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Representation of stigma in Craigslist men for men sex ads

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2011

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An abstract of
A thesis submitted to the Faculty of the
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Abstract

Representation of stigma in Craigslist men for men sex ads

By Dhrutika Vansia

Background: Men who have sex with men (MSM) continue to be disproportionately affected by the HIV epidemic in the United States and are increasingly using the Internet to look for sex partners. Previous research on online sex seeking indicate encounters initiated online are associated with engaging in risky behaviors. Studies have shown that experience of stigma has been linked to risky sex. In this paper we examine how stigma, conceptualized as reported biases and preferences, is represented in sex ads placed in the *"men seeking men"* section of Craigslist.

Methods: Data were collected from ads on the *"men seeking men"* section of the Craigslist sites from the 11 of the 12 Metropolitan Statistical Areas (MSAs) with the highest HIV/AIDS prevalence in the United States. Data were collected consecutively over 11 days (one city per day) from the first 200 ads listed before 2.30pm in each city's time zone. Three categories of variables were collected: 1) self-reported general characteristics of the authors 2) reporting of biases in the ad 3) reporting of preferences for sexual partners in the ad.

Results: Reporting of biases and preferences varied significantly by city and author's characteristics, suggesting geographic, social and cultural variations in how biases against and preferences for sexual partners are represented.

Conclusion: Biases and preferences were rarely reported in the ads, however ads that did varied by city and author characteristic. The study suggests that there are elements of stigma in seeking sex partners within the MSM community.

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I also take this opportunity to thank the faculty in the Hubert Department of Global Health. Your support these past two years and your contributions to the field of public health continue to be a source of inspiration.

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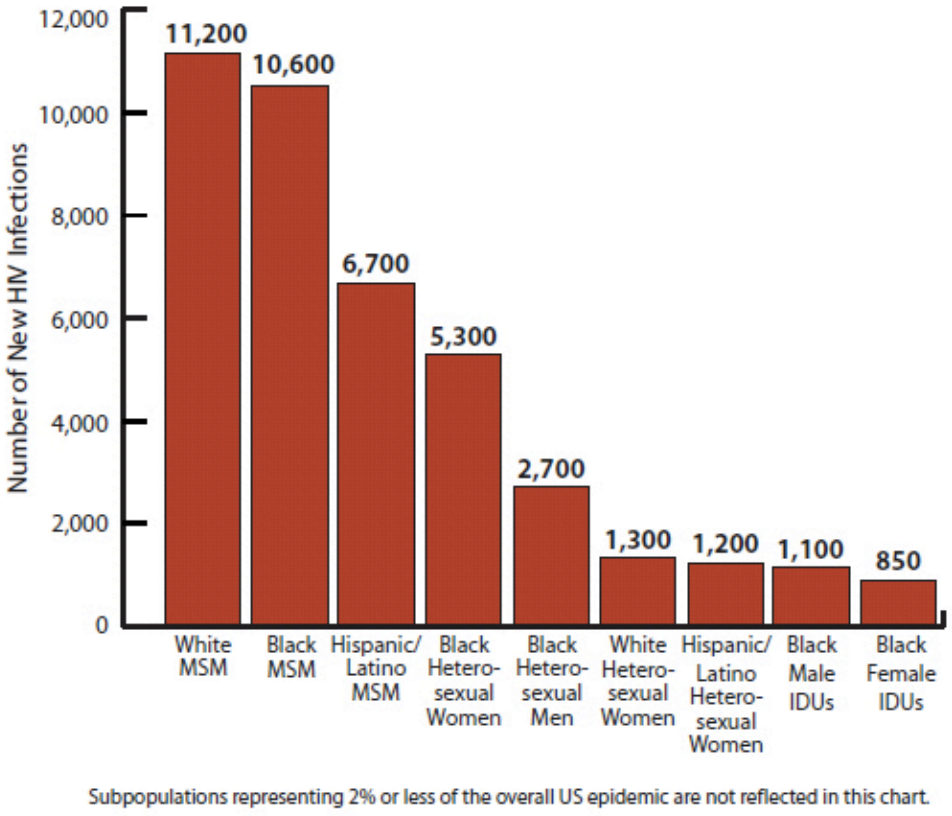
Chapter I – Introduction

There are over 1.1 million people living with HIV/AIDS (PLHIV) in the United States and 15.8% are unaware that they are infected (Services 2012, CDC 2013). In 2011, an estimated 29,273 people were diagnosed with HIV and an estimated 32,052 people were diagnosed with AIDS (Services 2012). Individuals who are unaware of their HIV status, transmit 49% of all new infections hence not getting tested will only increase HIV incidence (Hodel, Britz et al. 2012). Although heterosexuals and injection drug users continue to be affected, men who have sex with men (MSM) are disproportionately affected by the HIV epidemic. MSM have represented the largest proportion of the population affected by the epidemic in the United States since the beginning of the epidemic 4 decades ago and are the only group for which the risk is increasing.

In 2010, MSM represented only 4% of the male population in the United States however, they accounted for 63% of overall new infections and 78% of new infection among males (CDC 2013). There was a significant increase (12%) in new HIV infections among MSM, from 26,700 new infections in 2008 to 29,800 new infections in 2010 (CDC 2013). White MSM (11,200) represented the largest number of new HIV infections followed closely by black MSM (10,600), in 2010. However, HIV incidence amongst black MSM is eight times higher than incidence amongst white MSM (CDC 2012). Of the seropositive black MSM 59% are unaware they are infected and are unaware that they might be transmitting the infection to their sexual partners (Maulsby, Millett et al. 2014).

Figure 1: Estimated New HIV Infections in the United States 2010, for the Most Affected Subpopulations



Source: CDC (2012). "New HIV Infections in the United States." Retrieved March 2, 2014, from http://www.cdc.gov/nchhstp/newsroom/docs/2012/hiv-infections-2007-2010.pdf.

In 2009, youth aged 13-29 accounted for 39% of new infections, disproportionately affecting young black MSM (CDC 2013). In 2010, young black men ages 13-24 represented 55% of all new infections among MSM (CDC 2013). Between the years of 2006 and 2009, HIV incidence increased by 21% among young men ages 13-29 years; 35% of this increase was attributed to young MSM, of which 48% was due to young black MSM (Prejean, Song et al. 2011, Hodel, Britz et al. 2012, Maulsby, Millett et al. 2014). Youth between the ages of 13-24 years account for approximately 26% of all new HIV diagnoses among African Americans (Kerr,

Valois et al. 2014). A CDC study found that young MSM are more likely to be unaware of their status, putting themselves and others at risk of infection (CDC 2013).

The Enhanced Comprehensive HIV Prevention Planning (ECHPP) Project is a CDC funded project that is part of the National HIV/AIDS Strategy (NHAS) (CDC 2013). It aims to *"reduce new infections, link people with HIV to care and treatment and improve health outcomes, reduce HIV-related health disparities and achieve a more coordinated national response to the HIV epidemic in the United States"* (CDC 2013). The project is targeted towards the 12 municipalities with the highest number of PLHIV and intends to use the lessons learned to improve the CDC's ability to work with health departments and other government agencies to reach the goals set forth by the NHAS. Its purpose is to improve coordination across the broad range of HIV prevention, care and treatment activities. The 12 municipalities represent the 12 Metropolitan Statistical Areas (MSAs) with the highest AIDS prevalence rates (44% of all cases) in the United States. The MSAs, ranked in 2007 from highest to lowest prevalence rates, include New York (NY), Los Angeles (CA), Washington (DC), Chicago (IL), Atlanta (GA), Miami (FL), Philadelphia (PA), Houston (TX), San Francisco (CA), Baltimore (MD), Dallas (TX) and San Juan (PR) (CDC 2013).

The use of the Internet in seeking sex partners has become increasingly prevalent among MSM. Social networking sites, mobile applications and online chat rooms have become more popular because they are accessible, affordable and allow men to remain anonymous (Chiasson, Parsons et al. 2006). An estimated 40% of MSM have used the Internet to look for a sex partner (Bolding, Davis et al. 2005, Liau, Millett et al. 2006).

Men who report meeting sex partners online report an increased number of overall sex partners (Horvath, Rosser et al. 2008, Rosser, Oakes et al. 2009), a higher prevalence of unprotected anal intercourse (UAI) (Rosser, Oakes et al. 2009) and a higher prevalence of sexually transmitted infections (STIs)(Bull, McFarlane et al. 2004, Chiasson, Hirshfield et al. 2007). A meta-analysis of observational studies suggested that encounters that were initiated online had higher odds of any UAI, seroconcordant UAI and serodiscordant UAI, compared to encounters initiated offline. In online initiated encounters, UAI in group sex was only higher among HIV-positive MSM (Lewnard and Berrang-Ford 2014). In a study with a sample of Latino men by Rosser et al, on HIV risk and the Internet, indicated that two thirds reported having UAI with at least one man in the past year and 57% reported having UAI with multiple partners. Men were twice as likely to engage in anal sex or UAI with men they met online than men they met offline (Rosser, Miner et al. 2009). This could reflect how relationships formed online affects trust in sex partners and how this is different to relationships formed in real life. Results from a study on the relationship between online social networking and sexual risk behaviors among MSM, indicated that the number of sexual partners from online sexual networks is correlated with increases in the likelihood of having exchanged drugs, food, or a place to stay (in the past 3 months) for sex and an increased number of new sex partners(Young, Szekeres et al. 2013). This could indicate the Internet is a new environment in which MSM, among others, can engage in transactional sex.

Research has shown that venue can impact how MSM negotiate sex, including sharing their HIV status with their partner. Results from a study by Grov et al exploring venue's role in risky behavior, indicated that half of those that reported anal sex at last encounter did not use a condom; however, UAI was not significantly associated with choice of venue (Grov, Hirshfield

et al. 2013). In fact, men who met their most recent partner online were the most likely to disclose their HIV status compared to men who met their recent partners at a park or other public places(Grov, Hirshfield et al. 2013). HIV-negative partners are more likely to have UAI with partners they met online than partners they met in other venues (Berry, Raymond et al. 2008). This could indicate communication between partners prior to meeting could make them feel more comfortable in engaging in UAI. A study looking at smartphone applications and sexual health outcomes found that men who have used these applications "reported significantly more sexual partners and had a higher prevalence of ever being diagnosed with an STI than non-users" (Lehmiller and Ioerger 2014).

The Internet is integrated in almost every aspect of life for most youth and has progressively become a popular venue for young men to meet their first sexual partner (Bolding, Davis et al. 2007). An estimated 90% of youths between the ages 15-24 have been online at some point in their lives (Garofalo, Herrick et al. 2007) and 78% of ages 12 years and older are now online (Ybarra and Bull 2007). The expansive network allows them to connect with individuals they share the same values with, who otherwise would not be available to them. A study by Garofalo et al on young MSM, the Internet and HIV risk, indicated that of the 48% of young MSM that had met a sex partner online, only 53% consistently used condoms (Garofalo, Herrick et al. 2007). This could reflect lack of knowledge on condom use among young MSM or a need to eroticize safe sex in hopes of increasing condom use (Klein 2013). Holloway et al indicate that young MSM in Southern California have been using a smart-phone application called "Grindr" to "hook-up" (29%) with other men; a significantly greater percentage (42%) used online dating sites (Holloway, Rice et al. 2014). Though there is definitely preference for

online dating sites, applications such as Grindr are on a rise making it increasingly easier to meet sex partners.

The Internet and online social networks play an important role in reaching most at risk populations (e.g. homeless people). Research shows using the Internet to find a sex partner could lead to a higher risk of contracting HIV and STIs hence it is a forum with great potential to deliver HIV/STI intervention and treatment programs (Young and Rice 2011). Internet and cell phone based programs have overcome barriers to the more traditional interventions such as facilitator issues and individual obstacles (insurance, transportation etc.) and can be made available to a larger and geographically dispersed audience (Ybarra and Bull 2007). Recently there has been broad support for an Internet partner notification system where if an individual found out they were infected they would be able to notify the partners through the sites they had met them on (Mimiaga, Fair et al. 2008).

HIV related stigma has shown detrimental effects on the physical and psychological wellbeing of PLHIV (CDC 2011). Though acceptability of same-sex relationships is increasing, HIV-related stigma is still a reality for many in the United States. In 2010, America's support for the moral acceptability of homosexuals crossed the symbolic 50% threshold (CDC 2011). However, 43% continue to believe homosexuality is "morally wrong" (Saad 2010, CDC 2011). Stigma can limit MSM's ability to access quality health services that are particular to issues of MSM health and can affect their income and employment status. The effects of stigma can contribute to poor mental health and unhealthy behaviors such as substance abuse, risky sexual behaviors and suicide attempts (CDC 2011). It hinders MSM's ability to be open about their sexual orientation and maintain long-term relationships, which could reduce the risk of HIV/STI

infection. Overall, stigma can affect physical and mental health, MSMs ability to obtain health services, and the quality of health services they receive (CDC 2011).

Men who face rejection from their families and communities and face social isolation have expressed a host of negative health outcomes such as substance abuse and UAI, making them more vulnerable to HIV infection (Repetti, Taylor et al. 2002, Diaz, Ayala et al. 2004, Preston, D'Augelli et al. 2004, Cahill, Valadéz et al. 2013). This could reflect the role social isolation plays in sexual risk taking; sex could become a coping mechanism because of rejection or the desire to participate in safe sex could be reduced due to lowered self-esteem. Violence towards MSM creates a hostile environment and correlates directly with increased risky sexual behaviors, especially among young MSM.

Stigma has been associated with an increased risk of HIV acquisition (Preston, D'Augelli et al. 2004, Rintamaki, Davis et al. 2006). Fear of being ostracized, and other social consequences due to stigma, can deter individuals from getting tested. Disclosure of a positive serostatus or use of a condom can bring partner rejection, decrease sexual opportunities and increase stigma. Stigma makes it harder for HIV prevention programs to be offered in a variety of settings. Although integrating HIV prevention into a broader health context is widely accepted, community venues such as churches, businesses, and prisons etc. have resisted discussions on HIV (UCSF 2006). Seropositive individuals may not seek treatment due to real or perceived stigma against them. A national study found that 36% of HIV positive adults reported experiencing stigma by a health care provider and 8% were refused medical services (UCSF 2006). Discrimination can affect adherence to medication, which can lead to complications such as drug resistance (Rintamaki, Davis et al. 2006). Stigma can also be observed along racial lines with African Americans reporting greater perceived stigma compared

to Caucasians (Kerr, Valois et al. 2014). Research has indicated that almost one-fifth of black MSM have experienced racial discrimination directed towards family, self or friends when interacting with healthcare providers (Irvin, Wilton et al. 2014). Utilization of healthcare was positively associated with insurance coverage, older age and perceived healthcare-specific racial discrimination. Lack of HIV testing was also positively associated with healthcare specific racial discrimination (Irvin, Wilton et al. 2014).

Data from a study conducted in Sacramento, California indicated that 28% of gay men, 19% of lesbians, 27% of bisexual men and 15% of bisexual women reported experiencing some form of criminal victimization from the age of 16 due to their sexual orientation. Of those that reported sexual assault based on their sexual orientation, 13% were gay men, 7% were lesbians, 11% were bisexual men, and 4% were bisexual women (Herek 2009). In a study on sexual minorities among the youth from community-based organizations in New York City and its suburbs, 11% indicated physical violence, 9% indicated sexual violence and 78% indicated verbal threats, based on their sexual orientation (Herek 2009). The same study documented life occurrence of victimization among lesbian, gay, and bisexual adults aged 59 and older, 16% reported being physically attacked, 7% reported being sexually assaulted, 11% reported having objects thrown at them, and 29% reported being threatened with violence (Herek 2009). Fear of violence further deters individuals from getting testing or sharing their status, allowing the spread of infection to continue.

Stigma and discrimination towards sexual minorities can begin at a young age. The 2011 National School Climate Survey indicated that the safety of sexual minorities and victimization at school continues to be a problem. Students who experienced victimization due to their sexual orientation were three times as likely to have missed school, had lower grades and had higher

levels of depression. Due to their sexual orientation, 63.5% felt unsafe, 81.9% were harassed, 38.3% were physically harassed and 18.3% were physically assaulted (Kosciw, Greytak et al. 2012). The youth in the United States are increasingly at risk of HIV infection and stigma from a young age hindering efforts in addressing HIV prevention among sexual minorities in their youth. Youth are more likely to face rejection from their families; researchers of a study that looked at strong rejection from families found that those who experienced strong rejection were 8.4 times more likely to have attempted suicide, 5.9 times more likely to report high levels of depression, and 3.4 times more likely to use illegal drugs and have risky sex (CDC 2011).

Many have studied external stigma and its effects on HIV prevention and care; however, little to no research has been done looking at stigma *within* MSM communities. It is important to understand what forms of stigma that are internal to the MSM community exist in order to better recognize its effects on health; internal stigma could be discrimination against, or preference for, physical attributes, health status, educational or employment status etc. A study by et al looked at racial preferences in the online profiles of MSM. The results indicated Latino men were the most frequently preferred (54%), followed by white men (52%), black men (48%), and Asian men (12%) (White, Reisner et al. 2014). A preference for white men was associated with engaging in low-risk foreplay where as a preference for black and Latino men was associated with engaging in group sex (White, Reisner et al. 2014). Online sex sites provide a forum where men can be specific about what they want in sex partners, the type of sex they want to engage in and where they want to meet. The aim of this research is to investigate whether internal stigma is present among MSM by exploring the biases and preferences MSM report on Craigslist listings.

Chapter II – Manuscript

Representation of stigma in Craigslist men for men sex ads

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Representation of stigma in Craigslist men for men sex ads

Abstract

Background: Men who have sex with men (MSM) continue to be disproportionately affected by the HIV epidemic in the United States and are increasingly using the Internet to look for sex partners. Previous research on online sex seeking indicate encounters initiated online are associated with engaging in risky behaviors. Studies have shown that experience of stigma has been linked to risky sex. In this paper we examine how stigma, conceptualized as reported biases and preferences, is represented in sex ads placed in the *"men seeking men"* section of Craigslist.

Methods: Data were collected from ads on the *"men seeking men"* section of the Craigslist sites from the 11 of the 12 Metropolitan Statistical Areas (MSAs) with the highest HIV/AIDS prevalence in the United States. Data were collected consecutively over 11 days (one city per day) from the first 200 ads listed before 2.30pm in each city's time zone. Three categories of variables were collected: 1) self-reported general characteristics of the authors 2) reporting of biases in the ad 3) reporting of preferences for sexual partners in the ad.

Results: Reporting of biases and preferences varied significantly by city and author's characteristics, suggesting geographic, social and cultural variations in how biases against and preferences for sexual partners are represented.

Conclusion: Biases and preferences were rarely reported in the ads, however ads that did varied by city and author characteristic. The study suggests that there are elements of stigma in seeking sex partners within the MSM community.

Introduction

There are over 1.1 million people living with HIV/AIDS (PLHIV) in the United States; 15.8% are unaware that they are infected and contribute to 49% of all new infections (CDC 2013). Men who have sex with men (MSM) have represented the largest proportion of the population affected by the epidemic in the United States and are the only demographic for which the risk is increasing. In 2010, MSM accounted for 63% of overall new infections and 78% of new infections among males (CDC 2013), a significant 12% increase from 2008 to 2010 (CDC 2013). Black MSM are disproportionately affected with an incidence rate eight-times higher than that of white MSM (CDC 2012).

An estimated 40% of MSM in the United States have used the Internet to look for a sexual partner (McFarlane, Bull et al. 2000, Bolding, Davis et al. 2005, Liau, Millett et al. 2006, Rosser, Miner et al. 2009, Grov, Hirshfield et al. 2013). Online sex seeking has become increasingly prevalent as it is easily accessible, affordable and allows men to remain anonymous (Chiasson, Parsons et al. 2006, White, Finneran et al. 2013). Recent studies suggest that MSM who have met their partners online, report more sex partners (McFarlane, Bull et al. 2000, Horvath, Rosser et al. 2008, Rosser, Miner et al. 2009, Rosser, Oakes et al. 2009), a higher prevalence of unprotected anal intercourse (UAI) (Rosser, Oakes et al. 2009) and a higher prevalence of sexually transmitted infections (STIs) (McFarlane, Bull et al. 2000, Bull, McFarlane et al. 2004, Chiasson, Hirshfield et al. 2007, Rosser, Miner et al. 2009, Young and Rice 2011). Rosser et al explored the association between HIV risk and online sex seeking with a sample of Latino MSM, results indicated that two-thirds of MSM reported having UAI with at least one man in the past year, and 57% with multiple partners. Men were twice as likely to

engage in anal sex or UAI with men they met online than with men they met offline (Rosser, Miner et al. 2009).

The Internet has become an increasingly popular venue for young MSM to meet their first sexual partners (McFarlane, Bull et al. 2002, Bolding, Davis et al. 2007). An estimated 90% of youths between the ages 15-24 have been online (Foundation 2001, Garofalo, Herrick et al. 2007) and 78% of youth aged 12 and older are now online (Ybarra and Bull 2007). A study by Garofalo et al showed that 48% of young MSM (aged 16-24) had met a sexual partner online and of these only 53% consistently used condoms (Garofalo, Herrick et al. 2007), leaving a large percentage exposed to STIs.

The Internet also allows MSM to negotiate location, type of sex and disclose information on their health status prior to meeting. Men who met their most recent partner online were more likely to disclose their HIV status compared to men who had met their most recent partner at a park or other public places (Grov, Hirshfield et al. 2013). However, HIV negative men are more likely to have UAI with partners they met online compared to other venues (Berry, Raymond et al. 2008).

Stigma affecting MSM exists in two forms, discrimination against HIV status and discrimination against sexual orientation. In 2010, America's support for the moral acceptability of homosexuals crossed the symbolic 50% threshold however, 43% continue to believe homosexuality is "morally wrong" (Saad 2010, CDC 2011). Stigma can affect the physical and mental health of MSM, their ability to obtain health services and the quality of health services they receive (CDC 2011). Stigma also varies along racial lines, with African Americans having reported greater perceived stigma compared to Caucasians (Kerr, Valois et al. 2014).

Stigma and discrimination towards sexual minorities begins at a young age. Students who experienced victimization due to their sexual orientation were three times as likely to have missed school, had lower grades and had higher levels of depression (Kosciw, Greytak et al. 2012). Based on their sexual orientation, 63.5% felt unsafe, 81.9% were harassed, 38.3% were physically harassed and 18.3% were physically assaulted (Kosciw, Greytak et al. 2012). Researchers looked at strong rejection from families found that those who experienced strong rejection were 8.4 times more likely to have attempted suicide, 5.9 times more likely to report high levels of depression, and 3.4 times more likely to use illegal drugs and have risky sex (CDC 2011).

Men who face rejection from their families or communities and face social isolation have expressed a host of negative health outcomes such as substance abuse and UAI, making them more vulnerable to HIV infection (Taylor-Seehafer and Rew 2000, Repetti, Taylor et al. 2002, Cahill, Valadéz et al. 2013). Data from a study conducted in Sacramento, California indicated that 28% of gay men, 19% of lesbians, 27% of bisexual men and 15% of bisexual women reported experiencing some of type of criminal victimization from the age of 16, due to their sexual orientation (Herek 2009). The effects of social isolation could result in the use of sex as a coping mechanism, reducing the desire or inhibiting the ability to engage in safer practices (Taylor-Seehafer and Rew 2000, Repetti, Taylor et al. 2002, Diaz, Ayala et al. 2004, Perrino, Collazo et al. 2005, Yang and Xia 2006).

Many have studied external stigma and its effects on HIV prevention and care however, little to no research has focused on stigma *within* MSM communities. In light of the detrimental effects stigma can have, it is important to understand what form internal stigma takes and the role it plays in LGBT health. A study by White et al looked at racial preferences in the online

profiles of MSM. The results indicated Latino men were the most frequently preferred (54%), followed by white men (52%), black men (48%) and Asian men (12%) (White, Reisner et al. 2014). This could indicate that preferences for certain attributes could lead to internal stigma. This study aims to explore what forms of internal stigma exist within *"men seeking men"* listings on Craigslist.

Methods

Data were collected from 11 of the 12 Metropolitan Statistical Areas (MSAs) with the highest HIV/AIDS prevalence in the United States, ranked by the Enhanced Comprehensive HIV Planning Project (ECHPP) (CDC 2013). The cities included New York (NY), Los Angeles (CA), Washington (DC), Chicago (IL), Atlanta (GA), Miami (FL), Philadelphia (PA), Houston (TX), San Francisco (CA), Baltimore (MD) and Dallas (TX) and San Juan (PR). Data were not collected from San Juan as there is no Craigslist site available. Data were extracted from ads on the "*men seeking men*" section of the Craigslist's sites from each of the cities. Data collection was performed consecutively over 11 days (8th October 2013 – 18th October 2013); with data collected from one city per day. To minimize bias, data were collected from the first 200 ads listed before 2.30pm in each city's time zone, hence standardizing the time of day for which data were collected across cities. Ads that were not sexual in nature (e.g. ads selling sex toys) or where couples created an ad together were excluded. The total sample size was 2200 (200 per city). No identifying information was collected and there was no interaction between the data collector and the subjects. Data was extracted from ads, entered into Excel and imported into STATA for analysis. Three categories of variables were collected: 1) Self-reported general characteristics of the men that created the ads 2) Reporting of biases in the ads 3) Reporting of

preferences for sexual partners in the ads. As the ads did not have a fixed template, the length and content varied greatly.

Many of the ads were very brief and contained little information. The following characteristics were collected from the ads, when each domain was not mentioned it was coded as "not mentioned" in the data set. Self-reported demographic characteristics included: race/ethnicity (white/black/Latino/Asian/other), age (entered as a continuous variable), sexual orientation (homosexual/heterosexual/bisexual), sexual position (top/bottom/versatile), circumcision status (circumcised/uncircumcised) and HIV status (negative/positive). In addition the following characteristics were extracted; self-reported disease and drug free (DDF) status (DDF/clean/healthy), whether they were visiting the city (yes/no), if they reported themselves to be good-looking (yes, no), interested in drugs (420/poppers/party and play/other), penis size (mentioned, not mentioned), relationship request (no strings attached/emotional), if a picture was uploaded (yes/no), location of visit (host/travel/versatile) and if they reported having a female partner.

Biases were defined as an ad in which the author specifically reported not wanting a specific characteristic in a sex partner. The following biases were collected (if they were not present in an ad, they were coded as "not mentioned"); racism (white/black/Latino/Asian/other partners), ageism (saying no to a particular age group/range), circumcision status (saying no to circumcised or uncircumcised men), weightism (saying no to "fat" or "underweight" men), economic status (saying no to unemployed men), heightism (saying no to tall or short men), transphobia (saying no to transgender people), physical appearance (mentioned "no ugly" men) and gender expression (mentioning no "feminine" men or "gay" men).

Preferences were defined as an ad that stated a request for a particular characteristic (e.g. only tall men). Preferences extracted included: HIV status (must be negative or positive), DDF status (must be DDF or Clean or Healthy), sexual position (must be top or bottom or versatile), stated a preference for a penis size, transactional sex (stated preference for buying or selling) and safe sex (stated a preference for unprotected (raw) or safe sex).

Data were analyzed using chi-square test to determine variation in the demographic characteristics, biases and preferences across the 11 cities and variation in biases and preferences across the demographic characteristics. For age, a categorical variable defined as "18-25", "26-35", "36-45" and "46 and above". Due to the small number of "healthy" variables in DDF status, it was combined with the "clean" variable for analysis. An $\alpha=0.05$ level was used to denote significance and all analyses were conducted using Stata version 13.1 (StataCorp 2013).

Results

Sample Characteristics

The majority of the ads had minimal information. Among ads that contained race or ethnicity, 24.6% of the authors were white, 6.6% were black, 5.2% were Latino, 2.1% were Asian and 0.2% was reported as "other". Reporting of race was significantly different across the 11 cities ($p<0.0001$), Baltimore represented the highest percentage with 36.0% of authors self-reporting as white. The modal age group of the authors was 26-35 (31.3%,), 40.0% of ads in this age group were from Chicago, the highest of all cities. Age reporting in ads varied significantly across the cities ($p=0.003$). Of the 2,200 ads only 1.4% contained reports of visiting and only 2.8% (n=62) reported authors currently in a relationship with a female (wife/girlfriend). Sexual orientation was not reported in the majority of the ads, of those that did (7.9%), 6.1% of the authors reported being bisexual, 1.5% heterosexual and 0.3% homosexual. Sexual orientation

varied significantly across the cities (p=0.0001); the most variation was seen among authors that reported being bisexual with as low as 1.0% in Houston and as high as 11.5% in New York. Ads that contained sexual position (19.5%), 5.2% contained authors that were exclusive tops, 9.6% contained authors that were exclusive bottoms and 4.7% contained authors that were versatile. The distribution of sexual position varied significantly across the cities (p=0.020), with as high as 16.0% (bottom) in Dallas and as low as 2.5% (top) in Houston and Baltimore. Ads that contained circumcision status (19.1%), 15.5% contained authors that reported being circumcised and 3.7% contained authors that reported being uncircumcised. There was a significant variation (p=0.0001) across the cities, where 21.5% of the authors reported being circumcised in Chicago and 8.0% of the authors reported being uncircumcised in New York. Overall reporting of HIV status was low, 13.1% of ads reported authors being HIV-negative and 0.4% reported authors being HIV-positive; varying significantly across the 11 cities (p=0.0001), with 1.5% of HIV-positive authors in Baltimore and 25.5% of HIV-negative authors in Los Angeles. Only 13.5% of ads included a self-reported HIV status. Among ads that contained self-reported DDF status (31.7%), 27.2% of authors reported being DDF, 4.4% of authors reported being clean, and 0.1% of authors reported being healthy. There were significant variations in DDF status across the cities (p=0.0001), with Houston representing the highest percentage of ads that contained DDF authors (33.5%). The percentage of ads that contained reports of physical appearance (16.7% overall) varied significantly across the cities (p=0.0001) with Los Angeles and San Francisco representing the highest percentages of authors who reported being good looking (23.5% in both cities). The percentage of ads that included photos (overall 46.5%) varied significantly across the cities (p=0.0001), with 55% in Dallas to 34% in San Francisco. Of the ads that reported drug use (5.8%), 2.4% of authors reported interest in 420, 2.7% of authors reported interest in poppers,

0.6% of authors reported interest in party and play (PNP) and 0.2% of authors reported interest in other drugs. Penis size was reported in 18.4% of the ads, with Dallas representing the highest percentages reported (23.0%). Of ads that contained a relationship request (7.5%), only 5.7% sought a no strings attached (NSA) encounter and 1.7% sought a long-term or emotional relationship. Location for the visits was reported in a small number of ads, 17.6% of authors, preferred to host, 19.1% preferred to travel and 7.0% were versatile. The distribution of the domains for drugs, location of encounter, whether they were visiting the cities, penis size, relationship request and if they were currently in a relationship with a woman did not vary significantly across the cities.

Biases and preferences

Overall there were very few explicit reports of biases. Bias against looks was the most commonly reported with 4.4% of ads containing bias against "ugly" men. Weightism was reported in 2.3% of ads containing bias against "fat" men. Bias against gender expression was reported in 1.9% of the ads containing bias against feminine men. In terms of ageism, there were more reports of bias against older men (1.5%) than bias against younger men (0.1%). Racial bias was reported against white (0.18%) and black men (0.14%). Bias against the unemployed was reported in 0.14% of the ads. Bias against circumcision status was reported equally against the circumcised and the uncircumcised (0.09% for both). Homophobia was the lowest reported bias with only one ad containing reports of bias against homosexual men (0.05%). No ads contained reports of bias against height or transgender people.

The ads contained more reports of preferences than biases. The highest reported preference was for DDF status, with 19.3% of ads containing a preference for DDF men only, 5.1% of ads containing a preference for "clean" men only and 0.23% of ads containing a

preference for "healthy" men only. In terms of sex preferences, 12.2% of the ads contained a preference for raw sex and 1.7% of the ads contained a preference for safe sex. More ads contained a preference for HIV-negative men (8.1%) than a preference for HIV-positive men (0.05%). Ads that contained a preference for sexual position showed that 3.3% of the authors preferred tops, 1.5% preferred bottoms and 0.5% preferred versatile men. Transactional sex was seen in 0.8% of ads containing a preference for a man selling sex and 0.3% of ads containing a preference for a man buying sex. Preference for penis size was the lowest reported (0.2%).

Variations in biases and preferences by city

Examining variations in self-reported biases by city showed only two significant variations, bias against looks ($p=0.0001$) and ageism ($p=0.033$). Bias against looks was highest in ads from Los Angeles (12.0%) and lowest in ads from Baltimore (2.0%). Ads containing ageism was highest in Los Angeles (4.5%) and lowest in Dallas (0.5%).

All the self-reported preferences varied significantly by city except the preference for transactional sex. Variations in preference for DDF status ranged from as high as 24.0% (DDF) in Dallas to as low as 1.0% (healthy) in Los Angeles ($p=0.001$). Reporting of preference for HIV negative men was as high as 16% in in Los Angeles and as low as 4.0% in Chicago; preference for HIV positive men was reported in only one ad in Baltimore (0.5%) ($p=0.001$). Preference for a top varied significantly by city ($p<0.0001$), from as high as 9.5% in Los Angeles and as low as 0.5% in Philadelphia. Variations in preference for a bottom and versatile men were low. The percentage of ads containing a preference for a bottom was highest in Houston and San Francisco (3.5% for both cities) and lowest in Chicago (1.0%). Ads containing preference for a versatile man was highest in Baltimore and Los Angeles (1.5% in both cities) and lowest in Washington, Philadelphia and Houston (0.5% for all three cities). Preference for penis size

(p=0.009) was only reported in two cities, 1.5% of ads from Los Angeles and 1.0% of ads from Miami. Ads from San Francisco (16.0%) contained the highest reports and ads from Chicago (7.5%) contained the lowest reports of preference for raw sex. Ads from Dallas (4.0%) contained the highest reports of preference for safe sex and ads from Atlanta, Miami and Philadelphia (1.0% for all three) contained the lowest reports of preference for safe sex.

Variations in biases and preferences by sample characteristics

Reported ageism varied significantly by the age of the ad author (p=0.006). Although greater than 95% of all ads across age groups contained no reports of ageism, 2.9% of ads authored by those aged 18-25 contained ageism compared to those aged 36-45 (0.2%) and aged 40 and older (1.3%). Homophobia also varied significantly across the age of the ad author (p=0.049), ads where the age of the author was not mentioned (0.5%) contained the only reports of homophobia. Although reports of bias against the unemployed was generally low, ads authored by bisexual men (1.5%) were more likely to contain bias against the unemployed than those authored by other sexual orientations (p<0.0001). Bias against feminine men varied significantly by the sexual orientation of the ad author. Although greater than 90% of the ads across sexual orientation contained no bias towards feminine men, 6.7% of ads authored by bisexual men and 6.3% of ads authored by straight men contained bias against feminine men. Racial bias varied significantly by the ad author's sexual orientation (p<0.0001). Less than 3% of all ads across sexual orientation contained reports of racism; 1.9% of ads authored by versatile men contained reports racism compared to those authored by other sexual orientations. Though racism varied significantly across the author's circumcision status (p<0.0001), greater than 95% of ads did not contain reports of racism. Among authors that self-reported as uncircumcised, 2.5% reported racial bias in their ads compared to 0.1% of authors who did not mention their

circumcision status. Reports of ageism across the author's DDF status were low, ads authored by DDF men (1.8%) were more likely to contain ageism compared to those authored by men with other DDF statuses ($p=0.039$). Weightism varied significantly by the DDF status of the author ($p=0.042$). Greater than 95% of all ads across DDF status did not contain reports of weightism; 3.7% of ads authored by DDF men contained weightism compared to 1.9% of ads authored by men who did not report their DDF status. Bias against feminine men varied significantly by authors that reported they were visiting the city ($p=0.001$), 9.7% of all ads across authors that were visiting contained reports of bias against feminine men. Reports of bias against the unemployed ($p=0.020$) and bias against looks ($p<0.0001$) varied significantly by ad authors that self-reported being good looking; 0.5% of ads authored by "good-looking" men contained bias against the unemployed and 12.0% contained bias against "ugly" men. Ads where the author reported an interest in drugs contained few reports of racism, only 3.8% of ads where the author reported an interest 420 contained racism ($p=0.007$). Bias against looks varied significantly by the ad author's self-reported penis size ($p=0.048$); 6.2% of ads authored by men that reported their penis size contained bias against "ugly" men. Racial bias varied significantly across ads that contained a location for the encounter ($p=0.025$), 1.3% of ads where the author wanted to host contained racism compared to ads that reported other locations (0.2%). Ageism varied significantly by authors that reported having a female partner ($p<0.0001$), 3.2% of the ads authored by men currently in a relationship with a female partner contained reports of ageism. Bias against looks varied significantly by authors that reported having a female partner ($p=0.038$), 9.7% of the ads contained reports of bias against "ugly" men. Among ads authored by men that reported having a female partner, 6.5% contained reports of bias against feminine men ($p=0.008$).

Reported preference for sexual position varied significantly by the author's race ($p<0.001$). Although greater than 80% of all ads across race contained no reports of a preference for sexual position, 10.9% of ads authored by Asian men contained a preference for sexual position compared to 4.1% of ads authored by black men and 20.0% of ads authored by men of other races. Although reports of preference for transactional sex was generally low, ads authored by men ages 18-25 (2.9%) were more likely to contain a preference for transactional sex than those authored by men of other ages ($p=0.004$). Preference for sexual position varied significantly by the author's reported sexual position ($p<0.0001$), 15.6% of ads by authors that reported being bottoms contained reports of a preference for sexual position compared to 2.9% of authors that reported being versatile and 14.9% of authors that reported being tops. Preference for penis size varied significantly by the author's reported sexual position ($p<0.0001$). Ads authored by men that reported being bottoms (2.6%) were more likely to contain reports of preference for penis size than those authored by other sexual positions. Reported preference for type of sex varied significantly by the author's reported sexual position ($p<0.0001$); 21.9% of ads authored by men that reported being tops contained a preference for type of sex compared to 15.6% of ads authored by bottoms and 19.4% of ads authored by versatile men. Reported preference for HIV status varied significantly by the author's HIV status ($p<0.0001$). Ads authored by HIV-negative men (33.3%) were more likely to contain a preference for HIV status than ads authored by HIV-positive men (11.1%). The percentage of ads that reported a preference for DDF status varied significantly by the author's HIV status ($p<0.0001$), 29.5% of ads authored by HIV-negative men contained a preference for DDF status compared to 22.2% of ads authored by HIV-positive men. Although preference for sexual position was generally low,

11.1% of ads authored by HIV-positive men contained a preference for sexual position compared to 5.2% of ads authored by HIV-negative men. Preference for transactional sex varied significantly by the author's HIV status (p=0.048). Ads authored by HIV-negative men (2.7%) were more likely to contain reports of a preference for transactional sex than those authored by HIV-positive men (0%) or men that did not report their HIV status (0.8%). The percentage of ads that contained a preference for type of sex varied significantly by the author's HIV status (p<0.0001), 22.2%of ads authored by HIV-positive men and 22.8% of ads authored by HIV-negative men contained a preference for type of sex. Although preference for HIV status was generally low, 14.9% of ads authored by DDF men contained a preference for HIV status compared to the 3.1% of ads authored by "clean" men (p<0.0001). Reported preference for DDF status varied significantly by the author's DDF status (p<0.0001), 37.1% of ads authored by DDF men were more likely to contain a preference for DDF status than those authored by "clean" men (22.7%). Reported preference for type of sex varied significantly by the author's DDF status (p=0.009). Ads authored by DDF men (17.7%) were more likely to contain a preference for type of sex than those authored by "clean" men (14.4%).

Among ads authored by men that reported being good looking, 2.2% contained reports of a preference for transactional sex (p=0.002). The percentage of ads that contained a preference for type of sex varied significantly by authors that reported an interest in drugs (p<0.0001). Among ads where authors reported interest in poppers, 25.5% contained a preference for type of sex compared to 16.7% of ads where authors reported interest in party and play (PnP), 13.2% of ads where authors reported interest in 420, and 25.0% of ads where authors reported interest in other drugs. Among ads authored by men that reported their penis size, 6.9% contained reports of a preference for sexual position (p=0.002).

Although preference for sexual position was generally low, ads authored by men that wanted to host (7.7%) were more likely to contain a preference for sexual position than ads where authors mentioned other locations (p=0.039). Preference for type of sex varied significantly by ads where authors mentioned a location for the encounter (p=0.036); 18.0% of ads authored by men who wanted to host contained a preference for type of sex compared to 15.4% of ads authored by men who wanted to travel and 16.5% of ads authored by men who were versatile.

Discussion

This study explored the representation of biases and preferences in partner selection reported on online sex ads. We used reports of biases and preferences extracted from *"men seeking men"* ads on Craigslist. Online sex ads can provide an opportunity to examine the factors shaping selection of sexual partners, and are a useful window into online sexual behavior (Berger 2014). Overall, very few ads contained reports of biases or preferences. Variations in biases and preferences were seen across the 11 US cities and across the characteristics of the ad authors, indicating reporting of biases was contextual and perhaps shaped by local norms.

The Internet has become an increasingly popular platform for online sex seeking because it offers anonymity, easy access, privacy, and is cost effective. Several outbreaks of STIs among MSM have been attributed to online sex seeking behaviors (Bull, McFarlane et al. 2004, Liau, Millett et al. 2006). Stigma surrounding MSM could drive men towards web-based dating sites; the privacy and anonymity can provide a sense of safety that real life encounters cannot. Though anonymity and privacy can facilitate disclosure of information it can also enable misreporting (Horvath, Nygaard et al. 2010, White, Finneran et al. 2013). Fear of discrimination or rejection could account for low reports of health statuses, in particular the low percentage of ads in which the author mentioned their HIV status. The majority of the Craigslist ads in this study had very

little information on the authors' HIV/STI status (less than 14% reported their HIV status). Low reports of HIV may point to an unwillingness to disclose; this decision could be influenced by the author's personal values and belief or by the patterns of disclosure among their peers (White, Finneran et al. 2013).

The geographic variations in biases and preferences may represent local variations in attitudes and behaviors among MSM communities. Reporting of characteristics in ads could be shaped by local perceptions of the acceptability and desirability of those characteristics. Research indicates that MSM who reside in areas with high concentrations of MSM, referred to as "gay ghettos", differed from MSM that resided in non-ghetto dwellings in many different aspects. MSM that reside in "gay ghettos" are more likely to be white, younger, have higher incomes and are more likely to identify as "gay" (Mills, Stall et al. 2001). This may be reflected in the local content of online sex ads, and could shape the author's characteristics and reports of desired characteristics in sex partners. Social and sexual networks are often geographically based and a result of societal factors, such as politics and economics. Networks can influence behaviors and attitudes towards characteristics and can shape partner selection (Raymond, Chen et al. 2014). Participation in networks could influence the acceptability and desirability of characteristics in partner selection and may explain the geographic variations in reporting of biases and preferences.

Variations in biases and preferences by the ad author's characteristics could suggest stigma internal to the MSM community – that there are forms of stigma that are perpetuated by members of the community. Authors were more likely to report a preference for or bias against a characteristic if it was mentioned in a description of themselves. Of the ads in which biases and preferences varied significantly by the ad author's characteristics, the majority was related to

HIV status disclosure or preference. Variations in reporting of HIV status disclosure or preference, could reflect the author's perception of its importance in partner selection (White, Finneran et al. 2013). The results suggest characteristics such as HIV status, age, race etc. are some of the leading factors in partner selection – rejection based on these characteristics could be a projection of stigma. Men who have characteristics that are undesirable may perceive themselves as having less bargaining power and therefore may be more willing to engage in risky behaviors in order to obtain a sexual partner (Berger 2014). Reports of biases and preferences in ads, or lack thereof, could influence how authors or readers perceive themselves, shaping the sexual behaviors they are willing to engage in.

This study is not without limitations. The authors represented in this study are limited to men who are actively seeking sex partners online. Men who seek sex partners online differ in characteristics from men seeking partners offline (Lau, Kim et al. 2003). Therefore the results cannot be generalized to men seeking sex partners offline. Craigslist differs from other social network sites because users create ads as opposed to public profiles (Cormode and Krishnamurthy 2008); this could account for the limited information posted by the authors. Characteristics and behaviors of authors on other sexual network sites may differ, limiting the generalizability of the results. We are unable to verify the authenticity of the information posted on the ads. Though online settings provide anonymity, social desirability could have contributed to the low reports of biases and preferences. Also this research is unable to assess the extent to which reports of these biases and preferences actually represent behaviors practiced in person. Another limitation of this study is the inability to verify that each ad had a different author or that the authors were male. This study analyzed Craigslist sites from 11 cities with the highest HIV prevalence in the United States, thus they may not be generalizable to cities with low HIV

prevalence.

Conclusion

Despite these limitations, the findings from this study are not intended to be representative of the general MSM population. The intentions of this study were to better understand portrayals of biases and preferences for sexual partners among authors who used Craigslist to find sex partners. The Internet will continue to increase in popularity as a venue to meet sex partners. Online profiles and interactions can aid in understanding the effects biases and preferences may have on health outcomes. The significant variations in ad content across the cities and the author's characteristics indicate further research is necessary to understand the significance and implications of these variations. Understanding the biases and preferences and its link to health outcomes could better inform prevention messages.

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Tables

Table 1: Descriptive statistics of sample characteristics by city (N=2,200)

Characteristics	Metropolitan Statistical Areas with the highest HIV prevalence in the United States											Total
	New York	Los Angeles	Washington	Chicago	Atlanta	Miami	Philadelphia	Houston	San Francisco	Baltimore	Dallas	
	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Race	*p<0.0001											
White	23.0% (46)	24.5% (49)	29.5% (59)	21.5% (43)	34.0% (68)	11.5% (23)	23.0% (46)	18.0% (36)	26.5% (53)	36.0% (72)	23.0% (46)	24.6% (541)
Black	6.5% (13)	3.5% (7)	10.5% (21)	1.5% (3)	12.0% (24)	4.5% (9)	4.0% (8)	5.0% (10)	4.5% (9)	14.5% (29)	6.5% (13)	6.6% (146)
Latino	2.0% (4)	17.5% (35)	4.0% (8)	5.0% (10)	2.0% (4)	8.0% (16)	1.0% (2)	7.5% (15)	5.0% (10)	0.0% (0)	5.5% (11)	5.2% (115)
Asian	3.5% (7)	3.5% (7)	2.5% (5)	1.0% (2)	0.5% (1)	0.0% (0)	0.5% (1)	1.5% (3)	8.5% (17)	1.5% (3)	0.0% (0)	2.1% (46)
Other	0.0% (0)	0.0% (0)	0.0% (0)	1.0% (2)	0.0% (0)	0.0% (0)	0.0% (0)	1.0% (2)	0.5% (1)	0.0% (0)	0.0% (0)	0.2% (5)
Not mentioned	65.0% (130)	51.0% (102)	53.5% (107)	70.0% (140)	51.5% (103)	76.0% (152)	71.5% (143)	67.0% (134)	55.0% (110)	48.0% (96)	65.0% (130)	61.2% (1,347)
Age	*p=0.003											
18-25	14.0% (28)	20.5% (41)	11.5% (23)	15.5% (31)	14.5% (29)	16.5% (33)	19.5% (39)	28.5% (57)	18.5% (37)	17.5% (35)	14.0% (28)	17.3% (381)
26-35	36.0% (72)	36.0% (72)	32.5% (65)	40.0% (80)	22.0% (44)	28.5% (57)	32.0% (64)	27.0% (54)	27.5% (55)	28.5% (57)	34.5% (69)	31.3% (689)
36-45	24.5% (49)	26.0% (52)	27.5% (55)	21.5% (43)	30.5% (61)	22.0% (44)	24.5% (49)	21.0% (42)	26.0% (52)	18.5% (37)	26.5% (53)	24.4% (537)
46+	17.0% (34)	8.5% (17)	17.5% (35)	16.5% (33)	21.0% (42)	23.0% (46)	16.0% (32)	13.0% (26)	19.0% (38)	26.0% (52)	14.5% (29)	17.5% (384)
Not mentioned	8.5% (17)	9.0% (18)	11.0% (22)	6.5% (13)	12.0% (24)	10.0% (20)	8.0% (16)	10.5% (21)	9.0% (18)	9.5% (19)	10.5% (21)	9.5% (209)
Sexual Orientation	*p=0.0001											
Homosexual	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.5% (1)	1.0% (2)	0.5% (1)	0.0% (0)	1.0% (2)	0.0% (0)	0.0% (0)	0.3% (7)
Straight	4.5% (9)	2.0% (4)	0.0% (0)	2.0% (4)	1.5% (3)	0.5% (1)	1.5% (3)	1.5% (3)	0.0% (0)	1.5% (3)	1.0% (2)	1.5% (32)
Bisexual	11.5% (23)	8.0% (16)	1.5% (3)	7.5% (15)	6.0% (12)	5.5% (11)	5.0% (10)	1.0% (2)	6.5% (13)	6.0% (12)	9.0% (18)	6.1% (135)
Not mentioned	84.0% (168)	90.0% (180)	98.5% (197)	90.0% (180)	92.0% (184)	93.0% (186)	93.0% (186)	97.5% (195)	92.5% (185)	92.5% (185)	90.0% (180)	92.1% (2,026)
Sexual Position	*p=0.020											
Top	5.5% (11)	5.5% (11)	5% (10)	4.0% (8)	7.0% (14)	4.5% (9)	6.5% (13)	2.5% (5)	7.5% (15)	2.5% (5)	6.5% (13)	5.2% (114)
Bottom	5.5% (11)	8.0% (16)	8.5% (17)	7.5% (15)	11.0% (22)	7.0% (14)	11.5% (23)	10.0% (20)	8.5% (17)	12.5% (25)	16.0% (32)	9.6% (212)
Versatile	3% (6)	5% (10)	5.5% (11)	3% (6)	4% (8)	5% (10)	5% (10)	4% (8)	3% (6)	9.5% (19)	4.5% (9)	4.7% (103)
Not mentioned	86.0% (172)	81.5% (163)	81.0% (162)	85.5% (171)	78.0% (156)	83.5% (167)	77.0% (154)	83.5% (167)	81.0% (162)	75.5% (151)	73.0% (146)	80.5% (1,771)

Table 1 *Continued*

Characteristics	Metropolitan Statistical Areas with the highest HIV prevalence in the United States											Total
	New York *p-value % (n)	Los Angeles % (n)	Washington % (n)	Chicago % (n)	Atlanta % (n)	Miami % (n)	Philadelphia % (n)	Houston % (n)	San Francisco % (n)	Baltimore % (n)	Dallas % (n)	% (n)
Circumcision Status	*p=0.0001											
Circumcised	16.0% (32)	14.0% (28)	20.0% (40)	21.5% (43)	14.0% (28)	15.0% (30)	15.0% (30)	11.5% (23)	15.5% (31)	11.0% (22)	16.5% (33)	15.5% (340)
Uncircumcised	8.0% (16)	7.0% (14)	4.0% (8)	3.0% (6)	1.5% (3)	3.0% (6)	1.0% (2)	3.5% (7)	2.5% (5)	1.0% (2)	6.0% (12)	3.7% (81)
Not mentioned	76.0% (152)	79.0% (158)	76.0% (152)	75.5% (151)	84.5% (169)	82.0% (164)	84.0% (168)	85.0% (170)	82.0% (164)	88.0% (176)	77.5% (155)	80.9% (1,779)
HIV status	*p=0.0001											
Negative	9.0% (18)	25.5% (51)	15.5% (31)	12.0% (24)	12.0% (24)	10.5% (21)	8.0% (16)	13.5% (27)	18.5% (37)	8.5% (17)	11.0% (22)	13.1% (288)
Positive	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.5% (1)	0.5% (1)	0.5% (1)	0.0% (0)	0.0% (0)	1.5% (3)	1.0% (2)	0.4% (9)
Not mentioned	91.0% (182)	74.0% (148)	84.5% (169)	88.0% (176)	87.5% (175)	89.0% (178)	91.5% (183)	86.5% (173)	81.5% (163)	90.0% (180)	88.0% (176)	86.5% (1,903)
DDF status	*p=0.0001											
DDF	22.0% (44)	27.5% (55)	30.0% (60)	27.5% (55)	30.5% (61)	17.5% (35)	22.5% (45)	33.5% (67)	30.0% (60)	27.0% (54)	31.5% (63)	27.2% (599)
Clean	6.0% (12)	10.0% (20)	1.0% (2)	4.0% (8)	2.0% (4)	5.0% (10)	3.0% (6)	3.0% (6)	8.5% (17)	3.5% (7)	2.5% (5)	4.4% (97)
Healthy	1.0% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Not mentioned	71.0% 9142)	62.5% (125)	69.0% (138)	68.5% (137)	67.5% (135)	77.5% (155)	74.5% (149)	63.5% (127)	61.5% (123)	69.5% (139)	66.0% (132)	68.3% (1,502)
Visiting the City	*p=0.195											
Mentioned	0.5% (1)	1.5% (3)	0.5% (1)	1.0% (2)	1.0% (2)	2.0% (4)	1.5% (3)	2.0% (4)	3.5% (7)	0.0% (0)	2.0% (4)	1.4% (31)
Not mentioned	99.5% (199)	98.5% (197)	99.5% (199)	99.0% (198)	99.0% (198)	98.0% (196)	98.5% (197)	98.0% (196)	96.5% (193)	100% (200)	98.0% (196)	98.6% (2,169)
Physical Appearance	*p=0.0001											
Mentioned	21.0% (42)	23.5% (47)	11.5% (23)	15.0% (30)	19.0% (38)	15.5% (31)	19.0% (38)	12.5% (25)	0.00%	12.5% (25)	11.0% (22)	16.7% (368)
Not mentioned	79.0% (158)	76.5% (153)	88.5% (177)	85.0% (170)	81.0% (162)	84.5% (169)	81.0% (162)	87.5% (175)	76.5% (153)	87.5% (175)	89.0% (178)	83.3% (1,832)
Drugs	*p=0.092											
420	4.0% (8)	3.0% (6)	2.0% (4)	3.0% (6)	2.5% (5)	4.5% (9)	3.0% (6)	1.5% (3)	1.0% (2)	1.5% (3)	0.5% (1)	2.4% (53)
Poppers	7.0% (14)	2.0% (4)	4.0% (8)	3.5% (7)	1.0% (2)	1.5% (3)	2.5% (5)	1.0% (2)	1.5% (3)	2.0% (4)	3.5% (7)	2.7% (59)
Party and Play	0.5% (1)	1.0% (2)	0.0% (0)	0.0% (0)	0.5% (1)	0.5% (1)	0.0% (0)	1.0% (2)	1.5% (3)	0.5% (1)	0.5% (1)	0.6% (12)
Other	0.5% (1)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.5% (1)	0.2% (4)
Not mentioned	88.0% (176)	93.5% (187)	94.0% (188)	93.5% (187)	96.0% (192)	93.5% (187)	94.5% (189)	96.5% (193)	96.0% (192)	95.5% (191)	95.0% (190)	94.2% (2,072)

Table 1 ***Continued***

Characteristics	Metropolitan Statistical Areas with the highest HIV prevalence in the United States											
	New York	Los Angeles	Washington	Chicago	Atlanta	Miami	Philadelphia	Houston	San Francisco	Baltimore	Dallas	Total
	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Penis size	*p=0.466											
Mentioned	19.5% (39)	20.0% (40)	16.5% (33)	22.0% (44)	17.5% (35)	16.0% (32)	18.5% (37)	14.5% (29)	19.5% (39)	15.5% (31)	23.0% (46)	18.4% (405)
Not mentioned	80.5% (161)	80.0% (160)	83.5% (167)	78.0% (156)	82.5% (165)	84.0% (168)	81.5% (163)	85.5% (171)	80.5% (161)	84.5% (169)	77.0% (154)	81.6% (1,795)
Relationship Request	*p=0.107											
No Strings Attached	5.0% (10)	6.5% (13)	7.5% (15)	4.5% (9)	7.5% (15)	8.0% (16)	5.5% (11)	4.5% (9)	5.0% (10)	4.0% (8)	5.0% (10)	5.7% (126)
Emotional	1.0% (2)	0.5% (1)	1.0% (2)	0.5% (1)	3.0% (6)	2.5% (5)	0.0% (0)	1.5% (3)	2.0% (4)	4.5% (9)	2.5% (5)	1.7% (38)
Not mentioned	94.0% (188)	93.0% (186)	91.5% (183)	95.0% (190)	89.5% (179)	89.5% (179)	94.5% (189)	94.0% (188)	93.0% (186)	91.5% (183)	92.5% (185)	92.6% (2,036)
Picture Uploaded	*p=0.0001											
Uploaded	48.5% (97)	51.5% (103)	54.0% (108)	45.0% (90)	47.5% (95)	52.0% (104)	38.0% (76)	48.5% (97)	34.0% (68)	37.5% (75)	55.0% (110)	46.5% (1,177)
Not uploaded	51.5% (103)	48.5% (97)	46.0% (92)	55.0% (110)	52.5% (105)	48.0% (96)	62.0% (124)	51.5% (103)	66.0% (132)	62.5% (125)	45.0% (90)	53.5% (1,023)
Location	*p=0.706											
Host	20.0% (40)	15.0% (30)	22.0% (44)	19.0% (38)	19.5% (39)	15.5% (31)	17.0% (34)	15.5% (31)	15.5% (31)	14.0% (28)	21.0% (42)	17.6% (388)
travel	19.5% (39)	23.5% (47)	14.0% (280	17.0% (34)	16.5% (33)	18.0% (36)	24.5% (49)	17.0% (34)	20.5% (41)	22.0% (44)	18.0% (36)	19.1% (421)
Versatile	6.5% (13)	5.0% (10)	8.0% (16)	6.5% (13)	8.0% (16)	5.5% (11)	8.0% (16)	8.0% (16)	6.5% (13)	7.5% (15)	7.0% (14)	7.0% (153)
Not mentioned	54.0% (108)	56.5% (113)	56.0% (112)	57.5% (115)	56.0% (112)	61.0% (122)	50.5% (101)	59.5% (119)	57.7% (115)	56.5% (113)	54.0% (108)	56.3% (1,238)
Female companion	*p=0.300											
Mentioned	3.0% (6)	1.5% (3)	2.5% (5)	3.5% (7)	3.5% (7)	2.0% (4)	5.0% (10)	1.5% (3)	3.0% (6)	1.0% (2)	4.5% (9)	2.8% (62)
Not mentioned	97.0% (194)	98.5% (197)	97.5% (195)	96.5% (193)	96.5% (193)	98.0% (196)	95.0% (190)	98.5% (197)	97.0% (194)	99.0% (198)	95.5% (191)	97.2% (2,138)

Table 2: Biases and Preferences stratified by cities (N=2,200)

	Metropolitan Statistical Areas with the highest HIV prevalence in the United States											
	New York	Los Angeles	Washington	Chicago	Atlanta	Miami	Philadelphia	Houston	San Francisco	Baltimore	Dallas	Total
Biases	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Racism	p=0.426											
White	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	1.0% (2)	0.0% (0)	0.2% (4)
Black	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.5% (1)	0.1% (3)
Latino	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Asian	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Not mentioned	99.5% (199)	100% (200)	100% (200)	100% (200)	99.5% (199)	99.5% (199)	100% (200)	99.5% (199)	100% (200)	99.0% (198)	99.5% (199)	99.7% (2,193)
Ageism	*p=0.033											
Older	0.0% (0)	4.5% (9)	0.0% (0)	2.0% (4)	0.5% (1)	2.0% (4)	1.0% (2)	1.5% (3)	2.5% (5)	1.5% (3)	0.5% (1)	1.5% (32)
Younger	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Not mentioned	100% (200)	95.0% (190)	100% (200)	98.0% (196)	99.5% (199)	98.0% (196)	98.5% (197)	98.5% (197)	97.5% (195)	98.5% (197)	99.5% (199)	98.4% (2,166)
Circumcision Status	p=0.586											
Circumcised	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Uncircumcised	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.1% (2)
Not mentioned	100% (200)	100% (200)	100% (200)	100% (200)	100% (200)	99.0% (198)	100% (200)	99.5% (199)	100% (200)	99.5% (199)	100% (200)	99.8% (2,196)
Weightism	p=0.099											
Mentioned	1.0% (2)	1.5% (3)	2.0% (4)	4.5% (9)	0.0% (0)	3.5% (7)	1.0% (2)	3.0% (6)	3.0% (6)	3.5% (7)	2.5% (5)	2.3% (51)
Not mentioned	99.0% (198)	98.5% (197)	98% (196)	95.5% (191)	100.0% (200)	96.5% (193)	99.0% (198)	97.0% (194)	97.0% (194)	96.5% (193)	97.5% (195)	97.7% (2,149)
Employment Status	p=0.120%											
Mentioned	0.0% (0)	1.0% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.1% (3)
Not mentioned	100% (200)	99.0% (198)	100% (200)	100% (200)	100% (200)	100% (200)	100% (200)	100% (200)	95.5% (191)	100% (200)	100% (200)	99.9% (2,197)
Physical Appearance	p=0.0001											
Mentioned	5.0% (10)	12.0% (24)	3.0% (6)	4.0% (8)	3.0% (6)	2.5% (5)	4.5% (9)	3.5%(7)	3.0% (6)	2.0% (4)	5.5% (11)	4.4% (96)
Not mentioned	95.0% (190)	88.0% (176)	97.0% (194)	96.0% (192)	97.0% (194)	97.5% (195)	95.5% (191)	96.5% (193)	97.0% (194)	98.0% (196)	94.5% (189)	95.6% (2,104)

Table 2 ***Continued***

Biases	Metropolitan Statistical Areas with the highest HIV prevalence in the United States											Total
	New York *p-value % (n)	Los Angeles % (n)	Washington % (n)	Chicago % (n)	Atlanta % (n)	Miami % (n)	Philadelphia % (n)	Houston % (n)	San Francisco % (n)	Baltimore % (n)	Dallas % (n)	% (n)
Gender Expression	p=0.834											
Feminine	1.5% (3)	2.0% (4)	1.5% (3)	1.0% (2)	1.0% (2)	2.0% (4)	2.0% (4)	1.5% (3)	3.5% (7)	2.5% (5)	2.5% (5)	1.9% (42)
Not mentioned	98.5% (197)	98.0% (196)	98.5% (197)	99.0% (198)	99.0% (198)	98.0% (196)	98.0% (196)	98.5% (197)	96.5% (193)	97.5% (195)	97.5% (195)	98.1% (2,158)
Homophobia	p=0.440											
Mentioned	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)
Not mentioned	100% (200)	100% (200)	100% (200)	100% (200)	100% (200)	100% (200)	99.5% (199)	100% (200)	100% (200)	100% (200)	100% (200)	99.9% (2,200)
Preferences												
HIV status	p=0.001											
Negative	5.5% (11)	16.0% (32)	10.0% (20)	4.0% (8)	10.0% (20)	9.0% (18)	4.5% (9)	4.5% (9)	11.0% (22)	5.5% (11)	9.5% (19)	8.1% (179)
Positive	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.1% (1)
Not mentioned	94.5% (189)	84.0% (168)	90.0% (180)	96.0% (192)	90.0% (180)	91.0% (182)	95.5% (191)	95.5% (191)	89.0% (178)	94.0% (188)	90.5% (181)	91.8% (2,020)
Disease/drug Status	p=0.001											
DDF	17.5% (35)	16.0% (32)	23.5% (47)	18.5% (37)	17.5% (35)	20.5% (41)	11.5% (23)	22.5% (45)	19.0% (38)	21.5% (43)	24.0% (48)	19.3% (424)
Clean	5.0% (10)	7.5% (15)	4.0% (8)	4.0% (8)	2.5% (5)	2.5% (5)	5.0% (10)	3.5% (7)	9.0% (18)	6.0% (12)	6.5% (13)	5.1% (111)
Healthy	1.5% (3)	1.0% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (5)
Not mentioned	76.0% (152)	75.5% (151)	72.5% (145)	77.5% (155)	80.0% (160)	77.0% (154)	83.5% (167)	74.0% (148)	72.0% (144)	72.5% (145)	69.5% (139)	75.4% (1,660)
Sexual Position	p<0.0001											
Top	0.0% (0)	9.5% (19)	3.5% (7)	3.5% (7)	0.0% (0)	3.0% (6)	0.5% (1)	6.0% (12)	8.0% (16)	1.5% (3)	0.0% (0)	3.2% (71)
Bottom	0.0% (0)	3.0% (6)	2.0% (4)	1.0% (2)	0.0% (0)	3.0% (6)	0.0% (0)	3.5% (7)	3.5% (7)	0.0% (0)	0.0% (0)	1.5% (32)
Versatile	0.0% (0)	1.5% (3)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.5% (1)	1% (2)	1.5% (3)	0.0% (0)	0.5% (11)
Not mentioned	100% (200)	86.0% (172)	94.0% (188)	95.5% (191)	100% (200)	94.0% (188)	99.0% (198)	90.0% (180)	87.5% (175)	97.0% (194)	100% (200)	94.8% (2,086)
Penis size	p=0.009											
Mentioned	0.0% (0)	1.5% (3)	0.0% (0)	0.0% (0)	0.0% (0)	1.0% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (5)
Not mentioned	100% (200)	98.5% (197)	100% (200)	100% (200)	100% (200)	99.0% (198)	100% (200)	100% (200)	100% (200)	100% (200)	100% (200)	99.8% (2,195)

Table 2 *Continued*

Preferences	Metropolitan Statistical Areas with the highest HIV prevalence in the United States											Total
	New York	Los Angeles	Washington	Chicago	Atlanta	Miami	Philadelphia	Houston	San Francisco	Baltimore	Dallas	
	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Transactional Sex	p=0.459											
Buying	1.0% (2)	1.0% (2)	0.0% (0)	0.0% (0)	0.5% (1)	0.5% (1)	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.3% (7)
Selling	1.0% (2)	1.0% (2)	0.0% (0)	0.5% (1)	1.5% (3)	2.0% (4)	0.0% (0)	1.0% (2)	0.5% (1)	0.5% (1)	0.5% (1)	0.8% (17)
Not mentioned	98.0% (196)	98.0% (196)	100% (200)	99.5% (199)	98.0% (196)	97.5% (195)	100% (200)	98.5% (197)	99.5% (199)	99.5% (199)	99.5% (199)	98.9% (2,176)
Type of sex	p=0.040											
Raw	10.5% (21)	14.0% (28)	14.5% (29)	7.5% (15)	15.0% (30)	12.5% (25)	11.0% (22)	13.5% (27)	16.0% (32)	11.0% (22)	9.0% (18)	12.2% (269)
Safe	3.5% (7)	0.0% (0)	0.0% (0)	2.5% (5)	1.0% (2)	1.0% (2)	1.0% (2)	2.0% (4)	1.5% (3)	2.0% (4)	4.0% (8)	1.7% (37)
Not mentioned	86.0% (172)	86.0% (172)	85.5% (171)	90.0% (180)	84.0% (168)	86.5% (173)	88.0% (176)	84.5% (169)	82.5% (165)	87.0% (174)	87.0% (174)	86.1% (1,894)

Table 3: Variations in Biases by author characteristics (N=2,200)

	Characteristics of the ad authors					
	Race					
	White	Black	Latino	Asian	Other	Not mentioned
Bias	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Racism	p=0.109					
White	0.0% (0)	1.4% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (2)
Black	0.4% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)
Latino	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Asian	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Not mentioned	99.6% (539)	98.6% (144)	100% (115)	100% (46)	100% (5)	99.8% (1,344)
Ageism	p=0.871					
Older	0.7% (4)	2.7% (4)	1.7% (2)	2.2% (1)	0.0% (0)	1.6% (21)
Younger	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (2)
Not mentioned	99.3% (537)	97.3% (142)	98.3% (113)	97.9% (45)	100% (5)	98.3% (1,324)
Circumcision Status	p=0.368					
Circumcised	0.2% (1)	0.0% (0)	0.9% (1)	0.0% (0)	0.0% (0)	0.0% (0)
Uncircumcised	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (2)
Not mentioned	99.8% (540)	100% (146)	99.2% (114)	100% (46)	100% (5)	99.9% (1,345)
Weightism	p=0.061					
Mentioned	1.9% (10)	4.1% (6)	1.8% (2)	4.4% (2)	20.0% (1)	2.2% (30)
Not mentioned	98.2% (531)	95.9% (140)	98.3% (113)	95.7% (44)	80.0% (4)	97.8% (1,317)
Employment Status	p=0.382					
Mentioned	0.2% (1)	0.0% (0)	0.9% (1)	0.0% (0)	0.0% (0)	0.1% (1)
Not mentioned	99.8% (540)	100% (146)	99.1% (114)	100% (46)	100% (5)	99.9% (1,346)
Physical Appearance	p=0.105					
Mentioned	4.3% (23)	0.7% (1)	6.1% (7)	6.5% (3)	20.0% (1)	4.5% (61)
Not mentioned	95.8% (518)	99.3% (145)	93.9% (108)	93.5% (43)	80.0% (4)	95.5% (1,286)
Gender Expression	p=0.091					
Feminine	1.3% (7)	4.8% (7)	3.5% (4)	2.2% (1)	0.0% (0)	1.7% (23)
Not mentioned	98.7% (534)	95.2% (139)	96.5% (111)	97.8% (45)	100% (5)	98.3% (1,324)
Homophobia	p=0.986					
Mentioned	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)
Not mentioned	100% (541)	100% (146)	100% (115)	100% (46)	100% (5)	99.9% (1,346)

Table 3 ***continued***

	Characteristics of the ad authors								
	Age					Sexual Orientation			
	18-25	26-35	36-45	46+	Not Mentioned	Homosexual	Straight	Bisexual	Not mentioned
Bias	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Racism	*p=0.352					*p=0.996			
White	0.0% (0)	0.0% (0)	0.2% (1)	0.5% (2)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (4)
Black	0.0% (0)	0.2% (1)	0.0% (0)	0.3% (1)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (3)
Latino	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Asian	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Not mentioned	100% (381)	99.8% (688)	99.8% (536)	99.2% (381)	99.0% (207)	100% (7)	100% (32)	100% (135)	99.6% (2,019)
Ageism	*p=0.006					*p=0.456			
Older	2.9% (11)	2.2% (15)	0.2% (1)	1.3% (5)	0.0% (0)	0.0% (0)	0.0% (0)	3.7% (5)	1.3% (27)
Younger	0.0% (0)	0.3% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Not mentioned	97.1% (370)	97.5% (672)	99.8% (536)	98.7% (379)	100% (209)	100% (7)	100% (32)	96.3% (130)	98.6% (1,997)
Circumcision Status	*p=0.847					*p=0.999			
Circumcised	0.0% (0)	0.2% (1)	0.2% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Uncircumcised	0.0% (0)	0.2% (1)	0.0% (0)	0.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Not mentioned	100% (381)	99.7% (687)	99.8% (536)	99.7% (383)	100% (209)	100% (7)	100% (32)	100% (135)	99.8% (2,022)
Weightism	*p=0.853					*p=0.295			
Mentioned	2.6% (10)	2.5% (17)	1.7% (9)	2.6% (10)	2.4% (5)	0.0% (0)	0.0% (0)	4.4% (6)	2.2% (45)
Not mentioned	97.4% (371)	97.5% (672)	98.3% (528)	97.4% (374)	97.6% (204)	100% (7)	100% (32)	95.6% (129)	97.8% (1,981)
Employment Status	*p=0.355					*p<0.0001			
Mentioned	0.3% (1)	0.0% (0)	0.4% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	1.5% (2)	0.1% (1)
Not mentioned	99.7% (380)	100% (689)	99.6% (535)	100% (384)	100% (209)	100% (7)	100% (32)	98.5% (133)	99.9% (2,025)
Physical Appearance	*p=0.091					*p=0.931			
Mentioned	5.3% (20)	5.7% (39)	3.9% (21)	2.3% (9)	3.4% (7)	0.0% (0)	3.1% (1)	4.4% (6)	4.4% (89)
Not mentioned	94.7% (361)	94.3% (650)	96.1% (516)	97.7% (375)	96.6% (202)	100% (7)	96.9% (31)	95.6% (129)	95.6% (1,937)
Gender Expression	*p=0.098					*p<0.0001			
Feminine	3.2% (12)	2.5% (17)	1.1% (6)	1.3% (5)	1.0% (2)	0.0% (0)	6.3% (2)	6.7% (9)	1.5% (31)
Not mentioned	96.8% (369)	97.5% (672)	98.9% (531)	98.7% (379)	99.0% (207)	100% (7)	93.7% (30)	93.3% (126)	98.5% (1,995)
Homophobia	*p=0.049					*p=0.993			
Mentioned	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)
Not mentioned	100% (381)	100% (689)	100% (537)	100% (384)	99.5% (208)	100% (7)	100% (32)	100% (135)	99.9% (2,025)

Table 3 ***continued***

Bias	Characteristics of the ad authors						
	Sexual Position				Circumcision Status		
	Top	Bottom	Versatile	Not mentioned	Circumcised	Uncircumcised	Not mentioned
	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Racism	*p<0.0001				*p<0.0001		
White	0.9% (1)	0.0% (0)	1.9% (2)	0.1% (1)	0.0% (0)	1.2% (1)	0.2% (3)
Black	0.0% (0)	0.5% (1)	1.0% (1)	0.1% (1)	0.0% (0)	2.5% (2)	0.1% (1)
Latino	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Asian	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Not mentioned	99.1% (113)	99.5% (211)	97.1% (100)	99.8% (1,769)	100% (340)	96.3% (78)	99.7% (1,775)
Ageism	*p=0.489				*p=0.163		
Older	3.5% (4)	0.5% (1)	1.0% (1)	1.5% (26)	0.6% (2)	3.7% (3)	1.5% (27)
Younger	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)	0.3% (1)	0.0% (0)	0.1% (1)
Not mentioned	96.5% (110)	99.5% (211)	99.0% (102)	98.4% (1,743)	99.1% (337)	96.3% (78)	98.4% (1,751)
Circumcision Status	*p=0.987				*p=0.676		
Circumcised	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)	0.3% (1)	0.0% (0)	0.1% (1)
Uncircumcised	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)	0.0% (0)	0.0% (0)	0.1% (2)
Not mentioned	100% (114)	100% (212)	100% (103)	99.8% (1,767)	99.7% (339)	100% (81)	99.8% (1,776)
Weightism	*p=0.387				*p=0.041		
Mentioned	2.6% (3)	0.9% (2)	1.0% (1)	2.5% (45)	1.5% (5)	6.2% (5)	2.3% (41)
Not mentioned	97.4% (111)	99.1% (210)	99.0% (102)	97.5% (1,726)	98.5% (335)	93.8% (76)	97.7% (1,738)
Employment Status	*p=0.867				*p=0.701		
Mentioned	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (3)	0.0% (0)	0.0% (0)	0.2% (3)
Not mentioned	100% (114)	100% (212)	100% (103)	99.8% (1,768)	100% (340)	100% (81)	99.8% (1,776)
Physical Appearance	*p=0.072				*p=0.443		
Mentioned	3.5% (4)	1.0% (2)	4.9% (5)	4.8% (85)	5.3% (18)	6.2% (5)	4.1% (73)
Not mentioned	96.5% (110)	99.0% (210)	95.1% (98)	95.2% (1,686)	94.7% (322)	93.8% (76)	95.9% (1,706)
Gender Expression	*p=0.105				*p=0.715		
Feminine	0.9% (1)	0.5% (1)	0.0% (0)	2.3% (40)	1.5% (5)	1.2% (1)	2.0% (36)
Not mentioned	99.1% (113)	99.5% (211)	100% (103)	97.7% (1,731)	98.5% (335)	98.8% (80)	98.0% (1,743)
Homophobia	*p=0.970				*p=0.888		
Mentioned	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.0% (0)	0.1% (1)
Not mentioned	100% (114)	100% (212)	100% (103)	99.9% (1,770)	100% (340)	100% (81)	99.9% (1,778)

Table 3 ***continued***

	Characteristics of the ad authors						
	HIV Status			DDF Status			
	Negative	Positive	Not mentioned	DDF	Clean	Healthy	Not mentioned
Bias	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Racism	*p=0.261			*p=0.130			
White	0.7% (2)	0.0% (0)	0.1% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.3% (4)
Black	0.0% (0)	0.0% (0)	0.2% (3)	0.5% (3)	0.0% (0)	0.0% (0)	0.0% (0)
Latino	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Asian	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Not mentioned	99.3% (286)	100% (9)	99.7% (1,898)	99.5% (596)	100% (97)	100% (2)	99.7% (1,498)
Ageism	*p=0.961			*p=0.039			
Older	1.7% (5)	0.0% (0)	1.4% (27)	1.8% (11)	0.0% (0)	0.0% (0)	1.4% (21)
Younger	0.0% (0)	0.0% (0)	0.1% (2)	0.2% (1)	1.0% (1)	0.0% (0)	0.0% (0)
Not mentioned	98.3% (283)	100% (9)	96.5% (1,874)	98.0% (587)	99.0% (96)	100% (2)	98.6% (1,481)
Circumcision Status	*p=0.607			*p=0.088			
Circumcised	0.4% (1)	0.0% (0)	0.1% (1)	0.0% (0)	1.0% (1)	0.0% (0)	0.1% (1)
Uncircumcised	0.0% (0)	0.0% (0)	0.1% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Not mentioned	99.6% (287)	100% (9)	99.8% (1,900)	100% (599)	99.0% (96)	100% (2)	99.8% (1,499)
Weightism	*p=0.774			*p=0.042			
Mentioned	2.8% (8)	0.0% (0)	2.3% (4.43)	3.7% (22)	0.0% (0)	0.0% (0)	1.9% (29)
Not mentioned	97.2% (280)	100% (9)	97.7% (1,860)	96.3% (577)	100% (97)	100% (2)	98.1% (1,473)
Employment Status	*p=0.791			*p=0.089			
Mentioned	0.0% (0)	0.0% (0)	0.2% (3)	0.0% (0)	1.0% (1)	0.0% (0)	0.1% (2)
Not mentioned	100% (288)	100% (9)	99.8% (1,900)	100% (599)	99.0% (96)	100% (2)	99.9% (1,500)
Physical Appearance	*p=0.471			*p=0.271			
Mentioned	5.6% (16)	0.0% (0)	4.2% (80)	5.5% (33)	6.2% (6)	0.0% (0)	3.8% (57)
Not mentioned	94.4% (272)	100% (9)	95.8% (1,823)	94.5% (566)	93.8% (91)	100% (2)	96.2% (1,445)
Gender Expression	*p=0.894			*p=0.368			
Feminine	2.1% (6)	0.0% (0)	1.9% (36)	2.5% (15)	0.0% (0)	0.0% (0)	1.8% (20)
Not mentioned	97.9% (282)	100% (9)	98.1% (1,867)	97.5% (584)	100% (97)	100% (2)	98.2% (1,475)
Homophobia	*p=0.925			*p=0.927			
Mentioned	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)
Not mentioned	100% (288)	100% (9)	99.9% (1,902)	100% (599)	100% (97)	100% (2)	99.9% (1,501)

Table 3 ***continued***

	Characteristics of the ad authors								
	Visiting the City		Physical Appearance		Drugs				
	Visiting	Not mentioned	Good Looking	Not mentioned	420	Poppers	PnP	Other	Not mentioned
Bias	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Racism	*p=0.951		*p=0.671		*p=0.007				
White	0.0% (0)	0.2% (4)	0.3% (1)	0.2% (3)	1.9% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (3)
Black	0.0% (0)	0.1% (3)	0.0% (0)	0.2% (3)	1.9% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Latino	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Asian	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Not mentioned	100% (31)	99.7% (2,162)	99.7% (367)	99.6% (1,826)	96.2% (51)	100% (59)	100% (12)	100% (4)	99.8% (2,067)
Ageism	*p=0.064		*p=0.098		*p=0.977				
Older	6.5% (2)	1.4% (30)	2.5% (9)	1.3% (23)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	1.5% (32)
Younger	0.0% (0)	0.1% (2)	0.3% (1)	0.1% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Not mentioned	93.5% (29)	98.5% (2,137)	97.2% (358)	98.6% (1,808)	100% (53)	100% (59)	100% (12)	100% (4)	98.4% (2,038)
Circumcision Status	*p=0.972		*p=0.669		*p=1.000				
Circumcised	0.0% (0)	0.1% (2)	0.0% (0)	0.1% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Uncircumcised	0.0% (0)	0.1% (2)	0.0% (0)	0.1% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (2)
Not mentioned	100% (31)	99.8% (2,165)	100% (368)	99.8% (1,828)	100% (53)	100% (59)	100% (12)	100% (4)	99.8% (2,068)
Weightism	*p=0.006		*p=0.577		*p=0.682				
Mentioned	9.7% (3)	2.2% (48)	2.7% (10)	2.2% (41)	3.8% (2)	0.0% (0)	0.0% (0)	0.0% (0)	2.4% (49)
Not mentioned	90.3% (28)	97.8% (2,121)	97.3% (358)	97.8% (1,791)	96.2% (51)	100% (59)	100% (12)	100% (4)	97.6% (2,023)
Employment Status	*p=0.836		*p=0.020		*p=0.996				
Mentioned	0.0% (0)	0.1% (3)	0.5% (2)	0.1% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (3)
Not mentioned	100% (31)	99.9% (2,166)	99.5% (366)	99.9% (1,831)	100% (53)	100% (59)	100% (12)	100% (4)	99.9% (2,069)
Physical Appearance	*p=0.567		*p<0.0001		*p=0.761				
Mentioned	6.5% (2)	4.3% (94)	12.0% (44)	2.8% (52)	5.7% (3)	1.7% (1)	8.3% (1)	0.0% (0)	4.4% (91)
Not mentioned	93.5% (29)	95.7% (2,075)	88.0% (324)	97.2% (1,780)	94.3% (50)	98.3% (58)	91.7% (11)	100% (4)	95.6% (1,981)
Gender Expression	*p=0.001		*p=0.214		*p=0.824				
Feminine	9.7% (3)	1.8% (39)	2.7% (10)	1.8% (32)	1.9% (1)	0.0% (0)	0.0% (0)	0.0% (0)	2.0% (41)
Not mentioned	90.3% (28)	98.2% (2,130)	97.3% (358)	98.2% (1,800)	98.1% (52)	100% (59)	100% (12)	100% (4)	98.0% (2,031)
Homophobia	*p=0.905		*p=0.654		*p=1.000				
Mentioned	0.0% (0)	0.1% (1)	0.0% (0)	0.1% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)
Not mentioned	100% (31)	99.9% (2,168)	100% (368)	99.9% (1,831)	100% (53)	100% (59)	100% (12)	100% (4)	99.9% (2,071)

Table 3 ***Continued***

	Characteristics of the ad authors						
	Penis size		Relationship Request			Picture Uploaded	
	Mentioned	Not mentioned	No Strings Attached	Emotional	Not mentioned	Uploaded	Not Uploaded
Bias	* p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Racism	*p=0.092		*p=0.967			*p=0.141	
White	0.3% (1)	0.2% (3)	0.0% (0)	0.0% (0)	0.2% (4)	0.3% (3)	0.1% (1)
Black	0.5% (2)	0.1% (1)	0.0% (0)	0.0% (0)	0.2% (3)	0.0% (0)	0.3% (3)
Latino	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Asian	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Not mentioned	99.3% (402)	99.7% (1,791)	100% (126)	100% (38)	99.6% (2,029)	99.7% (1,020)	99.7% (1,173)
Ageism	*p=0.451		*p=0.882			*p=0.059	
Older	1.7% (7)	1.4% (25)	0.8% (1)	0.0% (0)	1.5% (31)	2.0% (20	1.0% (12)
Younger	0.3% (1)	0.1% (1)	0.0% (0)	0.0% (0)	0.1% (2)	0.2% (2)	0.0% (0)
Not mentioned	98.0% (397)	98.5% (1,769)	99.2% (125)	100% (38)	98.4% (2,003)	97.8% (1,001)	99.0% (1,165)
Circumcision Status	*p=0.411		*p=0.988			*p=0.175	
Circumcised	0.3% (1)	0.1% (1)	0.0% (0)	0.0% (0)	0.1% (2)	0.0% (0)	0.2% (2)
Uncircumcised	0.0% (0)	0.1% (2)	0.0% (0)	0.0% (0)	0.1% (2)	0.0% (0)	0.2% (2)
Not mentioned	99.7% (404)	99.8% (1,792)	100% (126)	100% (38)	99.8% (2,032)	100% (1,023)	99.6% (1,173)
Weightism	*p=0.556		*p=0.530			*p=0.224	
Mentioned	2.7% (11)	2.2% (40)	1.6% (2)	0.0% (0)	2.4% (49)	2.7% (28)	2.0% (23)
Not mentioned	97.3% (394)	97.8% (1,755)	98.4% (124)	100% (38)	97.6% (1,987)	97.3% (995)	98.0% (1,154)
Employment Status	*p=0.410		*p=0.118			*p=0.647	
Mentioned	0.0% (0)	0.2% (3)	0.8% (1)	0.0% (0)	0.1% (2)	0.1% (1)	0.2% (2)
Not mentioned	100% (405)	99.8% (1,792)	99.2% (125)	100% (38)	99.9% (2,034)	99.9% (1,022)	99.8% (1,175)
Physical Appearance	*p=0.048		*p=0.287			*p=0.262	
Mentioned	6.2% (25)	4.0% (71)	6.4% (8)	7.9% (3)	4.2% (85)	4.9% (5)	3.9% (46)
Not mentioned	93.8% (380)	96.0% (1,724)	93.6% (118)	92.1% (35)	95.8% (1,951)	95.1% (973)	96.1% (1,131)
Gender Expression	*p=0.486		*p=0.428			*p=0.440	
Feminine	1.5% (6)	2.0% (36)	0.8% (1)	0.0% (0)	2.0% (41)	2.2% (22)	1.7% (20)
Not mentioned	98.5% (399)	98.0% (1,759)	99.2% (125)	100% (38)	98.0% (1,995)	97.8% (1,001)	98.3% (1,157)
Homophobia	*p=0.635		*p=0.961			*p=0.351	
Mentioned	0.0% (0)	0.1% (1)	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.1% (1)
Not mentioned	100% (405)	99.9% (1,794)	100% (126)	100% (38)	99.9% (2,035)	100% (1,023)	99.9% (1,176)

Table 3 ***continued***

	Characteristics of the ad authors						
	Location					Female Companion	
	Host	Travel	Versatile	Other	Not mentioned	Mentioned	Not mentioned
Bias	* p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Racism	*p=0.025					*p=0.903	
White	0.5% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (2)	0.0% (0)	0.2% (4)
Black	0.8% 93)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (3)
Latino	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Asian	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Not mentioned	98.7% (383)	100% (421)	100% (152)	100% (1)	99.8% (1,236)	100% (62)	99.7% (2,131)
Ageism	*p=0.988					*p<0.0001	
Older	1.3% (5)	1.4% (6)	1.3% (2)	0.0% (0)	1.5% (19)	1.6% (1)	1.4% (31)
Younger	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (2)	1.6% (1)	0.1% (1)
Not mentioned	98.7% (383)	98.6% (415)	98.7% (150)	100% (1)	98.3% (1,217)	96.8% (60)	98.5% (2,106)
Circumcision Status	*p=0.919					*p=0.944	
Circumcised	0.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.1% (2)
Uncircumcised	0.0% (0)	0.2% (1)	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.1% (2)
Not mentioned	99.7% (387)	99.8% (420)	100% (152)	100% (1)	99.8% (1,236)	100% (62)	99.8% (2,134)
Weightism	*p=0.984					*p=0.630	
Mentioned	2.1% (8)	2.6% (11)	2.0% (3)	0.0% (0)	2.3% (29)	3.2% (2)	2.3% (49)
Not mentioned	97.9% (38)	97.4% (410)	98.0% (149)	100% (1)	97.4% (1,209)	96.8% (60)	97.7% (2,089)
Employment Status	*p=0.874					*p=0.768	
Mentioned	0.3% (1)	0.2% (1)	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.1% (3)
Not mentioned	99.7% (387)	99.8% (420)	100% (152)	100% (1)	99.9% (1,237)	100% (62)	99.9% (2,135)
Physical Appearance	*p=0.828					*p=0.038	
Mentioned	4.9% (19)	3.3% (14)	4.6% (7)	0.0% (0)	4.5% (56)	9.7% (6)	4.2% (90)
Not mentioned	95.1% (369)	96.7% (407)	95.4% (145)	100% (1)	95.5% (1,182)	90.3% (56)	95.8% (2,049)
Gender Expression	*p=0.514					*p=0.008	
Feminine	2.6% (10)	2.6% (11)	1.3% (2)	0.0% (0)	1.5% (19)	6.5% (4)	1.8% (38)
Not mentioned	97.4% (378)	97.4% (410)	98.7% (150)	100% (1)	98.5% (1,219)	93.5% (58)	98.2% (2,100)
Homophobia	*p=0.941					*p=0.865	
Mentioned	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.1% (1)
Not mentioned	100% (388)	100% (421)	100% (152)	100% (1)	99.9% (1,237)	100% (62)	99.9% (2,137)

Table 4: Variations in preferences by author characteristics (N=2,200)

	Characteristics of the ad authors										
	Race						Age				
	White	Black	Latino	Asian	Other	Not mentioned	18-25	26-35	36-45	46+	Not Mentioned
Preferences	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
HIV status	*p=0.732						*p=0.343				
Negative	6.5% (35)	7.5% (11)	5.2% (6)	6.5% (3)	20.0% (1)	9.1% (123)	8.1% (31)	8.7% (60)	6.2% (33)	9.1% (35)	9.6% (20)
Positive	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)	0.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Not mentioned	93.5% (506)	92.5% (135)	94.8% (109)	93.5% (43)	80.0% (4)	90.8% (1,223)	91.6% (349)	91.3% (629)	93.8% (504)	90.9% (349)	90.4% (189)
Disease/drug Status	*p=0.792						*p=0.876				
DDF	18.1% (98)	20.6% (30	18.3% (21)	19.6% (9)	60.0% (3)	19.5% (263)	19.7% (75)	21.2% (146)	18.2% (98)	17.2% (66)	18.7% (39)
Clean	5.0% (27)	3.4% (5)	5.2% (6)	6.5% (3)	0.0% (0)	5.2% (7)	5.3% (20)	4.3% (30)	6.0% (32)	5.0% (19)	4.8% (10)
Healthy	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.37% (5)	0.2% (1)	0.2% (1)	0.2% (1)	0.5% (2)	0.0% (0)
Not mentioned	76.9% (416)	76.0% (111)	76.5% (88)	73.9% (34)	40.0% (2)	74.9% (1,009)	74.8% (285)	74.3% (512)	75.6% (406)	77.3% (297)	76.5% (160)
Sexual Position	*p<0.0001						*p=0.082				
Top	1.9% (10)	4.1% (6)	7.0% (8)	10.9% (5)	0.0% (0)	3.1% (42)	5.0% (19)	3.3% (23)	2.4% (13)	2.1% (8)	3.8% (8)
Bottom	0.7% (4)	2.7% (4)	1.7% (2)	0.0% (0)	20.0% (1)	1.5% (21)	2.9% (11)	1.6% (11)	1.5% (8)	0.3% (1)	0.5% (1)
Versatile	0.2% (1)	2.7% (4)	0.9% (1)	0.0% (0)	0.0% (0)	0.4% (5)	0.5% (2)	0.4% (3)	0.6% (3)	0.3% (1)	1.0% (2)
Not mentioned	97.2% (526)	90.4% (132)	90.4% (104)	89.1% (41)	80.0% (4)	95.0% (1,279)	91.6% (349)	94.6% (652)	95.5% (513)	97.4% (374)	94.7% (198)
Penis size	*p=0.059						*p=0.954				
Mentioned	0.4% (2)	1.4% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)	0.3% (1)	0.3% (2)	0.2% (1)	0.3% (1)	0.0% (0)
Not mentioned	99.6% (539)	98.6% (144)	100% (115)	100% (46)	100% (5)	99.9% (1,346)	99.7% (380)	99.7% (687)	99.8% (536)	99.7% (383)	100% (209)
Transactional Sex	*p=0.742						*p=0.004				
Buying	0.4% (2)	0.7% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.3% (4)	0.3% (1)	0.1% (1)	0.4% (2)	0.5% (2)	0.5% (1)
Selling	0.6% (3)	2.0% (3)	0.0% (0)	2.2% (1)	0.0% (0)	0.7% (10)	2.6% (10)	0.6% (4)	0.2% (1)	0.3% (1)	0.5% (1)
Not mentioned	99.0% (536)	97.3% (142)	100% (115)	97.8% (45)	100% (5)	99.0% (1,333)	97.1% (370)	99.3% (684)	99.4% (534)	99.2% (381)	99.0% (207)
Type of sex	*p=0.636						*p=0.142				
Raw	11.3% (61)	15.1% (22)	16.5% (19)	13.0% (6)	20.0% (1)	11.9% (160)	12.3% (47)	13.4% (92)	13.8% (74)	9.1 (35)	10.0% (21)
Safe	1.1% (6)	2.7% (4)	0.9% (1)	0.0% (0)	0.0% (0)	1.9% (26)	2.4% (9)	1.6% (11)	1.5% (8)	2.3% (9)	0.0% (0)
Not mentioned	87.6% (474)	82.2% (120)	82.6% (95)	87.0% (40)	80.0% (4)	86.2% (1,161)	85.3% (325)	85.1% (586)	84.7% (455)	88.5% (340)	90.0% (188)

Table 4 ***Continued***

	Characteristics of the ad authors										
	Sexual Orientation				Sexual Position				Circumcision Status		
	Homosexual	Straight	Bisexual	Not mentioned	Top	Bottom	Versatile	Not mentioned	Circumcised	Uncircumcised	Not mentioned
Preferences	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
HIV status	*p=0.943				*p=0.392				*p=0.884		
Negative	0.0% (0)	9.4% (3)	5.9% (8)	8.3% (168)	13.2% (15)	10.4% (22)	7.8% (8)	7.6% (134)	9.1% (31)	9.9% (8)	7.9% (140)
Positive	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.0% (0)	0.1% (1)
Not mentioned	100% (7)	90.61% (29)	94.1% (127)	91.6% (1,857)	86.8% (99)	89.6% (190)	92.2% (95)	92.3% (1,636)	90.9% (309)	90.1% (73)	92.0% (1,638)
Disease/drug Status	*p=0.558				*p=0.639				*p=0.736		
DDF	14.3% (1)	21.9% (7)	23.7% (32)	19.0% (384)	21.9% (25)	21.7% (46)	18.5% (19)	18.9% (334)	21.8% (74)	18.5% (15)	18.8% (335)
Clean	0.0% (0)	12.5% (4)	3.0% (4)	5.1% (103)	3.5% (4)	2.8% (6)	2.9% (3)	5.5% (98)	5.9% (20)	4.9% (4)	4.9% (87)
Healthy	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (5)	0.0% (0)	0.0% (0)	0.0% (0)	0.3% (5)	0.0% (0)	0.0% (0)	0.3% (5)
Not mentioned	85.7% (6)	65.6% (21)	73.3% (99)	75.7% (1,534)	74.6% (85)	75.5% (160)	78.6% (81)	75.3% (1,334)	72.4% (246)	76.5% (62)	76.0% (1,352)
Sexual Position	*p=0.939				*p<0.0001				*p=0.306		
Top	0.0% (0)	0.0% (0)	3.7% (5)	3.3% (66)	0.9% (1)	15.6% (33)	2.9% (3)	1.9% (34)	3.2% (11)	1.2% (1)	3.3% (59)
Bottom	0.0% (0)	0.0% (0)	0.7% (1)	1.5% (31)	14.9% (17)	0.5% (1)	0.0% (0)	0.8% (14)	2.4% (8)	3.7% (3)	1.2% (21)
Versatile	0.0% (0)	0.0% (0)	0.0% (0)	0.5% (11)	0.9% (1)	0.5% (1)	1.9% (2)	0.4% 97)	0.6% (2)	0.0% (0)	0.5% (9)
Not mentioned	100% (7)	100% (32)	95.6% (129)	94.7% (1,918)	83.3% (95)	83.4% (177)	95.2% (98)	96.9% (1,716)	93.8% (319)	95.1% (77)	95.0% (1,690)
Penis size	*p=0.934				*p<0.0001				*p=0.882		
Mentioned	0.0% (0)	0.0% (0)	0.0% (0)	0.3% (5)	2.6% (3)	0.5% (1)	0.0% (0)	0.1% (1)	0.3% (1)	0.0% (0)	0.2% (4)
Not mentioned	100% (7)	100% (32)	100% (135)	99.7% (2,021)	97.4% (111)	99.5% (211)	100% (103)	99.9% (1,770)	99.7% (339)	100% (81)	99.8% (1,775)
Transactional Sex	*p=0.673				*p=0.191				*p=0.913		
Buying	0.0% (0)	0.0% (0)	0.0% (0)	0.3% (7)	0.0% (0)	0.5% (1)	0.0% (0)	0.3% (6)	0.3% (1)	0.0% (0)	0.3% (6)
Selling	0.0% (0)	3.1% (1)	0.0% (0)	0.8% (16)	0.9% (1)	0.0% (0)	2.9% (3)	0.7% (13)	0.9% (3)	0.0% (0)	0.8% (14)
Not mentioned	100% (7)	96.9% (31)	100% (135)	98.9% (2,003)	99.1% (113)	99.5% (211)	97.1% (100)	98.9% (1,752)	98.8% (336)	100% (81)	98.9% (1,759)
Type of sex	*p=0.889				*p<0.0001				*p=0.140		
Raw	14.3% (1)	6.3% (2)	12.6% (17)	12.3% (249)	21.9% (25)	15.6% (33)	19.4% (20)	10.8% (191)	16.5% (56)	11.1% (9)	11.5% (204)
Safe	0.0% (0)	3.1% (1)	0.7% (1)	1.7% 935)	0.9% (1)	5.2% (11)	1.0% (1)	1.4% (24)	1.8% (6)	1.2% (1)	1.7% (30)
Not mentioned	85.7% (6)	90.6% (29)	86.7% (117)	86.0% (1,742)	77.2% (88)	79.2% (168)	79.6% (82)	87.8% (1,556)	81.7% (278)	87.7% (71)	86.8% (1,545)

Table 4 ***Continued***

	Characteristics of the ad authors								
	HIV Status			DDF Status				Visiting the City	
	Negative	Positive	Not mentioned	DDF	Clean	Healthy	Not mentioned	Visiting	Not mentioned
Preferences	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
HIV status	*p<0.0001			*p<0.0001				*p=0.935	
Negative	33.3% (96)	0.0% (0)	4.4% (83)	14.9% (89)	3.1% (3)	0.0% (0)	5.8% (87)	6.5% (2)	8.1% (177)
Positive	0.0% (0)	11.1% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.1% (1)
Not mentioned	66.7% (192)	88.9% (8)	95.6% (1,820)	85.1% (510)	96.9% (94)	100% (2)	94.1% (1,414)	93.5% (29)	91.8% (1,991)
Disease/drug Status	*p<0.0001			*p<0.0001				*p=0.317	
DDF	29.5% (85)	0.0% (0)	17.8% (339)	37.1% (222)	6.2% (6)	0.0% (0)	13.1% (196)	32.3% (10)	19.1% (414)
Clean	3.8% (11)	22.2% (2)	5.2% (98)	3.7% (22)	22.7% (22)	0.0% (0)	4.5% (67)	3.2% (1)	5.1% (110)
Healthy	0.0% (0)	0.0% (0)	0.3% 95)	0.2% (1)	0.0% (0)	100% (2)	0.1% (2)	0.0% (0)	0.2% (5)
Not mentioned	66.7% (192)	77.8% (7)	76.7% (1,461)	59.1% (354)	71.1% (69)	0.0% (0)	82.3% (1,237)	64.5% (20)	75.6% (1,640)
Sexual Position	*p<0.0001			*p=0.465				*p=0.890	
Top	5.2% (15)	0.0% (0)	2.9% (56)	3.3% (20)	2.1% (2)	0.0% (0)	3.3% (49)	3.2% (1)	3.2% (70)
Bottom	2.4% (7)	0.0% (0)	1.3% (25)	2.0% (12)	0.0% (0)	0.0% (0)	1.3% (20)	0.0% (0)	1.5% (32)
Versatile	1.4% (4)	11.1% (1)	0.3% (6)	1.0% (6)	1.0% (1)	0.0% (0)	0.3% (4)	0.0% (0)	0.5% (11)
Not mentioned	91.0% (262)	88.9% (8)	95.4% (1,816)	93.7% (561)	96.9% (94)	100% (2)	95.1% (1,429)	96.8% (30)	94.8% (2,056)
Penis size	*p=0.892			*p=0.405				*p=0.789	
Mentioned	0.4% (1)	0.0% (0)	0.2% (4)	0.2% (1)	1.0% (1)	0.0% (0)	0.2% (3)	0.0% (0)	0.2% (5)
Not mentioned	99.6% (287)	100% (9)	99.8% (1,899)	99.8% (598)	99.0% (96)	100% (2)	99.8% (1,499)	100% (31)	99.8% (2,164)
Transactional Sex	*p=0.048			*p=0.752				*p=0.841	
Buying	1.0% (3)	0.0% (0)	0.2% (4)	0.5% (3)	0.0% (0)	0.0% (0)	0.3% (4)	0.0% (0)	0.3% (7)
Selling	1.7% (5)	0.0% (0)	0.6% (12)	0.8% (5)	2.1% (2)	0.0% (0)	0.7% (10)	0.0% (0)	0.8% (17)
Not mentioned	97.2% (280)	100% (9)	99.2% (1,887)	98.7% (591)	97.9% (95)	100% (2)	99.1% (1,488)	100% (31)	99.0% (2,145)
Type of sex	*p<0.0001			*p=0.009				*p=0.683	
Raw	20.8% (60)	0.0% (0)	11.0% (209)	16.4% (98)	14.4% (14)	0.0% (0)	10.5% (157)	9.7% (3)	12.3% (266)
Safe	2.4% (7)	22.2% (2)	1.5% (28)	1.3% (8)	0.0% (0)	0.0% (0)	1.9% (29)	0.0% (0)	1.7% (37)
Not mentioned	76.7% (221)	77.8% (7)	87.5% (1,666)	82.3% (493)	85.6% (83)	100% (2)	87.6% (1,316)	90.3% (28)	86.0% (1,866)

Table 4 *Continued*

	Characteristics of the ad authors								
	Physical Appearance		Drugs					Penis size	
	Good Looking	Not mentioned	420	Poppers	Party and Play	Other	Not mentioned	Mentioned	Not mentioned
Preferences	***p-value % (n)**	**% (n)**	**% (n)**	**% (n)**	**% (n)**	**% (n)**	**% (n)**	**% (n)**	**% (n)**
HIV status	*p=0.152		*p=0.799					*p=0.535	
Negative	10.6% (39)	7.6% (140)	15.1% (8)	5.1% (3)	8.3% (1)	0.0% (0)	8.1% (167)	9.4% (38)	7.8% (141)
Positive	0.0% (0)	0.1% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.05% (1)	0.0% (0)	0.1% (1)
Not mentioned	89.4% (329)	92.3% (1,691)	84.9% (45)	94.9% (56)	91.7% (11)	100% (4)	91.9% (1,904)	90.6% (367)	92.1% (1,653)
Disease/drug Status	*p=0.143		*p=0.719					*p=0.351	
DDF	17.4% (64)	19.6% (360)	28.3% (15)	11.9% (7)	0.0% (0)	25.0% (1)	19.4% (401)	21.7% (88)	18.7% (336)
Clean	6.8% (25)	4.7% (86)	5.7% (3)	6.8% (4)	8.3% (1)	0.0% (0)	5.0% (103)	5.4% (22)	5.0% (89)
Healthy	0.5% (2)	0.2% (3)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (5)	0.0% (0)	0.3% (5)
Not mentioned	75.3% (277)	75.5% (1,383)	66.0% (35)	81.4% (48)	91.7% (11)	75.0% (3)	75.4% (1,563)	72.8% (295)	76.0% (1,365)
Sexual Position	*p=0.819		*p=0.750					*p=0.002	
Top	2.7% (10)	3.3% (61)	1.9% (1)	5.1% (3)	8.3% (1)	0.0% (0)	3.2% (66)	2.7% (11)	3.3% (60)
Bottom	1.6% (6)	1.4% (26)	1.9% (1)	1.7% (1)	8.3% (1)	0.0% (0)	1.4% (29)	3.5% (14)	1.0% (18)
Versatile	0.3% (1)	0.6% (10)	0.0% (0)	1.7% (1)	0.0% (0)	0.0% (0)	0.5% (10)	0.7% (3)	0.5% (8)
Not mentioned	95.4% (351)	95.7% (1,735)	96.2% (51)	91.5% (54)	83.3% (10)	100% (4)	94.9% (1,967)	93.1% (377)	95.2% (1,709)
Penis size	*p=0.163		*p=0.989					*p=0.212	
Mentioned	0.5% (2)	0.2% (3)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.2% (5)	0.5% (2)	0.2% (3)
Not mentioned	99.5% (366)	99.8% (1,829)	100% (53)	100% (59)	100% (12)	100% (4)	99.8% (2,067)	99.5% (403)	99.8% (1,792)
Transactional Sex	*p=0.002		*p=0.708					*p=0.391	
Buying	0.0% (0)	0.4% (7)	1.9% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.3% (6)	0.0% (0)	0.4% (7)
Selling	2.2% (8)	0.5% (9)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.8% (17)	1.00% (4)	0.7% (13)
Not mentioned	97.8% (360)	99.1% (1,816)	98.1% (52)	100% (59)	100% (12)	100% (4)	98.9% (2,049)	99.0% (401)	98.9% (1,775)
Type of sex	*p=0.077		*p<0.0001					*p=0.210	
Raw	15.5% (57)	11.6% (212)	11.3% (6)	13.6% (8)	0.0% (0)	25.0% (1)	12.3% (254)	14.8% (60)	11.6% (209)
Safe	1.1% (4)	1.8% (33)	1.9% (1)	11.9% (7)	16.7% (2)	0.0% (0)	1.3% (27)	1.7% (7)	1.7% (30)
Not mentioned	83.4% (307)	86.6% (1,587)	86.8% (46)	74.6% (44)	83.3% (10)	75.0% (3)	86.4% (1,791)	83.5% (338)	86.7% (1,556)

Table 4 *Continued*

	Characteristics of the ad authors											
	Relationship Request			Picture Uploaded		Location					Female Companion	
	No Strings Attached	Emotional	Not mentioned	Uploaded	Not Uploaded	Host	Travel	Versatile	Other	Not mentioned	Mentioned	Not mentioned
Preferences	*p-value % (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
HIV status	*p=0.563			*p=0.204		*p=0.110					*p=0.891	
Negative	11.9% (15)	10.5% (4)	7.9% (160)	9.1% (93)	7.3% (86)	9.0% (35)	7.8% (33)	13.8% (21)	0.0% (0)	7.3% (90)	9.7% (6)	8.1% (173)
Positive	0.0% (0)	0.0% (0)	0.1% (1)	0.0% (0)	0.1% (1)	0.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.1% (1)
Not mentioned	88.1% (111)	89.5% (34)	92.0% (1,875)	90.9% (930)	92.6% (1,090)	90.7% (352)	92.2% (388)	86.2% (131)	100% (1)	92.7% (1,148)	90.3% (56)	91.8% (1,964)
Disease/drug Status	*p=0.632			*p=0.953		*p=0.636					*p=0.142	
DDF	24.6% (31)	26.3% (10)	18.8% (383)	19.0% (194)	19.5% (230)	20.1% (78)	20.9% (88)	20.4% (31)	0.0% (0)	18.3% (227)	30.7% (19)	18.9% (405)
Clean	4.0% (5)	5.3% (2)	5.1% (104)	4.9% (50)	5.2% (61)	6.2% (24)	6.2% (26)	3.3% (5)	0.0% (0)	4.5% (56)	4.8% (3)	5.1% (108)
Healthy	0.0% (0)	0.0% (0)	0.3% (5)	0.2% (2)	0.3% (3)	0.0% (0)	0.0% (0)	0.67% (1)	0.0% (0)	0.3% (4)	0.0% (0)	0.2% (5)
Not mentioned	71.4% (90)	68.4% (26)	75.8% (1,544)	75.9% (777)	75.0% (883)	73.7% (286)	72.9% (307)	75.7% (115)	100% (1)	76.8% (951)	64.5% (40)	75.8% (1,620)
Sexual Position	*p=0.343			*p=0.498		*p=0.039					*p=0.323	
Top	2.4% (3)	7.9% (3)	3.2% (65)	3.0% (31)	3.4% (40)	5.4% (21)	2.6% (11)	4.0% (6)	0.0% (0)	2.7% (33)	0.0% (0)	3.3% (71)
Bottom	1.6% (2)	0.0% (0)	1.5% (30)	1.9% (19)	1.1% (13)	0.8% (3)	2.1% (9)	2.0% (3)	0.0% (0)	1.4% (17)	0.0% (0)	1.5% (32)
Versatile	1.6% (2)	0.0% (0)	0.4% (9)	0.5% (5)	0.5% (6)	1.5% (6)	0.2% (1)	0.7% (1)	0.0% (0)	0.2% (3)	0.0% (0)	0.5% (11)
Not mentioned	94.4% 11(9)	92.1% (35)	94.9% (1,932)	94.6% (968)	95.0% (1,118)	92.3% (358)	95.0% (400)	93.4% (142)	100% (1)	95.7% (1,185)	100% (62)	94.7% (2,024)
Penis size	*p=0.376			*p=0.133		*p=0.734					*p=0.703	
Mentioned	0.8% (1)	0.0% (0)	0.2% (4)	0.4% (4)	0.1% (1)	0.5% (2)	0.2% (1)	0.0% (0)	0.0% (0)	0.2% (2)	0.0% (0)	0.2% (5)
Not mentioned	99.2% (125)	100% (38)	99.8% (2,032)	99.6% (1,019)	99.9% (1,176)	99.5% (386)	99.8% (420)	100% (152)	100% (1)	99.8% (1,236)	100% (62)	99.8% (2,133)
Transactional Sex	*p=0.744			*p=0.851		*p=0.652					*p=0.703	
Buying	0.0% (0)	0.0% (0)	0.3% (7)	0.3% (3)	0.3% (4)	0.0% (0)	0.2% (1)	0.0% (0)	0.0% (0)	0.5% (6)	0.0% (0)	0.3% (7)
Selling	0.0% (0)	0.0% (0)	0.8% (17)	0.9% (9)	0.7% (8)	0.3% (1)	0.5% (2)	1.3% (2)	0.0% (0)	1.0% (12)	0.0% (0)	0.8% (17)
Not mentioned	100% (126)	100% (38)	98.8% (2,012)	98.8% (1,011)	99.0% (1,165)	99.7% (387)	99.3% (418)	98.7% (150)	100% (1)	98.5% (1,220)	100% (62)	98.9% (2,114)
Type of sex	*p=0.083			*p=0.450		*p=0.036					*p=0.576	
Raw	16.7% (21)	0.0% (0)	12.2% (248)	12.1% (124)	12.3% (145)	17.0% (66)	13.5% (57)	14.5% (22)	0.0% (0)	10.0% (124)	12.9% (8)	12.2% (261)
Safe	2.4% (3)	2.6% (1)	1.6% (33)	2.1% (21)	1.4% (16)	1.0% (4)	1.9% (8)	2.0% (3)	0.0% (0)	1.8% (22)	0.0% (0)	1.7% (37)
Not mentioned	80.9% (102)	97.4% (37)	86.2% (1,755)	85.8% (878)	86.3% (1,016)	82.0 (318)	84.6% (356)	83.5% (127)	100% (1)	88.2% (1,092)	87.1% (54)	86.1% (1,840)

Chapter III – Public Health Recommendations

The results of this study demonstrate that there are many different factors that shape the content of the *"men seeking men"* ads posted on Craigslist. Variations by cities and ad author's characteristics indicate that there are social, cultural and local influences on the content of the ads. The variations in the reports of biases and preferences suggest there may be stigma internal to the MSM community seeking sex online. External stigma has detrimental effects on physical and mental health; additional internal stigma – stigma that is perpetuated by members of the community - could only amplify the negative effects. Novel multi-faceted approaches aimed at reducing stigma and increasing HIV prevention among MSM seeking sex online is important in order to successfully curb stigma and improve health.

HIV and STD interventions that can be delivered online

Use of the Internet to look for sex partners has become increasingly popular among MSM because it is easily accessible, affordable and anonymous. MSM who have met their partners online have a higher prevalence of UAI and STIs, and report having more sex partners (Rosser, Miner et al. 2009, Rosser, Oakes et al. 2009). Therefore there is a need to develop interventions that can successfully be delivered online.

The Smart Sex study was a randomized control trial that was conducted online in the United States, with MSM of at least 18 years of age (Salyers Bull, Lloyd et al. 2004). Participants completed a baseline risk assessment and were exposed to either a tailored HIV prevention message or a control message. They were asked to return to the site 3 months later for a follow up. Loss to follow up severely affected the results hampering the analysis (Salyers Bull, Lloyd et

al. 2004). However, Improvements in recruitment methods and retention are essential for future studies so that the efficacy and effectiveness of these interventions are better understood.

The Internet can be an important medium in delivering sexual health messages among young MSM. The Queer Sex Ed Intervention recruited youth in same-sex relationships to participate in an online sexual health intervention that evaluated acceptability and initial efficacy (Mustanski, Greene et al. 2014). Results demonstrated the acceptability, feasibility and initial efficacy of the intervention for LGBT youth. Further studies replicating these methods could be useful in reinforcing the successes of this intervention and advocate for scale-up.

Mobile applications such as Grindr are becoming increasingly popular among MSM seeking sex partners. Grindr is a location based social network that allows you to see other men in the same location who are also on Grindr. Such applications are become increasingly popular among young MSM and can be effective in delivering prevention messages. A study in Southern California among young MSM indicated the majority of the participants would be willing to participate in a smartphone application based HIV prevention program (Holloway, Rice et al. 2014). Further developing application based prevention programs can allow for a more tailored approach to engage young MSM (Holloway, Rice et al. 2014).

Developing effective HIV prevention packages that can be delivered on the Internet can provide a safe space for MSM can access them. This may present an opportunity to build community and reduce social isolation and risky sexual behaviors among MSM (LeGrand, Muessig et al. 2014). Stigma is associated with an increase in UAI and an increased risk of HIV acquisition (Taylor-Seehafer and Rew 2000, Cahill, Valadéz et al. 2013). Stigma internal to the community could increase these risks, hence access to HIV prevention programs delivered online are vital.

Reducing stigma among young MSM through educational entertainment

Stigma towards sexual minorities can begin at a young age. Youth who face rejection from their families and friends can become more vulnerable to increased risky sexual behaviors and HIV acquisition (Cahill, Valadéz et al. 2013). The use of the Internet to meet sex partners among young MSM is increasing. Stigma that young MSM face could drive them further in using the Internet to find a partner because of the anonymity it affords. Addressing issues of stigma from an early age can allow young MSM to feel safer in accessing prevention programs, getting tested and engaging in less risky behaviors.

Targeting young MSM via education through entertainment approaches can be an effective method in reducing stigma and delivering HIV prevention messages. In many cases the perspectives of those the interventions are directed towards are seldom considered. Paulo Freire critiqued models where information is 'deposited' into the minds of audiences (Harter, Sharma et al. 2007). The Freireian perspective allows the audience to participate in the transformation of their social value and perceive their reality as a "limiting situation that they can transform" (Harter, Sharma et al. 2007). Participatory theatre allows for dialogue and critical reflection on decision-making and autonomy.

The United Nations Population Fund (UNFPA) and the Youth Peer Education Network (Y-PEER) have developed a training manual that uses theatre as a means to educate the youth on reproductive health and HIV issues (Berlin and Hornbeck 2005). The theoretical framework used in the manual is based on Albert Bandura who recognized that individuals can learn how to change their behavior and learn how to behave by watching other people (Berlin and Hornbeck 2005). Participatory theatre highlights both the negative and positive role models and is useful in depicting the transitional model where characters change their behavior from risky to safe,

demonstrating change and control over one's own behavior is possible. Adapting this framework and using participatory theatre could enable dialogue around stigma young MSM face and educate them on how to deal with these issues.

Education through entertainment and programs such as participatory theatre can be successful methods in keeping the young engaged. As many young MSM are subjected to stigma and discrimination in schools (Kosciw, Greytak et al. 2012), incorporating these programs into school curriculums could reduce stigma and potentially reduce engagement in risky behaviors. Reducing stigma from a young age could decrease reports of biases and preferences seen online. It could also allow youth to feel more comfortable seeking partners in real life, as they no longer need the anonymity the Internet affords.

Screening online posts to restrict reports of biases and preferences.

The results of this study indicate that discrimination against characteristics (e.g. older, heavier, feminine etc.) exists in ads posted by men seeking sex online. Men who identify with these characteristics often believe they have less bargaining power and are more willing to place themselves in situations that can increase their risk of HIV acquisition (Berger 2014). Online social networks to find sex partners are becoming increasingly popular. Although it is difficult to control acts of discrimination that may occur in person, reporting of biases, on online profiles and ads, which could stigmatize certain characteristics, can be restricted.

Websites and mobile applications that allow men to seek sex partners online should incorporate a screening method when men are creating profiles. Posts and profiles should be restricted from being uploaded if they contain stigmatizing words, such as "fat" or "ugly" etc. Restricting these posts from being uploaded could reduce the likelihood men will be willing to engage in risky behaviors.

MSM continue to bear the greatest burden of HIV in the United States. Stigma surrounding same sex relationships is linked to an increase in sexual risk taking and HIV acquisition (CDC 2011). MSM who are further stigmatized by other MSM can only increase these risks, escalating the HIV burden and other health issues. A multi-faceted approach incorporating afore mentioned recommendations can improve social support systems for MSM and increase access to health services, reversing this burden among MSM.

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