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The Influence of Interpersonal Dyadic Differences on Condom Use among Men Who Have Sex with Men

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The Influence of Interpersonal Dyadic Differences on Condom Use among Men who have Sex with Men

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Abstract

Background: Men who have sex with men (MSM) continue to be disproportionately affected by HIV/AIDS and other STIs. Condom use is one of the most effective methods of prevention, but rates of condom use have been steadily declining among MSM. Therefore, determining what factors influence condom use decision-making among MSM is important. Interpersonal factors such as physical attractiveness, race, and age have been explored in relation to condom use. However, there is a dearth of research exploring the influence of discrepancies between casual partners in these social categories and its influence on condom use directly.
Purpose: The purpose of this study was to assess the role of dyadic discrepancies on condom use behaviors among a sample of MSM. We examined discrepancies based on attractiveness, age, and race.
Methodology: A sample of 205 MSM was recruited via Qualtrics' national panel. The majority of participants identified as white (67.5%), middle aged (M_{age} = 38.7, *SD* = 13.1), and gay (67.5%). Participants completed a series of questions about their demographic characteristics, their own attractiveness and that of their most recent partner, most recent partner characteristics and event-level condom use. Attractiveness differences were categorized into three groupings: (0) the partner is more attractive, (1) the participant is more attractive, and (2) they are equal in attractiveness. Race differences were dummy coded into (0) no difference in race with partner and (1) difference in race with partner. Age differences were dummy coded into (0) same age category, (1) partner was younger than the respondent, and (2) partner was older than the respondent based on decade ranges (i.e., 20s, 30s, etc.). Finally, event-level condom use was dummy coded into (0) did not use a condom and (1) used a condom. Chi-square analyses were used to compare the percentages of condom use based on these dyadic differences.
Results: A sizeable minority did not use a condom (35.9%). Most men had sex with older (40.8%) men, men of the same race (65%), and men with a higher level of attractiveness (52.9%). There was no significant relationship between age differences (χ^2 (2, *N* = 205) = 2.397, *p* = 0.302), racial differences (χ^2 (1, *N* = 205) = 1.05, *p* = 0.30.), and attractiveness differences (χ^2 (2, *N* = 205) = 2.82, *p* = 0.24.) and condom use.
Discussion: Since a sizable minority of participants reported not using a condom, prevention programming should continue to advocate for condom use among MSM. The limited racial differences and pronounced age differences demonstrate the uniqueness and isolation of MSM sexual networks. Future research should explore the contexts in which dyadic differences influence condom use and other risk-mitigating factors.
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The United States Federal Government is projected to spend 28.1 billion dollars in the 2019 fiscal year on domestic care and treatment for people living with the Human Immunodeficieny Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) as well as prevention and research efforts (The Henry J. Kaiser Family Foundation, 2019). Focusing on HIV/AIDS prevention in high-risk areas and populations is, therefore, a clear priority; one specific high-risk population of interest are men who have sex with men (MSM). According to epidemiologic data from the Centers for Disease Control and Prevention (CDC), MSM have a higher HIV and sexually transmitted infection (STI) burdens than women and men who only have sex with women (MSW; CDC, 2018). Nearly 70% of the primary and secondary syphilis cases in 2017 were comprised of MSM and MSM have elevated antibiotic resistant gonorrhea isolates when compared with MSW (CDC, 2018). Further, MSM continue to be the primary population affected by new cases of HIV.

We know condom use is one of the most effective methods to prevent transimission of HIV and STIs; however, condom use rates have decreased over the past decade. Pre-Exposure Prophylaxis (PrEP) is a medication that is highly effective in preventing HIV contraction when taken daily. Antiretroviral Therapies (ART) have allowed those living with HIV to have their viral load be undetectable which equates to being untransmisable. These medical advances could account for the decrease in condom use among MSM due to an increased sense of security. However, Paz-Bailey and colleagues (2016) found this assumption not to be the case. The decrease in condom use can not be attributed to increased use of PrEP or ART. Therefore, determining what factors influence MSM’s decision to use a condom during anal intercourse is important as this is the most prevalent and high-risk mode of HIV and STI transmission among MSM (CDC, 2018).

Several determinants can influence condom use behaviors of MSM (Klein & Kaplan, 2012; Mustanksi, DuBois, Prescott, & Ybarra, 2015; Arrington-Sanders et al., 2016). One understudied, but potentially important determinant to condom use is dyadic discrepancies. Researchers have examined how perceived attractiveness of oneself (Blashill & Safren, 2015), or of a sexual partner (Sarno & Mohr, 2019), influences condom use or correlates of using a condom. Yet, research assessing a combination of dyadic differences (e.g., partner attractiveness, age and racial discrepancies) between partners, and the role this may have in condom use behaviors is lacking. As such, the goal of this study was to assess the effects of dyadic differences on condom use behaviors among a sample of MSM. We specifically examined three types of dyadic discrepancies based on attractiveness, age, and race.

Interpersonal Factors that Affect Sexual Risk-Taking among MSM

An attraction discrepancy is when one sexual partner perceives themselves as more or less attractive than their sexual partner (Swami, Waters, & Furman, 2010). Other factors such as age discrepancies (e.g., one partner is older or younger than the other) and racial discrepancies (e.g., one partner identifies as African American and the other as Asian American) can also contribute to perceptions of attractiveness discrepancy.

Physical Attractiveness. Previous research has found that perceived attractiveness of oneself (e.g., their body image) is related to condom use attitudes and behaviors. For instance, having a poor or low body image is associated with lower confidence to wear a condom for MSM (Blashill & Safren, 2015). Further, men with a high body mass index (BMI; Moskowitz & Seal, 2010), high appearance investment—cognitive and behavioral investment in one's appearance—(Brady et al., 2019) and high body pride (Meanly et al., 2014) were more likely to engage in unprotected anal sex. High body pride predicting unprotected anal sex may seem

counterintuitive; however, Melany et al. (2014) found that these men had an optimistic bias and felt less susceptible to HIV and STIs, leading them to engage in riskier sex. Additionally, body attribution—how an individual believes others perceive their body—was a protective factor for unprotected anal intercourse (Meanly et al., 2014). In other words, MSM with fewer concerns about body image were less likely to report unprotected anal sex. Thus, having a positive body image may help reduce MSM's risk of HIV/STI's by increasing their confidence to wear a condom and actual use of one during sexual activity.

MSM's own body image appears important in understanding condom use behaviors; however, how attractive MSM perceive their partners may also influence condom use. For instance, the more attractive a potential partner is perceived to be, the more likely participants believed they did not have an STI and were more likely to engage in unprotected sex (Sarno & Mohr, 2019). Shuper and Fisher (2008) conducted a study with HIV positive men and found similar results. MSM who found their partner to be attractive were less likely to use a condom because of the assumption that the more attractive partner would not want to use a condom (Shuper & Fisher, 2008).Thus, perceived attractiveness of MSM's sexual partner may be a salient factor predicting event level condom use behaviors.

Research has established a relationship between both individual attractiveness and partner attractiveness and condom use behaviors. However, research examining if a discrepancy in attractiveness between partners relates to condom use behaviors is limited. A discrepancy can arise between the perceived attractiveness of MSM's sexual partner and MSM's own perceived attractiveness creating a perceived attractiveness discrepancy (PAD). PAD have been associated with a power imbalance in relationships. A PAD results in a power imbalance because often the less attractive partner gives the more attractive partner more power in order to prevent a

premature conclusion to their sexual encounter. This power imbalance created from PAD can affect sexual decision-making, such condom use (Dworkin et al. 2017). It makes sense that deferring sexual decision-making to the more attractive partner in a dyad would potentially increase sexual risk taking. Therefore, we intend to expand the literature by assessing if a physical attractiveness discrepancy contributes to condom use among MSM.

Age. In addition to physical attraction, age discrepancies may also influence sexual risk taking (Campbell et al., 2016; Newcomb & Mustanski, 2016). Previous research has also shown that age discrepancies of varying degrees, ranging from four the ten years, contribute to HIV transmission risk (Joseph et al., 2011; Bingham et al., 2003; Berry, Raymond, & McFarland, 2007). Older men in a dyad are viewed as having higher status, more power, and assume the role as "top" or insertive partner (Kubicek et al., 2015; Henderson, 2012; Henderson & Shefer, 2008). Further, older men in dyads were more likely to report engaging in unprotected anal intercourse when they were the insertive partner, which could be the result of younger partners having less confidence in advocating for safer sex (Choi et al., 2003). Given that older men in dyads are seen as having higher status, it would make sense that condom use behaviors would be influenced by them and younger partners would not have the confidence to question those decisions. As such, we intend to build on this previous work and assess if an age discrepancy between MSM's partners influences condom use behaviors.

Race. Finally, racial differences may also influence condom use behaviors. More often, researchers examine the influence of racial discrepancy between African American and white MSM. For instance, researchers have found that MSM who identify as white tend to fetishize MSM of color (Teunis, 2007). Indeed, Tenunis (2007) interviewed African American men in the San Francisco Bay area and found that white men expect to be served sexually when they bottom

(i.e., engage in receptive anal sex) an African American man. Further, white men can become verbally, racially abusive when they top (i.e., engage in insertive anal sex) an African American man. If not viewed as a sexual object, MSM of color may be viewed as the "least desirable" sexual partner while white MSM are seen as the "most desirable." This discrepancy in desirability is likely as an effect of the legacy of racism and segregation in the United States and its influence on sexual preferences and socialization (Raymond & McFarland, 2009). Additionally, white MSM perceived having sex with MSM of color as increasing their risk of contracting HIV (Raymond and McFarland, 2009). Racial preference in MSM partners is extremely common on online dating profiles. This racial preference typically manifests itself in exclusionary language targeting people of color in addition to African American men (Paul, Ayala, & Choi, 2010). These findings suggest a broader examination of race beyond black and white preferences may be an important avenue for MSM research. Racial discrepancies may also influence condom use behaviors due to racialized power differences within the MSM community.

Proposed Study

MSM are disproportionately affected by HIV and STIs. Condom use behaviors are an effective preventive mechanism; however, interpersonal dyadic differences could influence condom use behaviors. Yet, there is limited research which has examined if condom use behaviors are influenced by three different types of dyadic discrepancies: physical, age, and race. We have three proposed hypotheses for this study:

1) Men who perceived their partner to be more attractive than them would be less likely to use a condom than men who perceived themselves to be more attractive or saw the partner as equally attractive as them

2) Men who's partner was in an older age category would be less likely to use a condom than men who's partner was the same age or in a younger category.
3) Men who's partner did not idenfity as a different race would be more likely to use a condom compared with men who's partner identified as the same race.

Method

Participants were recruited from across the United States via Qualtrics national panel. An initial 340 MSM completed the survey; however, we excluded MSM that reported they were in an exclusive relationship with their partner (n = 134). The final analytical sample included 206 MSM. The majority of participants identified as gay (67.5%), white (67.5%) and were middle aged (M_{age} = 38.7, SD = 13.1). See Table 1 for all demographics.

Procedure

Participants were recruited to complete a 20-minute online survey through Qualtrics Panel Services. Eligible participants were sent incentivized invitations to participate in the study. Qualtrics Panel Services pilot tested the survey within the target population prior to data collection to ensure the appropriateness and readability of all items. Inclusion criteria are as follows: at least 18 years old, identified as a gay or bisexual man, living in the United States, and reported engaging in anal sex within the past thirty days. The latter criterion was included to minimize recall bias. All responses were anonymous, and participants were told that their involvement in this study was voluntary. The study protocol was approved by the Institutional Review Board at the University of Arkansas.

Measures

Demographic Form. Basic demographic information such as age, race, sexual orientation identity, annual income, state of residency, education level, and relationship status

were all assessed in the survey. Age was broken into seven categories based on decades (e.g., 20-29, 30-39). Race options included: White or Caucasian, Black or African American, Hispanic or Latino, Asian or Asian American, Native Hawaiian or Pacific Islander, Bi-or Multi-Racial, and Other. Race differences were dummy coded into (0) no difference in race and (1) difference in race. Age differences were dummy coded into (0) same age category, (1) partner was younger than the respondent, and (2) partner was older than the respondent.

The Estimating Physical Attractiveness Scale. In order to quantify a perceived attractiveness discrepancy, the Estimating Physical Attractiveness Scale (EPAS) was used (Swami, Furnham, Georgiades, & Pang, 2007). The EPAS assesses how attractive an individual perceives themselves to be. The directions for the EPAS instruct participants to rate their overall physical attractiveness, facial attractiveness, body weight or size, body shape or figure, and height (Swami, Waters, & Furnham, 2010). In addition, a figure is provided to participants to guide them in how to rate their attractiveness as well as others' attractiveness (See Figure 1). Each score on this instrument is compared to the normal distribution which has a Mean (M) of 100 and a Standard Deviation (SD) of 15. Based on this guide a rating of 55 is considered very unattractive, 70 unattractive, 85 low average, 100 average, 115 high average, 130 attractive, and 145 as very attractive (Swami et.al, 2007).

Participants were asked to rate their own overall attractiveness and how attractive they view specific physical domains of their body. They did this for their most recent partner's overall and body part specific attractiveness. To calculate a perceived attractiveness discrepancy, we subtracted respondent most recent partner's rating from how the respondent rated themselves. PAD was categorized into three groupings: (0) the partner is more attractive, (1) the participant is more attractive, and (2) they are equal in attractiveness.

Modified AIDS Risk Behavioral Assessment. Sexual risk-taking was assessed with a modified version of the AIDS Risk Behavioral Assessment (ARBA; Donenberg, Emerson, Bryant, Wilson, & Weber-Shifrin, 2001). The ARBA includes questions about the number of sexual partners, event-level condom use, global condom use, condom use intention, sexually transmitted infection testing behaviors, and methods of protection used by respondents. We modified the ARBA to be culturally appropriate for the MSM population by excluding inapplicable methods of protection such as a female condom and birth control pills among others. An example item is "How many times have you had anal sex (someone put their penis into your anus OR you put your penis in someone else's or anus) in the last month?" or "Have you ever been tested for HIV, the virus that causes AIDS?" From the ARBA, we assessed one main sexual risk-taking behavior. Specifically, we assessed if MSM reported wearing a condom during their most recent anal intercourse. Responses were coded as (0) no condom used or (1) condom used.

Analysis

We ran a series of chi-square test of independence to assess the relationship between PAD (participant is more attractive, the partner is, they are equally attracted), age differences (same age, partner older, partner younger) and racial differences (same race/interracial) on condom use (yes/no).

Results

Descriptive Statistics

The majority of our sample reported they or their partner had used a condom during their most recent anal sexual encounter (64.1%, n = 132). A majority of our sample had sex with someone who was outside of their decade age range (e.g., someone in their 20s had sex with

someone in their 30s.; 65.5%, *n* = 135). Further, most men reported having sex with an older man (40.8%, *n* = 84). Additionally, a majority of our sample had sex with someone who identified as the same race as themselves (65%, *n* = 134). See Table 2 for full dyadic differences.

Concerning perceived attractiveness of oneself, the average score was 94.64 (*SD* = 24.25), meaning participants perceived themselves as slightly below average attractiveness. Alternatively, participants, on average, gave their partners a score of 101.58 (*SD* = 24.7), meaning they perceived their partners as having slightly above average attractiveness. Next, we examined PAD by out three categories (i.e., the respondent is more attractive, their partner is more attractive, and they are equally attractive). The majority of the participants found their partner more attractive (52.9%, *n* = 109). Participants were then almost evenly split between finding both themselves and their partner equally attractive (24.8%, *n* = 51) or finding themselves more attractive (22.3%, *n* = 46).

Dyadic Differences and Condom Use

Regarding PAD and condom use behaviors, there was no significant difference χ^2 (2, *N* = 205) = 2.82, *p* = 0.24. There was no difference in condom use behaviors between MSM who did and did not have an age discrepancy when split into the three categories, χ^2 (2, *N* = 205) = 2.397, *p* = 0.302. Finally, there was no difference in condom use behaviors between MSM who had a partner of the same or different race than them χ^2 (1, *N* = 205) = 1.05, *p* = 0.30.

Discussion

The goal of this study was to assess if condom use behaviors varied by physical attraction, age, and racial discrepancies among MSM. Overall, we found that a majority of MSM wore a condom at their most recent sexual encounter and viewed their sexual partner as being

more attractive than them. Further, a majority of MSM reported having sexual partners who were a different age than them, but the same race. Finally, our dyadic characteristics were not related to condomless sexual activity for MSM.

Condom Use Behavior

A majority of MSM in our sample reported using condoms at their most recent sexual encounter (64.1%, *n* = 132). There may be two reasons for this finding. First, MSM's high reporting of condom use could be attributed to social desirability bias. This bias could be present because MSM have been heavily targeted with public health messages informing them they should use a condom to decrease risk of HIV and STIs. Interestingly though, previous research has seen a general decrease in condom use among MSM despite these targeted prevention campaigns (Paz-Bailey et al., 2018). Second, our results may reflect a cultural shift occuring for MSM where they are more aware of HIV and STI risks and feel more comfortable asserting condom use and safer sexual practices. Despite this shift, intervention and prevention programs should continue emphasizing condom use and other protection measures for MSM. Whereas the majoirty of our sample did wear a condom, 35.9% of our sample did not wear one with a newer partner—which would be considered a high risk behavior.

Dyadic Characteristics

The dyadic characteristics we examined – age, race, and physical attractiveness – did not relate to condom use. Our results are surprising given previous literature. Other researchers have found that increased age discrepancies and interracial coupling contribute to sexual risk taking by creating power imbalances within a couple (Campbell et al., 2016; Teunis, 2007). However, these imbalances may not be as pervasive in casual dating situations, or with newer sexual

partners. Instead, more salient factors such as condom use self-efficacy or intoxication may influence condom use behaviors with newer partners. Further, a person's own sexual history (e.g., what types of sexual activity they have engaged in), their previous condom use behaviors, and personality traits like sexual sensation seeking, could potentially mediate sexual risk taking behaviors as well. Taken together, dyadic characteristics may not influence condom use behaviors with casual and newer dating partners.

However, these dyadic factors should be examined in relation to the nature of the relationship between the partners. In other words, the nature of the relationship (e.g., romantic versus casual) may influence condom use behaviors among MSM. Flowers et al. (1997) found that protection methods used by MSM varied by context of the relationship. As such, more work is needed to assess the role of relationship context, along with dyadic characteristics, on MSM's condom use behaviors.

Further, our sample was not racially diverse with 67.5% (n = 139) identifying as white and having a partner who matched their race (65%). Thus, the majority of our sample had sexual intercourse with someone of the same race. This lack of racial diversity within our sample could make it difficult to detect a relationship between interracial dyads and sexual risk taking. However, studies that had more racially diverse samples found that race does influence sexual risk taking (Raymond & McFarland, 2009).

Our lack of differences between PAD and condom use behaviors among MSM, may have also resulted from measurement concerns. The physical attractiveness discrepancy measure was an intensive and cumbersome assessment with 42 items. Participants also needed to rate themselves and their partner. Given that all our participants were either in casual or newer relationships, it may have been difficult for them to recall each specific body area of their partner

and rate how attractive they thought each part was. Therefore, participant's reflections may not have been as accurate. We attempted to address this concern by ensuring our sample had sex within the past 30 days.

Limitations

There are a few limitations to note. First, there could be a self-selection biases among those who felt comfortable completing a survey with sexual questions. Second, all of our participants were recruited online. This style of recruitment and survey delivery could limit the MSM we recruit. Online recruitment tends to result in younger and more highly educated samples. Third, we did not use probability-based recruitment, which could limit the generalizability of the findings. Fourth, we relied on self-report and not actual behaviors which could be influenced by social desirability bias. Finally, we only assessed one HIV and STI risk behavior: condom use. Other methods such as ART and PrEP adherence and discussing status and testing behaviors with partners could be influenced by these dyadic factors.

Conclusions and Future Directions

Despite these limitations, our study provides important information for prevention programs. A sizeable minority of MSM in our sample still reported not using a condom at their most recent sexual encounter, which is consistent with CDC findings (CDC, 2018). This high-risk behavior should still be targeted in prevention programs with this population. Further, a majority of men in our study had sex with men who were discrepant in terms of age and of the same race while possessing roughly the same level of attractiveness. This age mixing and lack of racial and attractiveness mixing can create isolating sexual networks based on homophily, the tendency of people to seek out or be attracted to those who are similar to themselves, which should be addressed in any future intervention programming with this population.

Our study highlights important avenues of future research. Continued research is needed to fully understand condom use decision-making among MSM. Further, while age, race, and attractiveness discrepancies were not related to event-level condom use, dyadic power dynamics contribute to sexual decision-making and HIV/STI risk in same-sex male couples (Dworkin et al., 2017). Therefore, future work should continue to explore which discrepancies influence different sexual risk behaviors and in what contexts especially racial diversity Also, weight should be given to possible intrapersonal processes such as self-efficacy to create a comprehensive model of sexual decision-making among MSM.

The PAD measure used in final analyses only included overall attractiveness ratings. Future work should tease out if attractiveness of regions such as facial features, genitals, arms, penis size, and other body parts exert a greater influence on condom use rather than an overall attractiveness. Additionally, examining the influence these factors on other risk behaviors such PrEP adherence or conversations about STIs and HIV status with new partners is important and understudied. Further, future research should consider moving to a daily diary methodology to assess PAD's relationship with condom use behaviors among MSM for potentially more accurate data.

References

Arrington-Sanders, R., Morgan, A., Oidtman, J., Gomez, M. C., Ogunbajo, A., Trent, M., & Fortenberry, J. D. (2016). Context of First Same-Sex Condom Use and Nonuse in Young Black Gay and Bisexual Males. *Journal of research on adolescence : the official journal of the Society for Research on Adolescence*, *26*(4), 1009–1021. doi:10.1111/jora.12255

Berry, M., Raymond, H. F., & McFarland, W. (2007). Same race and older partner selection may explain higher HIV prevalence among Black men who have sex with men. *AIDS (London, England)*, *21*, 2349– 2350. doi:10.1097/QAD.0b013e3282f12f41

Bingham, T. A., Harawa, N. T., Johnson, D. F., Secura, G. M., MacKellar, D. A., & Valleroy, L. A. (2003). The effect of partner characteristics on HIV infection among African American men who have sex with men in the Young Men's Survey, Los Angeles, 1999–2000. *AIDS Education and Prevention*, *15*(1 Suppl.), 39–52. doi:10.1521/aeap.15.1.5.39.23613

Blashill, A. J., & Safren, S. A. (2015). Body dissatisfaction and condom use self-efficacy: A meta-analysis. *Body Image 12*, 73-77. doi: 10.1016/j.bodyim.2014.10.002.

Brady, J. P., Nogg, K. A., Rozzell, K.N., Rodriguez-Diaz, C. E., Horvath, K. J., Safren, S. A., & Blashill, A. J. (2019). Body image and condomless anal sex among young latino sexual minority men. *Behaviour Research and Therapy 115*, 129-134.

Campbell, C. K., Gomez, A. M., Hoff, C., Grisham, K. K., Wilson, P. A., & Dworkin, S. L. (2016). Sexual behavior and HIV risk among age discrepant, same-sex male couples. *Culture, Health & Sexuality, 18*, 1319–1332. doi: 10.1080/13691058.2016.1183824

Center for Disease Control. (2018). *Sexually Transmitted Disease Surveillance 2017*. Atlanta, GA: Center for Disease control. Retrieved from https://www.cdc.gov/std/stats17/2017-STD-Surveillance-Report_CDC-clearance-9.10.18.pdf

Choi, K., Operario, D., Gregorich, S. E., & Han, L. (2003). Age and race mixing patterns of sexual partnerships among asian men who have sex with men: Implications for HIV transmission and prevention. *AIDS Education and Prevention, 15*(1), 53-65. doi:10.1521/aeap.15.1.5.53.23609

Donenberg, G.R., Emerson, E., Bryant, F.B., Wilson, H., Weber-Shifrin, E. (2001), Understanding AIDS-risk behavior among adolescents in psychiatric care: links to psychopathology and peer relationships. *Journal of the American Academy of Child Adolescent Psychiatry 40*, 642-653.

Dworkin, S. L., Zakaras, J. M., Campbell, C., Wilson, P., Grisham, K., Chakravarty, D. Neilands, T. B., & Hoff, C. (2017). Relationship power among same-sex couples in new york and san francisco: Laying the groundwork for sexual risk reduction interventions focused on interpersonal power. *Journal of Sex Research 54*(7), 923-935.

Flowers, P., Smith, J. A., Sheeran, P., & Beail, N. (1997). Health and romance: Understanding unprotected sex in relationships between gay men. *British Journal of Health Psychology, 2*(1), 73-86. doi:10.1111/j.2044-8287.1997.tb00524.x

Henderson, N. (2012). Narratives of power and abuse in gay relationships in the Cape Metropole. *South African Journal of Psychology, 42*, 323– 332. doi:10.1177/008124631204200304

Henderson, N., & Shefer, T. (2008). Practices of power and abuse in gay male relationships: An exploratory case study of a young, isiXhosaspeaking man in the Western Cape, South

Africa. *South African Journal of Psychology, 38*, 1–20. doi:10.1177/008124630803800101

The Henry J. Kaiser Family Foundation. (2019, March 5). U.S. Federal Funding for HIV/AIDS: Trends Over Time. Retrieved from The Henry J. Kaiser Foundation: https://www.kff.org/hivaids/fact-sheet/u-s-federal-funding-for-hivaids-trends-over-time/

Joseph, H. A., Marks, G., Belcher, L., Millett, G. A., Stueve, A., Bingham, T. A., & Lauby, J. (2011). Older partner selection, sexual risk behaviour, and unrecognised HIV infection among Black and Latino men who have sex with men. *Sexually Transmitted Infections, 87*, 442–447. doi:10.1136/sextrans-2011-050010

Klein, H., & Kaplan, R. L. (2012). Condom use attitudes and HIV risk among American MSM seeking partners for unprotected sex via the internet. *International public health journal, 4*(4), 419–434.

Kubicek, K., McNeeley, M., & Collins, S. (2015). "Same-sex relationship in a straight world": Individual and societal influences on power and control in young men's relationships. *Journal of Interpersonal Violence, 30*, 83–109. doi:10.1177/0886260514532527

Meanly, S., Hickok, A., Johns, M. M., Pingle, E. S., & Bauermeister, J. A. (2014). Body Mass Index, Body Esteem, and Unprotected Receptive Anal Intercourse among Young Men Who Have Sex with Men Who Seek Partners Online. *Archives of Sexual Behavior, 43*(4), 735-744. doi:10.1007/s10508-013-0159-0

Moskowitz, D. A., & Seal, D. W. (2010). Revisiting obesity and condom use in men who have sex with men. *Archives of Sexual Behavior, 39*(3), 761-765.

Mustanski, B., DuBois, L. Z., Prescott, T. L., & Ybarra, M. L. (2014). A mixed-methods study of condom use and decision-making among adolescent gay and bisexual males. *AIDS and behavior, 18*(10), 1955–1969. doi:10.1007/s10461-014-0810-3

Newcomb, M. E., & Mustanski, B. (2016). Developmental change in the effects of sexual partner and relationship characteristics on sexual risk behavior in young men who have sex with men. *AIDS and Behavior, 20*, 1284–1294. doi:10.1007/s10461-015-1046-6

Paul, J. P., Ayala, G., & Choi, K. H. (2010). Internet sex ads for MSM and partner selection criteria: the potency of race/ethnicity online. *Journal of sex research, 47*(6), 528–538. doi:10.1080/00224490903244575

Paz-Bailey, G., Mendoza, M. C., Finlayson, T., Wejnert, C., Le, B., Rose, C., … NHBS Study Group (2016). Trends in condom use among MSM in the United States: the role of antiretroviral therapy and seroadaptive strategies. *AIDS (London, England), 30*(12), 1985–1990. doi:10.1097/QAD.0000000000001139

Raymond, H. F., & McFarland, W. (2009). Racial mixing and HIV risk among men who have sex with men. *AIDS and behavior, 13*(4), 630–637. doi:10.1007/s10461-009-9574-6

Sarno, E. L., & Mohr, J. J. (2019). Partner Attractiveness and Perceived Sexually Transmitted Infection Risk Among Sexual Minority Men, *The Journal of Sex Research*. Advance online publication. doi: 10.1080/00224499.2019.1591335

Shuper, P. A., & Fisher, W. A. (2008). The role of sexual arousal and sexual partner characteristics in HIV+ MSM's intentions to engage in unprotected sexual intercourse. Health Psychology, 27(4), 445–454. https://0-doi-org.library.uark.edu/10.1037/0278-6133.27.4.445

Swami, V., Furnham, A., Georgiades, C., & Pang, L. (2007). Evaluating self and partner physical attractiveness. *Body Image, 4,* 97–101.

Swami, V., Waters, L., & Furnham, A. (2010). Perceptions and meta-perceptions of self and partner physical attractiveness. *Personality and Individual Differences, 49,* 811-814.

Teunis, N. (2007). Sexual objectification and the construction of whitewhiteness in the gay male community. Culture, Health & Sexuality, 9(3), 263-275. doi:10.1080/13691050601035597

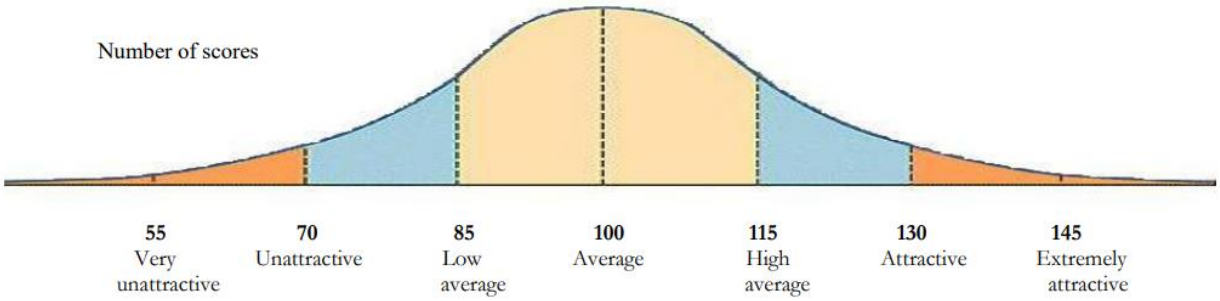

Figure 1. The normal distribution figure used in the Estimating Physical Attractiveness Scale devised by Swami et al., 2007.

Table 1. *Demographic Characteristics of MSM Participants*

Characteristics	*n*	(%)	Years	Range
Participants	206			
Age			38.7	(18-76)
Race/Ethnicity				
White or Caucasian	139	(67.5)		
Black or African American	20	(9.7)		
Hispanic or Latino	28	(13.6)		
Asian or Asian American	8	(3.9)		
American Indian or Alaskan Native	2	(1.0)		
Native Hawaiian or Pacific Islander	1	(0.5)		
Bi-or Multi-Racial	7	(3.4)		
Other	1	(0.5)		
Sexual Orientation				
Gay	139	(67.5)		
Bisexual	65	(31.6)		
Other	2	(1.0)		
HIV Status				
HIV Negative	144	(69.9)		
HIV Positive	27	(13.1)		
Prefer not to respond	2	(1.0)		
Relationship with partner they compared themselves to				
Someone they just met	47	(22.8)		
Acquaintance/ Casual dating	159	(77.2)		
Education				
Less than High School	7	(3.4)		
High School (Diploma or GED)	41	(19.9)		
Some college but no formal degree	45	(21.8)		
Associate degree from a college	15	(7.3)		
Bachelor's degree from a college	65	(31.6)		
Master's Degree	28	(13.6)		
Doctoral Degree	2	(1.0)		
Professional Degree (JD, MD)	3	(1.5)		
Income				
Less than $34,999	64	(31.1)		
$35,000 to $99,999	114	(55.3)		
$100,000 or more	25	(12.1)		
Prefer not to respond	3	(1.5)		

Table 2. *Dyadic Differences Among MSM Participants*

Characteristics	*n*	(%)
Participants	206	
Overall Attractiveness		
Partner was more attractive	109	(52.9)
Participant was more attractive	46	(22.3)
Both were equally attractive	51	(24.8)
Race		
Partners self-identified as the same race	134	(65.0)
Partners self-identified as different races	72	(35.0)
Age		
Partner was older than participant	84	(40.8)
Partner was younger than participant	51	(24.8)
Partner and participant were the same	71	(34.5)