



Published in final edited form as:

*Clin Psychol Sci.* 2024 July ; 12(4): 607–624. doi:10.1177/21677026231186789.

## Pressure From Within: Gay-Community Stress and Body Dissatisfaction Among Sexual-Minority Men

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### Abstract

Although intraminority gay community stress has been theorized to affect sexual minority men's body dissatisfaction, this association has not been evaluated quantitatively. In two samples of sexual minority men—one sample recruited from a population-based study of U.S. adults ( $n=424$ ;  $M_{age}=54.29$ ), the other a sample meeting diagnostic criteria for depressive, anxiety, or trauma-/stressor-related disorders ( $n=251$ ;  $M_{age}=26.52$ )—this study investigated associations between gay community stress and body dissatisfaction. In both samples, gay community stress was significantly associated with sexual minority men's greater body dissatisfaction in models that controlled for demographic and minority stress variables. In terms of specific domains of gay community stress, perceptions of the gay community's focus on sex, social status, and social competition were significant correlates of greater body dissatisfaction. Future research can determine the impact of routinely addressing gay community stress in body image and eating disorder treatments for this population.

### Keywords

body image; body dissatisfaction; eating disorders; cultural adaptation; stigma

Sexual minority men (i.e., those who identify as gay, bisexual, or queer; other men who have sex with men) consistently report elevated rates of body image concerns compared to heterosexual men (Frederick & Essayli, 2016; Morrison et al., 2004). Body image is broadly defined as thoughts, feelings, perceptions, and behaviors about one's body (Grogan, 2017) and includes components of both evaluation (i.e., dissatisfaction or satisfaction with one's appearance) and investment (i.e., importance placed upon one's physical appearance; Cash,

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#### Author Contributions

All authors contributed to the development of the research question. Z. A. Soulliard took the lead in writing the manuscript, performing the data analysis, and interpreting the results. M. R. Lattanner assisted in analyzing the data, interpreting the results, and revising the manuscript. J. E. Pachankis assisted in study oversight, writing the manuscript, administering the surveys, analyzing data, and interpreting the results. All authors approved the final manuscript for submission.

#### Declaration of Conflicting Interests

Z. A. Soulliard and M. R. Lattanner have no financial interests to disclose. J. E. Pachankis discloses that he receives royalties from Oxford University Press for books related to LGBTQ-affirmative mental health treatments.

2011; Grogan, 2017). Sexual minority men specifically endorse greater body and weight dissatisfaction (Bhambhani et al., 2019; Calzo et al., 2013; Frederick & Essayli, 2016; Morrison et al., 2004), increased drive for both muscularity and thinness (Calzo et al., 2013; Frederick & Essayli, 2016; Michaels et al., 2013), and social comparison of their bodies (Frederick & Essayli, 2016) compared to heterosexual men. Such body image concerns have been implicated in several mental health disorders among sexual minority men, including eating disorders (Kamody et al., 2020; Parker & Harriger, 2020) and body dysmorphic disorder (Oshana et al., 2020), as well as symptoms of depression and feelings of tension, discomfort, and anxiety in sexual domains (Blashill et al., 2016).

Knowing the specific sources of body image concerns, such as body dissatisfaction, among sexual minority men can help identify intervention targets to alleviate this health-impairing phenomenon (He et al., 2020). To date, minority stress theory (Brooks, 1981; Meyer, 2003), which highlights the disproportionate exposure to stigma faced by sexual minority men, has served as the most prominent framework to conceptualize this population's elevated levels of body dissatisfaction. According to this theory, sexual orientation-related structural disadvantage and discrimination (i.e., distal stressors) cause several stress reactions, including rejection sensitivity, internalized stigma, and identity concealment of one's sexual identity (i.e., proximal stressors), which may in turn negatively influence mental health (Hatzenbuehler, 2016; Meyer, 2003).

Other than minority stress theory, a recently developed theory, derived from evolutionary and sociological theories, specifically locates an additional possible source of body image concerns in sexual minority men's interactions within the gay community itself. Intra-minority gay community stress theory (heretofore referred to as gay community stress theory) suggests that reliance on other men for social and sexual rewards, as is typical among, and perhaps specific to, sexual minority men, can generate unique stressors in the form of masculine, status-related competition for those rewards. Indeed, a reliance on other men for social and sexual relationships may uniquely position sexual minority men to experience status-based stress and associated mental health concerns. Also partially informed by the theory of precarious manhood (Vandello et al., 2008), gay community stress theory posits that masculinity among sexual minority men must be maintained through public demonstration of masculine stereotyped behaviors and avoidance of feminine stereotyped behaviors, even at the cost of challenging mental and behavioral health (Pachankis et al., 2020).

To date, nearly all theoretically informed research on sexual minority men's body image derives from minority stress theory. These studies typically find support for the association between minority stress and body dissatisfaction, body image-related disorders, and eating disorders among sexual minority men (Brewster et al., 2017; Convertino et al., 2021; Kimmel & Mahalik, 2005; Oshana et al., 2020; Wiseman & Moradi, 2010). Particular support exists for the role of internalized stigma (i.e., the process in which a person internalizes negative societal messages about one's minoritized identity and accepts them as applying to oneself) in body dissatisfaction. For instance, meta-analytic evidence finds a small-to-moderate association between internalized stigma and various facets of body image concerns, including drive for muscularity, drive for thinness, body surveillance (i.e.,

persistent monitoring and worries related to one's appearance), and general body image-related distress (Badenes-Ribera et al., 2018).

Despite the theoretical relevance of gay community stress theory to sexual minority men's risk for body image concerns, research into the associations between gay community stress and body image concerns has not existed. At the same time, across a series of survey-based and experimental studies, sexual minority men's self-reported perceptions of stress from the gay community's focus on masculine, status-related competition was associated with symptoms of depression and anxiety, even above-and-beyond traditional minority stressors, such as rejection sensitivity, internalized stigma, identity concealment, and discrimination (Pachankis et al., 2020). These results suggest that a reliance on other men for social and sexual relationships may uniquely position sexual minority men to experience status-based stress and associated mental health concerns. Subsequent research has also found associations between gay community stress and sexual minority men's sexual-risk behaviors (Burton et al., 2020), as well as an association with increased social anxiety (Mahon et al., 2021). Because body image plays a documented role in the social and sexual pressures experienced by sexual minority men, as evidenced by thin and muscular body ideal standards emphasized within the community (Duncan, 2010; Levine & Kimmel, 1998), similar to its association with mental and sexual health outcomes, gay community stress may also serve as a source of body image concerns among sexual minority men.

Although the association between gay community stress and body image has not been examined in quantitative studies or informed by the theoretical tenets of gay community stress theory, social commentaries and qualitative studies suggest that sexual minority men's concerns related to their physical appearance may at least partially derive from stressors experienced within the gay community (Drummond, 2005; Drummond, 2010; Shiu-Ki, 2004; Wood, 2004). For instance, the "gay male gaze" (Wood, 2004, p. 45) has been described as encompassing a body image ideal held by some sexual minority men that includes a muscular, lean, hairless, athletic, and White physique (Duncan, 2010; Levine & Kimmel, 1998; Tran et al., 2020), with a social hierarchy in the gay community predicated upon this supposed body ideal (Drummond, 2005; Drummond & Filiault, 2007; Green, 2008; Rawlings et al., 2022; Shiu-Ki, 2004; Wood, 2004). Interviews with 70 gay men found that White, middle-class, young adult participants experienced and were deemed to possess a higher status, on average, than other men in the sexual minority community (Green, 2008). Partially based on this qualitative research, subsequent quantitative research has measured status among sexual minority men as a function of income, masculinity, and appearance (Pachankis et al., 2020). This social hierarchy based on these status characteristics may also be linked to sexual minority men's body image attitudes given the body ideals placed upon masculine, younger, and White bodies. Furthermore, the popularity of often-sexualized dating apps among sexual minority men might emphasize and hegemonize this type of body ideal (Connor, 2019). Still, no empirical research has examined these status-based phenomena within the gay community as a potential source of sexual minority men's body dissatisfaction.

## The Current Study

The above theoretical and empirical findings converge to suggest the potential role of gay community stress in shaping body dissatisfaction among sexual minority men. The present research examined this relationship in two samples of sexual minority men. The first sample was comprised of one of the only longitudinal cohorts of gay and bisexual men recruited from a population-based sample of U.S. adults (i.e., the National Study of Stigma and Sexual Health; NSASH; Dodge et al., 2019). The second included a clinical sample of sexual minority men (with a diagnosed depressive, anxiety, and/or trauma-/stressor-related disorder) enrolled in a randomized controlled trial testing an adapted cognitive behavioral therapy (CBT) developed to support sexual minority men in coping with minority stress (Pachankis et al., 2022). Together, these two samples offer a unique opportunity to test the generalizability of the association between gay community stress and body dissatisfaction. Using population-based and clinical samples also responds to calls to conduct studies on body image among sexual minority men that extend beyond college student and non-representative online samples, as well as examining body image concerns in sexual minority men presenting with symptoms commonly seen in clinical settings (Filiault & Drummond, 2009).

Among both samples, it was hypothesized that gay community stress would significantly account for unique variance in body dissatisfaction. Given the lack of previous research examining both gay community stress and body dissatisfaction, no a priori hypotheses were made with regard to demographic differences in this association. However, we tested our main hypothesis controlling for relevant demographic characteristics (e.g., age, sexual orientation, race/ethnicity, relationship status) and minority stress variables (i.e., proximal stressors, including sexual orientation-related rejection sensitivity, internalized stigma, and identity concealment; and distal stressors, including sexual orientation-related discrimination). Although minority stress has been shown to partially account for greater body image concerns among sexual minority men, a paucity of research exists into other sources of these concerns. Therefore, the present study has potential to extend the field's understanding of sexual minority men's body image using a new theoretical paradigm and to identify new routes of clinical interventions when addressing body dissatisfaction and associated psychopathology (e.g., eating disorders) among sexual minority men.

## Study 1

### Transparency and Openness – Study 1

The NSASH research team collected data in Study 1 as part of a larger, 2-year longitudinal study focused on stigma and HIV risk that was not preregistered. As such, this study involved an analysis of existing data rather than new data collection. We did not preregister the present study. Participants did not consent to having their data publicly shared or posted. Therefore, participant data are not publicly available but can be made available upon request. We report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study. The Human Subjects Committee at Harvard University (Protocol No. IRB20-0458) approved all study procedures.

## Method – Study 1

**Participants and Procedure**—We collected Study 1 cohort data from the Ipsos KnowledgePanel<sup>®</sup>, an online panel representative of the adult U.S. population. Ipsos KnowledgePanel<sup>®</sup> employs an address-based sampling methodology, which provides a statistically valid sampling method with a published sample frame of residential addresses that covers approximately 97% of U.S. households. During panel recruitment, Ipsos KnowledgePanel<sup>®</sup> includes a measure of sexual orientation identity (“Do you consider yourself to be: (1) heterosexual or straight, (2) gay/lesbian, (3) bisexual, (4) other?”). This enabled the NSASH research team to invite a sample of 1,058 sexual minority men who identified as gay or bisexual to participate in the NSASH study. Out of the 1,058 invited, a final sample size of 502 gay and bisexual men (age 18 years and older, English- and/or Spanish-language speakers) enrolled in NSASH. The NSASH survey was translated into Spanish by one of Ipsos KnowledgePanel’s<sup>®</sup> translation company partners and the translator reviewed the online survey to confirm that all changes were applied correctly. Six participants in the analytic sample (1.4%) completed the survey in Spanish. Dodge and colleagues (2019) describe additional methodological details of NSASH.

All participants provided informed consent online and received compensation for their participation. Study 1 employed no attention checks. The current study used data from Wave 2 of the longitudinal study, which was collected 6 months after the study began. With regard to attrition between Wave 1 and Wave 2, a total of 74 participants did not participate, resulting in 428 participants at Wave 2 data collection. We did not include two participants in the current analyses due to their not reporting gender identity. We did not include two additional participants due to their not identifying as a man in their write-in responses. Thus, 424 sexual minority men comprised the final analytic sample.

### Measures

**Male Body Attitudes Scale (MBAS):** The MBAS (Tylka et al., 2005) is a self-report measure that assesses body image attitudes, including body dissatisfaction, among men. The measure is comprised of three subscales: low body fat (“I am concerned that my stomach is too flabby”), muscularity (“I think my chest should be broader”), and height (“I wish I were taller”). Items are rated on a 6-point Likert scale of 1 (*never*) to 6 (*always*). The MBAS has demonstrated good internal consistency ( $\alpha=.91$ ) and test-retest reliability ( $r=.91$ ), as well as a three-factor structure and construct validity among a sample of college men in the U.S. (Tylka et al., 2005). Evidence from an online community survey of gay men further supports the MBAS’s internal consistency ( $\alpha=.93$ ) and three-factor structure (Blashill & Vander Wal, 2009). In Study 1, to reduce participant burden in this epidemiologic study and aligned with practices in scale shortening based on factor loadings (Bollen & Lennox, 1991; Moore et al., 2002; Yang et al., 2010), participants completed the two highest factor loading items from each subscale, for a total of six out of the original 24 items, deemed to be a reasonable number of items when reducing the number of items for large-scale surveys (Moore et al., 2002; Yang et al., 2010). In the sample of sexual minority men in Study 2 (described below), the 6-item version was highly correlated with the full scale ( $r=.89$ ,  $p<.001$ ), and, as an indicator of criterion-related validity, with depression and anxiety symptoms ( $r_s=.21$  and  $.14$ ,

respectively). We computed an average total score ( $M=2.82$ ,  $SD=0.97$ ), with higher scores representing higher levels of body dissatisfaction ( $\alpha=.72$ ,  $\omega=.69$ ).

**Gay Community Stress Scale (GCSS).** The GCSS (Pachankis et al., 2020) assesses perceptions of stress emanating from within the gay community. The measure is comprised of four subscales which capture sexual minority men's perceptions of stress based on specific aspects of the gay community, namely the community's focus on sex (e.g., "The mainstream gay community values sex over meaningful relationships"), social status (e.g., "The mainstream gay community overly values having a high-status job"), social competition (e.g., "In the mainstream gay community, there is a lot of fighting, bickering, and cattiness"), and exclusion of diversity (e.g., "The mainstream gay community is racist"). Items are rated on a 4-point Likert scale of 1 (*not at all stressed/bothered*) to 4 (*extremely stressed/bothered*). The GCSS demonstrated good internal consistency ( $\alpha=.95$ ) in an online sample of gay and bisexual men, as well as a four-factor structure in confirmatory factor analyses with gay and bisexual men in the U.S. and Sweden (Pachankis et al., 2020). In Study 1, participants completed the 8-item short form of the GCSS, shown to be a reliable and valid alternative to the 20-item version (Maiolatesi et al., 2021). In the sample of sexual minority men in Study 2 (described below), we found that the 8-item version was highly correlated with the full scale ( $r=.96$ ,  $p<.001$ ), and, as an indicator of criterion-related validity, with depression and anxiety symptoms ( $r_s=.18$  and  $.15$ , respectively). We computed an average composite score ( $M=1.90$ ,  $SD=0.65$ ), with higher scores representing a higher level of gay community stress ( $\alpha=.86$ ,  $\omega=.86$ ) and did not utilize subscales since we administered the short form in Study 1.

**Sexual Orientation-Related Rejection Sensitivity.** Participants read six ambiguous scenarios from the Sexual Orientation-Related Rejection Sensitivity Scale (Pachankis et al., 2008), where rejection based on sexual orientation represents one of several possible explanations (e.g., "You and your male partner are on a road trip and decide to check into a hotel in a rural town. The sign out front says there are vacancies. The two of you go inside, and the woman at the front desk says that there are no rooms left"). Participants are then asked how concerned or anxious they would be that the event occurred because of their sexual orientation on a Likert scale ranging from 1 (*very unconcerned*) to 6 (*very concerned*), and then how likely it was that the event occurred because of their sexual orientation on a Likert scale ranging from 1 (*very unlikely*) to 6 (*very likely*). The measure's internal consistency ( $\alpha=.91$ ) and unidimensional factor structure was originally developed among a sample of predominantly White gay men (Pachankis et al., 2008), with subsequent support for its internal consistency among more diverse samples of sexual minority men (Pachankis et al., 2022; Wang & Pachankis, 2016). In Study 1, due to the length of the original 14-item scale and aligned with practices in scale shortening for large-scale surveys based on factor loadings (Bollen & Lennox, 1991; Moore et al., 2002; Yang et al., 2010), participants were presented with the six highest factor loading items from the original 14-item measure. In the sample of sexual minority men in Study 2 (described below), we found that the 6-item version was highly correlated with the full scale ( $r=.95$ ,  $p<.001$ ), and, as an indicator of criterion-related validity, with depression and anxiety symptoms ( $r_s=.23$  and  $.21$ , respectively). We computed a mean total score by first multiplying responses from

both parts of each item, and then averaging the products to create a mean total score ( $M=12.82$ ,  $SD=7.74$ ), with higher scores representing higher levels of sexual orientation-related rejection sensitivity ( $\alpha=.83$ ,  $\omega=.83$ ).

**Internalized Stigma.** Participants completed one of two measures of internalized stigma depending on their sexual identities. Participants identifying as gay completed the 9-item Internalized Homophobia Scale (e.g., “You have felt that being gay is a personal shortcoming;” Martin & Dean, 1992), and participants identifying as bisexual completed the 10-item Internalized Binegativity Subscale of the Bisexual Identity Inventory (e.g., “It’s unfair that I am attracted to people of more than one gender;” Paul et al., 2014). Response options on the Internalized Homophobia Scale range from 1 (*never*) to 4 (*often*), and on the Internalized Binegativity Subscale range from 1 (*do not agree*) to 4 (*agree strongly*), with higher scores on both measures indicating higher levels of internalized stigma. Previous research has supported the internal consistency of the Internalized Homophobia Scale ( $\alpha=.92$ ; Pachankis et al., 2020) and Internalized Binegativity Subscale ( $\alpha=.84-.87$ ; Paul et al., 2014). We computed an average internalized homophobia score ( $M=1.42$ ,  $SD=0.47$ ) and average internalized binegativity score ( $M=1.86$ ,  $SD=0.64$ ). Internal consistency in Study 1 was  $\alpha=.81$  and  $\omega=.80$  among the gay participants, and  $\alpha=.86$  and  $\omega=.85$  among the bisexual participants. Given the relatively smaller subsample of bisexual men ( $n=98$ ) compared to gay men ( $n=326$ ), as well as considerations of statistical power, we combined both measures by standardizing their scores to z-scores and creating a single internalized stigma score.

**Identity Concealment.** Participants completed four items from the Sexual Orientation Concealment Scale (Meyer et al., 2002) to measure their degree of concealment of sexual orientation identity to different groups (i.e., family members; straight friends; gay, lesbian, and bisexual friends; and healthcare providers). A fifth item regarding identity concealment from co-workers was not included in Wave 2 of this study. Items were rated on a 4-point Likert scale of 1 (*out to all*) to 4 (*out to none*). A previous online sample of gay and bisexual men in the U.S. supports the measure’s internal consistency ( $\alpha=.86$ ; Pachankis et al., 2020). We computed an average identity concealment composite score ( $M=1.89$ ,  $SD=0.93$ ), with higher scores representing a higher level of identity concealment ( $\alpha=.86$ ,  $\omega=.87$ ).

**Sexual Orientation-Based Interpersonal Discrimination.** Participants completed the Everyday Discrimination Scale (Williams et al., 1997), a 9-item scale that asks respondents about their past-6-month experiences of interpersonal discrimination (e.g., “You were treated with less courtesy than other people”). The items are rated on a 4-point scale ranging from 1 (*never*) to 4 (*often*). After responding to all items, respondents were asked to make an attribution regarding why the experiences of discrimination occurred, with sexual orientation listed as one of the reasons. In this study, discrimination attributed to at least sexual orientation contributed to participants’ discrimination score; that is, participants may have also selected other attributions in addition to sexual orientation (e.g., race/ethnicity, style of dress, religion). Previous research among an online sample of gay and bisexual men in the U.S. supports the measure’s internal consistency ( $\alpha=.92$ ; Pachankis et al., 2020). We combined the nine items to create a sum score ( $M=11.04$ ,  $SD=4.48$ ), with higher

scores representing more frequent experiences of discrimination attributed to one's sexual orientation ( $\alpha=.95$ ,  $\omega=.96$ ).

**Data Analysis**—We analyzed the data using IBM SPSS Statistics 27. We examined study variables for outliers and assessed each for linearity, homoscedasticity, and normality (i.e., skewness and kurtosis values between  $-2$  and  $+2$ ). We examined descriptive statistics, including measures of central tendency and distribution, and Pearson correlations among all study variables and assessed for demographic differences (e.g., sexual orientation, race/ethnicity, age) in study variables via  $t$ -tests or Pearson correlations.

Missing values constituted 0.36% of the total data, coming from 6.8% of participants. Little's Missing Completely at Random (MCAR) test was significant,  $\chi^2(874)=956.92$ ,  $p=.03$ , indicating that the data were not missing completely at random. We reviewed the data and found that 55.0% of missing data were for the Sexual Orientation-Related Rejection Sensitivity Scale. There were no missing data for any of the demographic variables. Given the small amount of missing data and concerns that Little's MCAR test tends to yield Type II errors particularly in large samples (Enders, 2010), we considered the data missing at random (MAR). As such, we used a Markov chain Monte Carlo (MCMC) approach to replace the missing data. We generated five completed datasets by imputing the missing data five times and analyzing the pooled results. All study variables met statistical assumptions of linearity, homoscedasticity, and normality.

For the primary study analysis, we conducted a hierarchical regression. A post-hoc power analysis conducted using G\*Power (Faul et al., 2007) indicated that the power to detect obtained effects at the .05 level was .99 for the overall regression model. We used the variance inflation factor (VIF; scores greater than 10 indicative of multicollinearity) and bivariate correlations between study variables to assess for multicollinearity. We entered the MBAS as the outcome variable. In Step 1 of the model, we entered demographics, including sexual orientation (gay or bisexual), age, race/ethnicity, income, education, and relationship status, given that these variables have previously been associated with gay community stress (Pachankis et al., 2020) and body image concerns (Brennan et al., 2013; Jones & Pugh, 2005). In Step 2, we added minority stress variables including sexual orientation-based rejection sensitivity, internalized stigma, identity concealment, and sexual orientation-based discrimination. In Step 3, we added gay community stress. For each model, we report the unstandardized ( $b$ ) beta coefficients, standard error ( $SE$ ), and 95% confidence interval ( $CI$ ). We also report the standardized beta ( $\beta$ ) coefficients, coefficient of determination ( $R^2$ ), and change in  $R^2$  for each model. We considered results statistically significant if the  $p$  value was less than .05.

**Sensitivity Analyses:** Given the very small number of participants who completed the survey in Spanish, we conducted sensitivity analyses excluding these participants. We also conducted sensitivity analyses using the sampling weights provided by Ipsos KnowledgePanel<sup>®</sup>, which adjust effect estimates to be representative of the population of U.S. men. However, we report and interpret the unweighted effects as our primary analyses given the fact that no population sampling frame exists for sexual minority individuals (Ferlatte et al., 2017; Pachankis & Bränström, 2019; Stein, 2001) and because our study aim



was to document the association between gay community stress and body image concerns rather than documenting prevalence estimates (Meyer & Wilson, 2009).

## Results and Discussion – Study 1

Table 1 presents the demographic characteristics of Study 1's analytic sample ( $N=424$ ). The average age was 54.29 ( $SD=14.35$ ), and the majority of the sample reported identifying as gay ( $n=326$ , 76.9%), White Non-Hispanic ( $n=322$ , 75.9%), holding a bachelor's degree or higher ( $n=227$ , 53.5%), and being single ( $n=239$ , 56.4%). Table 2 contains descriptive statistics and Pearson correlations of all Study 1 variables.

Results showed significant differences in participants' sexual orientation identity (i.e., gay vs. bisexual) in terms of identity concealment ( $t(139.77)=-10.43$ ,  $p<.001$ ,  $d=0.81$ ), with bisexual participants ( $M=2.71$ ,  $SD=0.91$ ) endorsing greater identity concealment compared to gay participants ( $M=1.64$ ,  $SD=0.77$ ). For race/ethnicity and education, we did not find significant differences in any study variable. In terms of income, participants earning less than \$30,000 per year reported greater identity concealment ( $M=2.10$ ,  $SD=1.02$ ) than those earning more than \$30,000 per year ( $M=1.82$ ,  $SD=0.89$ ) ( $t(154.97)=2.46$ ,  $p=.01$ ,  $d=0.92$ ). With regard to relationship status (i.e., single vs. partnered), we found significant differences in gay community stress ( $t(421)=3.51$ ,  $p<.001$ ,  $d=0.64$ ) and concealment ( $t(421)=3.46$ ,  $p<.01$ ,  $d=0.91$ ), with single participants reporting greater gay community stress ( $M=2.00$ ,  $SD=0.64$ ) and concealment ( $M=2.03$ ,  $SD=0.92$ ) compared to participants in a relationship (gay community stress:  $M=1.78$ ,  $SD=0.63$ ; concealment:  $M=1.72$ ,  $SD=0.91$ ). Age was negatively associated with several study variables, including body dissatisfaction ( $r=-.21$ ,  $p<.001$ ), gay community stress ( $r=-.13$ ,  $p<.01$ ), rejection sensitivity ( $r=-.10$ ,  $p=.04$ ), and internalized stigma ( $r=-.14$ ,  $p.01$ ).

Table 3 presents the Study 1 regression model. Demographic factors in the first step significantly accounted for approximately 5% of the variance in body dissatisfaction, with age as the only significant correlate. The demographic and minority stress variables in the second step significantly accounted for approximately 12% of the variance, with rejection sensitivity and internalized stigma operating as significant correlates. The addition of minority stress variables in this step yielded a significant change from Step 1 ( $R^2=.07$ ,  $p<.001$ ). In the final step adding gay community stress, the model significantly accounted for 13% of the variance, with gay community stress as a significant correlate of body dissatisfaction ( $b=0.16$ ,  $SE=0.07$ , 95% CI [0.01, 0.30],  $\beta=0.11$ ,  $p=.03$ ). The addition of gay community stress yielded a significant change from Step 2 ( $R^2=.01$ ,  $p=.03$ ).

Sensitivity analyses excluding the six participants who completed the survey in Spanish did not change the magnitude, direction, or statistical significance of the results. Results from the weighted analyses differed from the unweighted analyses with respect to statistical significance; however, the effect estimates, although attenuated, were similar in magnitude. We provide the unweighted results in the online supplement.

Findings from Study 1 provide the first quantitative evidence in support of the relationship between gay community stress and body dissatisfaction among sexual minority men. In this sample recruited from a population-based cohort, we found a medium effect size in the

final model, with gay community stress as a significant predictor above-and-beyond the role of relevant demographic variables and traditional minority stressors. Results from Study 1 are consistent with qualitative interviews with sexual minority men that describe a specific form of stress emanating from within the mainstream gay community, namely the greater power and status afforded sexual minority men who possess a hegemonically ideal physical appearance (e.g., muscular but lean; Drummond, 2005; Drummond & Filiault, 2007; Green, 2008; Rawlings et al., 2022; Shiu-Ki, 2004; Tran et al., 2020; Wood, 2004). In addition to gay community stress, proximal minority stressors (i.e., sexual orientation-based rejection sensitivity and internalized stigma) were significant predictors in the final model, suggesting that stressors derived from both outside and within the sexual minority community may serve as two distinct pathways that negatively impact body image among sexual minority men.

Despite the methodological strengths of utilizing a population-based cohort, Study 1 used several modified measures, including shortened scales to assess gay community stress and body dissatisfaction. As such, we were not able to assess the associations between specific gay community stress facets (i.e., focus on sex, social status, social competition, and exclusion of diversity) and body dissatisfaction. Furthermore, given the strong association between body dissatisfaction and poor mental health (Scheffers et al., 2017), it is possible that correlates of body dissatisfaction, such as gay community stress, may differ in a sample of sexual minority men with diagnosed mental health concerns.

## Study 2

### Transparency and Openness – Study 2

Study 2 data were part of a larger clinical trial testing the efficacy of a LGBTQ-affirmative cognitive-behavioral therapy in supporting sexual minority men in coping with minority stress. As such, this study involved an analysis of existing data rather than new data collection. We did not preregister the present study. Participants did not consent to having their data publicly shared or posted. Therefore, participant data are not publicly available but can be made available upon request. We report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study. The Human Subjects Committee at Yale University (Protocol No. 1509016430) approved all study procedures, and the clinical trial was preregistered on [ClinicalTrials.gov](https://www.clinicaltrials.gov/ct2/show/study/NCT02929069) (NCT02929069).

### Method – Study 2

**Participants and Procedure**—Study 2 data come from a clinical trial conducted between 2016 and 2019 in New York City and Miami. The research team recruited participants in-person at LGBTQ bars/clubs and Pride events, as well as online via social networking sites and dating apps. Recruitment materials indicated that the study was intended for sexual minority men currently experiencing difficulties related to mood and stress. Participants met the following inclusion criteria: age 18-35; gay, bisexual, or other sexual minority man; diagnostic criteria for at least one current depressive, anxiety, or trauma-/stressor-related disorder; and English speaking. Further details about the study protocol and additional inclusion and exclusion criteria related to the trial are

described in the clinical trial's efficacy paper (Pachankis et al., 2022). All participants provided informed consent in-person and were compensated for their participation. Study 2 contained no attention checks; however, participants were required to complete these survey measures prior to attending an in-person interview and being randomized into one of the clinical trial conditions. As such, research assistants reviewed all baseline survey responses for patterns of random responding. The current study used data from the participants' baseline assessment which was completed prior to randomization. We did not include two participants in analyses due to missing data on all study variables. We omitted one participant due to not identifying as a sexual minority (i.e., chose "uncertain, don't know for sure" when reporting sexual orientation). Thus, the final analytic sample was comprised of 251 sexual minority men.

### Measures

**Male Body Attitudes Scale (MBAS):** The MBAS (Tylka et al., 2005) assesses body dissatisfaction. In Study 2, participants completed the full 24-item measure. We computed an average total score ( $M=4.02$ ,  $SD=0.96$ ), with higher scores representing higher levels of body dissatisfaction ( $\alpha=.92$ ,  $\omega=.91$ ).

**Gay Community Stress Scale (GCSS):** The GCSS (Pachankis et al., 2020) measures stress emanating from perceptions of the gay community's focus on sex, social status, social competition, and exclusion of diversity. In Study 2, participants completed the full 20-item measure. We computed an average gay community stress composite score ( $M=2.83$ ,  $SD=0.88$ ), with higher scores representing a higher level of gay community stress ( $\alpha=.94$ ,  $\omega=.94$ ). We also computed average scores for the four subscales: focus on sex ( $M=3.06$ ,  $SD=1.05$ ,  $\alpha=.88$ ,  $\omega=.88$ ), social status ( $M=2.65$ ,  $SD=1.06$ ,  $\alpha=.84$ ,  $\omega=.85$ ), social competition ( $M=2.66$ ,  $SD=1.02$ ,  $\alpha=.90$ ,  $\omega=.91$ ), and exclusion of diversity ( $M=3.03$ ,  $SD=1.16$ ,  $\alpha=.80$ ,  $\omega=.81$ ).

**Sexual Orientation-Related Rejection Sensitivity:** The Sexual Orientation-Related Rejection Sensitivity Scale (Pachankis et al., 2008) measures chronic, anxious expectations of rejection based on sexual orientation. In Study 2, participants completed the full 14-item measure. As described in Study 1, we computed a mean total score ( $M=14.05$ ,  $SD=7.60$ ), with higher scores representing higher levels of rejection sensitivity ( $\alpha=.91$ ,  $\omega=.92$ ).

**Internalized stigma:** The Internalized Homophobia Scale (Martin & Dean, 1992) measures internalized stigma related to one's sexual identity. For Study 2, items were adapted to be inclusive of gay, bisexual, and queer men (e.g., "You have felt that being gay, bisexual, or queer is a personal shortcoming"). We computed an average total score ( $M=1.84$ ,  $SD=0.74$ ), with higher scores representing higher levels of internalized stigma ( $\alpha=.91$ ,  $\omega=.91$ ).

**Identity Concealment:** The Sexual Orientation Concealment Scale (Meyer et al., 2002) measures concealment of sexual orientation identity to different groups. In Study 2, participants completed the full 5-item measure. We computed an average composite score ( $M=1.81$ ,  $SD=0.73$ ), with higher scores representing a higher level of identity concealment of one's sexual orientation ( $\alpha=.82$ ,  $\omega=.83$ ).

**Sexual Orientation-Based Interpersonal Discrimination.:** The 9-item Everyday Discrimination Scale (Williams et al., 1997) measures the frequency of discrimination attributed to sexual orientation in the last six months. For Study 2, the instructions prompted participants to respond to each item if “any of the following things happened to you because of your sexual orientation.” We calculated a sum score ( $M=19.84$ ,  $SD=9.08$ ), with higher scores representing more frequent experiences of interpersonal discrimination attributed to one’s sexual orientation ( $\alpha=.94$ ,  $\omega=.94$ ).

**Data Analysis—**We analyzed the data using IBM SPSS Statistics 27. We conducted the same preliminary analyses as in Study 1. Missing values constituted 0.09% of the total data, coming from 2.8% of participants. Little’s MCAR test was significant,  $\chi^2(562)=651.91$ ,  $p<.01$ , indicating that the data were not missing completely at random. We reviewed the data and found that 31.6% of missing data were for the Sexual Orientation-Related Rejection Sensitivity Scale. Given the small amount of missing data and concerns that Little’s MCAR test tends to yield Type II errors particularly in large samples (Enders, 2010), we considered the data MAR. We used the same MCMC approach to replace the missing data that we used in Study 1. Statistical assumptions of linearity, homoscedasticity, and normality were met for all study variables.

We tested the same hierarchical regression models as in Study 1. A post-hoc power analysis conducted using G\*Power (Faul et al., 2007) indicated that the power to detect obtained effects at the .05 level was .99 for the overall regression model. Given that participants completed the full GCSS for Study 2, we conducted four additional hierarchical regression models whereby each of the four GCSS subscales (stress based on perceptions of the gay community’s focus on sex, social status, social competition, and exclusion of diversity) were entered into the final step of the model. We used a Bonferroni adjustment of .01 to protect against Type I error across the five models.

## Results and Discussion – Study 2

Table 1 presents demographic characteristics of Study 2’s analytic sample ( $N=251$ ). The average age was 26.52 ( $SD=4.17$ ), and the majority of the sample reported being gay ( $n=185$ , 73.7%). Approximately one-third of the sample identified as White non-Hispanic/Latinx ( $n=83$ , 33.1%), and approximately two-thirds of the sample identified with a racial/ethnic minority identity ( $n=168$ , 66.9%). Slightly more than half reported holding a bachelor’s degree or higher ( $n=130$ , 51.9%), and the majority reported currently being single ( $n=176$ , 70.1%). Table 2 contains means, standard deviations, and Pearson correlations of all Study 2 variables.

Results showed significant differences in participants’ sexual orientation identity (i.e., gay/queer vs. bisexual) in terms of internalized stigma ( $t(248)=-3.39$ ,  $p=.001$ ,  $d=0.73$ ) and identity concealment ( $t(67.60)=-5.26$ ,  $p<.001$ ,  $d=0.68$ ), with bisexual participants endorsing greater internalized stigma ( $M=2.14$ ,  $SD=0.81$ ) and identity concealment ( $M=2.33$ ,  $SD=0.85$ ) compared to gay/queer participants (internalized stigma:  $M=1.76$ ,  $SD=0.70$ ; identity concealment:  $M=1.67$ ,  $SD=0.62$ ). For race/ethnicity, we found significant differences in terms of total gay community stress ( $t(249)=-2.01$ ,  $p=.045$ ,  $d=0.87$ ),

GCSS from perceived social competition ( $t(194.74) = -2.15, p = .03, d = 1.01$ ), GCSS from perceived exclusion of diversity ( $t(168.42) = -2.71, p < .01, d = 1.14$ ), internalized stigma ( $t(198.06) = -3.19, p < .01, d = 0.73$ ), and concealment ( $t(193) = -4.11, p < .001, d = 0.73$ ), with racial/ethnic minority participants reporting greater total gay community stress ( $M = 2.91, SD = 0.92$ ), GCSS from perceived focus on social competition ( $M = 2.75, SD = 1.07$ ), GCSS from perceived exclusion of diversity ( $M = 3.17, SD = 1.16$ ), internalized stigma ( $M = 1.94, SD = 0.78$ ), and concealment ( $M = 1.93, SD = 0.75$ ) compared to White/non-Hispanic/Latinx participants (total gay community stress:  $M = 2.67, SD = 0.77$ ; GCSS from perceived focus on social competition:  $M = 2.47, SD = 0.88$ ; GCSS from perceived exclusion of diversity:  $M = 2.76, SD = 1.12$ , internalized stigma:  $M = 1.64, SD = 0.63$ ; concealment:  $M = 1.57, SD = 0.62$ ). We did not find differences in income or education in any study variable, except differences in income based on body dissatisfaction ( $t(249) = -2.19, p = .03, d = 0.95$ ), with participants earning greater than \$30,000 reporting greater body dissatisfaction ( $M = 4.17, SD = 0.87$ ) than those earning less than \$30,000 ( $M = 3.90, SD = 4.17$ ). We also found no differences based on relationship status (i.e., single vs. partnered) in any study variable, with the exception of the GCSS from perceived focus on sex subscale ( $t(249) = 2.02, p = .04, d = 1.16$ ), with single participants ( $M = 3.14, SD = 1.03$ ) reporting greater stress associated with the perceptions of the community's focus on sex compared to partnered participants ( $M = 2.85, SD = 1.07$ ). Age was negatively associated with GCSS from perceived exclusion of diversity subscale ( $r = -.13, p = .04$ ) and discrimination ( $r = -.18, p < .01$ ).

Table 3 presents the Study 2 regression model. Demographics in the first step significantly accounted for less than 3% of the variance in body dissatisfaction, with no single variable significantly related to body dissatisfaction. The demographic and minority stress variables in the second step significantly accounted for approximately 27% of the variance in body dissatisfaction, with rejection sensitivity, internalized stigma, and identity concealment operating as significant correlates. The addition of minority stress variables in this step yielded a significant change from Step 1 ( $R^2 = .24, p < .001$ ). In the final step adding gay community stress, the model significantly accounted for approximately 32% of the variance, with gay community stress as a significant correlate of body dissatisfaction ( $b = 0.28, SE = 0.07, 95\% \text{ CI } [0.15, 0.41], \beta = 0.26, p < .001$ ). The addition of gay community stress yielded a significant change from Step 2 ( $R^2 = .05, p < .001$ ).

We also examined the four GCSS subscales in separate regression models. Given that the model results were unchanged in Steps 1 and 2 from the model with the GCSS total score, only statistics from Step 3 are summarized here. The gay community's perceived focus on sex subscale ( $b = 0.17, SE = 0.06, 95\% \text{ CI } [0.06, 0.28], \beta = 0.19, p < .01$ ) yielded a significant change from Step 2 ( $R^2 = .03, p < .01$ ); the model significantly accounted for approximately 30% of the variance in body dissatisfaction. Similarly, the gay community's perceived focus on social status subscale ( $b = 0.21, SE = 0.06, 95\% \text{ CI } [0.11, 0.32], \beta = 0.24, p < .001$ ) yielded a significant change from Step 2 ( $R^2 = .04, p < .001$ ); this model significantly accounted for approximately 31% of the variance. The gay community's perceived focus on social competition subscale ( $b = 0.23, SE = 0.06, 95\% \text{ CI } [0.12, 0.34], \beta = 0.24, p < .001$ ) also yielded a significant change from Step 2 ( $R^2 = .05, p < .001$ ); this model significantly accounted for approximately 31% of the variance. In contrast, the gay community's perceived exclusion of diversity subscale ( $b = 0.08, SE = 0.05, 95\% \text{ CI } [-0.02, 0.18], \beta = 0.10, p = .10$ ) did not yield a

significant change from Step 2 ( $R^2=.01$ ,  $p=.11$ ); however, the overall model containing this subscale significantly accounted for approximately 28% of the variance.

Similar to Study 1, results of Study 2 demonstrated a significant association between gay community stress and body dissatisfaction among a clinical sample of sexual minority men. This association remained significant even when considering the role of several demographic and minority stress variables. Also comparable to Study 1, proximal minority stressors (i.e., sexual orientation-based rejection sensitivity and internalized stigma), as well as identity concealment, were significant predictors in the final model, suggesting that minority stress theory and gay community stress theory are both viable theories for conceptualizing the body image concerns of sexual minority men.

When examining the specific facets of gay community stress, findings indicated that greater endorsement of stress from perceptions of the mainstream gay community's focus on sex, social status, and social competition were each associated with greater body dissatisfaction; however, no such association was found for gay community stress related to perceptions of the mainstream gay community's focus on exclusion of diversity. Although a significant association was not found between stress from perceptions of the gay community's exclusion of diversity and body dissatisfaction, such findings do not necessarily contradict prior research (Connor, 2019; Duncan, 2010), but instead may be a product of the items that comprise the exclusion of diversity subscale in the gay community stress measure. Namely, the three items of this subscale directly assess stress from perceived exclusion based on race and HIV/AIDS status, rather than stress from perceived exclusion based on body image. Overall, the results from Study 2 provide further evidence of the association between gay community stress and body dissatisfaction.

## Overall Discussion

In two distinct samples of sexual minority men – one recruited from a population-based sample of U.S. adults, and a second comprised of sexual minority men with a diagnosis of a depressive, anxiety, or trauma-/stressor-related disorder – the present study found support for an association between higher gay community stress and greater body dissatisfaction, consistent with the tenets of gay community stress theory (Pachankis et al., 2020). The association between gay community stress and body dissatisfaction remained statistically significant even when adjusting for demographics (i.e., sexual orientation, age, race/ethnicity, income, education level, and relationship status) and minority stress factors (i.e., proximal stressors, including sexual orientation-related rejection sensitivity, internalized stigma, and identity concealment; and distal stressors, including sexual orientation-related discrimination).

Prior qualitative studies have found evidence for the role of the gay community in sexual minority men's body image concerns (Connor, 2019; Drummond, 2005; Duncan, 2010), namely by documenting the body hierarchy that exists in the mainstream gay community based on an ideal physical appearance (i.e., White but tanned, muscular but lean, lack of body hair; Drummond, 2005; Drummond & Filiault, 2007; Green, 2008; Rawlings et al., 2022; Shiu-Ki, 2004; Tran et al., 2020; Wood, 2004). Overall, the present study is the first to

provide quantitative evidence for the role of these stressful elements of the gay community in shaping sexual minority men's body dissatisfaction. This evidence highlights gay community stress as a correlate of sexual minority men's body dissatisfaction even beyond the more established role of minority stressors from outside the gay community, such as heterosexual discrimination. Consequently, the present study provides initial evidence that gay community stress theory may serve as a relevant framework to further understand elevations in body image concerns among sexual minority men (e.g., Frederick & Essayli, 2016; Morrison et al., 2004).

The present study suggests possible extensions of existing theories of body image as applied to sexual minority men. First, objectification theory posits that among sexual minority men body dissatisfaction results from a sociocultural context that sexually objectifies and reduces individuals to their physical appearance and sexual ability (Davids et al., 2015; Fredrickson & Roberts, 1997). Gay community stress theory, by highlighting the stressful nature of perceptions of the gay community's focus on sex and related status-based competition, may suggest how sexual objectification potentially embedded within a community's norms can affect the well-being of members of that community (Szymanski et al., 2019). Second, minority stress theory (Meyer, 2003) has been one of the primary frameworks applied to body dissatisfaction among sexual minority men. It is important to note that the findings from the present study do not contradict prior associations between minority stress and body dissatisfaction. In fact, the present study found evidence that sexual orientation-related rejection sensitivity and internalized stigma – two prominent proximal minority stress reactions – in addition to gay community stress, were related to body dissatisfaction. These results cohere with previous experimental and cross-sectional survey results (Burton et al., 2020; Pachankis et al., 2020) to suggest that gay community stress can function concurrently with minority stressors to predict psychosocial outcomes, in this case body dissatisfaction. At the same time, the present study suggests the importance of examining the role of stressors emanating from within, not only outside of, the gay community.

Several demographic characteristics, including age, race/ethnicity, and income, were significantly associated with body dissatisfaction and gay community stress. Younger age was associated with greater body dissatisfaction in the sample of sexual minority men recruited from a population-based sample, consistent with preferences for and pressure to maintain a younger body in the mainstream gay community (Connor, 2019; Green 2008). Notably, higher age was the only demographic characteristic significantly associated with lower gay community stress and body dissatisfaction in Study 1, which comprised a more representative, and older, sample. The lack of significant association between age and body dissatisfaction in Study 2, which used a sample limited to young adults, could be due either to the restricted age range or to categorically different experiences of body image for young adult, compared to older, sexual minority men. In terms of race/ethnicity, sexual minority men in the clinical sample who identified as a racial/ethnic minority endorsed greater gay community stress, internalized stigma, and identity concealment. Such findings highlight the importance of addressing stressors related to multiple stigmatized identities (McConnell et al., 2018) and align with recent qualitative findings centering the intersectional experiences of stigma (e.g., body stigma, racial stigma) among racially diverse sexual minority men (Hammack et al., 2021). In contrast to prior research examining income and one's ability to

meet financial needs (Kimmel & Mahalik, 2005; Soulliard et al., 2022), the sexual minority men in the clinical sample who reported a higher income (i.e., greater than \$30,000) reported greater body dissatisfaction. However, without information regarding place of residence, financial security, and other socioeconomic predictors of quality life, reasons for this association remain unknown and should be interpreted with caution. Taken together, these findings suggest that future research may productively examine gay community stress as a mechanism that explains the association between demographic characteristics and body dissatisfaction among sexual minority men.

While body dissatisfaction research has predominantly focused on gay men, bisexual men comprised approximately 25% of both samples in the present study. We found no difference in body dissatisfaction between the gay and bisexual men in our study, consistent with meta-analytic findings based on seven studies that have examined potential differences in body dissatisfaction by sexual identity among men (He et al., 2020). Although there was no difference in body dissatisfaction based on sexual orientation, bisexual men in the present study reported greater sexual identity concealment compared to gay men in both samples, as well as greater internalized stigma in the clinical sample. Our results align with literature suggesting that bisexual men may experience greater minority stress than other sexual minority men (McLean, 2008).

Future studies may also consider how gay community stress and minority stress work together to predict body dissatisfaction among sexual minority men. Evidence suggests that sexual orientation-related rejection sensitivity may serve as a mechanism between gay community stress and social anxiety among sexual minority men (Mahon et al., 2021). A similar relationship may exist in terms of gay community stress having an impact on body image concerns through minority stress variables. On the other hand, proximal minority stressors, such as rejection sensitivity, may contribute directly to the development of gay community stress among sexual minority men. For example, past experiences of sexual-orientation rejection both interpersonally (e.g., from family) and structurally (e.g., laws and policies that impede on the rights of sexual minority people) may lead sexual minority men to form a rejecting stance toward other sexual minority men. In this way, gay community stress might represent the aggregate internalization of minority stress at the community level (Pachankis et al., 2020).

Results of the present study can start to inform treatments of sexual minority men's body dissatisfaction, as well as associated psychopathology, including body image concerns and eating disorders. For instance, identity-affirmative adaptations of CBT that specifically address minority stress have shown potential for improving a range of psychosocial outcomes, including depression, anxiety, substance use problems, and HIV-transmission-risk behavior, among gay and bisexual men (e.g., Keefe et al., 2023; Pachankis et al., 2015; 2022). Future research is needed to examine whether this type of intervention can also effectively address body image concerns and whether any further adaptations are necessary to specifically address the role of gay community stress in this outcome. Similarly, future research might wish to examine the clinical utility of addressing gay community stress through CBT techniques such as mindfulness, cognitive reappraisal, and behavioral



exposures that form part of existing eating disorder prevention programs for sexual minority men (Blashill et al., 2017; Brown & Keel, 2015).

The present results also suggest the potential need for community-level interventions to reduce gay community stress and its association with body dissatisfaction. For instance, given the frequency of sexual minority men's social and sexual networking app use (Lucero, 2017) and the ways in which body shaming have been documented to occur on these platforms (Connor, 2019), these sites may wish to consider ways to mitigate this shaming. Given the significant association between age and body dissatisfaction, it is recommended that these sites also consider how the experience of gay community stress and body image may differ for sexual minority men across the lifespan. Dating apps for sexual minority men allow users on their profiles to express partner preferences, such as related to body type, which may perpetuate body size discrimination (Connor, 2019). Dating app developers may consider how to better monitor and restrict such statements on users' profiles. Additionally, dating apps may consider ways to incorporate greater representation of body diversity in their campaigns. To the extent that sexual minority men's social and sexual networking apps can promote positive body image, sexual minority men might be less subjected to these potential aspects of gay community stress that can serve as triggers of body dissatisfaction. Community programs, such as peer-support services, that affirmatively address body image represent another promising route of intervention given that strong relationships and a feeling of community connectedness have been shown to protect against gay community stressors (Frost & Meyer, 2012). Moreover, peer influences play a role in sexual minority men's eating behaviors (Tylka & Andorka, 2012), and as demonstrated in a recent randomized controlled trial, can potentially be utilized in peer-led prevention programs for body image and disordered eating (Brown & Keel, 2015).

This study has several strengths, including its use of comprehensive assessments of theoretically relevant variables and its ability to replicate associations across two unique samples. However, the present study is not without limitations. First, based on its epidemiologic nature, Study 1 did not administer the full measure of body image attitude; instead, participants only completed the highest loading items, which may omit relevant facets of body image, thereby posing a threat to content validity (Smith et al., 2000). Relatedly, in order to reflect the distinct experiences and terminology involved in internalized stigma for gay versus bisexual men, we administered two different measures of internalized stigma to each group and, thus, needed to standardize each measure to create a combined internalized stigma score. Study 2 was able to rectify this measurement concern by administering the full scales of all constructs and the same internalized stigma scale to all participants, gay and bisexual. Second, neither study included an attention check to assess for random responding. However, given that both datasets had minimal missing data given their design, as well as manual review of responses conducted by research assistants in Study 2, we believe there to be minimal concern in this regard. Third, the cross-sectional analyses preclude the ability to make causal inferences; thus, it is unclear whether gay community stress impacts body dissatisfaction, or whether increased body dissatisfaction may foster greater vulnerability to experiencing gay community stress. Future longitudinal or experimental research could clarify the directionality of this relationship. Fourth, body mass index (BMI) was not assessed in the present study. Among sexual

minority men, results are inconclusive regarding whether an association exists between BMI and body dissatisfaction (Frederick & Essayli, 2016). Certainly, given body ideals focused on both muscularity and leanness among sexual minority men (Tiggemann et al., 2007), BMI may explain some of the association between gay community stress and body dissatisfaction in the present study. However, some subcultures of the gay community have been shown to embrace diverse body types that do not conform to muscular body ideals, leading instead to body pride and acceptance within these parts of the gay community (e.g., the “bear” community’s embrace of larger body sizes; Gough & Flanders, 2009; Manley et al., 2007). Relatedly, we recognize that body types and body image attitudes among sexual minority men are diverse and call for future research to examine the role of positive community influences alongside gay community stress. Finally, Study 1’s sample predominantly identified as White, thereby limiting the generalizability of these findings to sexual minority men of color. Yet, the majority of Study 2’s sample was comprised of sexual minority men who identified as a racial/ethnic minority. Nonetheless, future research is needed to examine the role of community influences on body image at the intersections of race/ethnicity and sexual minority identities in diverse samples.

In summary, using two distinct samples of sexual minority men, the present study provides evidence for the potential role of gay community stress in contributing to sexual minority men’s body dissatisfaction, extending a relevant emerging theory to this important outcome. This study positions gay community stress theory alongside other theories (e.g., minority stress and objectification theory) and associated concepts (e.g., community involvement) that have historically been used to explain sexual minority men’s elevated risk of body dissatisfaction. Future research can build upon this study’s results to identify the causal direction and mediating pathways between gay community stress and sexual minority men’s body dissatisfaction and modifiable routes of intervention, both at the level of the gay community and among sexual minority men themselves.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

## Acknowledgments

The authors would like to acknowledge the following individuals for their contributions to Study 1: Mark Hatzenbuehler, Brian Dodge, and Jessie Ford. The authors would also like to acknowledge the following individuals for their contributions to Study 2 data collection, study management, and scientific input: Oluwaseyi Adeyinka, Christopher Albright, Kriti Behari, Alex Belser, Richard Branstrom, Cal Brisbin, Charles Burton, Xiang (Justin) Cai, Kirsty Clark, Nitzan Cohen, Adam Eldahan, Denise Esserman, Benjamin Fetzner, Emily Finch, Calvin Fitch, Tiffany Glynn, Melvin Hampton, Audrey Harkness, Mark Hatzenbuehler, Aaron Heller, Ivan Ivardic, Skyler Jackson, Rebecca Kaplan, Colin Kimberlin, Jasper Lee, Kaitlin Maciejewski, Daniel Mayo, Erin McConocha, Noelle Mendez, Meghan Michalski, Faithlynn Morris, Rebecca Pepe, Kobe Pereira, Rachel Perler, Marc Puccinelli, Zachary Rawlings, Jesse Reynolds, Maxwell Richardson, Craig Rodriguez-Seijas, Brooke Rogers, Steven Safren, Jasmyn Sanders, Satyanand Satyanarayana, Jillian Scheer, Dominic Schnabel, Ingrid Solano, Rosana Smith-Alvarez, Timothy Sullivan, Tennille Taggart, Arjan van der Star, Elliott Weinstein, Roxanne Winston, and Amy Weisman de Mamani.

## Funding

Study 1 was funded by the National Institute of Mental Health (R01MH112384). Data were collected through the National Study of Stigma and Sexual Health and are available on request from Mark L. Hatzenbuehler at markhatzenbuehler@fas.harvard.edu. Study 2 was funded by the National Institute of Mental Health

(R01MH109413); the David R. Kessler, MD '55 Fund for LGBTQ Mental Health Research at Yale; and the Fund for Lesbian and Gay Studies at Yale. Data were collected through a randomized controlled trial (NCT02929069) and are available on request from John E. Pachankis at john.pachankis@yale.edu. The content is solely the responsibility of the authors and does not represent the official views of the funders.

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**Table 1.**

Demographic Characteristics of Study 1 Sample (N = 424) and Study 2 Sample (N = 251)

Study 1 Characteristic	n	%	Study 2 Characteristic	n	%
Sexual orientation					
Gay	326	76.9	Gay	185	73.7
Bisexual	98	23.1	Bisexual	53	21.1
			Queer	13	5.2
Gender					
Cisgender man	415	97.9	Man	248	98.8
Transgender man	4	0.9	Transgender man	2	0.8
Gender non-binary	3	0.7	Genderqueer	6	2.4
Other	2	0.5	Gender non-conforming/-binary	3	1.2
			Two-spirit	3	1.2
			Other	2	0.8
Race/ethnicity					
Hispanic	64	15.1	American Indian or Alaska Native	1	0.4
Black, Non-Hispanic	23	5.4	Asian	10	4.0
White, Non-Hispanic	322	75.9	Black/African American	43	17.1
Other, Non-Hispanic	8	1.9	Native Hawaiian or Other Pacific Islander	2	0.8
>2 races, Non-Hispanic	7	1.7	White	139	55.4
			Multiracial	38	15.1
			Different race	18	7.2
			Hispanic/Latinx		
			Yes	106	42.2
			No	145	57.8
Highest level of education					
Less than high school	10	2.4	Some high school	2	0.8
High school	37	8.7	High school diploma or GED	19	7.6
Some college	150	35.4	Some college or associate's degree	65	25.9
Bachelor's degree or higher	227	53.5	Bachelor's degree or higher	130	51.8
Income					



	Study 1 Characteristic		Study 2 Characteristic		
	<i>n</i>	%	<i>n</i>		%
Under \$30,000	103	24.3	140	Under \$30,000	55.8
Greater or equal to \$30,000	321	75.7	111	Greater or equal to \$30,000	44.2
Relationship status				Relationship status	
Single	239	56.4	176	Single	70.1
Partnered	185	43.6	75	Partnered	29.9
	<i>M</i>	<i>SD</i>	<i>M</i>		<i>SD</i>
Age (Range 18-84)	54.29	14.35	26.52	Age (Range 18-35)	4.17

<sup>a</sup>For Study 2, participants were able to select multiple genders. Percentages are based on total sample size for each identity.

**Table 2.** Means, Standard Deviations, and Pearson Correlations of Study 1 (N = 424) and Study 2 (N = 251) Variables

Variable	Study 1					
	1	2	3	4 <sup>a</sup>	5	6
1. Body dissatisfaction	--	.18***	.13**	.27***	.06	.06
2. Gay community stress		--	.14**	.19***	.02	.15**
3. Rejection sensitivity			--	.14**	.02	.24***
4. Internalized stigma				--	.32***	.16**
5. Identity concealment					--	-.09
6. Discrimination						--
<i>M</i>	2.82	1.90	12.75	1.42 (1.86)	1.89	11.04
<i>SD</i>	0.97	0.65	7.74	0.47 (0.64)	0.93	4.48
Range	1.00-6.00	1.00-4.00	1.00-36.00	1.00-3.67 (1.00-3.80)	1.00-4.00	9.00-36.00

  

Variable	Study 2									
	1	2	3	4	5	6	7	8	9	10
1. Body dissatisfaction	--	.42***	.35***	.40***	.39***	.21**	.42***	.27***	-.11	.20**
2. Gay community stress (GCS)		--	.87***	.77***	.92***	.66***	.36***	.30***	-.10	.33***
3. GCS Sex			--	.51***	.73***	.44***	.30***	.31***	-.05	.20**
4. GCS Social Status				--	.64***	.44***	.34***	.26***	-.10	.31***
5. GCS Competition					--	.48***	.30***	.29***	-.08	.32***
6. GCS Exclusion						--	.25***	.03	-.13*	.30***
7. Rejection sensitivity							--	.38***	.19**	.41***
8. Internalized stigma								--	.41***	.34***
9. Identity concealment									--	.06
10. Discrimination										--
<i>M</i>	4.02	2.83	3.06	2.65	2.66	3.03	14.05	1.84	1.81	19.84
<i>SD</i>	0.96	0.88	1.05	1.06	1.02	1.16	7.60	0.74	0.73	9.08
Range	1.92-5.96	1.00-5.00	1.00-5.00	1.00-5.00	1.00-5.00	1.00-5.00	1.07-36.00	1.00-4.00	1.00-3.80	9.00-54.00

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Correlations are based on the standardized scores from the internalized stigma measures. Values outside the parentheses represent scores from the gay participants, and values inside the parentheses represent scores from the bisexual participants.

$p < .001$   
 $p < .01$   
 $p < .05$   
 $*$

**Table 3.**

Hierarchical Regression of Gay Community Stress on Body Dissatisfaction in Study 1 (N = 424) and Study 2 (N = 251)

Predictor	Study 1						Study 2						
	<i>b</i> ( <i>SE</i> )	95 % CI	$\beta$	<i>b</i> ( <i>SE</i> )	95 % CI	$\beta$	<i>b</i> ( <i>SE</i> )	95 % CI	$\beta$	<i>b</i> ( <i>SE</i> )	95 % CI	$\beta$	
<b>Step 1</b>													
Sexual orientation	-0.12 (0.11)	-0.34, 0.10	-0.05	-0.12 (0.13)	-0.37, 0.14	-0.05	-0.11 (0.13)	-0.36, 0.15	-0.05	-0.11 (0.13)	-0.36, 0.15	-0.05	-0.18 <sup>***</sup>
Age	-0.01 (0.003)	-0.02, -0.01	-0.21 <sup>***</sup>	-0.01 (0.003)	-0.02, -0.01	-0.19 <sup>***</sup>	-0.01 (0.003)	-0.02, -0.01	-0.19 <sup>***</sup>	-0.01 (0.003)	-0.02, -0.01	-0.18 <sup>***</sup>	-0.18 <sup>***</sup>
Race/ethnicity	-0.01 (0.04)	-0.08, 0.09	0.01	0.01 (0.04)	-0.07, 0.09	0.01	0.01 (0.04)	-0.07, 0.08	0.01	0.01 (0.04)	-0.07, 0.08	0.01	0.01
Income	0.01 (0.01)	-0.01, 0.04	0.07	0.01 (0.01)	-0.01, 0.04	0.07	0.02 (0.01)	-0.01, 0.04	0.08	0.02 (0.01)	-0.01, 0.04	0.08	0.08
Education	-0.06 (0.07)	-0.19, 0.08	-0.04	-0.05 (0.07)	-0.18, 0.09	-0.03	-0.05 (0.07)	-0.18, 0.08	-0.04	-0.05 (0.07)	-0.18, 0.08	-0.04	-0.04
Relationship status	-0.16 (0.10)	-0.36, 0.05	-0.08	-0.08 (0.10)	-0.28, 0.12	-0.04	-0.05 (0.10)	-0.25, 0.15	-0.03	-0.05 (0.10)	-0.25, 0.15	-0.03	-0.03
<b>Step 2</b>													
Rejection sensitivity				0.02 (0.01)	0.01, 0.03	0.12 <sup>*</sup>	0.01 (0.01)	0.001, 0.03	0.10 <sup>*</sup>	0.01 (0.01)	0.001, 0.03	0.10 <sup>*</sup>	0.10 <sup>*</sup>
Internalized stigma				0.22 (0.05)	0.03, 0.21	0.23 <sup>**</sup>	0.21 (0.05)	0.11, 0.31	0.21 <sup>***</sup>	0.21 (0.05)	0.11, 0.31	0.21 <sup>***</sup>	0.21 <sup>***</sup>
Identity concealment				0.02 (0.06)	-0.13, 0.10	0.002	0.004 (0.06)	-0.12, 0.13	0.004	0.004 (0.06)	-0.12, 0.13	0.004	0.004
Discrimination				-0.002 (0.01)	-0.03, 0.01	-0.02	-0.004 (0.01)	-0.02, 0.01	-0.03	-0.004 (0.01)	-0.02, 0.01	-0.03	-0.03
<b>Step 3</b>													
Gay community stress							0.16 (0.07)	0.01, 0.30	0.11 <sup>*</sup>	0.16 (0.07)	0.01, 0.30	0.11 <sup>*</sup>	0.11 <sup>*</sup>
<b>Full Model</b>													
<i>R</i> <sup>2</sup>		.05 <sup>***</sup>			.12 <sup>***</sup>			.13 <sup>***</sup>			.13 <sup>***</sup>		.13 <sup>***</sup>
<i>R</i> <sup>2</sup>		--			.07 <sup>***</sup>			.07 <sup>***</sup>			.07 <sup>***</sup>		.07 <sup>***</sup>
<b>Step 1</b>													
Sexual orientation	-0.06 (0.05)	-0.11, -0.01	-0.07	-0.04 (0.05)	-0.14, 0.05	-0.05	-0.03 (0.04)	-0.12, 0.06	-0.04	-0.03 (0.04)	-0.12, 0.06	-0.04	-0.04
Age	-0.02 (0.02)	-0.05, 0.01	-0.09	-0.01 (0.01)	-0.04, 0.02	-0.03	-0.01 (0.01)	-0.04, 0.02	-0.04	-0.01 (0.01)	-0.04, 0.02	-0.04	-0.04
Race/ethnicity	0.01 (0.03)	-0.02, 0.04	0.02	0.002 (0.03)	-0.05, 0.05	0.01	-0.004 (0.02)	-0.03, 0.02	-0.01	-0.004 (0.02)	-0.03, 0.02	-0.01	-0.01
Income	0.07 (0.04)	0.001, 0.14	0.14	0.04 (0.03)	-0.03, 0.10	0.07	0.05 (0.03)	-0.02, 0.11	0.09	0.05 (0.03)	-0.02, 0.11	0.09	0.09
Education	0.02 (0.04)	-0.04, 0.08	0.03	0.03 (0.03)	-0.03, 0.10	0.06	0.03 (0.03)	-0.03, 0.09	0.05	0.03 (0.03)	-0.03, 0.09	0.05	0.05

Relationship status	-0.03 (0.06)	-0.08, 0.03	-0.03	-0.03 (0.05)	-0.11, 0.05	-0.04	-0.05 (0.05)	-0.15, 0.05	-0.06
<b>Step 2</b>									
Rejection sensitivity				0.05 (0.01)	0.03, 0.06	0.27***	0.04 (0.01)	0.02, 0.06	0.31***
Internalized stigma				0.32 (0.09)	0.23, 0.40	0.24***	0.23 (0.09)	0.14, 0.32	0.18**
Identity concealment				-0.34 (0.08)	-0.50, -0.17	-0.26***	-0.25 (0.08)	-0.41, -0.09	-0.19**
Discrimination				-0.001 (0.01)	-0.02, 0.01	-0.01	-0.01 (0.01)	-0.02, 0.01	-0.05
<b>Step 3</b>									
Gay community stress							0.28 (0.07)	0.15, 0.41	0.26***
<b>Full Model</b>									
$R^2$		.03			.27***			.32***	
$R^2$		--			.24***			.05***	

\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$