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ORIGINAL PAPER

Preferences for Condomless Sex in Sexually Explicit Media Among Black/African American Men Who Have Sex with Men: Implications for HIV Prevention

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Abstract Accumulating evidence suggests that viewing sexually explicit media (SEM; i.e., pornography) may be related to the sexual behaviors of men who have sex with men (MSM). Furthermore, stereotypical depictions of Black/African American MSM engaging in sexual risk behaviors in SEM may serve to normalize condomless sex, reinforce low peer norms around condom use, and facilitate HIV risk taking among Black/African American MSM. Despite this evidence, very little is known about the correlates of SEM consumption among Black/African American MSM, including HIV risk behaviors and their relation to preferences for viewing condomless sex in SEM. Participants were 653 HIV-seronegative Black-identified MSM ages 18–62 (*M* 33.58, SD 11.01) who completed a cross-sectional survey as a part of a HIV prevention trial in Atlanta, Georgia. Over three-quarters of the men ($n = 514$) reported a preference for condomless sex in SEM. In multivariate models, engaging in serodiscordant condomless sex was not significantly associated with preferences for condomless sex in SEM; however, men who self-identified as bisexual, engaged in transactional sex, and reported greater agreement with sexual risk cognitions (i.e., heat-of-the-moment thoughts about condom use) had significantly greater odds of reporting a preference for condomless sex in SEM. Study findings highlight the need for future research exploring the role of SEM in the sexual health of Black/African American MSM, including the extent to which SEM exposure alters norms and expectations about sexual behaviors among Black/African American MSM and how this might be addressed in HIV prevention programs.

Keywords Black men · MSM · Pornography · Sexually explicit media · HIV prevention

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Introduction

Black/African American gay, bisexual, and other men who have sex with men (MSM) are disproportionally affected by HIV in the USA. Despite MSM comprising only 3–7 % of the US population (Purcell et al., 2012), 67 % of all new HIV diagnoses in 2014 were among MSM (Centers for Disease Control and Prevention, 2015a). Of those, 38 % were among Black/African American MSM, 30 % were among White MSM, and 27 % were among Hispanic/Latino MSM (Centers for Disease Control and Prevention, 2015a). A recent modeling study further predicted that 40 % of Black/African American MSM will be HIV-seropositive by age 30, 62 % by age 40 (Matthews et al., 2016). Although evidence suggests that sexual network characteristics, as opposed to individual-level risk factors, may be the primary driver of the HIV disparity seen among Black/African American MSM (Sullivan et al., 2015), engagement in condomless anal intercourse within these higher risk networks remains an important component of ongoing HIV transmission. Additionally, there has been a growing interest in understanding the complex environmental and social-contextual factors that may potentiate HIV risk among

this population (Kelly, DiFranceisco, St Lawrence, Amirkhanian, & Anderson-Lamb, 2014).

One factor that may be contributing to the sexual behaviors of Black/African American MSM is the consumption of sexually explicit media (SEM; i.e., pornography). While several studies conducted on SEM use among MSM suggest that it may have positive effects, such as confirm individuals' sexual attractions and identity, serve as an entry into gay culture, as well as increase sexual knowledge and enjoyment (Kubicek, Carpineto, McDavitt, Weiss, & Kipke, 2011; McCormack & Wignall, 2016; Rothman, Kaczmarsky, Burke, Jansen, & Baughman, 2015), others suggest that SEM use can have a negative effect on the health of MSM (e.g., increased sexually compulsive behavior, sexual risk taking; Hald, Smolenski, & Rosser, 2013; Nelson, Leickly, Yang, Pereira, & Simoni, 2014; Nelson et al., 2014b; Rosser et al., 2012, 2013; Schrimshaw, Antebi-Gruszka, & Downing, 2016; Stein, Silvera, Hagerty, & Marmor, 2012). For HIV-related sexual risk, researchers have suggested that SEM use may contribute to engagement in condomless anal intercourse among MSM. Specifically, portrayals of condomless anal intercourse in MSM-specific SEM have increased substantially in recent years, raising concerns about the encouragement of risky sexual behaviors among consumers (Downing, Schrimshaw, Antebi, & Siegel, 2014; Hurley, 2009; Rosser et al., 2012). These concerns are supported by four large-scale studies showing positive associations between exposure to male–male condomless anal intercourse in SEM and engagement in condomless anal intercourse among MSM (Nelson et al., 2014b; Rosser et al., 2013; Schrimshaw et al., 2016; Stein et al., 2012). Two of these studies further note that preferences for viewing condomless anal intercourse in SEM are independently associated with sexual risk taking among MSM (Nelson, Pantalone, Gamarel, & Simoni, 2016; Rosser et al., 2013). All of these studies were cross-sectional, making it impossible to tell whether viewing specific sexual behaviors in SEM precedes or succeeds engagement in those behaviors. Although that may be the case, MSM themselves report that viewing SEM changes their sexual fantasies, desires, and behaviors and is likely to be shaping their norms and sexual scripts (Nelson et al., 2014a, 2016; Schrimshaw et al., 2016).

SEM may be particularly meaningful to the sexual practices of Black/African American MSM. Specifically, the images portrayed in SEM may serve to perpetuate racial and sexual norms among MSM. A content analysis of 217 sexually explicit advertisements on a men-seeking-men Web site found that half (51 %) of the ads featured Black/African American men and that ads featuring Black/African American men had an increased odds of portraying condomless sex (White, Dunham, Rowley, Reisner, & Mimiaga, 2015). White et al. concluded that the frequent depictions of Black/African American MSM engaging in sexual risk behaviors in SEM may serve to normalize condomless sex, reinforce low peer norms around condom use, and facilitate HIV risk taking among Black/African American MSM (White et al., 2015). Further, adolescent Black/African American MSM (ages 15–19) report using SEM in lieu of relevant sexual education, often modeling their sexual experiences after what they view, including engaging in condomless anal intercourse (Arrington-Sanders et al., 2015). Given prior research indicating that repeated SEM viewing can lead to the normalization, acceptance, and integration of sexual risk activities into one's own sexual practices (Kendall, 2004a; Morgan, 2011; Nelson et al., 2016; Schrimshaw et al., 2016; Weinberg, Williams, Kleiner, & Irizarry, 2010), these studies give credence to the idea that SEM may contribute to the sexual norms and behaviors of Black/African American MSM.

As the majority of research about SEM use among MSM has focused on associations between viewing a behavior in SEM and engaging in that behavior (Nelson et al., 2014b, 2016; Rosser et al., 2013; Schrimshaw et al., 2016; Stein et al., 2012), we were only able to find one study assessing the sociodemographic and risk characteristics of MSM who view portrayals of condomless sex in SEM. Using a latent class approach with a sample of 1429 Internet using MSM, Erickson, Galos, Smolenski, Iantaffi, and Rosser (2015) found that 39 % of the sample reported that more than half of the SEM they viewed included portrayals of condomless sex. Among those men, the participants fell into two specific classes of viewers, named by the researchers "normative" and "fetish." Being in these two classes was associated with a higher overall frequency of SEM consumption, lower internalized homonegativity, and lower condom use self-efficacy compared to those who were classified into the "safer sex" group. Unfortunately this study did not assess for potential differences by race/ethnicity.

Although it appears that SEM use may contribute to the sexual behaviors and norms of Black/African American MSM and two studies illustrate a positive association between preferring condomless anal intercourse in SEM and engagement in condomless anal intercourse among MSM (Nelson et al., 2016; Rosser et al., 2013), we were unable to find any studies that assess the sociodemographic and risk characteristics of Black/African American MSM who report preferring condomless sex in SEM. Thus, the goal of this study is to provide a first look into the characteristics of Black/African American MSM who prefer viewing condomless sex in SEM. We were particularly interested in assessing which known HIV risk factors among MSM, including having a sexually transmitted infection (Ward & Rönn, 2010), substance use (Centers for Disease Control and Prevention, 2015b), depression (Reisner et al., 2009; Safren, Reisner, Herrick, Mimiaga, & Stall, 2010), engagement in transactional sex (Oldenburg, Perez-Brumer, Reisner, & Mimiaga, 2015), engagement in condomless serodiscordant anal sex (Scott et al., 2014), greater agreement with sexual risk cognitions (Beck, McNally, & Petrak, 2003; Gold & Skinner, 1992; Imrie et al., 2001; Nelson, Simoni, Pearson, & Walters, 2011), decreased condom use

self-efficacy (Træen et al., 2014), and decreased HIV risk perceptions (Klein & Tilley, 2012), would be independently associated with a preference for condomless sex in SEM.

Method

Participants and Procedure

Participants for the current study ($N = 820$) were recruited from December 2012 to November 2014 for an HIV prevention trial targeting HIV-seronegative Black/African American MSM in the Atlanta, GA area. Recruitment occurred in gay-identified bars, clubs, bathhouses, parks, and street locations as well as using online classifieds and social media (e.g., Facebook, Black Gay Chat, Jack'd). Participants' recruited in-person were approached by recruiters and screened as they entered the above-mentioned venues. Participants recruited online were screened using telephone screening software. Individuals were eligible to participate if they reported engaging in condomless anal intercourse with a male partner in the past year, male or transgender female gender identity, HIV-seronegative or unknown status (individuals reporting HIV positive status were referred to other available studies), and were at least 18 years of age. Participants attended an in-person baseline appointment at the study research site and provided written consent. During this appointment, participants completed a survey via Audio Computer-Assisted Self-Interviewing (ACASI) software. Participants were compensated $30 for this baseline visit. All procedures were approved by the University of Connecticut Institutional Review Board.

Measures

Sociodemographics

Sociodemographic characteristics were assessed with standard formats and coded as follows: age (continuous); education (<college, some college or higher); self-identified sexual orientation (gay, bisexual, heterosexual); definitely "out" about sexual orientation (i.e., open about sexual orientation all the time; yes, no); and in an exclusive relationship with a primary partner (yes, no).

Sexually Transmitted Infection (STI) Testing

Participants were asked whether they had been diagnosed or treated for gonorrhea, Chlamydia, or syphilis in the past 3 months. They were additionally asked whether they had been diagnosed or experienced a recurrent episode of herpes or genital warts in the past 3 months. STI items were coded as follows: any active STI in the past 3 months (yes, no).

Substance Use/Mental Health

Current alcohol misuse was assessed using the consumption section of the Alcohol Use Disorders Identification Test (AUDIT-C) (Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998). On this 3-item scale, possible scores range from 0 to 12 with a score of 4 or greater indicating alcohol misuse ($\alpha = 0.77$ in this sample). Participants were additionally asked whether they had used marijuana, crack, cocaine, poppers, methamphetamine, Viagra/Cialis without a prescription, or any other drugs without a prescription in the past three months. A count variable was created capturing the number of different recreational drugs each participant reported using (continuous). Depression symptoms were measured using the Centers for Epidemiological Studies Depression Short Scale (CESD-10) (Andresen, Malmgren, Carter, & Patrick, 1994; Radloff, 1977). On this 10-item scale, possible scores range from 0 to 30 ($\alpha = 0.82$ in this sample) with a higher score, indicating more depressive symptoms.

Sexual Behavior

Participants were asked about engagement in transactional sex. Specifically, they were asked whether they had ever given or received money, food, a place to stay, or alcohol/drugs in exchange for sex (yes, no). We also inquired about the number of times in the past 3 months the participants reported condomless anal intercourse, condomless anal intercourse as the insertive partner, and condomless anal intercourse as the receptive partner. Each of these sexual risk variables were further broken down by partner HIV-serostatus (i.e., number of times in the past 3 months the participants reported condomless anal intercourse with an HIV-seropositive, HIV-seronegative, or HIV-unknown partner). Variables for number of condomless anal intercourse encounters (continuous), serodiscordant condomless anal intercourse encounters (continuous), serodiscordant insertive condomless anal intercourse encounters (continuous), and serodiscordant receptive condomless anal intercourse encounters (continuous) were created using these sexual behavior questions. Serodiscordant condomless anal intercourse was defined as condomless anal intercourse with a HIV-seropositive or unknown partner.

Sexual Risk Beliefs

The Sexual Risk Cognitions Questionnaire (SRCQ) measures heat-of-the-moment cognitions related to engaging in condomless sex (Shah, Thornton, & Burgess, 1997). Participants were given an adapted SRCQ that included 27 items ($\alpha = 0.95$ in this sample). Each item was preceded by the statement "I did not use a condom because" and participants were asked to indicate how much they disagreed or agreed with each cognition on a 6-point scale from 1 (*strongly disagree*) to 6 (*strongly agree*). Example cognitions include, "I did not use a condom because I wanted to

show him that he's somebody special" or "I did not use a condom because I enjoy sex more without a condom." Mean scores were calculated with higher scores, indicating greater agreement with sexual risk cognitions. An adapted version of the Condom Use Self-Efficacy Scale (Brafford & Beck, 1991) was used to assess participants perception of their ability to use condoms ($\alpha = 0.90$ in this sample). Participants were asked seven items with responses ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Mean scores were calculated with higher scores, indicating greater condom use self-efficacy. To assess HIV risk perceptions, participants were asked five questions (Eaton et al., 2007) regarding how much HIV risk they perceived under varying scenarios ($\alpha = 0.79$ for this sample). For example, "How risky is anal sex without a condom as the bottom partner with a man you just met who tells you his HIV status is negative?" Responses ranged from 0 (*no or low risk)* to 10 (*very high risk)*. An average of the five items was calculated. Higher scores indicated greater perceived HIV risk associated with condomless anal intercourse acts.

Preference for Condomless Sex in SEM

Condom use preferences in SEM were assessed with the question "Which type of pornography do you typically prefer to view?" Answers included "bareback/raw pornography," "condom-protected pornography," and "I don't watch pornography." Participants were excluded if they reported that they do not consume SEM. Participants were coded 1 if they indicated a preference for "bareback/raw pornography" and 0 if they indicated a preference for "condom-protected pornography."

Analyses

Analyses were restricted to participants who self-reported a male gender identity and reported a preference about condom use in SEM ($n = 653$). Participants removed from the analyses ($n = 167$) were more likely to be older ($m = 37$, SD 12 vs. $M = 33$, SD 11, $p < .001$) and have less than a college education (61 vs. 31 %, $p < .001$). There were no other sociodemographic differences. Associations between preferences for condomless sex in SEM, sociodemographics, STI testing, substance use, mental health, sexual behaviors, and sexual risk beliefs were assessed using Fisher's exact and *t* tests. Sociodemographic, behavioral, and attitudinal variables that were statistically significant in these bivariate analyses ($p < .05$) were entered into a multivariate logistic regression model to determine which were independently associated with a preference for condomless sex in SEM. Although all four sexual risk behaviors (i.e., condomless anal intercourse, serodiscordant condomless anal intercourse, serodiscordant receptive condomless anal intercourse, and serodiscordant insertive condomless anal intercourse) were significant in the bivariate analyses, only serodiscordant condomless anal intercourse was entered into the multivariate model due to the collinearity between the variables and a desire to focus on a behavior that captured the potential for HIV transmission. The final model was established using backward elimination to include only those variables that were independently associated ($p < .05$) with a preference for condomless sex in SEM. All analyses were conducted using Stata 12.1 (StataCorp, 2011).

Results

As shown in Table 1, the average age of participants was 33.58 years (SD 11.01), with slightly younger participants (*M* 29.53, SD 10.34) significantly more likely to report a preference for condom-protected SEM. The majority of the sample identified as gay (46 %) or bisexual (40 %). Over three-quarters of the men reported a preference for condomless sex in SEM ($n = 514$, 78.7 %). In bivariate analyses, a preference for condomless sex in SEM differed by self-identified sexual orientation; men who identified as gay were more likely to report a preference for condom-protected SEM, whereas men who self-identified as bisexual or heterosexual were more likely to prefer condomless sex in SEM. Preferences for condomless sex in SEM were also significantly associated with a variety of risk behaviors, including engaging in transactional sex; alcohol misuse; use of multiple drugs in the past 3 months; condomless anal intercourse and serodiscordant condomless anal intercourse (both as the receptive and insertive partner) in the past 3 months. Further, participants who reported a preference for condomless sex in SEM endorsed greater agreement with sexual risk cognitions, lower condom use self-efficacy, and lower sexual risk perceptions compared to men who reported a preference for condom-protected SEM.

In the multivariate logistic regression analysis (Table 2), reporting a preference for condomless sex in SEM was independently related to self-identifying as bisexual (AOR = 1.63, 95 % confidence interval (CI) 1.03, 2.59), engagement in transactional sex (AOR = 1.62, 95 % CI 1.03, 2.55), and greater agreement with sexual risk cognitions (AOR = 2.44, 95 % CI 1.87, 3.18). No other variables were shown to be independently associated with preferring condomless sex in SEM.

Discussion

Despite evidence suggesting that preferences for condomless sex in SEM may be contributing to sexual risk taking among MSM, there has been a paucity of research attempting to explore the characteristics of men who prefer condomless sex in SEM among Black/African American MSM. In this sample, preferring condomless sex in SEM was independently associated with self-identifying as bisexual, engaging in transactional sex, and

Table 1 Sociodemographic and sexual behavior-related characteristics of 653 Black/African American men who have sex with men by preferences for condom use in sexually explicit media (SEM)

Sociodemographics	Bareback/raw SEM $n = 514$ n (%)	Condom-protected SEM $n = 139$ n (%)	p value
Some college or higher education	348 (68)	101 (73)	.26
Sexual orientation			<.001
Gay	217 (43)	84 (61)	
Bisexual	216 (42)	43 (31)	
Heterosexual	77 (15)	11 (8)	
Definitely "out" about sexual orientation	187 (37)	64 (46)	.04
Exclusive primary partner	73 (14)	23 (17)	.49
Any STI in the past 3 months	78 (15)	21 (15)	.98
Transactional sex	305 (59)	47 (34)	<.001
Sociodemographics	M (SD)	M (SD)	M (SD)	p value
Age	33 (11)	33 (11)	30 (10)	<.001
Substance use/mental health				
AUDIT-C score	4.3 (2.9)	4.5 (3.0)	3.8 (2.4)	.02
No. of types of drugs used (3 months)	1.3 (1.3)	1.4 (1.4)	0.8 (1.1)	<.001
CESD-10 score	10.3 (6.4)	10.4 (6.4)	9.9 (6.3)	.39
Sexual behaviors in the past 3 months				
No. of CAI encounters	5.1 (8.8)	5.6 (8.9)	3.3 (8.0)	<.01
No. of serodiscordant CAI encounters	2.3 (6.9)	2.7 (7.5)	0.9 (3.2)	.01
No. of serodiscordant insertive CAI encounters	1.3 (5.4)	1.6 (6.0)	0.4 (1.8)	.02
No. of serodiscordant receptive CAI encounters	1.0 (3.0)	1.1 (3.2)	0.5 (2.0)	.06
Sexual risk beliefs				
SRCQ	2.5 (1.1)	2.7 (1.1)	1.9 (0.9)	<.001
Condom use self-efficacy scale	5.2 (1.0)	5.1 (1.1)	5.6 (0.8)	<.001
Risk perception scale	7.5 (1.7)	7.3 (1.7)	7.9 (1.3)	<.001

Fisher's exact and t tests were conducted on all categorical and continuous variables, respectively

AUDIT-C Alcohol Use Disorders Identification Test, *CESD-10* Center for Epidemiologic Studies Short Depression Scale, *CAI* condomless anal intercourse, *SRCQ* Sexual Risk Cognitions Questionnaire

Table 2 Multivariate analysis of factors associated with a preference for bareback/raw sexually explicit media (SEM) among 653 Black/African American men who have sex with men

	Bareback/raw SEM $n = 514$ n (%)	Condom-protected SEM $n = 139$ n (%)	Crude OR (95 % CI)	AOR (95 % CI)
Sexual orientation				
Gay	217 (43)	84 (61)	Ref	Ref
Bisexual	216 (42)	43 (31)	1.9 (1.3–2.9)	1.6 (1.0–2.6)
Heterosexual	77 (15)	11 (8)	2.7 (1.4–5.3)	1.8 (0.9–3.9)
Transactional sex	305 (59)	47 (34)	2.9 (1.9–4.2)	1.6 (1.0–2.5)
	M (SD)	M (SD)		
SRCQ	2.7 (1.1)	1.9 (0.9)	2.6 (2.0–3.4)	2.4 (1.9–3.2)

OR odds ratio, *AOR* adjusted odds ratio, *CI* confidence interval, *SRCQ* Sexual Risk Cognitions Questionnaire

reporting greater agreement with sexual risk cognitions, but not with actual engagement in serodiscordant condomless anal intercourse.

Participants who self-identified as bisexual had an increased odds of reporting a preference for condomless sex in SEM compared to gay-identified participants. Although not necessarily bisexually identified, Black/African American men who are behaviorally bisexual (i.e., men have sex with men and women [MSMW]) are more likely to engage in sexual risk behaviors (particularly with women), transactional sex, and substance use compared to Black/African American men who only have sex with other men (Myers, Javanbakht, Martinez, & Obediah, 2003; Wheeler, Lauby, Liu, Van Sluytman, & Murrill, 2008). It is possible that bisexually identified Black/African American MSM may be attracted to SEM that imitates their own sexual behaviors (i.e., both gay- and heterosexual-oriented SEM) which could help to illuminate the relation we are seeing between self-identifying as bisexual and reporting a preference for condomless sex in SEM. Specifically, heterosexual-oriented SEM is less likely to portray condom use compared to gay-oriented SEM (Grudzen et al., 2009). Viewing both gay- and heterosexual-oriented SEM may expose bisexually identified Black/African American MSM to more condomless sex and, in turn, shape their SEM condom use preferences.

Engaging in transactional sex was also independently associated with a preference for condomless sex in SEM among our sample. Transactional sex is conceptualized as a risk factor for HIV due, in part, to the power dynamics introduced into the sexual relationship. Specifically, the differential social or economic positions of the sexual partners is thought to result in a greater likelihood of physical or sexual violence or abuse, inability to negotiate condom use, substance use and abuse, as well as psychological distress (Biello, Colby, Closson, & Mimiaga, 2014), all of which are linked to increased HIV risk among Black/African American MSM (Dyer et al., 2012). Considerable power dynamics are also portrayed in SEM featuring Black/African American MSM. Black/African American MSM in SEM have an economic incentive to participate in the portrayed sexual behaviors and are often depicted as either longing to be submissive/dominated, or presented as men to be feared as a result of their ability to emasculate their partners through physical domination (Kendall, 2004a). The portrayed power dynamics (Kendall, 2004b) and decreased likelihood of condom use (White et al., 2015) in SEM featuring Black/African American MSM may serve to both trigger and reinforce a preference for condomless sex in SEM.

Among our sample, increasing agreement with sexual risk cognitions was associated with increasing odds of preferring condomless sex in SEM. Sexual risk cognitions are conceptualized as risk-escalating thoughts that occur in the heat-of-the-moment of potential sexual risk taking (Shah et al., 1997) and appear to play a role in the decision to engage in condomless sex among MSM (Beck et al., 2003; Gold & Skinner, 1992; Imrie et al., 2001; Nelson et al., 2011; Shah et al., 1997). Specifically, it has been shown that risk-taking MSM engage in a heat-of-the-moment "internal dialogue" or "self-talk" of justifications when they participate in risky sexual behaviors (Gold, 1993, 2000; Gold & Skinner, 1992). It is possible that men who engage in more self-justifications for their own sexual risk taking would apply these same cognitions to the risks being portrayed in SEM, making it more palatable for them to view condomless sex despite the known risks. Alternatively, it may be that men who prefer viewing condomless sex in SEM are more likely to be risk takers themselves and thus more likely to engage in these risk-justifying cognitions.

Interestingly, reported engagement in serodiscordant condomless anal intercourse did not remain significantly associated with a preference for condomless sex in SEM in the multivariate model. This result appears in conflict with the two previous studies in this area, which found that a preference for male–male condomless anal intercourse in SEM was positively associated with engagement in condomless anal intercourse among MSM (Nelson et al., 2016; Rosser et al., 2013), although only one of those studies showed a positive association with serodiscordant condomless anal intercourse (Nelson et al., 2016). Given our results it is possible that a preference for condomless sex in SEM is not related to actual engagement in serodiscordant condomless anal intercourse among Black/African American MSM. Previous research has indicated multiple reasons that MSM may view condomless anal intercourse in SEM. Specifically, MSM report that condomless anal intercourse in SEM looks more natural, reminds them of what sex could be like if HIV/AIDS was not a health concern, and is more arousing (Nelson et al., 2014b). As such, it may be that viewing condomless anal intercourse in SEM among Black/African American MSM is a reflection of existing desires and fantasies rather than a reflection of their sexual behaviors. Unfortunately we do not have data in this study that measures reasons for viewing condomless anal intercourse in SEM. Additional research exploring relations between preferences for condom use in SEM, reasons for viewing condomless anal intercourse, and sexual behaviors among Black/African American MSM is warranted.

This study has several limitations that should be kept in mind when thinking about the results. A prominent limitation of this study, and the majority of research in this area, is the cross-sectional design, which precludes inferences about causality or even temporal sequencing, and removes our ability to determine whether viewing specific sexual behaviors in SEM leads to those behaviors, or if those who already engage in those sexual behaviors are more likely to seek out those behaviors in the SEM that they view. The current study also did not assess for actual exposure to male–male condomless anal intercourse in SEM, thus we were unable to parse out potential differences between actually viewing condomless anal intercourse between men and having a preference for it, and we did not assess reasons for their preferences. Additionally, the response options for the

question about preferences about condom use in SEM were "bareback/raw pornography" or "condom-protected pornography." As such, the question does not specifically assess for preferences for male–male condomless anal intercourse in SEM and instead asks more broadly about a preference for "bareback/raw" sex in SEM. Although it is likely, given the historical origins of the phrase "bareback/raw" sex (Berg, 2009), that the men in this sample interpreted the phrase "bareback/raw pornography" to be referring specifically to condomless anal intercourse between men, we do not have the ability to fully assess how this phrase was interpreted by the participants. Furthermore, we did not assess whether men engaged in viral sorting practices with HIV-seropositive partners (i.e., a risk reduction strategy based on the perception that an undetectable viral load reduces HIV transmission risk during condomless anal intercourse), which limits our ability to better understand the nuances of preferences for SEM and HIV transmission risk. The current study was also conducted among MSM who reported sexual risk for HIV infection during study recruitment. As such, the generalizability may be limited to Black/African American MSM who report sexual risk taking.

Given the challenges of reaching and engaging Black/African American MSM in each step of the HIV treatment cascade, including evolving biomedical prevention strategies such as pre-exposure prophylaxis (PrEP; Eaton, Driffin, Bauermeister, Smith, & Conway-Washington, 2015; Levy et al., 2014; Sullivan et al., 2012), one strategy for reaching Black/African American MSM may be through SEM. There are several benefits to this approach, including increasing the ability to reach Black/African American MSM who may not be "out" or feel comfortable accessing the gay-specific services or venues where the majority of HIV prevention interventions are conducted in the U.S. (Peterson & Jones, 2009; Saleh, Operario, Smith, Arnold, & Kegeles, 2011). First, though, it will be important to conduct additional research more thoroughly exploring the role these media play in the sexual health of Black/African American MSM. This research should be grounded in contemporary, formative work to fully appreciate the potentially nuanced relations between SEM and sexual health, including the extent to which SEM exposure alters norms and expectations about sexual risk behavior among Black/African American MSM, and how this could potentially be leveraged for HIV prevention purposes, including the provision of education about PrEP and other biomedical prevention strategies. Moreover, in addition to SEM consumers, it will be critical to include SEM producers, clinicians, and public health professionals in these endeavors to determine the feasibility of integrating SEM and HIV prevention in a way that is both entertaining and educational.

Although this article focused on some of the potential negative effects of SEM on Black/African American MSM's sexual health, it is important to highlight that SEM has also been associated with many positive contributions, including helping MSM increase their knowledge about sex between men (Hald et al., 2013; Kubicek et al., 2011; Nelson et al., 2014a); become more comfortable with their sexuality (Nelson et al., 2014a); seek friendships and sexual partners (Kubicek et al., 2011); and potentially validate attraction and create community (Hald et al., 2013). Interventions attempting to capitalize on SEM use among MSM will need to highlight and maintain the potential positive while attempting to decrease the potential negative contributions of SEM on the sexual health of MSM.

The inclusion of HIV prevention messages in SEM is acceptable to most MSM (Wilkerson, Iantaffi, Smolenski, Horvath, & Rosser, 2013). Although this is the case, the SEM industry may be unwilling to accommodate the integration of HIV prevention interventions or messaging into SEM it is producing. As evidence suggests that eroticizing safer sex leads to more risk-preventative attitudes and, in turn, less risk behaviors (Scott-Sheldon & Johnson, 2006), it may be more productive to think about ways to eroticize safer sex, including through SEM portraying condoms use, PrEP use, and regular testing and treatment for HIV and other STIs, in HIV prevention interventions moving forward. An alternative approach would be to integrate media literacy techniques into HIV prevention interventions. Effective media literacy interventions acknowledge the positive attributes of media while challenging media misinformation (Potter, 2013). Media literacy techniques targeting SEM could help educate MSM about the power of media to shape norms, examine the intent and biases of media producers, and equip MSM to become more critical consumers of the sexual health messages presented in SEM (Albury, 2014; Nelson & Carey, 2016). As SEM use is nearly universal among MSM (Rosser et al., 2013; Stein et al., 2012) and may be contributing to the sexual norms and behaviors of Black/African American MSM (Arrington-Sanders et al., 2015; White et al., 2015), addressing SEM in HIV prevention interventions may prove to play an important role in stemming the tide of HIV among Black/African American MSM.

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Compliance with Ethical Standards

Conflict of interest Drs. Nelson, Eaton, and Gamarel declare that they have no conflicts of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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