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Stigma and Sexual Compulsivity in a Community-Based Sample of HIV-Positive Gay and Bisexual Men

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Abstract

A better exploration of factors associated with sexual compulsivity (SC) among various subpopulations may help to explain its etiology, development, and course, as well as provide implications for treatment. Criticisms of SC highlight the need to have a better understanding of SC that takes into account both behavioral and psychosocial variables such as stigma, particularly stigma related to sexual orientation and HIV status. The purpose of this study was to investigate the association of SC with sexual behavior and stigma in a sample of HIV-positive gay and bisexual men. A cross-sectional, street-intercept method was adapted to survey a sample of 127 HIV-positive gay and bisexual males at two large-scale LGBT community events in the fall of 2008 and spring of 2009. We found that the number of recent male sexual partners (AOR = 1.05) and internalized HIV stigma (AOR = 8.20) were significantly associated with SC symptomology, while internalized homonegativity and interpersonal HIV stigma were not. These findings contradict many prominent criticisms of SC while highlighting the need to better understand the

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mechanisms related to the development of SC symptomology and the potential role stigma may have for the psychosexual well-being of HIV-positive gay and bisexual men.

Keywords

Sexual compulsivity; Hypersexual disorder; Sexual behavior; Stigma; Gay and bisexual men; HIV-positive men

Introduction

Psychologists and public health researchers investigating HIV risk transmission have found sexual compulsivity (SC) to be an important construct for examining HIV risk behavior among gay and bisexual men [1–8], and particularly among those who are HIV-positive [3, 9, 10]. Muench and Parsons [3] describe sexual compulsivity as "characterized by sexual fantasies and behaviors that increase in frequency and intensity sufficiently to interfere with personal, interpersonal, and vocational pursuits." Although SC is a term commonly used in research with such populations, both researchers and clinicians have utilized several other names for the range of symptoms that characterize SC, including dysregulated sexual behavior, compulsive sexual behavior, sexual addiction, sexual impulsivity, and hypersexual disorder [11–16]. An article by Kingston and Firestone [13] and another by Kafka and colleagues [12] each provide a recent review of the historical foundations and current status of such a disorder, and Hook and colleagues provide an overview of measures and instruments used to examine it [17]. Numerous authors have also set out to investigate and establish criteria for SC [3, 11–13, 16, 18–20], which typically include a significant amount of time engaging in sexual activity, negative consequences of sexual activity, and psychosocial distress or impairment resulting from sexual activity. Researchers and clinicians are currently considering the inclusion of such a disorder, proposed as hypersexual disorder, in the fifth edition of the *Diagnostic and Statistical Manual of Mental Health Disorders* (*DSM-V*). A better exploration of factors associated with SC among various subpopulations may help to understand its etiology, development, and course, as well as provide implications for treatment [3].

HIV-positive gay and bisexual men are a subpopulation for whom a careful investigation of the mechanisms underlying SC remains important. These men may experience societal and internalized stigma based on both their sexual orientation and HIV status. Both homonegativity and HIV stigma may be related to a person's sexual well-being, and thus may be related to SC. Research on HIV stigma has shown that some people with HIV feel "dirty" sexually or see themselves as potential vectors of HIV transmission [21–23]. Further, some studies have examined the association of internalized homonegativity or HIV stigma with sexuality or sexual risk behavior [24–26] and others with SC specifically [27, 28]. However, we are unaware of any published studies to date that simultaneously examine the associations of both HIV stigma and homonegativity with SC.

Stigma may be incorporated into peoples' self-concepts, leading them to view themselves negatively, adopt stigmatizing attitudes about themselves, or develop negative views of their own sexuality and sexual behavior [29]. These findings suggest that a complex relationship

exists between stigma, SC, and sexual behavior. Furthermore, it has been recommended that treatments for SC be tailored to target specific difficulties such as HIV status and stigma [3, 5, 25]. Reece and colleagues have also suggested that interventions designed to reduce sexual risk behavior with HIV-positive clients may require a focus on SC [5, 10]. A better understanding of the associations between stigma and SC among HIV-positive gay and bisexual men will help in the development and implementation of such programs.

Despite its demonstrated usefulness as a construct, criticisms of SC have been raised over time. In part because the definition includes potentially subjective criteria (e.g., defining frequent or intense) and relies on culturally-dependent constructs (e.g., defining interpersonal or vocational difficulties), various critiques of SC exist in the literature [30]. Theorists and researchers have suggested that the concept of SC is based on the patholigization of stigmatized forms of sexual behavior rather than an actual disorder [30, 31]. Concerns have been raised that above-average frequency of sexual behavior may be the driving factor behind SC, and may not constitute a disorder [14]. Some have raised concerns that shame or guilt associated with sexual behavior may be enough to lead to the distress used to support claims that SC is a disorder, regardless of the types of sexual behavior involved or their frequency [15]. Each of these critiques of SC typically assumes that it is viewed as disordered only because the behavior is non-normative and socially stigmatized, and thus any distress associated with the behavior results from internalization of societal stigmatization, rather than an internally-based pathology.

Although critiques of SC raise important questions about its conceptualization, they have typically relied on theoretical evidence, while empirical reports typically demonstrate that SC is a meaningful and important construct in research on sexual health [1, 9, 32–34]. The criticisms, however, do highlight the need to have a better understanding of SC that takes into account both behavioral and psychosocial variables such as stigma, particularly stigma related to sexual orientation and HIV status. Because both sexual orientation-based stigma and HIV stigma have been found to be associated with sexuality and sexual well-being for HIV-positive gay and bisexual men, we were interested in examining each of their unique associations with SC [27, 35–37]. Furthermore, because stigma can involve either stigmatization from the outside world or negative feelings about one's stigmatized status, both interpersonal and internalized HIV stigma were investigated. The analyses were undertaken to examine sexual behavior, internalized homonegativity, internalized HIV stigma, and interpersonal HIV stigma in their associations with SC in a sample of HIV-positive gay and bisexual men.

Methods

Participants and Procedures

Data for this manuscript were taken from the *Sex and Love Study Version 7.0*, a diverse community-based sample of gay and bisexual men in New York City. All procedures were reviewed and approved by the Institutional Review Board of Hunter College of CUNY. A cross-sectional, street-intercept method [38] was adapted by the research team to recruit participants at two large annual events for the LGBT community in the fall of 2008 and spring of 2009. These methods have been utilized previously by the research team [39–41]

as well as other researchers [42–45], including those focused on gay and bisexual men [46–50], and research suggests they produce results comparable to more rigorous methods, such as time–space sampling [51].

At each two-day long community event, the research team hosted a booth. Consistent with those methods described by Miller and colleagues [38], trained staff members approached all potentially eligible participants throughout the duration of the event and the method was employed to enroll all possible people attending each event. Each refusal to participate was tracked by the research team. The response rate was high and consistent with that described by Miller and colleagues [38], with 85.2% of those who were approached providing verbal consent to participate. Participants were eligible if they were at least 18 years of age and reported sex with other men. To enhance confidentiality, participants were given a clipboard with the survey so that they could step away from the booth and complete it in privacy. The anonymous survey included questions on demographics, gay/bisexual identity, sexual behaviors, substance use, and HIV-related thoughts and took approximately 15–20 min to complete. Participants were provided a voucher for free admission to a movie as compensation for completing the survey. Survey data were entered into an SPSS database and were examined by staff for accuracy and completeness. A total sample of 930 men completed this version of the survey.

Measures

Sexual Compulsivity—Participants completed Kalichman and colleagues' Sexual Compulsivity Scale (SCS) [34, 52], the most widely used measure of SC with gay and bisexual men [17]. The SCS consists of ten items (e.g., "my desires to have sex have disrupted my daily life") which are rated on a Likert-type scale from 1 (*not at all like me*) to 4 (*very much like me*). Responses to each item are summed to get an overall score (range 10–40). The SCS had high inter-item reliability in this sample used for analyses ($\alpha = .91$) and has been shown to have high reliability and validity across multiple studies [17]. A score of 24 or higher was found to distinguish those with the highest levels of sexual compulsivity (typically above the 80th percentile or 1.5 standard deviations above the mean) in research conducted by the authors of the scale as well as several later studies conducted with MSM [2, 9, 17, 32, 53–56]. Similarly, the cutoff of 24 fell between the 80th and 85th percentile for SC scores in the current sample. As such, this was considered a reliable cutoff indicative of those experiencing SC symptomology for the current analyses.

Number of Sexual Partners—To examine the extent to which sexual behavior occupied a significant amount of time in participants' lives, they were asked to report the number of male sex partners they had in the prior 90 days. Participants were asked to indicate the number of recent sexual partners of HIV seroconcordant, unknown, and serodiscordant status. The questions were open-ended and responses were summed to obtain a total number of recent sexual partners. Participants who indicated that they were sexually active with only a main partner in the prior three months were instructed to skip this section and were coded as having only one partner in the past 90 days.

Internalized Homonegativity—The Personal Homonegativity subscale of the Internalized Homonegativity Inventory [57] was administered to measure internalized stigma related to sexual orientation. The subscale consists of 11 items (e.g., "I sometimes resent my sexual orientation") that are rated on a Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Responses to the 11 items were averaged to form an overall score (range 1–7), with higher scores indicating higher levels of internalized homonegativity ($\alpha = .96$).

Interpersonal and Internalized HIV Stigma—Participants completed a selection of 15 items from the HIV Stigma Scale [58]. Eight items were drawn from the Disclosure Concerns subscale (e.g., "I am very careful who I tell I have HIV/AIDS") in order to measure interpersonal HIV stigma. Seven items were drawn from the Negative Self Esteem subscale (e.g., "Having HIV/AIDS makes me feel like a bad person") in order to assess the extent to which participants had internalized stigma as negative self-concept. Items were rated on a Likert-type scale from 1 (*strongly disagree*) to 4 (*strongly agree*). Items from the subscales were averaged to form the two subscale scores, with higher scores indicating greater levels of stigma. Inter-item reliability was high for both the Disclosure Concerns subscale ($\alpha = .83$), and the Negative Self-Esteem subscale ($\alpha = .82$) with the current sample of HIV-positive gay and bisexual men.

Analysis Plan

All analyses were completed using the Statistical Package for the Social Sciences (SPSS) version 17.0. All variables of interest for the analyses were assessed for deviations from normality by examining means and standard deviations as well as skew and kurtosis statistics. Because the number of recent sex partners was positively skewed and kurtotic (as indicated by statistics each exceeding a value of 2.0), they were transformed using the natural log. This transformed variable was compared with the untransformed version in the final model to assess the impact of violations from normality on the model. Although the log-transformed score significantly reduced skew and kurtosis of the variable, the use of the transformed variable did not significantly impact model fit. As such, the untransformed version was used in the final model to improve interpretability.

We examined demographic differences in SC symptomology using Fisher's exact tests. Next, independent between-groups *t*-tests were used to examine the differences in each of the four stigma and sexual behavior variables by SC symptomology. To examine associations among sexual behavior and the three forms of stigma, bivariate Pearson's *r* correlations were conducted. Finally, a logistic regression adjusted for race was conducted in three steps with the dichotomous indicator of SC symptomology as the outcome. The number of recent sexual partners was entered in the first step, followed by internalized homonegativity in the second step, and the two forms of HIV stigma in the final step.

Although logistic regression was chosen to provide more easily interpretable results, logistic regression may be compromised due to the low proportion of cases displaying symptoms of SC. To assess this potential limitation, the final model was also run in a linear regression with SC score as a continuous variable, and a similar trend of significance and patterns in the coefficients were found. This analysis suggests that the estimates for the model are reliable

with both least-squares estimation used in linear regression as well as with the maximum likelihood techniques used in logistic regression.

Results

Of the 930 men who completed the survey, 17% (n = 158) reported being HIV-positive. Of these men, 22 men were excluded due to missing sexual partner data, six men due to missing HIV stigma data, two men due to missing homo-negativity data, and one due to missing SC data. The final sample (n = 127) did not significantly differ from the participants with incomplete or missing data on any of the other variables of interest in this analysis (i.e. homonegativity, HIV stigma, and SC). As can be seen in Table 1, the sample was diverse in terms of racial and ethnic background, education, income, and relationship status, and most were over age 30. Fisher's exact tests were used to compare dichotomous indicators of demographic variables (e.g., Black vs. non-Black, White vs. non-White, etc.) with SC symptomology. Race was the only variable significantly associated with SC symptomology (i.e., SCS score ≥ 24), with a higher proportion of Black men displaying SC symptomology than non-Black men (p = .05). As such, the multivariate analyses were adjusted for race (coded as Black = 1, non-Black = 0). The average score on the SCS in the current sample was 17.3, with a median of 15.0 and standard deviation of 7.7. It is interesting to note that this mean did not differ significantly from that of the HIV-negative men in the sample (M = 16.7, SD = 6.7; p = .15).

Bivariate Associations Among Sexual Behavior and Stigma with SC

Participants experiencing symptoms of SC were significantly different from those who were not on one of the four variables of interest. As shown in Table 1, those experiencing symptoms of SC reported significantly higher levels of internalized HIV stigma than those who did not (p < .001). Those with higher levels of SC symptomology also reported marginally higher levels of internalized homonegativity. Bivariate Pearson's correlations were conducted to assess the degree of association among the continuous variables of interest. The number of male sexual partners in the past three months was not significantly associated with any of the other variables (all *ns*). Internalized HIV stigma was associated with both internalized homonegativity (r = .43, p < .001) and interpersonal HIV stigma (r = .48, p < .001).

Associations of SC with Number of Partners, Internalized Homonegativity, and HIV Stigma

The results of a binary logistic regression with SC symptomology entered dichotomously (1 = yes, 0 = no) as the outcome is presented in Table 2. The analysis was adjusted for race (coded as Black = 1, non-Black = 0) based on associations found in bivariate analyses. The untransformed number of recent male sexual partners was entered into the model in step 1. A higher number of partners (interquartile range 1–12) was significantly associated with greater odds of reporting SC symptomology, AOR = 1.04, 95%CI [1.01, 1.07]. The addition of internalized homo-negativity in the second step was neither significant itself nor did it improve model fit.

In the final step, both interpersonal and internalized HIV stigma were entered simultaneously. The addition of these two variables in the third step significantly improved model fit, as indicated by the significance of the step and model Chi-square statistics and a substantial drop in the −2 log likelihood (all displayed in Table 2). Interpersonal HIV stigma was not significantly associated with SC symptomology. Internalized HIV stigma was significantly associated with SC symptomology, such that a one unit increase on the measure of internalized HIV stigma (range 1–4) was associated with an 8.20 times higher odds of exhibiting SC symptomology. This indicates that, compared to those with the lowest levels of internalized HIV stigma, those reporting the highest levels have more than 500 times the odds (OR = 551.37) of exhibiting SC symptomology. The number of sexual partners remained significant in the final step with an adjusted odds ratio indicating a 1.05 times odds increase in SC symptomology for each additional recent sexual partner.

This adjusted odds ratio indicates that a man with 10 recent sexual partners has approximately 1.55 times the odds (or a 55% higher odds) of displaying symptoms of SC than a man with one recent partner. Alternatively, with 61 recent partners, the maximum in the current sample, the odds of displaying SC symptomology are approximately 20 times higher (OR = 19.61) than a participant with one partner. A comparison between a man with one partner to one with 130 partners in 30 days would have to be made to reach a similar odds ratio as that obtained from comparing a man scoring a one versus a four on internalized HIV stigma.

Discussion

In these analyses with a diverse sample of 127 HIV-positive gay and bisexual men, we found that the number of recent male sexual partners and internalized HIV stigma were significant predictors of SC symptomology, while internalized homonegativity and interpersonal HIV stigma were not. Both internalized homonegativity and interpersonal HIV stigma were associated with internalized HIV stigma, but neither was found to be significantly associated with SC symptomology or number of recent sexual partners. Furthermore, we found an unanticipated association between race and SC symptomology, indicating that the prevalence of SC symptomology was higher among Black men than men of other races. These results suggest that a greater number of recent sexual partners and internalized HIV stigma may be related to SC for HIV-positive gay and bisexual men, while other forms of HIV stigma and internalized homonegativity may not be. These findings contradict many prominent criticisms of SC [14, 15, 30, 31] while highlighting the need to better understand the mechanisms related to the development of SC symptomology and the potential role stigma may have for the psychosexual well-being of HIV-positive gay and bisexual men.

Some researchers have maintained that SC is simply the patholigization of those who engage in above-average amounts of sexual behavior [14]. Although not a direct indicator of sexual frequency, the number of recent sexual partners indicates the amount of time spent in search of sex as well as engaging in sex with unique partners. If this critique were accurate, we would expect that the number of recent sexual partners a person has should be very strongly associated with SC, and should explain a high amount of variability in SC symptomology. The current findings provide little evidence in support of such critiques of SC. We found that

a tenfold increase in the number of recent sexual partners (from 1 to 10) was associated with a 50% increase in the odds of displaying SC symptomology. Although this is a meaningful difference in odds of displaying SC from both a practical and statistical standpoint, the effect size of number of sexual partners is significantly less than that for internalized HIV stigma, indicating it is not the predominant feature of SC. Were the number of partners a central feature of SC, a much stronger association would be expected. The more prominent role of stigma in the analyses provides additional evidence against criticisms of SC that claim it is primarily driven by amount of sexual behavior or sexual partners. Furthermore, any apparent association between number of sexual partners and SC symptomology may be confounded or mediated by other variables, such as the extent to which sexual activity interferes with daily life—a central component of many definitions of SC.

In our sample of HIV-positive men, we found no association between internalized homonegativity and SC. Previous studies have found that HIV-positive gay and bisexual men report higher levels of SC and lower internalized homonegativity than HIV-negative men [2, 59] and that internalized homonegativity is positively associated with SC among gay and bisexual men [27, 36]. More research is needed to determine whether the association between internalized homonegativity and SC is different for HIV-positive and HIV-negative men. Some critiques of SC indicate that it is a mechanism through which stigmatized sexual behaviors become pathologized [30, 31]. These findings do not appear to support such critiques of SC. Higher levels of internalized homonegativity are likely to be associated with more negative feelings about engaging in same-sex sexual behaviors. If societal stigmas about sex (such as negative beliefs about same-sex sexual behavior) were primary contributors to SC, those higher in internalized homonegativity would be expected to display greater SC symptomology. However, the current analyses did not support the notion that stigma associated with sexual orientation was related to SC among this sample of HIV-positive gay and bisexual men.

The strong association between internalized HIV stigma and SC raises important questions about the mechanisms that may underlie this association, and there are several possible explanations. Research has suggested that HIV stigma is associated with peoples' negative feelings about their sexuality [35, 37], and this association may foster negative feelings about engaging in sexual behavior or distress after having sex. One possible explanation for their association is that both SC and internalized HIV stigma may be related to HIV-positive men's negative feelings about their sex lives. Thus, the association between the two may be confounded or mediated and the result of a third, unmeasured variable (e.g., sexual conservativism or sexual shame), and may provide some support to claims that SC is the result or manifestation of societal stigmas [30, 31].

Alternative hypotheses may propose a more direct association between internalized HIV stigma and SC. For example, men with high levels of internalized HIV stigma may engage in sexual activity as a way of coping with these negative feelings about themselves [60], which may be associated with increased symptoms of SC. Alternatively, researchers have found an association between higher HIV stigma and higher rates of HIV risk behavior [25]. It is possible that SC influences engagement in risk behavior, consequently leading men to feel more negatively about themselves as HIV-positive and potential sources for new

infections. In fact, researchers have found that those higher in internalized HIV stigma are more worried about spreading HIV [61], which could be associated with having increased rates of sexual risk behavior as a result of SC. In total, our findings highlight the importance of carefully considering the definition of SC and the potential role that stigma may play for HIV-positive gay and bisexual men.

Limitations

A primary limitation of the current study is the sample size of 127 men. While this is an adequate sample size for analyses, findings must always be interpreted with caution, and null findings cannot be assumed to indicate a true lack of difference between groups. The cross-sectional data used for this study provide only preliminary evidence of a potential association between internalized HIV stigma and SC. Furthermore, due to the brief nature of the survey, potential confounders, mediators, or moderators could not be measured or tested to help explain the associations. The study relied on a sample of men recruited from two large LGBT events in New York City. Although we adapted an intercept survey method adapted by Miller and colleagues [38], these data were from a community-based rather than random or probability-based sample. Generalizability of the results is limited by the extent to which living in a large urban area and being comfortable attending LGBT community events may not be fully characteristic of the gay and bisexual population.

The presence of SC symptomology for the current study was based on an established threshold identified in previous studies. Because no diagnostic criteria from the American Psychiatric Association currently exist, this scale measures symptomology based on theory and empirical work for use in research. As such, the outcome in the current study does not represent an established psychiatric diagnosis of a sexual disorder [2, 32, 53–55]. Because men self-reported their HIV statuses, those with the highest levels of stigma may not have been comfortable disclosing their status and may be underrepresented in the current study.

We used a paper-and-pencil survey, and the number of sexual partners was assessed as a free response that was left blank by some participants. The use of mobile technology (e.g., tablet devices) in future research might help reduce missing data. Furthermore, some critiques of SC focused on frequency of sexual behavior rather than number of sexual partners, which was unable to be examined within the current analyses. Future studies should examine if frequency of sexual behavior is more related to SC than was the number of recent partners.

Conclusions

These data suggest that internalized HIV stigma may be associated with symptoms of SC for HIV-positive gay and bisexual men, while other forms of HIV stigma and internalized homonegativity may not be. Although the nature of the association between SC and HIV stigma requires further investigation, we believe these data raise important considerations for clinicians and researchers working on issues related to SC. Clinicians should examine the potential role of HIV stigma with their HIV-positive clients who present with difficulties such as SC and remain aware of its potential impact on psychosexual well-being. We found that inwardly directed negative thoughts about oneself as HIV-positive were associated with SC symptomology, while interpersonal HIV stigma and internalized homonegativity were

not. Practitioners working with HIV-positive gay and bisexual men might consider briefly assessing such inwardly directed negative cognitions as a potential means of informing care and improving psychosexual outcomes. Similarly, those working with HIV-positive clients presenting with SC or a similar hypersexual difficulty may benefit from a brief assessment of negative self-schemas related to HIV and sexuality as a possible means of informing treatment.

Future researchers should carefully design studies to gain a better understanding of which behavioral, cognitive, and psychosocial variables are associated with SC as well as to begin to examine the mechanisms of these associations. Although this study was limited to only those variables utilized in the analyses, future studies should simultaneously examine previously identified factors associated with SC along with multiple forms of stigma to examine the relative association of each. Men displaying symptoms of SC in this sample had a higher number of recent male partners than those not displaying symptoms, indicating the need to consider differences between highly sexually active gay and bisexual men with and without symptoms of SC. Research is needed to investigate a sample of all highly sexually active gay and bisexual men stratified by SC symptomology or to enroll and match SC and non-SC men on their numbers of recent partners to control for these behavioral differences.

To our knowledge, no longitudinal research with HIV-positive gay and bisexual men has been published examining the development and course of SC, particularly as it relates to HIV diagnoses and the development of HIV stigma. Future longitudinal studies should be designed to gain a much more sophisticated understanding of the association between SC and HIV stigma. Finally, as the American Psychiatric Association considers the inclusion of a diagnosis similar to SC in the *DSM-V*, they should consider the diversity of ways in which such a disorder may develop and manifest across varying populations. For example, clinicians may need to utilize exclusionary criteria that take into account the stigmatized social identities of clients that may be related to negative psychosexual well-being prior to diagnosis with a sexual disorder.

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Table 1

Demographic Characteristics by Sexual Compulsivity Symptomology

	Non-SC *n* = 104		SC *n* = 23		
Variable	***n***	**%**	***n***	**%**	**Fisher's exact *p*-value[a]**
Sexual identity					
Gay	99	95.2	19	82.6	.06
Bisexual	5	4.8	4	17.4	–
Relationship status					
Single	44	42.3	11	47.8	.40
Partnered	60	57.7	12	52.2	–
Ethnicity					
Black	20	19.2	9	39.1	.05*
Latino	34	32.7	3	13.0	.08
White	43	41.3	10	43.5	.99
Other	7	6.7	1	4.3	.99
Education level					
Less than bachelor's	50	48.1	10	43.5	.82
Bachelor's or more	52	50.0	13	56.5	.65
Did not report	2	1.9	0	0.0	.99
Age					
18–29	10	9.6	0	0.0	.21
30–44	57	54.8	13	56.5	.99
45+	37	35.6	10	43.5	.48
Income					
Under $20K	26	25.0	6	26.1	.99
$20K to $60K	44	42.3	8	34.8	.64
$60K or more	32	30.8	7	30.4	.99
Did not report	2	1.9	2	8.7	.15
	M	*SD*	*M*	*SD*	*t* (*df*)

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	Non-SC		SC		
	n = 104		*n* = 23		
Variable	***n***	**%**	***n***	**%**	**Fisher's exact *p*-value[a]**
# of recent sexual partners	5.70	10.66	12.35	18.07	−1.70 (25.49)
Homonegativity	1.94	1.62	2.50	1.71	−1.49 (125)
Interpersonal HIV stigma	2.34	0.85	2.70	0.75	−1.88 (125)†
Internalized HIV stigma	1.62	0.66	2.46	0.77	−5.33 (125)***

$^{\dagger}p = .06$;

$^{*}p < .05$;

$^{***}p < .001$

[a]Fisher's exact tests for each demographic characteristic were computed for each row compared to all other rows (e.g., Black vs. non-Black, etc.). The result of the Fisher's exact test is a *p*-value, and as such no additional statistics or confidence intervals are able to be reported. See Agresti [62] for further information

Table 2

Logistic and OLS regressions on sexual compulsivity symptomology for HIV-positive gay and bisexual men

	Logistic regression									OLS regression		
	Step 1			Step 2			Step 3					
	B	AOR	95% CI	B	AOR	95% CI	B	AOR	95% CI	B	*β*	95% CI
Number of partners	0.04	1.04*	[1.01, 1.07]	0.04	1.05**	[1.01, 1.08]	0.05	1.05**	[1.01, 1.09]	0.15	.24**	[0.05, 0.24]
Homonegativity				0.24	1.27	[0.98, 1.65]	−0.15	0.86	[0.58, 1.26]	0.05	.01	[−0.72, .82]
Interpersonal HIV stigma							−0.43	0.65	[0.26, 1.61]	0.13	.01	[−1.40, 1.65]
Internalized HIV stigma							2.10	8.20***	[2.81, 23.95]	5.28	.52***	[3.40, 7.17]
Step $\chi^2(df)$			9.43(2)**			3.09(1)			24.45(2)***	*F*		12.94***
Model χ^2 (*df*)						12.52(3)**			36.97(5)***	*df*		(5, 121)
Nagelkerke R^2			0.12			0.15			0.41	R^2		0.35
−2 log likelihood			110.73			107.64			83.19			

n = 127; Both models are adjusted for race (coded as 1 = Black, 0 = non-Black)

CI Confidence interval, *AOR* Adjusted odds ratio

* *p* <.05,

** *p* <.01,

*** *p* <.001

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