Published in final edited form as:

J Sex Res. 2019 ; 56(4-5): 620–631. doi:10.1080/00224499.2018.1453042.

The Role of Self-Conscious Emotions in the Sexual Health of Gay and Bisexual Men: Psychometric Properties and Theoretical Validation of the Sexual Shame and Pride Scale

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Abstract

Researchers have theorized about the role of sexual shame as a mechanism through which sexual minority stress manifests into mental health difficulties such as sexual compulsivity for gay and bisexual men (GBM), and about the resilience-promoting effects of sexual pride. However, no validated measures to date to have directly tapped into these constructs rather than using proxies for them, such as internalized homonegativity. We developed the Sexual Shame and Pride Scale (SSPS) and conducted a psychometric evaluation of it using a sample of 260 highly sexually active GBM. The scale had the expected structure in factor analysis and showed evidence of internal consistency and test-retest reliability. Correlational analyses demonstrated the convergent validity of sexual shame and sexual pride with relevant constructs. Regression analyses demonstrated the predictive validity of sexual shame in relation to sexual compulsivity, accounting for unique variability even after adjusting for previously demonstrated etiological factors, and the predictive validity of both shame and pride, which interacted to consistently predict four sexual behavior outcomes. Findings suggest the SSPS is a psychometrically valid and reliable measure that may be useful in future empirical work and highlight preliminary evidence for the role of these constructs in the sexual health of GBM.

Keywords

sexual compulsivity; minority stress; scale development; mental health; sexual behavior

Gay and bisexual men (GBM) continue to be heavily and disproportionately impacted by the HIV epidemic as well as other sexually transmitted infections (STIs) that undermine their sexual health (Centers for Disease Control and Prevention, 2017). Psychosocial problems

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such as minority stress (i.e., stigma-related stressors unique to sexual minorities; Hatzenbuehler, 2014; Meyer, 2003; Pachankis, Rendina, et al., 2015) and syndemic factors (i.e., co-occurring and mutually reinforcing psychosocial problems such as depression and polysubstance use; Mustanski, Garofalo, Herrick, & Donenberg, 2007; Parsons, Grov, & Golub, 2012) have been theorized as mechanisms that contribute to the increased sexual risk behaviors that lead to higher likelihood of such infections. Although certain sexuality-specific variables like sexual compulsivity have received significant attention in this literature, emotional responses about one's sexuality like shame and pride have scarcely been empirically investigated.

Sexual compulsivity, defined as frequent, hard to control sexual fantasies, urges, or behaviors that cause distress or impairment in important life domains such as work and close relationships (Black, 2000), disproportionately affects GBM compared to heterosexual men (Baum & Fishman, 1994; Missildine, Feldstein, Punzalan, & Parsons, 2005). Sexual compulsivity often co-occurs with other mental health problems and has been empirically demonstrated to be strongly associated with HIV risk behavior and infection (Dew & Chaney, 2005; Parsons et al., 2017; Parsons, Rendina, Ventuneac, Moody, & Grov, 2016; Ross, Rosser, Neumaier, & Team, 2008; Woolf-King et al., 2013). One possible explanation for the disproportionate experience of sexual compulsivity among GBM is the social stigma associated with one's sexual orientation (i.e., sexual minority stress), which can be internalized over time and result in negative attitudes toward one's sexuality. Internalized homonegativity has been linked to sexual compulsivity (Rendina, Golub, Grov, & Parsons, 2012; Ross et al., 2008) and identified as a promising treatment target for interventions designed to improve the sexual health of GBM (Hatzenbuehler, 2014; Huebner, Davis, Nemeroff, & Aiken, 2002; Pachankis, Hatzenbuehler, Rendina, Safren, & Parsons, 2015).

Although limited research has examined the mechanisms underlying the association between internalized homonegativity and sexual compulsivity, existing evidence suggests that the feeling of shame surrounding one's own sexuality might play an important role. Shame is a self-conscious emotion that occurs when a person fails to achieve his or her own expectations; it drives both negative feelings and internalized maladaptive cognitions through self-attribution of global failure (Johnson & Yarhouse, 2013; Tangney, 1996). Characterized by the perception of oneself as undesirable and unworthy, shame is closely linked to internalized homonegativity and has been associated with syndemic factors that often co-occur with sexual compulsivity and are linked to HIV risk, including depression, anxiety, and substance use (Hequembourg & Dearing, 2013; Mereish & Poteat, 2015). Case studies and clinical guidance further suggest that *sexual shame* (i.e., shame surrounding one's sexual thoughts, feelings, and behaviors) is an important factor driving compulsive sexual behaviors (Adams & Robinson, 2001), which might be of particular relevance to GBM given the pervasive negative societal attitudes towards same-sex sexual behaviors. Unlike guilt, which is associated with negative attributions about a *specific and discrete* sexual act, partner, or behavior (Tangney, 1996), sexual shame represents global attributions about one's self as sexual that may pose a sufficient identity threat to impact the cognitive, affective, and behavioral symptoms that characterize sexual compulsivity.

Uncertainty regarding the etiologic and conceptual underpinnings of sexual compulsivity at least partially contributes to its lack of attention in diagnostic nomenclature (Balon, Segraves, & Clayton, 2007; Halpern, 2011; Hook, Hook, Davis, Worthington Jr, & Penberthy, 2010; Kafka, 2010; Kaplan & Krueger, 2010; Kingston & Firestone, 2008). Yet a growing body of literature suggests that shame around one's sexual behavior might be a key contributor to the emergence and maintenance of sexual compulsivity among GBM (Christensen et al., 2013; Gilliland, South, Carpenter, & Hardy, 2011; Pachankis, Rendina, et al., 2015). In particular, rather than the sexual behavior itself being problematic, the cognitive-affective factors driving such behavior might turn out to be the defining symptom that characterizes the experience of sexual compulsivity. Emotion regulation models of sexual compulsivity suggest that shame about one's sexual behavior might be a primary or even sole driver of the behavior, as an individual comes to associate sexual behavior with the reinforcing properties of reducing the shame subsequent to that behavior (Kafka, 2010; Kingston & Firestone, 2008; Pachankis, Rendina, et al., 2015). However, empirical investigations of the role of sexual shame in the etiology of sexual compulsivity have relied on constructs such as internalized homonegativity—which conflate shame about one's sexual behavior with other forms of shame (e.g., shame about one's sexual orientation)—due to the lack of a measure specific to sexual shame.

While there are a range of positive and negative emotions, there are four discrete *self-conscious emotions*—shame, guilt, embarrassment, and pride—of which pride is the only one that is positive (Tracy, Robins, & Tangney, 2007). Researchers have theorized about and begun to examine the impact that sexual pride may have on mental health and sexual behavior. For example, Meyer (2003) described the role of socially supportive environments (e.g., those that provide feelings of community connectedness and belonging) in fostering identity pride and buffering against minority stress. Identity pride has also been linked to stronger affiliations with the sexual minority community, which may in turn diminish internalized homonegativity and reduce HIV (Herrick, Egan, Coulter, Friedman, & Stall, 2014; Herrick et al., 2011; Herrick, Stall, Goldhammer, Egan, & Mayer, 2014). Although little research has examined the impact of sexual pride (i.e., positive affective reactions to sexual thoughts, feelings, and behaviors that influence one's view of the self), it is possible that assessing sexual pride, in conjunction with sexual shame, can provide unique information about emotion-driven sexual health outcomes, such as sexual compulsivity. Even within the few published papers reviewed above that mention it, the focus on sexual pride has typically been minimal and at times tangential, likely due in large part to a lack of operational definition and a valid measure to assess it.

Previous studies have used various measures to examine shame (Harder & Lewis, 1987; Rizvi, 2010; Watson, Clark, & Tellegen, 1988). Although reliable and widely used, these scales operationalize shame as a broad and general construct and not sexual shame, specifically; as such, they capture global feelings of shame but might not accurately reflect the specific determinants of sexual shame among GBM. Another problem with these general shame measures is their interchangeable use of shame and other constructs such as guilt (Rizvi, 2010). We are unaware of any prior measures specific to sexual shame and sexual pride as distinct sexual, self-conscious emotions, though potentially related and overlapping constructs such as sexual self-schema, sexual assertiveness, sexual self-consciousness,

sexual self-esteem, and sexual satisfaction have been measured (Snell, 1998a, 1998b). Given the lack of operationally defined and validated instruments, developing reliable measures that assess and specifically capture sexual shame and sexual pride can be instrumental to understanding and addressing sexual compulsivity among GBM.

In the present study, we sought to develop a reliable and valid quantitative measure of sexual shame and pride (the Sexual Shame and Pride Scale; SSPS), with the goal of assessing both forms of self-conscious emotions among GBM specifically in the sexual context. The overall aims of this paper were to: (1) conduct psychometric analyses to investigate the factor structure, reliability, and validity of SSPS; (2) test the predictive validity of the sexual shame subscale by examining its independent effect on sexual compulsivity adjusting for other factors empirically demonstrated to underlie its etiology; and (3) test the predictive validity of both the shame and pride subscales by examining their main and interaction effects on sexual behaviors.

With regard to evidence of convergent validity, we hypothesized that sexual shame would be positively associated with sexual compulsivity and the affective, cognitive, and minority stress factors that have been shown to influence the etiology of sexual compulsivity in the literature reviewed above (i.e., anxiety, depression, emotion dysregulation, maladaptive cognitions about sex, and internalized homonegativity). In contrast, we hypothesized that sexual pride would be negatively associated with the previously mentioned scales. With regard to establishing predictive validity of sexual shame, we hypothesized that sexual pride would be an independent predictor of sexual compulsivity holding constant all the other etiologic factors that have been empirically demonstrated to be associated with sexual compulsivity in prior research. As further evidence of the predictive validity of both sexual shame and sexual pride, we hypothesized that sexual shame would be associated with a greater frequency of sexual partnering and sexual behavior, but that pride would buffer these effects in line with research suggesting sexual pride as a resilient and risk-buffering factor for GBM. As such, we tested for both main and interaction effects of the sexual shame and pride subscales in predicting these behaviors, again adjusting for sociodemographic and other psychosocial factors that have been associated with sexual behavior (i.e., anxiety, depression, emotion dysregulation, maladaptive cognitions about sex, and internalized homonegativity).

Method

Participants and Procedures

Data for these analyses were drawn from *Pillow Talk*, a longitudinal study that focused on issues related to sexual compulsivity among highly sexually active GBM in New York City. The primary goal of the study was to enroll both HIV-negative and HIV-positive GBM who were similar with regard to the amount of sexual behavior in which they were engaging but vary in the extent to which these behaviors were causing problems in their lives that were consistent with sexual compulsivity. From February of 2011, participants were enrolled via a brief, phone-based screening interview to confirm eligibility, defined as: (1) being at least 18 years of age; (2) being biologically male and self-identifying as male; (3) having at least 9 male sexual partners in the prior 90 days; (4) self-identifying as gay or bisexual; (5) being

able to complete assessments in English; and (6) having daily access to the internet to complete internet-based portions of the study. Specifics of the study procedures have received considerable attention in prior papers (Pachankis, Rendina, et al., 2015; Parsons et al., 2013; Parsons et al., 2016). Participation in the study involved both at-home (online) and in-office assessments over the course of one year. Analyses for this paper were conducted using data from an optional 9-month survey that was added onto the study and the study's final 12-month follow-up. Data were collected for these interviews from mid-2012 through mid-2014. All procedures were reviewed and approved by the Institutional Review Board of the City University of New York.

Measures

All quantitative measures used for these analyses were completed as part of the at-home survey. During the 9-month (i.e., Time 1) survey, participants completed the SSPS subscales and then completed them again at the 12-month (i.e., Time 2) survey along with several other psychosocial measures of interest and an in-person timeline follow-back interview of their sexual behavior. After providing consent to continue with the survey [at 12 months], participants first completed the sexual compulsivity measures and the demographic questionnaire. All subsequent measures were grouped into thematic blocks (e.g., stigma, sexuality, mental health); the order of blocks within the survey and measures within blocks were both randomized in order to evenly distribute the order effects that can result from serial positioning and priming. Descriptive statistics for each scale, including Cronbach's alpha, are presented within the results.

Background characteristics.—Participants were asked to report several demographic characteristics including age, race/ethnicity, sexual orientation, relationship status, and HIV status. With the exception of age, which was assessed using a free-response format, demographic characteristics were assessed using standard predefined response options and, when necessary, were condensed into meaningful categories, which are displayed in Table 1

Sexual shame and pride.—Participants completed the Sexual Shame and Pride Scale (SSPS). We developed the scale by first examining relevant existing measures (e.g., the Multidimensional Sexual Self-Concept Questionnaire; Snell, 1998b) to generate ideas for item content. The first author of this manuscript then generated a list of potential items and consulted with expert colleagues, including the fourth and fifth authors on this manuscript (a clinical psychologist and a developmental psychologist) as well as two social psychologists to further refine the item content. The SSPS contains a total of 16 items and we hypothesized the presence of two subscales. Each of the two subscales was designed to contain eight items intended to measure feelings of sexual shame (e.g., "I often feel embarrassed by the sexual activities I like") or sexual pride (e.g., "I don't have difficulty telling my partners about what I do or don't like sexually"), which were rated on a Likert-type scale from 1 (*Not at all like me*) to 6 (*Exactly like me*). Additional psychometric properties are the focus of this manuscript and presented within the Results section.

Sexual compulsivity.—Participants completed the Sexual Compulsivity Scale (SCS; Kalichman, Kelly, Johnson, & Bulto, 1994; Kalichman & Rompa, 2001). The SCS is the

most widely used measure of sexually compulsive behaviors, sexual preoccupations, and sexually intrusive thoughts with GBM (Hook et al., 2010) and consists of ten items (e.g., “my desires to have sex have disrupted my daily life”). Each item was rated on a scale from 1 (*not at all like me*) to 4 (*very much like me*). Responses were summed across items to form an overall score (range 10–40). The SCS has been shown to have high reliability and validity across multiple studies (Hook et al., 2010).

Depression and anxiety.—Participants completed the 12-item Depression and Anxiety subscales of the Brief Symptom Inventory (BSI; Derogatis, 1975). Each of the two subscales contain six items intended to measure the symptoms of depression (e.g., “Feeling hopeless about the future”) or anxiety (e.g., “Feeling so restless you couldn’t sit still”) in the prior week. Participants rated each item on a scale ranging from 0 (*Not at all*) to 4 (*Extremely*) and an overall score was calculated by averaging across the 12 items to form a single index of general mood-related and anxious symptomology.

Emotion dysregulation.—Participants completed the 36-item Difficulties with Emotion Regulation Scale (Gratz & Roemer, 2004) that measures general problems regulating emotions as well as six specific domains of difficulty with emotion regulation – non acceptance of emotional responses (e.g., “When I’m upset, I become embarrassed for feeling that way”), difficulties engaging in goal-directed behavior (e.g., “When I’m upset, I have difficulty focusing on other things”), impulse control difficulties (e.g., “I experience my emotions as overwhelming and out of control”), lack of emotional awareness (e.g., “I am attentive to my feelings”; reverse-coded), limited access to emotional regulation strategies (e.g., “When I’m upset, I believe that I will remain that way for a long time”), and lack of emotional clarity (e.g., “I have no idea how I am feeling”). Each subscale contains between four and six items to which participants respond on a scale from 1 (*Almost never [0–10%]*) to 5 (*Almost always [91–100%]*). For the purposes of this paper, we utilized the full scale score, calculated as the sum across the 36 items.

Maladaptive cognitions about sex.—Participants completed the Maladaptive Cognitions about Sex Scale (Pachankis, Rendina, Ventuneac, Grov, & Parsons, 2014), a 17-item scale containing three general domains of maladaptive cognitions: magnifying the necessity of sex (Magnified Necessity subscale; e.g., “I need sex to feel good about how I look”), disqualifying the benefits of sex (Disqualified Benefits subscale; e.g., “Sex does more harm than good”), and minimizing one’s self-efficacy for controlling sexual thoughts and behaviors (Minimized Self-Efficacy subscale; e.g., “Just thinking about sex usually leads me to seek it out”). Participants rated each item on a scale from 1 (*Never*) to 5 (*All of the time*). Average scores for each subscale were calculated, allowing comparability across each.

Internalized homonegativity.—Participants completed the Internalized Homophobia Scale (Herek, Cogan, Gillis, & Glunt, 1998), which contains nine items (e.g., “I feel that being gay/ bisexual is a personal shortcoming for me”). Each item was rated on a scale from 1 (strongly disagree) to 5 (strongly agree). Item responses were averaged to form an overall score ranging from 1 to 5.

Sexual behavior outcomes.—Participants completed a computerized timeline follow-back interview of sexual behavior and substance use (Crosby, Stall, Paul, Barrett, & Midanik, 1996; Sobell, Brown, Leo, & Sobell, 1996; Sobell & Sobell, 1992; Weinhardt et al., 1998) at their 12-month visit that captured behaviors during the 6 weeks (i.e., 42 days) prior. Using a computerized TLFB calendar, a research assistant coded for whether any substance use or sexual activity occurred on a given day. On days when sex occurred, detailed behavior was recorded for each sex partner, including the types of sexual behavior with that partner (e.g., oral sex, anal sex with and without a condom). From the data collected, we calculated four aggregate variables of sexual behavior. We calculated two partner-level summary variables—the total number of sexual partners reported, which included main, repeat casual, and first-time casual partners, and the number of first-time sex partners, which serves as an index of one-time sexual partnerships. We also calculated two behavioral summary variables—the total number of anal sex acts with male partners (of any type) reported, which serves as an index of frequency of sexual behavior, and the total number of condomless anal sex (CAS) acts with male partners (of any type) reported, which serves as an index of frequency of behavior that is a risk for acquisition and transmission of STIs, including HIV. At the time data collection for this study began, pre-exposure prophylaxis (PrEP) had not yet been FDA-approved, and thus we did not collect data on PrEP status of partners. Moreover, we included main partners in the calculation of sexual behavior variables because of the nature of this particular sample—all men were engaging frequently in casual sex regardless of whether they had a main partner, meaning that sex with a main partner may still present a risk for acquisition or transmission of HIV and STIs.

Data Analysis

All analyses were conducted in SPSS version 24. To assess the dimensionality of SSPS, we conducted an exploratory factor analysis (EFA) of the Time 1 SSPS data utilizing maximum likelihood extraction and Oblimin (i.e., oblique) rotation with Kaiser normalization. We examined the scree plot and the ratio of the eigenvalues to determine the appropriate number of factors and set a threshold of 0.50 as evidence of a meaningful factor loading. Upon final determination of scale content, we calculated subscale scores by averaging across items. To examine the internal consistency of the scale, we calculated Cronbach's alpha statistics for both Time 1 and Time 2 scores. To examine test-retest reliability, we present both intraclass correlation (ICC) and Pearson correlation coefficients between T1 and T2 scores for both shame and pride. For the calculation of the ICCs, we requested two-way mixed effects models with the type specified as consistency and utilized the output for average measures.

To examine evidence of construct validity of the SSPS subscale scores, we examined Pearson's correlation coefficients between both Time 1 and Time 2 SSPS scores and 12-month scores for all other relevant constructs. To provide evidence of predictive validity for the shame subscale, we conducted a linear regression predicting sexual compulsivity using a stepwise approach to examine the change in explained variability at each step. We entered age, race, relationship status, and HIV status in the first step; anxiety and depression, emotion dysregulation, the three maladaptive cognitions about sex subscales, and internalized homonegativity (all from Time 2) in the second step; and entered the scores for the Time 1 measure of sexual shame in the final step.

Finally, to examine predictive validity of both the shame and pride subscales with regard to behavioral outcomes, we examined their main and interaction effects on four sexual behavior outcomes—number of male partners, number of anal sex acts, and number of CAS acts. We conducted a series of negative binomial regressions predicting each of these three count outcomes measured at Time 2. We entered demographic variables, other relevant psychosocial correlates from the prior models (all measured at Time 2), the scores for the Time 1 measures of the sexual shame and pride subscales, and their interaction simultaneously. In all models, we allowed the dispersion parameter (i.e., the parameter that accounts for variance in the outcome) to be freely estimated.

Results

Of the 376 highly sexually active GBM enrolled at baseline, 260 (69.1%) agreed to participate in the optional 9-month (i.e., Time 1) survey and *also* returned for their 12-month (i.e., Time 2) assessment and were therefore included within the analytic sample. We compared those who were and were not included and found no differences between the two groups on race, sexual identity, HIV status, or relationship status; the groups also did not differ significantly on sexual compulsivity scores (the SSPS was not administered at baseline and thus comparisons cannot be made). However, five participants did not complete in-office appointments at Time 2 (i.e., the 12-month assessment) and thus were excluded from analyses focused on sexual behavior. As can be seen in Table 1, more than half of the sample were men of color and nearly half were HIV-positive. The majority of the sample was gay-identified and not currently in a relationship.

Examination of Factor Structure

The results of the EFA are presented in Table 2. The scree plot suggested that a two-factor model was appropriate to the data and this was supported by the ratio of the eigenvalues: the first was 1.5 times greater than the second, the second was 3.5 times as large as the third, whereas the third was nearly equal to the fourth (and both were below 1.0), suggesting a flattening of the scree line after the second factor (Eigenvalue 1 = 5.17, Eigenvalue 2 = 3.37, Eigenvalue 3 = 0.96, Eigenvalue 4 = 0.89). As can be seen in Table 2, all of the hypothesized shame items loaded above the threshold of 0.50 onto one factor and far below the threshold on the second, and the converse was true of the hypothesized pride items.

Examination of Reliability

Cronbach's alpha statistics suggested good internal consistency for both 9-month shame ($\alpha = 0.88$) and pride ($\alpha = 0.74$) as well as 12-month shame ($\alpha = 0.90$) and pride ($\alpha = 0.83$). As can be seen in Table 3, shame scores at the 9-month ($M = 2.51$, $SD = 1.19$) and 12-month ($M = 2.44$, $SD = 1.16$) assessments were between the low end and midpoint of the range of response options and similar in magnitude, whereas those for pride ($M = 5.14$, $SD = 1.01$ at 9-month; $M = 4.86$, $SD = 1.19$ at 12-month) were closer to the highest end of the response options and appeared to slightly decrease over time. The ICC for the shame subscale across the two time-points was 0.75, suggesting that three-quarters of the variability in scores was due to stable between-person differences. Similarly, the ICC for the pride subscale was 0.64, suggesting a good degree of consistency in scores. As can be seen in Table 3, the Pearson's

correlation for the two time-points of the shame subscale was 0.60 and for the pride subscale was 0.48. Overall, these findings suggest somewhat more stability in shame scores than pride scores over time.

Examination of Construct Validity

Table 3 shows the bivariate associations among the 9-month and 12-month SSPS subscale scores and 12-month psychosocial variables of interest. As can be seen, both 9-month and 12-month shame were positively associated with all hypothesized constructs, with effect sizes in the small-to-moderate range—the largest association was between 9-month shame and 12-month maladaptive cognitions in which participants disqualified the benefits of sex. Similarly, we hypothesized that all of the associations with 9-month and 12-month pride would be negative, which was true for all but three correlations that were less than 0.05 and not statistically significant—effect sizes for these were also smaller than for shame. The construct that showed the largest magnitude correlation with the pride subscale was emotion dysregulation, which was consistent across time points.

Examination of Predictive Validity

Table 4 presents the results of two linear regression analyses predicting sexual compulsivity by sexual shame after adjusting for demographic factors and other known correlates. As can be seen in Model 1, there were no demographic associations with sexual compulsivity at any step. Maladaptive cognitions regarding the magnified necessity of sex and minimized self-efficacy for controlling sexual behavior were significantly and positively associated with sexual compulsivity in both the second and third steps; maladaptive cognitions in which participants disqualify the benefits of sex were non-significant in the second step but increased in magnitude and were significantly negatively associated with sexual compulsivity upon the entry of sexual shame in the third step (each of these findings is consistent with prior research already demonstrating these effects with this sample, for which we were simply adjusting in the present study; Pachankis et al., 2014). Both emotion dysregulation and internalized homonegativity were significantly positively associated with sexual compulsivity in the second step but decreased in magnitude and became non-significant upon the entry of sexual shame in the third step. The entry of sexual shame in the third step predicted an additional 4% of the variability in sexual compulsivity beyond what was predicted by the other steps and the model overall explained 37% of the variability in sexual compulsivity. Shame was the second strongest predictor of sexual compulsivity, with only the Minimized Self-Efficacy subscale of the Maladaptive Cognitions about Sex scale being more strongly associated.

In the final models displayed in Table 5, we examined the main and interaction effects of sexual shame and pride in predicting sexual behavior adjusting for demographic and other psychosocial variables. Across all four models, we observed a consistent pattern—there was no significant main effect of sexual shame but there was a significant, positive main effect of sexual pride, and there was also a significant negative interaction effect between sexual shame and pride (in the case of number of CAS acts, the interaction was only marginally significant at $p = 0.06$, but consistent with the three prior effects). The four interactions are plotted in Figure 1. As can be seen, individuals with lower-than-average levels of both

shame and pride had the highest number of total partners, first-time partners, anal sex acts, and CAS acts; although pride independently acted to increase each of these, its effect was attenuated among those who also experienced higher-than-average levels of sexual shame. In all four models, differences between various points were clinically meaningful (e.g., nearly 10 versus 4 anal sex acts).

Discussion

Although sexual shame has often been theorized about and, in some cases, hypothesized to be driving the associations observed between other variables such as minority stress and relevant outcomes, we are unaware of any direct measures of the construct. Similarly, sexual pride has been proposed to be an important resilient factor for sexual minority individuals, though again, has yet to be measured directly. As such, the present study provided a psychometric investigation and subsequent conceptual validation of the SSPS, a new measure designed to capture the self-conscious emotions of shame and pride specifically related to sex. The scale was found to have the expected two-factor structure and demonstrated good internal consistency and test-retest reliability. The scale performed as hypothesized, with shame being positively associated with negative outcomes such as depression, anxiety, and internalized homonegativity, and pride being either negatively correlated or uncorrelated with these constructs. Unlike prior investigations, which often hypothesized a role for sexual shame in the sexual health of GBM but addressed it indirectly through related but distinct concepts like internalized homonegativity, the present study was able to test the role of sexual shame directly and independent of other such factors. In doing so, we found that sexual shame was a strong predictor of sexual compulsivity measured three months later. Sexual shame and pride were found to be only slightly negatively correlated, suggesting they are distinct constructs rather than opposite ends of a continuum and might interact to influence sexual health, which we tested in relation to four sexual behavior outcomes. Contrary to hypotheses, there was no main effect of sexual shame and there was a positive, risk-enhancing effect of sexual pride on all four outcomes—however, this was in the context of a significant interaction. Results showed that sexual shame and pride interacted in their influence on sexual behavior in a consistent pattern across all four outcomes. Specifically, individuals with low levels of sexual shame and high levels of sexual pride reported the highest number of partners, first-time partners, anal sex acts, and CAS acts, but these associations were attenuated among those with concurrently high levels of sexual shame. Taken together, these findings highlight the importance of direct measurement of self-conscious emotions as they relate to sexual health, and we discuss several of the substantive findings and their implications below.

Several factors have been examined in relation to the etiology of sexual compulsivity, including sexual minority stress (e.g., internalized homonegativity, internalized HIV stigma), difficulties with emotion regulation, and maladaptive patterns of thinking about sexual behavior (Pachankis, Hatzenbuehler, Rendina, et al., 2015; Pachankis, Rendina, et al., 2015; Rendina et al., 2017; Rendina et al., 2012). Relatedly, it has been hypothesized that sexual shame might strongly contribute to the cognitive, affective, and behavioral patterns that underlie the syndrome of sexual compulsivity (Rendina et al., 2012). However, such hypotheses have generally only been indirectly tested by utilizing measures of stigma that

likely tap into but are distinct from sexual shame—namely, internalized stigma about one’s sexual minority identity or HIV-positive status. This is the first study, to our knowledge, that has directly and quantitatively measured sexual shame and tested its association with sexual compulsivity. Bivariate correlations between sexual shame and sexual compulsivity—whether shame was measured three months prior or concurrently—were moderate in effect size. Subsequent multivariable models adjusted for a wide range of the previously identified factors associated with sexual compulsivity showed that sexual shame was indeed significantly and independently associated with increased levels of sexual compulsivity, with an effect that remained moderate in size and explained an additional 4% of the variability in sexual compulsivity. Though a seemingly minor addition, this represents novel variability that was not tapped into by previously examined etiologic factors, many of which are well-established, and it was the second strongest predictor in the model with these other variables. Importantly, both internalized homonegativity and emotion dysregulation—two of the main components of the minority stress model of sexual compulsivity—became non-significant upon entry of sexual shame into the models. These findings may indicate additional points in the mediational pathway whereby internalized homonegativity leads to the development of negative self-schemas of same-sex sexuality as negative. For example, perhaps the inability to regulate such negative self-conscious sexual affect (i.e., shame) leads to the cascade of negative cognitive, affective, and behavioral symptoms characteristic of sexual compulsivity.

Additional findings regarding sexual shame highlight its validity as a measure of shame—a global self-evaluative emotion—rather than guilt, which is specific to a discrete behavior (Tangney, 1996). Associations between shame and mental health variables measured here were medium-to-large in size, and this was true even when they were measured three months after shame was assessed. Though they are not directly related to sexuality, depression and anxiety as well as emotion dysregulation had correlations with sexual shame in the range of 0.3 to 0.5. In fact, the correlation between sexual shame and these two mental health variables was nearly as large as the correlation the two had with one another. This suggests that sexual shame, despite being domain-specific, represents a global self-evaluative schema that may exert a significant negative impact on general psychological functioning. Further underscoring the global nature of sexual shame—in contrast with guilt about specific sexual acts, behaviors, or partners—is the fact that it had no main effect in predicting sexual behaviors themselves, despite our hypothesis to the contrary. These results highlight the centrality of sexuality-related emotions to the wellbeing of GBM and the importance of culturally competent and tailored interventions to address the specific mental health needs of GBM (Pachankis, Hatzenbuehler, Rendina, et al., 2015; Pachankis, Rendina, et al., 2015; Pachankis et al., 2014).

Some have proposed that sexual pride may operate as a resilient factor among GBM (Herrick et al., 2011; Herrick, Stall, et al., 2014), buffering against negative outcomes in the face of adversity. Although not directly tested herein, the present analyses suggest that this assertion may only be true for general mental health outcomes such as anxiety and depression or emotion dysregulation. Indeed, sexual pride was unrelated to sexual compulsivity and appeared to actually exacerbate HIV-risk behavior. Specifically, we found a main effect of sexual pride scores on increased numbers of sexual partners, first-time sexual partners, anal sex acts, and CAS acts. Moreover, there was a significant interaction

between sexual shame and pride whereby the impact of pride—which was to increase the number of all four outcomes—was attenuated among those with higher levels of sexual shame. While not all of these variables are evidence of sexual risk in isolation, the consistent pattern across all four outcomes suggests a risk-enhancing effect of sexual pride. To the extent that sexual pride is an endpoint of the coming out process, these results are consistent with findings that sexual orientation concealment is protective against HIV risk (Pachankis, Hatzenbuehler, Hickson, et al., 2015). Given these preliminary findings regarding the complex interplay of sexual shame and pride on sexual health, future research is warranted across a broader range of outcomes and populations.

The present study highlights the potentially important roles of sexual shame and pride in the sexual health of gay and bisexual men, and future research and improvements of the scale will help to better demonstrate the reliability and validity of these preliminary findings. To the extent these initial findings are replicated in future studies, they suggest that intervention approaches simultaneously designed to promote sexual pride and reduce sexual shame may help protect against HIV risk among GBM. An emerging body of evidence suggests that individual, couples, and group interventions can achieve this goal (Chaudoir, Wang, & Pachankis, 2017). For instance, the *ESTEEM* intervention, consisting of 10 cognitive-behavioral modules for reducing the emotional consequences of stigma-related stress among young sexual minority men, has shown preliminary efficacy in a waitlist controlled trial for reducing both internalized homophobia as well as sexual risk outcomes, such as sexual compulsivity and CAS with casual partners 3- and 6-months later (Pachankis et al., 2015); an adapted version of this intervention has also shown promise for HIV-positive GBM with high levels of sexual compulsivity (Parsons et al., 2017). One benefit of this type of intervention is that it both affirms expressions of identity pride around same-sex sexuality while also promoting skills to enhance sexual safety. Future tests of these interventions might assess sexual shame and pride to determine if these interventions might impact these sexuality-related self-conscious emotions as potential mechanisms of their effects in the same way that related constructs have been considered (e.g., internalized homophobia, relationship investment).

Strengths and Limitations

The sample consisted of highly sexually active GBM in New York City, which is a population with higher-than-average levels of sexual compulsivity, mental health difficulties, and risk behaviors as well as a greater prevalence of HIV compared to GBM more broadly (Pachankis, Rendina, et al., 2015; Pachankis et al., 2014; Parsons, Rendina, Moody, Ventuneac, & Grov, 2015; Parsons et al., 2016). As such, this was an ideal sample in which to consider the role of sexual shame and pride, though these unique characteristics also limit the generalizability of the findings about this scale to GBM more broadly and, in particular, to non-GBM populations. Future research on this scale with more diverse samples is needed.

We measured sexual shame and pride three months prior to the outcomes of interest to demonstrate temporal precedence, but it is impossible to determine causality. Feedback loops might exist whereby GBM with greater amounts of sexual behavior, including sexual behavior perceived to be highly intimate such as CAS (Starks, Payton, Golub, Weinberger, &

Parsons, 2014), also develop higher levels of sexual pride; this hypothesis should be tested in future longitudinal designs with several time points. We considered it a strength to be able to adjust for empirically-supported predictors of sexual compulsivity and sexual behavior as well as investigate the interaction between sexual shame and pride. However, sexual shame and pride may also have non-linear associations with sexual health outcomes whereby moderate levels of each are beneficial and more extreme levels prove problematic. We were unable to test such hypotheses of non-linearity within this study given the already complex nature of the models, including the interaction term, and this is an important area for future research. Finally, the present study is limited by those biases which are characteristic of all self-report studies with a convenience sample, including the possibility of self-selection biases, recall biases, and social desirability effects.

Conclusions

We developed and tested the psychometric properties of the Sexual Shame and Pride Scale (SSPS) and found that it had the expected factor structure, evidence of good internal consistency and test-retest reliability, and evidence of convergent and predictive validity. The significant associations between sexual shame and several mental health outcomes not related to sex suggest this measure captures a global, self-evaluative impact consistent with the definition of shame and inconsistent with the definition of guilt, despite being specific to the sexual domain. Sexual shame predicted unique, albeit limited, variability in sexual compulsivity beyond what was captured by other empirically-supported etiological factors and was the second strongest predictor in the model. Moreover, the significant associations minority stress and emotion dysregulation had with sexual compulsivity were reduced to non-significance after accounting for sexual shame, suggesting future sexual minority stress models of sexual compulsivity and mental health should consider the role that sexual shame may play. Sexual pride was associated with increased numbers of sexual partners as well as sexual risk, especially at low levels of sexual shame. While expressions of sexual pride among GBM are resilient by definition given the societal backdrop of stigma surrounding this population (Hatzenbuehler, 2014; Hatzenbuehler et al., 2014; Herrick, Stall, et al., 2014; Pachankis, Rendina, et al., 2015), results of this study suggest that its associations with sexual risk merit nuanced considerations within stigma coping intervention. Future research using and improving upon this scale with diverse populations and additional sexual and mental health outcomes is needed to further explore the centrality of sexual shame and pride to the identities of various groups and how this impacts their health and wellbeing.

Acknowledgements

This project was supported by a research grant from the National Institute of Mental Health (R01-MH087714; Jeffrey T. Parsons, Principal Investigator). H. Jonathon Rendina was supported by a career development award from the National Institute on Drug Abuse (K01-DA039030). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

The authors would like to acknowledge the contributions of the *Pillow Talk* research team: Christian Grov, Ana Ventuneac, Brian Mustanski, Ruben Jimenez, Demetria Cain, and Sitaji Gurung. We would also like to thank the CHEST staff who played important roles in the implementation of the project: Chris Hietikko and Thomas Whitfield, as well as our team of recruiters and interns. Finally, we thank Chris Ryan, Daniel Nardicio and the participants who volunteered their time for this study.

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Figure 1.

Plots of the four interactions between sexual shame and pride in predicting total number of sex partners (upper left-hand plot), number of first-time sex partners (upper right-hand plot), number of anal sex acts with male partners (lower left-hand plot), and number of CAS acts with male partners (lower right-hand plot).

Table 1

Demographic characteristics of the sample (N = 260)

	<i>n</i>	%
Race/Ethnicity		
Black	58	22.3
Latino	36	13.8
White	129	49.6
Other/Multiracial	37	14.2
HIV Status		
Negative	143	55.0
Positive	117	45.0
Sexual Orientation		
Gay, queer, or homosexual	236	90.8
Bisexual	24	9.2
Relationship Status		
Single	182	70.0
Partnered	78	30.0
	<i>M</i>	<i>SD</i>
Age (Range: 18 – 73; Median = 37.0)	37.8	11.7

Table 2.

Results of an exploratory factor analysis of the 16 items on the SSPS.

	Factor 1: Shame	Factor 2: Pride
<u>Sexual Shame</u>		
1. I often feel embarrassed by the sexual activities that I like	0.72	−0.02
2. I'd be ashamed if people knew the kinds of things I have done sexually	0.72	0.04
3. I'm often embarrassed to tell my sexual partners about my sex life	0.65	0.01
4. I tend to feel bad or dirty after sex	0.78	−0.05
5. Shortly after sex, I'm often ashamed of what I have just done	0.82	−0.04
6. I'm often embarrassed about the people who I have sex with	0.70	0.00
7. I often try to hide the people I have sex with or keep them a secret	0.76	0.11
8. I am ashamed by my sexual capabilities	0.71	−0.09
<u>Sexual Pride</u>		
1. I think that I make a great sexual partner	−0.14	0.68
2. I tend to describe my sexual fantasies and/or fetishes to sexual partners	0.02	0.53
3. I'm comfortable being naked in front of my sexual partners	−0.03	0.65
4. I know that I am skilled at performing the kinds of sexual acts that I enjoy	−0.08	0.78
5. There are people with whom I regularly discuss my sex life	0.06	0.57
6. I don't have difficulty telling my sexual partners about what I do or don't like sexually	−0.02	0.56
7. I am comfortable telling my partners what I want or need sexually	−0.01	0.62
8. When I want to have sex with someone, I have no problem approaching them	0.10	0.54

Note: $N = 260$. Rotated factor loadings are presented of Time 1 SSPS items.

Table 3.

Bivariate associations between the SSPS subscales and relevant psychosocial constructs demonstrating convergent validity.

	1	2	3	4	5	6	7	8	9	10	11
1. Sexual Shame (T1)	--										
2. Sexual Pride (T1)	-.35***	--									
3. Sexual Shame (T2)	0.60***	-.35***	--								
4. Sexual Pride (T2)	-.33***	0.48***	-.15*	--							
5. Sexual Compulsivity	0.44***	-.11	0.38***	-.11	--						
6. Depression & Anxiety	0.29***	-.27***	0.40***	-.07	0.31***	--					
7. Emotion Dysregulation	0.49***	-.28***	0.49***	-.30***	0.45***	0.54***	--				
8. MCAS Magnified Necessity	0.26***	0.00	0.32***	0.03	0.45***	0.37***	0.49***	--			
9. MCAS Disqualified Benefits	0.50***	-.27***	0.48***	-.20**	0.22***	0.33***	0.43***	0.30***	--		
10. MCAS Minimized Self-Efficacy	0.34***	-.04	0.42***	0.04	0.49***	0.29***	0.45***	0.64***	0.35***	--	
11. Internalized Homonegativity	0.45***	-.15*	0.35***	-.24***	0.30***	0.19**	0.30***	0.13*	0.32***	0.19**	--
<i>M</i>	2.51	5.14	2.44	4.86	20.28	0.68	75.40	2.42	1.82	2.48	1.56
<i>SD</i>	1.19	1.01	1.16	1.19	7.16	0.74	21.79	0.93	0.81	0.99	0.78
Cronbach's α	0.88	0.74	0.90	0.83	0.92	0.93	0.94	0.89	0.87	0.89	0.92

Note. $N = 260$. T1 = time 1; T2 = time 2. T1 and T2 are 3 months apart, all other scales were measured only at T2.

* $p < 0.05$;

** $p < 0.01$;

*** $p < 0.001$.

Table 4. Examination of the independent association of the sexual shame subscale in predicting sexual compulsivity.

	Sexual Compulsivity								
	Step 1			Step 2			Step 3		
	B	S.E.	β	B	S.E.	β	B	S.E.	β
Age	-0.06	0.04	-0.09	0.01	0.03	0.01	0.02	0.03	0.04
HIV-positive status (Ref: HIV-negative)	0.94	0.94	0.07	0.47	0.78	0.03	0.55	0.76	0.04
Partnered (Ref: Single)	-0.80	0.97	-0.05	-0.30	0.81	-0.02	-0.36	0.79	-0.02
White race (Ref: Non-White)	-0.61	0.94	-0.04	-1.15	0.79	-0.08	-0.86	0.78	-0.06
Anxiety & Depression	--	--	--	0.67	0.60	0.07	0.68	0.59	0.07
Emotion Dysregulation	--	--	--	0.06	0.02	0.19**	0.04	0.02	0.13
MCAS Magnified Necessity	--	--	--	1.20	0.54	0.16*	1.33	0.53	0.17*
MCAS Disqualified Benefits	--	--	--	-0.85	0.52	-0.10	-1.46	0.53	-0.17**
MCAS Minimized Self-Efficacy	--	--	--	2.13	0.50	0.29***	1.90	0.49	0.26***
Internalized Homonegativity	--	--	--	1.53	0.51	0.17**	0.96	0.52	0.11
Sexual Shame (T1)	--	--	--	--	--	--	1.50	0.40	0.25***
Adj. R^2	0.00			0.33			0.37		
R^2	0.00			0.33***			0.04***		
Fchange p -value	0.33			< 0.001			< 0.001		

Note. $N = 260$.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

T1 = time 1; T2 = time 2. T1 and T2 are 3 months apart, and all other scales were measured only at T2.

Table 5.

Examination of main and interaction effects of sexual shame and pride in predicting sexual behaviors.

	Number of Partners			Number of First-Time Partners		
	B	S.E.	ARR	B	S.E.	ARR
Age	0.00	0.00	1.00	0.00	0.01	1.00
HIV-positive status (Ref: HIV-negative)	0.15	0.11	1.16	0.28	0.15	1.33
Partnered (Ref: Single)	-0.27	0.11	0.77 [*]	-0.52	0.16	0.60 ^{**}
White race (Ref: Non-White)	0.46	0.11	1.58 ^{***}	0.61	0.16	1.85 ^{***}
Anxiety & Depression	-0.19	0.09	0.84 [*]	-0.29	0.13	0.75 [*]
Emotion Dysregulation	0.00	0.00	1.00	0.00	0.00	1.00
MCAS Magnified Necessity	0.19	0.07	1.20 [*]	0.18	0.11	1.19
MCAS Disqualified Benefits	0.04	0.08	1.04	0.15	0.11	1.16
MCAS Minimized Self-Efficacy	-0.05	0.07	0.95	-0.05	0.10	0.96
Internalized Homonegativity	0.04	0.08	1.04	0.05	0.11	1.05
Sexual Compulsivity	0.01	0.01	1.01	0.03	0.01	1.03 [*]
Sexual Shame (T1)	0.02	0.07	1.02	-0.02	0.10	0.98
Sexual Pride (T1)	0.18	0.06	1.20 ^{**}	0.24	0.09	1.27 ^{**}
Sexual Shame (T1) × Sexual Pride (T1)	-0.11	0.05	0.90 [*]	-0.16	0.07	0.86 [*]

	Number of Anal Sex Acts			Number of CAS Acts		
	B	S.E.	ARR	B	S.E.	ARR
Age	-0.03	0.01	0.97 ^{***}	-0.03	0.01	0.97 ^{**}
HIV-positive status (Ref: HIV-negative)	0.56	0.14	1.74 ^{***}	1.33	0.22	3.79 ^{***}
Partnered (Ref: Single)	0.18	0.15	1.19	0.68	0.22	1.98 ^{**}
White race (Ref: Non-White)	0.45	0.15	1.57 ^{**}	0.67	0.23	1.95 ^{**}
Anxiety & Depression	-0.03	0.12	0.98	0.18	0.17	1.20
Emotion Dysregulation	-0.01	0.00	0.99	-0.01	0.01	0.99
MCAS Magnified Necessity	0.20	0.10	1.22	0.16	0.15	1.17
MCAS Disqualified Benefits	0.08	0.11	1.08	0.21	0.17	1.24
MCAS Minimized Self-Efficacy	-0.08	0.10	0.92	-0.03	0.15	0.97
Internalized Homonegativity	0.27	0.11	1.30 [*]	0.29	0.16	1.33
Sexual Compulsivity	0.02	0.02	1.02	0.03	0.02	1.03
Sexual Shame (T1)	-0.09	0.10	0.92	-0.12	0.15	0.89
Sexual Pride (T1)	0.30	0.08	1.35 ^{***}	0.52	0.13	1.68 ^{***}
Sexual Shame (T1) × Sexual Pride (T1)	-0.16	0.07	0.86 [*]	-0.20	0.10	0.84

Note. N = 255.

^{*} $p < 0.05$;^{**} $p < 0.01$;^{***} $p < 0.001$.

^aSexual shame and pride subscales are *z*-scored. T1 = time 1; T2 = time 2. T1 and T2 are 3 months apart, and all other scales were measured at T2.

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