientation, differences were found among all the STIs. However, only statistically significant differences were found between heterosexuals and MSM in terms of Hepatitis C, HIV/AIDS, pubic lice, and syphilis. Among these STIs, more MSM participants reported diagnoses of all STIs except Hepatitis C. Twelve heterosexual men reported a diagnosis of Hepatitis C compared to five MSM ($p = .049$).

Substance Use and Sexual Activity

Participants were asked about alcohol use during the last sexual encounter. Two heterosexual participants refused to answer this item. Among the heterosexual participants, 26 (33.33%) participants reported using alcohol during the last sexual encounter. Slightly more MSM participants ($n = 34$; 40.96%) reported alcohol use during the last sexual encounter. The differences were not statistically significant ($X^2 (1, N = 60) = .860, p = .835$).

Participants were also asked about drug use in addition to alcohol used during the last sexual encounter. Once again, two heterosexual participants refused to answer this item. Among the heterosexual participants, 27 (34.62%) reported using drugs during the last sexual encounter. Fewer MSM participants ($n = 17$; 20.48%) reported drug use during the most recent sexual encounter. The difference was not statistically significant ($X^2 (1, N = 44) = 6.53, p = .089$).

Discussion

The purpose of this study was to compare sexual health behaviors of Hispanic men by sexual orientation. A sample of 163 Hispanic men (80 heterosexual men and 83 Hispanic MSM) completed two measures of sexual health and demographic variables. The findings of this study provide some evidence that sexual behaviors differ by sexual orientation among Hispanic men.

In terms of the demographic variables, a few differences were found between the two groups of Hispanic men that may account for some of the differences in sexual behaviors. The MSM in this study were older, had higher educational levels, and had higher incomes. Previous research with Hispanic men (De Santis et al., 2008; Schnarrs et al., 2012) has reported that these demographic variables can influence sexual behaviors among Hispanics. Therefore, because there were differences in age, educational level and income found in this study, these factors may be responsible for influencing some of the differences in sexual behaviors as reported by this study's findings. Because the aim of the study was to compare the two groups of men in terms of their sexual health and sexual behaviors, it was decided not to control for the demographic variables so that the influence of sexual orientation could be known.

In this study, no differences were found in terms of age of sexual debut. The average age of sexual debut in the U.S. is 14.4 years (Outlaw et al., 2011). Age of sexual debut is an important component to include in sexual health research and in clinical practice because previous research has noted that an earlier sexual debut is related to unprotected sex, substance use, and emotional distress that may lead to high risk sexual behaviors and an increased risk of HIV infection (Outlaw et al., 2011). When conducting sexual risk assessments, clinicians providing care to HMSM need to assess age of sexual debut. More research is needed to explore reasons for early sexual debut among Hispanics.

No significant differences were found in terms of numbers of sexual partners over the previous 3 months in this study. This finding does not support previous research that compared sexual behaviors among college age men and that noted MSM were more likely to report more sexual partners in the previous 30 days when compared to heterosexual men

(Rhodes et al., 2007). Perhaps this study was influenced by the fact that this sample is older and was entirely Hispanic, which make it difficult to compare to previous research. Regardless, clinicians need to assess the number of sexual partners when providing care to Hispanic men because more sexual partners equates to greater risk for HIV and STIs. More research is needed with Hispanic men to explore how sexual partnering may be a risk or protective factor for HIV and STIs.

This study's findings did not note any significant differences in condom usage when compared by sexual orientation. However, heterosexual men were less likely to use condoms than the MSM in this study. There is dearth of contemporary research to support this, but the classic work of Catania and colleagues (1992) reported that heterosexual men were less likely than MSM to use condoms. The numbers of Hispanic men in this study who reported that they did not use condoms is supported by research that noted that condom use among Hispanics (and African-American men) is significantly less than men of other races and ethnicities (Essier, Ross, Fernandez-Esquer & Williams, 2005). Much like sexual debut and number of sexual partners, it is important for clinicians to assess condom usage as part of the client's sexual history. More research is needed to understand reasons for low rates of condom usage among Hispanic men.

HMSM were more likely to engage in anal sex and were more likely to use a condom during anal sex when compared to heterosexual men in this study. Low rates of condom use during anal sex among Hispanics has been reported in both HMSM samples (De Santis, 2012) and the general population of Hispanic men (Gurman & Borzekowski, 2004). Assessing anal sex may be difficult for some clinicians, but it is an essential part of both sexual health and HIV prevention. More research into anal sex practices and condom usage during anal sex of both groups of Hispanic men is necessary, but especially among heterosexual Hispanic men.

The majority of the participants in this study had been tested for HIV and other STIs. This study's findings add some support to previous research that noted that Hispanics are likely to be tested for HIV infection, and may even engage in regular or repeat HIV testing (Gilbert & Rhodes, 2013); however, other researchers have reported that Hispanics are less likely to be tested for HIV infection when compared to non-Hispanics (Chen, Erbeling, Yeh & Page, 2012). The high rates of HIV testing in this study may be related to the fact that Miami has one of the highest rates of HIV infection in the country (CDC, 2013), and many public health campaigns occur that promotes testing among the city's residents.

Participants who identified as MSM in this study were more likely to have reported a STI when compared with heterosexual men. Although no research is available to support this finding among Hispanic men, a study by Mojola and Everett (2012) reported that MSM of all races and ethnicities were 2.3 to 8.3 times more likely to be diagnosed with an STI when compared to heterosexual men. This fact is important for clinicians because testing for HIV infection among MSM should also include STI testing, especially in the context of unprotected sex. More research is needed to explore factors that place HMSM at an increased risk of STIs.

No differences in sexual orientation were found in terms of alcohol use during sexual activity. This finding contradicts previous research (e.g., Boehmer, Miao, Linkletter & Clark, 2012) that reported that MSM were more likely to use alcohol and to have alcohol dependence compared to heterosexual men. To date, no study could be located that compared alcohol use by sexual orientation among Hispanic men, but this study's findings may serve as a foundation for further research. Because alcohol use has been shown to increase high risk sexual behaviors (De Santis et al., 2011), clinicians need to assess for alcohol use during client encounters.

Much like alcohol use, no studies could be located that compared drug use of Hispanic men by sexual orientation. In this study, no differences in drug use during sex were found. This finding does not support the work of Gilman and colleagues (2001) who reported that same-sex orientation is associated with substance use disorders and related mental health conditions. Just like with alcohol, clinicians need to assess for substance use that may increase sexual behaviors and subsequent HIV/STI risk, especially among HMSM (Akin et al., 2008; Fernandez et al., 2007). More research is needed to explore the relationship of alcohol/drug use, sexual risk, and mental health among both groups of Hispanic men.

Implications for Sexual Health Policy

The results of this study provide some information for policy in the context of sexual health and sexual behaviors of Hispanic men. These policy implications are related to HIV/STI prevention and HIV care, as well as the general sexual health of Hispanic men.

Policy makers concerned with HIV/STI prevention among Hispanic men should be aware of the health disparities that place Hispanic men at an increased risk for HIV infection and other STIs. Hispanic men are more at risk for HIV/STIs when compared to Caucasian men because of cultural factors, socioeconomic factors, access to care, and fear of testing and possible immigration issues resulting from a diagnosis of HIV infection (CDC, 2011). Policy makers should be aware that few resources exist to reach Hispanic men. A possible solution proposed by Rhodes and colleagues (2012) is to use lay healthcare workers to project education, testing, and prevention services to Hispanic men.

In addition, the National Latino AIDS Action Network (2008) has developed policy recommendations to address the AIDS crisis among Hispanics/Latinos. Some of these recommendations include the development of a comprehensive HIV reduction strategy that meets the needs of the Hispanic community, to expand the focus of HIV prevention programs geared toward Hispanics, to provide better epidemiological data to more accurately represent Hispanics with HIV/AIDS, and to increase federal funding for HIV prevention and HIV care for Hispanics.

Policy makers must be aware that Hispanic men with HIV infection experience a number of health disparities. When compared to Caucasian men, Hispanic men are more likely to be diagnosed with HIV infection later in the disease course, are less likely to be retained in care, and less likely to be prescribed HIV medications, and are less likely to achieve viral suppression (Henry J. Kaiser Family Foundation, 2014). Many of these issues are related to education, access to care, and immigration issues (CDC, 2011). Future policy work needs to

focus on removing health care access issues and addressing immigration issues so that HIV-infected Hispanic men can be treated for HIV infection and other STIs without fear of deportation.

Societal attitudes about sexuality have changed over the years, resulting in a number of implications for policy within the context of sexual health. Globally, the age of sexual debut has decreased while the number of lifetime sexual partners has increased. Previous research and prevention policy has focused on the negative aspects of sexuality such as HIV infection and STIs, sexual power, sexual violence and exploitation while ignoring the positive aspects of sexuality such as quality of sexual experiences, quality of sexual relationships (Welling & Johnson, 2013), sexual communication, and attitudes about sexuality (Ivanovich, Leichter & Douglas Jr., 2013). Policy makers need to advocate for the develop new tools to measure the positive aspects of sexual health, and lobby for more resources to be allocated for sexual health and wellness (Ivanovich et al., 2013).

Limitations

There are a few limitations of this study that require mention. First, the sample size is relatively small. The small sample size makes it difficult to have confidence in the comparisons that were made between the two groups of men. A larger sample size would add more confidence in the findings and perhaps add some new information.

The sampling strategy is a limitation that may have affected the results. Hispanic men (and HSM in particular) are a difficult population to sample. This difficulty necessitated the use of snowball sampling. Snowball sampling did allow for the required number of participants to be sampled; however, it may have influenced the result. Participants recruited via this method of convenience sampling tend to be similar to participants who had recruited them for the study, which may have resulted in decreased variability of the sample. Decreased variability indicates that the sample is too homogeneous, and therefore, significant findings may not result because of the nature of the sample recruited with snowball sampling.

Third, participants were asked to recall information about their past sexual history and sexual behaviors. All information provided by participants was self-reported. This information could have been influenced by poor recall of information, embarrassment about unsafe sexual behaviors, etc. In addition, because there was not a method to verify STI history, data may not be completely accurate.

The final limitation is related to the study's location. Miami-Dade County, Florida is unique in that the population is mostly foreign-born Cubans who often do not acculturate. This fact makes the study findings useful only in the specified area, and may not represent the general population of Hispanic men residing in the U.S. Therefore, the study's results probably are not generalizable.

Conclusions

Despite the study's limitations, the findings provide some new and important information that may fill some of the gaps in knowledge regarding this topic. Because studies that

compared sexual behaviors among Hispanic men by sexual orientation have not been conducted, this study was warranted to provide a foundation for future research. These findings provide some important information for clinicians and provide directions for further research.

Acknowledgments

Funding: This publication was made possible by Grant Number (1P60MD002266-01) from the National Center on Minority Health and Health Disparities of the National Institutes of Health.

References

- Akin M, Fernandez I, Bowen G, Warren JC. HIV risk behaviors of Latin American and Caribbean men who have sex with men in Miami, Florida, USA. *Revista Panamericana de Salud Publica*. 2008; 23(5):341–348. [PubMed: 18510794]
- Apostolopoulos Y, Sommez S, Kronenfield J, Castillo E, McLondon L, Smith D. STI/HIV risks for Mexican migrant workers: Exploratory ethnographies. *Journal of Immigrant & Minority Health*. 2006; 8(3):291–302. [PubMed: 16791539]
- Arreola SG, Neilands TB, Diaz R. Childhood sexual abuse and the sociocultural context of sexual risk among adult Latino gay and bisexual men. *American Journal of Public Health*. 2009; S2:S432–S438. [PubMed: 19372522]
- Boehmer U, Miao X, Linkletter C, Clark M. Adult health behaviors over the life course by sexual orientation. *American Journal of Public Health*. 2012; 102(2):292–300.10.2105/AJPH.2011.300334 [PubMed: 22390443]
- Catania JA, Coates TJ, Kegeles S, Fullilove MT, Peterson J, Marin B, Hulley S. Condom use in multiethnic neighborhoods of San Francisco: The population-based AMEN (AIDS in Multiethnic Neighborhoods) Study. *American Journal of Public Health*. 1992; 82(2):284–287. [PubMed: 1739167]
- Centers for Disease Control & Prevention [CDC]. Fact Sheet: HIV among Latinos. Atlanta, GA: CDC; 2011.
- Centers for Disease Control & Prevention [CDC]. STD Surveillance 2011. Atlanta, GA: Department of Health and Human Services; 2012.
- Centers for Disease Control & Prevention [CDC]. Estimated HIV incidence in the United States, 2007–2010. HIV Surveillance Supplemental Report. 2013; 17(4)
- Chen N, Erbeling E, Yeh H, Page Y. Predictors of HIV testing among Latinos in Baltimore City. *Journal of Immigrant and Minority Health*. 2012; 12(6):867–874.10.1007/S10903-009-9297-9 [PubMed: 19830563]
- Collumbien, M.; Busza, J.; Cleland, J.; Campbell, O. *Social Science Methods for Research on Sexual and Reproductive Health*. Geneva, Switzerland: World Health Organization; 2012.
- De Santis J. How do the sexual behaviors of foreign-born Hispanic men who have sex with men differ by relationship status? *American Journal of Men's Health*. 2012; 6(1):6–17.10.1177/1557988311403299
- De Santis JP, Arcia A, Vermeesch A, Gattamorta KA. Using structural equation modeling to identify predictors of sexual behaviors among Hispanic men who have sex with men. *Nursing Clinics of North America*. 2011; 46(2):233–248. [PubMed: 21501734]
- De Santis JP, Colin JM, Provencio Vasquez E, McCain GC. The relationship of depressive symptoms, self-esteem and sexual behaviors in a predominately Hispanic sample of men who have sex with men. *American Journal of Men's Health*. 2008; 2(4):314–321.
- De Santis JP, Vasquez EP, Weidel JJ, Watson S, Sanchez M. A comparison of depressive symptoms, self-esteem, and sexual behaviors between foreign-born and U.S.- born Hispanic men who have sex with men: Implications for HIV prevention. *Hispanic Health Care International*. 2009; 7(2): 80–87.

- Dolezal C, Carballo-Dieguez A. Childhood sexual experiences and perceptions of abuse by Latino men who have sex with men. *Journal of Sex Research*. 2002; 39(3):165–173. [PubMed: 12476263]
- Essien EJ, Ross MW, Fernandez-Esquer ME, Williams ML. Reported condom use and condom use differences in a street outreach sample of men of four racial and ethnic backgrounds. *International Journal of STDs and AIDS*. 2005; 16(11):739–743.
- Fernandez MI, Bowen GS, Warren JC, Ibanez GE, Hernandez N, Harper GW, Prado G. Crystal methamphetamine: A source of added sexual risk for Hispanic men who have sex with men? *Drug & Alcohol Dependence*. 2007; 86(2–3):245–252. [PubMed: 16930858]
- Gilbert PA, Rhodes SD. HIV testing among immigrant sexual and gender minority Latinos in a U.S. region with little historical Latino presence. *AIDS Patient Care & STDs*. 2013; 27(11):628–636.10.1089/apc.2013.0232 [PubMed: 24138487]
- Gilman SE, Cochran SD, Mays VM, Hughes H, Ostrow D, Kessler RC. Risks of psychiatric disorders among individuals reporting same-sex sexual partners in the National Comorbidity Survey. *American Journal of Public Health*. 2001; 91(6):933–939. [PubMed: 11392937]
- Goedert JJ. What is safe sex? Suggested standards linked to testing for HIV. *New England Journal of Medicine*. 1987; 316:1339–1342. [PubMed: 3472078]
- Gonzalez-Guarda RM, McCabe BE, Florom-Smith A, Cianelli R, Peragallo N. Substance abuse, violence, HIV, and depression: An underlying sydemict actor among Latinas. *Nursing Research*. 2011; 60(3):182–184. [PubMed: 21522030]
- Gurman T, Borzekowski DLG. Condom use among Latino college students. *Journal of American College Health*. 2004; 52(4):169–178. [PubMed: 15018428]
- Henry J. Kaiser Family Foundation. Fact Sheet: Latinos and HIV/AIDS. Menlo Park, CA: Henry J. Kaiser Family Foundation; 2014.
- Ivanovich MB, Leichter JS, Douglas JM Jr. Measurement of sexual health in the U.S.: An inventory of nationally representative surveys and surveillance systems. *Public Health Reports*. 2013; 128(51):62–72. [PubMed: 23450886]
- Ibanez GE, Marin BVD, Villareal C, Gomez CA. Condom use at last sex among unmarried Latino men: An event level analysis. *AIDS & Behavior*. 2005; 9(4):433–441. [PubMed: 16323039]
- Mojola SA, Everett B. STD and HIV risk among U.S. young adults: Variations by gender, race, ethnicity and sexual orientation. *Perspectives on Sexual & Reproductive Health*. 2012; 44(2):125–133.10.1363/4412512 [PubMed: 22681428]
- Mills J, Burton N, Schmidt N, Salinas O, Hembling J, Aran A, Kissinger P. Sex and drug risk behaviors pre- and post-emigration among Latino migrant men in post-Hurricane Katrina New Orleans. *Journal of Immigrant & Minority Health*. 2013; 15(3):603–616.
- National Latino AIDS Action Network. Latino/Hispanic HIV/AIDS Federal Policy Recommendations: Addressing the Latino AIDS Crisis. New York, NY: National Latino AIDS Action Network (NLAAN); 2008.
- Organista KC, Kubo A. Pilot survey of HIV risk and contextual problems and issues in Mexican/Latino migrant day laborers. *Journal of Immigrant Health*. 2005; 7(4):269–281. [PubMed: 19813293]
- Outlaw AY, Phillips G, Higtow-Weidman LB, Fields SD, Hidalgo J. Young MSM of Color SPNS Initiative Study Group. Age of MSM sexual debut and risk factors: Results from a multisite study of racial/ethnic minority YMSM living with HIV. *AIDS Patient Care & STDs*. 2011; 25:S23–S29.10.1089/apc.2011.9879 [PubMed: 21711140]
- Peragallo N, Deforge B, O'Campo P, Lee SM, Kim YJ, Cianelli R, Ferrer L. A randomized clinical trial of an HIV risk reduction intervention among low-income Latina women. *Nursing Research*. 2005; 54(2):108–118. [PubMed: 15778652]
- Peragallo N, Gonzalez-Guarda RM, McCabe B, Cianelli R. The efficacy of an HIV risk reduction intervention for Hispanic women. *AIDS & Behavior*. 2012; 16(5):1316–1326. [PubMed: 21969175]
- Rhodes SD, Daniel J, Alonzo J, Vissman AT, Duck S, Downs M, Gilbert PA. A snapshot of how Latino heterosexual men promote sexual health within their social networks: Process evaluation findings from an efficacious community-level intervention. *AIDS Education & Prevention*. 2012; 24(6):514–526.10.152/aeap.2012.24.6.514 [PubMed: 23206201]

- Rhodes SD, McCoy T, Hergenrather KC, Omil MR, DuRant RH. Exploring the health behavior disparities of gay men in the United States: Comparing gay male university students to their heterosexual peers. *Journal of LGBT Health Research*. 2007; 3(1):15–23. [PubMed: 18029312]
- Schnarrs PW, Rosenberger JG, Schick VR, Novak DS, Herbenick D, Reece M. Gay and bisexual Latino men's sexual health and behaviors: A national online sample. *International Journal of Men's Health*. 2012; 11(1):22–35.
- Stall R, Leigh BC. Substance use and risky sexual behavior for exposure to HIV: Issues in methodology, interpretation, and prevention. *American Psychologist*. 1993; 48(10):1035–1045. [PubMed: 8256876]
- United Nations Programme on AIDS. Policy brief: HIV and sex between men. Geneva Switzerland: UNAIDS; 2006.
- Welling K, Johnson MA. Sex, health and society: Ensuring an integrated response. *The Lancet*. 2013; 382(9907):1759–1762.10.106/50140-6736(13)62532-5
- Winett L, Harvey SM, Branch M, Torres A, Hudson D. Immigrant Latino men in rural communities in the Northwest: Social environment and HIV/STI risk. *Culture, Health & Sexuality*. 2011; 13(6): 643–656.
- Zellner JA, Martinez-Donate AP, Sanudo F, Fernandez-Cedeno A, Sipian CL, Hovell MF, Carrillo H. The interaction of sexual identity with sexual behavior and its influence on HIV risk among Latino men: Results of a community survey in norther San Diego County, California. *American Journal of Public Health*. 2009; 99(1):125–132. [PubMed: 19008512]

Table 1

Sample Questions of the Sexual Health History^a and the Partner Table^b

Instrument	Sample Questions
Sexual Health History	"Have you used condoms in the last three months?"
	"¿Usted ha usado condones en los últimos tres meses?"
	"Have you been tested for HIV or other sexually transmitted infection in your lifetime?"
	¿Usted se ha hecho la prueba de VIH o de otra enfermedad de transmisión sexual alguna vez en su vida?
Partner Table	How old were you the first time you had consensual vaginal sex?
	¿Cuándo fue su primer experiencia consensual vaginal (sexo vaginal)?
	How old were you the first time you had consensual anal sex?
	¿Cuándo fue su primer experiencia consensual anal (sexo anal)?

^aPeragallo et al., 2005;

^bGonzalez-Guarda et al., 2011; Peragallo et al., 2005

Table 2

Demographic Characteristics of the Sample ($N = 163$)

Variable	Mean	Range	SD	Statistic and Significance
Age				
Heterosexual	39.86	20–56	9.74	
MSM	42.76	23–56	8.00	
Total Sample	41.25	20–56	9.03	$t = -2.08, p = .039$
Years living in the United States				
Heterosexual	18.64	0–54	13.38	
MSM	18.09	0–52	12.85	
Total sample	18.71	0–54	13.05	$t = -1.03, p = .897$
Years of education				
Heterosexual	12.49	0–24	3.57	
MSM	13.71	1–20	3.34	
Total sample	12.49	0–24	3.65	$t = -4.51, p < .001$

Variable Significance	Heterosexual Number (%) ($N = 80$)	MSM Number (%) ($N = 83$)	Total Sample Number (%) ($N = 163$)	Statistic and Significance
Relationship Status				
Single	65 (81.25%)	62 (74.70%)	127 (77.9%)	
In a relationship	15 (18.75%)	21 (25.30%)	36 (22.1%)	$\chi^2 = 1.02, df=1, p=.313$
Monthly Income ^a				
Less than \$500/month	43 (56.58%)	20 (25.32%)	64 (39%)	
More than \$500/month	33 (43.42%)	59 (74.68%)	92 (61%)	$\chi^2 = 17.89, df=1, p=.012$

Some data are missing:

^a $n = 156$

Table 3A Comparison of Sexually-Transmitted Infections by Sexual Orientation ($N = 163$)

Variable	Heterosexual	MSM	χ^2 ($df = 1$) and
	($N = 80$)	($N = 83$)	Significance
Gonorrhea	7 ^a	8 ^b	.016, $p = .898$
Hepatitis A	8 ^a	5 ^b	1.02, $p = .313$
Hepatitis B	8 ^a	6 ^d	.458, $p = .499$
Hepatitis C	12 ^a	5 ^b	3.87, $p = .049$
HIV/AIDS	16 ^a	30 ^b	4.94, $p = .026$
Pubic lice	7 ^a	19 ^c	5.61, $p = .018$
Syphilis	5 ^a	14 ^c	4.09, $p = .043$

Some data are missing because of refusal to answer:

^a
 $n = 68$;^b
 $n = 73$;^c
 $n = 74$;^d
 $n = 72$