Published in final edited form as:

J Trauma Dissociation. 2019 ; 20(5): 603–618. doi:10.1080/15299732.2019.1597815.

A Psychosocial Risk Model of Potentially Traumatic Events And Sexual Risk Behavior Among LGBTQ Individuals

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Abstract

Lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals face heightened risk of potentially traumatic events (PTEs) exposure, including hate crimes and childhood abuse. Past research demonstrates associations between PTEs exposure and sexual risk behavior; however, examining the indirect effect of PTEs on sexual risk behavior remains understudied among LGBTQ individuals. This study tested a path analysis model to inform interventions targeted to reduce sexual risk behavior, as conceptualized by condomless sex with casual partners without knowing the person's HIV or sexually transmitted infection (STI) status, among LGBTQ individuals with PTEs exposure. Participants completed an online one-time survey and included 207 LGBTQ adults who experienced at least one PTE during the past year. Indirect effect results indicated that PTEs exposure was related to sexual risk behavior through serial associations between shame, loneliness, and substance use. Direct effect estimates indicated that greater PTEs exposure was associated with greater shame, loneliness, substance use, and sexual risk behavior. Greater shame was associated with greater loneliness, which was associated with greater substance use. Also, greater substance use was associated with greater sexual risk behavior. This study adds to the burgeoning body of literature on the relationship between PTEs exposure and sexual risk behavior among LGBTQ individuals. Clinical and counseling interventions for LGBTQ individuals with PTEs exposure should work to address modifiable psychosocial risk factors associated with sexual risk behavior.

Keywords

LGBTQ issues; impact of trauma; risk factors; psychosocial life events; sex

Lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals experience elevated rates of exposure to potentially traumatic events (PTEs), including childhood sexual abuse and intimate partner violence (Alessi, Martin, Gyamerah, & Meyer, 2013; Antebi-Gruszkka, Mor, & Shilo, in press; Gehring & Knudson, 2005; Hughes, McCabe, Wilsnack, West, &

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Location of the institution and place where the work was done: Boston College, Department of Counseling, Developmental, and Educational Psychology

Boyd, 2010). For instance, lesbian and bisexual women are twice as likely to report childhood sexual abuse than heterosexual women, and gay and bisexual men are twice as likely to report childhood sexual abuse and neglect than heterosexual men (Hughes et al., 2010). Another study noted that 55.0% of transgender males and females report exposure to unwanted sexual contact (Gehring & Knudson, 2005). LGBTQ individuals may be particularly vulnerable to victimization due to stigma attached to their LGBTQ identity (Hughes et al., 2010; Meyer, 2003; Woulfe & Goodman, 2018). Further, sexual risk behavior (e.g., condomless sex with casual partners without knowing the person's HIV or sexually transmitted infection [STI] status) serves as an important outcome of PTEs exposure that remains understudied among the broader LGBTQ community, including sexual minority women, transgender men, and gender nonconforming individuals. Therefore, this study aims to better understand the possibility that PTEs may be indirectly related to sexual risk behavior through several psychosocial conditions among a diverse sample of LGBTQ individuals.

Trauma exposure and sexual risk

Prior research documents associations between PTEs exposure and sexual risk behavior primarily among men who have sex with men and transgender women. For example, several studies with men who have sex with men indicate associations between victimization, substance use, and HIV-related sexual risk behavior (Mimiaga et al., 2015; Parsons et al., 2017; Parsons, Rendina, Moody, Ventuneac, & Grov, 2015). Other studies demonstrate that transgender women with exposure to forced sexual intercourse report greater sexual risk behavior (Parsons, Antebi-Gruszka, Millar, Cain, & Gurung, 2018). Moreover, while it is critical to document the direct relationship between PTEs and sexual risk behavior among LGBTQ individuals, identifying modifiable psychosocial factors that could further shed light on their association remain widely unexplored.

Despite possible discrepancies between sexual identity, behavior, and attraction, notable gaps remain in research examining condomless sex with a casual partner without knowing their HIV or STI status, a common indicator of sexual risk behavior, among sexual minority women, transgender men, and gender nonconforming individuals. Nevertheless, some evidence indicates that sexual minority women may have a risk of HIV infection as high or higher than women who identify as heterosexual who have sexual contact exclusively with cisgender men (Friedman et al., 2003; Goodenow, Szalacha, Robin, & Westheimer, 2008). Additionally, most lesbian and bisexual women with female sexual partners have had heterosexual sexual intercourse at some point in their lives (Cochran, Bybee, Gage, & Mays, 1996) and women who report at least one female sexual partner engage in greater sexual risk behavior than exclusively heterosexual women (Bailey, Farquhar, Owen, & Whittaker, 2003). Further, other studies note that as many as 69% of transgender men report receptive vaginal/frontal sex in the past 12 months with only 31% reporting consistent condom use (Sevelius, 2009). Indeed, there may exist a subgroup of sexual minority women and transgender and gender nonconforming individuals (e.g., those with elevated rates of PTEs) engaging in sexual risk behavior that could lead to a rise in HIV and sexually transmitted diseases (STDs) incidence in this community, warranting sufficient examination of sexual risk among those with PTEs exposure.

Psychosocial factors and sexual risk behavior

Many LGBTQ individuals with PTEs exposure may internalize stigma-related messages and attitudes which PTEs may reinforce (Straub, McConnell, & Messman-Moore, 2018). Shame represents a social emotion that reflects how an individual perceives themselves and is common among individuals with trauma exposure (Beck et al., 2011). Previous studies indicate the role of shame in mediating the relationship between stigma-related stress and sexual risk behavior (Hatzenbuehler, 2009; Holmes, Foa, & Sammel, 2005). This current study aims to extend these findings by examining the indirect effect of PTEs exposure on sexual risk behavior through shame among LGBTQ individuals.

In the context of PTEs, shame signals threat to the social self, which can relate to relational avoidance and loneliness (Budden, 2009; Mereish & Poteat, 2015). Building on this, other findings suggest that adult Latino sexual minority men with childhood sexual abuse exposure were more likely to engage in sexual risk behavior, possibly as way of coping with loneliness (Arreola, Neilands, & Diaz, 2009). Specific to LGB populations, Mereish and Poteat (2015) found associations between shame-related interpersonal disconnections and withdrawal or avoidance of people and communities, and in turn, loneliness. Nevertheless, virtually no studies have examined the relationship between shame and loneliness in predicting sexual risk behavior among LGBTQ individuals exposed to trauma.

According to the loneliness and sexual risk model, loneliness contributes to sexual risk behavior by way of increased substance use and compulsive behaviors (e.g., compulsive sexual behavior; Torres & Gore-Felton, 2007). In fact, engaging in substance use and compulsive behaviors may be motivated by the need to alleviate loneliness-related anxiety (Torres & Gore-Felton, 2007). Taken together, this study examines direct associations between loneliness and substance use, and loneliness and sexual risk behavior among LGBTQ individuals with PTEs exposure.

Results from one study showed that sexual minority men with exposure to forced unwanted sexual activity report elevated rates of substance use compared to those without these experiences (Kalichman et al., 2001). In addition, a recent study examined the intersection and additive effects of five conditions (substance use, depression, childhood sexual abuse, intimate partner violence, and sexual compulsivity) and recent HIV transmission risk behavior in a national sample of HIV-negative men who have sex with men, providing evidence that these factors increase the risk for HIV transmission (Parsons et al., 2017). However, studies examining the association between substance use and sexual risk behavior among lesbian and bisexual women, transgender men, and queer individuals remain limited.

The current study

PTEs exposure may inherently disrupt psychological and social functioning; thus, we tested the indirect effect of PTEs exposure on sexual risk behavior through several modifiable psychosocial factors among LGBTQ individuals (see Figure 1). First, it was hypothesized that PTEs exposure would be directly associated with greater shame (Path A; Beck et al., 2011); loneliness (Path B; Hatzenbuehler, 2009), substance use (Path C; Parsons et al., 2018,

2017), and sexual risk behavior (Path J; Shilo, Antebi, & Mor, 2015). Greater shame was also hypothesized to directly relate to greater loneliness (Path D; Mereish & Poteat, 2015), substance use (Path E; Parsons et al., 2015), and sexual risk behavior (Path F; Amadio & Chung, 2004). It was also hypothesized that greater loneliness would directly relate to greater substance use (Path G; Torres & Gore-Felton, 2007) and sexual risk behavior (Path H; DeLonga et al., 2011), and that greater substance use would relate to greater sexual risk behavior (Path I, 2018; Parsons et al., 2017). Additionally, it was hypothesized that PTEs would have an association with greater sexual risk behavior through the total indirect effect of shame, loneliness, and substance use. Further, limited research examines gender identity or racial/ethnic disparities in PTEs exposure, psychosocial risk factors, and sexual risk behavior among LGBTQ individuals. As such, this study tested for gender identity and racial/ethnic differences across study variables.

Method

Participants

Participants included 207 self-identified LGBTQ adults ages 18 to 78 ($M = 27.6$, $SD = 9.74$; see Table 1). Most participants identified as queer (23.2%), followed by bisexual (22.7%), other non-heterosexual identity (e.g., asexual, pansexual; 21.2%), gay (18.4%), and lesbian (14.5%). Participants identified as cisgender women (48.3%), transgender or gender nonconforming (38.7%), and cisgender men (13.0%). Participants identified as White (55.6%), Biracial or Multiracial (16.9%), African American/Black (9.2%), Hispanic/Latinx (4.8%), Asian/Asian American (4.3%), “other” (3.9%), Middle Eastern (2.4%), Native American/Alaska Native (1.4%), African (1.0%), and Native Hawaiian/Pacific Islander (0.5%).

Procedures

Participants were recruited as part of a larger study on trauma-informed care for LGBTQ individuals with trauma exposure (Scheer & Poteat, 2018). Participants were recruited from online groups, listservs, and forums (e.g., events, social media and e-mail broadcasts distributed by LGBTQ- and trauma-related organizations). Eligibility criteria included: (1) being 18 and older, (2) identifying as LGBTQ, (3) having experienced at least one PTE in their lifetime; and, (4) having sought at least one type of service related to their PTE including: housing, legal, mental health counseling, shelter, medication management, hotline use, transitional housing, and medical care within the past year. A secure online data collection tool (Qualtrics) collected survey responses. All participants received instructions directing them to a link to the survey, where they consented to participate in the study. The survey took approximately 30 minutes to complete. Each participant was provided with information on local and national resources. Participants elected to be compensated for survey completion by entering themselves into a raffle to win one of fifteen \$10.00, ten \$20.00, or 3 \$50.00 Amazon gift cards. Study protocols were approved by Boston College’s Institutional Review Board.

Measures

Demographics—Participants reported their age, gender identity (response options were: cisgender woman, cisgender man, and transgender or gender non-conforming), race/ethnicity (response options were: African American/Black, African, Asian/Asian American, Hispanic/Latinx, Native Hawaiian/Pacific Islander, Native American/Alaska Native, Middle Eastern, Biracial/Multiracial, White, and “other”), sexual orientation (response options were: lesbian, gay, bisexual, pansexual, queer, asexual, and “other”), socioeconomic status (current financial situation, e.g., “*I have trouble paying my regular bills*”), and relationship status (response options were: 0 = *No*, 1 = *Yes*). Due to small sample sizes across each race/ethnic category, a dichotomous variable was created to reflect LGBTQ people of Color (0) and White LGBTQ people (1).

Duration of service use—Participants reported whether they received services from an agency, program, or provider (e.g., psychotherapy, hotline use) during the past year (response options were: 0 = *No*, 1 = *Yes*) as well as when they first started receiving those services. Response options were: 0 (*Less than a month ago*) to 5 (*More than 5 years ago*). A mean score was computed, and higher average scale scores represent longer amounts of time spent receiving services.

Sexual risk behavior—Sexual risk behavior over the past month was assessed using one item that measures individuals’ self-reports of sexual activity (Díaz, Ayala, & Bein, 2004). The item assesses the number of condomless sex events with casual partners without knowing the person’s HIV/STI status, a common indicator of sexual risk behavior among LGBTQ individuals (Mustanski, Greene, Ryna, & Whitton, 2015, 2018; Parsons, Grov, & Golub, 2012, 2017, 2015). Response options are on a 6-point scale ranging from 0 (*Never*) to 6 (*5 or more times*). This classification of sexual risk avoids classifying condomless intercourse between monogamous or primary partners as a sign of sexual risk. A mean score was computed and higher values on this scale indicate greater engagement in sexual risk behavior.

Potentially traumatic events—The Stressful Life Events Screening Questionnaire (SLESQ; Goodman, Corcoran, Turner, Yuan, & Green, 1998) measures exposure to Criterion A stressors. An example item includes: “When you were a child, did a parent, caregiver or other person ever slap you repeatedly, beat you, or otherwise attack or harm you?” The SLESQ has adequate test-retest reliability (κ of .73; Goodman et al., 1998). This measure has not yet been used with LGBTQ populations. Response options range from 1 (*No*) to 3 (*Yes, multiple times*). The internal consistency estimate for this current study was $\alpha = .82$. A total score was computed and higher scale scores represent greater PTEs exposure.

Shame—Feelings of shame over the past year were measured with the shame subscale of the Personal Feelings Questionnaire-2 (PFQ2-Shame; Harder & Zalma, 1990). Participants reported the frequency they experienced shame-based devaluations of the global self over the past year (e.g., “embarrassed” and “feeling humiliated”). Response options range from 0 (*never experience the feeling*) to 3 (*experience the feeling continuously or almost*

continuously). The PFQ-2 Shame scale has been used with sexual minorities (Mereish & Poteat, 2015; $\alpha = .91$) and has a high level of construct validity (Harder & Zalma, 1990). The internal consistency estimate was $\alpha = .90$ for the current study. A mean score was computed and higher average scale scores indicate greater shame.

Loneliness—Feelings of loneliness over the past year were measured with the De Jong Gierveld Loneliness Scale-short form (e.g., “Over this past year I have missed having people around”; Gierveld & Tilburg, 2006). Response options range from 1 (*Never experience the feeling*) to 5 (*Experience the feeling continuously or almost continuously*). Across three studies, this scale demonstrated adequate internal consistency ($\alpha = .70$ or higher; Gierveld & Tilburg, 2006). This measure has been used with sexual minorities (Scheer & Poteat, 2018). The internal consistency estimate was $\alpha = .76$. A mean score was computed, and higher average scale scores reflect greater loneliness.

Substance use—Participants reported on the use of the following substances in the past 6 months: marijuana, cocaine, stimulants (e.g., speed), depressants (e.g., Valium), heroin, and hallucinogens. Similar items were assessed among LGBTQ populations in prior research (D’Augelli, Pilkington, & Hershberger, 2002). Response options range from 0 (*never*) to 6 (*every day*). The internal consistency estimate was $\alpha = .82$ for the current study. A mean score was computed, and higher average scale scores represent greater substance use.

Data analysis

There was minimal missing data (0.6% to 2.5%) and there were no significant differences on variables for cases with missing data prior to imputation (Little, 1988). Missing values were imputed with plausible simulated values (Schlomer, Bauman, & Card, 2010). Statistical significance was determined at the alpha .05 level. Pearson’s r correlations determined bivariate relationships among the variables and covariates. Two separate multivariate analyses of variance (MANOVAs) tested for demographic differences (race/ethnicity: White vs. people of Color; gender identity: cisgender male vs. cisgender female vs. transgender or gender nonconforming). Bonferroni post-hoc comparisons were made when the follow up ANOVAs were significant. Several studies have controlled for demographic factors, such as age, relationship status, and race/ethnicity, in multivariate analyses examining the association between adverse experiences, health conditions, and HIV risk (Parsons et al., 2012). Thus, the path analyses in this study included the following demographic covariates: age, gender identity, race/ethnicity, socioeconomic status, relationship status, and duration of service use.

A path analysis was conducted using *Mplus* version 8.1, which allowed for the simultaneous testing of multiple regressions, the examination of indirect and direct effects, and their respective standard errors. PTEs exposure predicted sexual risk behavior through serial associations between shame, loneliness, and substance use. All variables were manifest (i.e., observed) indicators to achieve an adequate estimated parameter to sample size ratio (Wang & Pachankis, 2016). The *Mplus* default of maximum likelihood estimation calculated all paths, and standardized regression coefficients as well as their corresponding test statistics and p -values are reported. The following goodness of fit indices were used: comparative fit

index (CFI), Tucker-Lewis Index (TLI), standardized root mean square residual (SRMR), and root-mean-square error of approximation (RMSEA). Values approaching .90 for the CFI and TLI (Kline, 1998) and SRMR and RMSEA values of .08 or lower indicate that the model is a good fit to the data (Hu & Bentler, 1999).

Results

Bivariate associations

Bivariate associations are reported in Table 2 and revealed significant relations among the predictor variable (PTEs), mediators (shame, loneliness, and substance use), and outcome variable (sexual risk behavior) in the hypothesized directions that justified formal indirect effects analyses and ranged from $r = .15, p < .05$ to $r = .59, p < .001$. Contrary to our hypothesis, loneliness was not associated with substance use or sexual risk behavior at the bivariate level. These patterns are more thoroughly reviewed in the tested path model.

Comparisons across gender identity and race/ethnicity

MANOVA results revealed a significant omnibus effect for gender identity, Wilks' $\Lambda = .82, F(22, 386.00) = 1.88, p < .05, \eta_p^2 = .10$, and race/ethnicity, Wilks' $\Lambda = .81, F(5, 201.00) = 9.63, p < .001, \eta_p^2 = .19$. Bonferroni post-hoc comparisons indicated that transgender and gender nonconforming individuals ($n = 27$) and cisgender women ($n = 100$). Additionally, LGBTQ people of Color ($n = 92$) reported elevated rates of PTEs exposure, shame, loneliness, substance use, and sexual risk behavior compared to White LGBTQ people ($n = 115$).

Manifest path analysis

Figure 1 depicts the mediation model whereby PTEs exposure predicted sexual risk behavior through shame, loneliness, and substance use (adjusting for demographic characteristics). The indices all surpassed accepted standards or had reasonable approximate fit, suggesting an adequately-specified model ($\chi^2 = 329.32^{***}, df = 40$; TLI = .86; CFI = .91; SRMR = .07; RMSEA = .07 [95% CI .04, .09]). As hypothesized, greater PTEs exposure was directly associated with greater shame (Path A), which was directly associated with greater loneliness (Path D). Greater loneliness was directly associated with greater substance use (Path G), which was directly associated with greater sexual risk behavior (Path I). Greater PTEs exposure had significant direct effects on greater substance use (Path C) and greater sexual risk behavior (Path J). Contrary to our hypothesis, greater PTEs exposure was directly related to lower levels of loneliness (Path B) and lower levels of loneliness was directly related to greater sexual risk behavior (Path H). Shame was not directly related to greater substance use (Path E) or sexual risk behavior (Path F). To test whether PTEs exposure had an indirect association on sexual risk behavior among LGBTQ individuals, all possible indirect paths were utilized to form a total indirect effect, which was significant ($\beta = .10; p < .01$). Overall, the model explained 26% of the variance in sexual risk behavior.

Discussion

This is one of the first studies to examine a path analysis of the relationship between PTEs exposure and sexual risk behavior among a diverse sample of sexual and gender minority individuals. In line with our hypotheses, our findings support a model whereby: (1) PTEs exposure related to greater psychosocial risk factors (shame, loneliness, and substance use), (2) psychosocial factors were generally found to confer risk for sexual risk behavior; and, (3) PTEs exposure was related to greater sexual risk behavior, both directly, and indirectly through shame, loneliness, and substance use. Among significant direct paths, PTEs exposure was related to greater shame, lower loneliness, and greater substance use; greater shame was related to greater loneliness; greater loneliness was related to greater substance use, and finally, greater substance use was associated with greater sexual risk behavior. Extant research provides evidence of the direct association between PTEs exposure and sexual risk behavior among men who have sex with men (Mimiaga et al., 2015), transgender women (Parsons et al., 2018), and lesbian and bisexual women (Hequembourg, Livingston, & Parks, 2013). Building on these findings, the current study's findings lend preliminary support that PTEs exposure may indirectly relate to increased condomless sex with casual partners without knowing their HIV/STI status, a known risk factor for HIV, among a diverse sample of LGBTQ individuals, including sexual minority women, transgender men, and gender nonconforming individuals, through disrupting fundamental psychosocial processes.

LGBTQ individuals represent one group particularly vulnerable to shame due to internalized stigma, of which PTEs exposure may exacerbate. While limited research exists investigating the association between PTEs and shame in LGBTQ individuals (Aakvaag et al., 2016), many LGBTQ individuals experience shame due to stigma and discrimination (Antebi-Gruszka & Schrimshaw, 2018; Hatzenbuehler, 2009; Meyer, 2003; Pachankis, 2007), which may be further compounded by recurring exposure to PTEs (Straub et al., 2018). Experiencing shame can be very debilitating as it affects one's self-worth, social engagement, support seeking, and mental and physical health (Lee, Scragg, & Turner, 2001; Mereish & Poteat, 2015; Scheer & Poteat, 2018). Therefore, it is not surprising that this study demonstrated a positive association between feelings of shame and loneliness. Moreover, negative cognitions and affect related to oneself may interfere with an adaptive coping style of initiating or maintaining contact with social supports, further precluding an adaptive response to PTEs among LGBTQ individuals.

As hypothesized, greater loneliness was associated with elevated rates of substance use. This study extends previous findings suggesting that engaging in compulsive behaviors, such as substance use, may be motivated by the need to assuage anxiety related to loneliness (Torres & Gore-Felton, 2007), especially among LGBTQ individuals with PTEs exposure. Consistent with previous findings, this study provides further evidence for the positive association between substance use and sexual risk behavior among LGBTQ individuals. Numerous studies have documented the relation between substance use and sexual risk among gay, bisexual, and other men who have sex with men (Parsons et al., 2012, 2017), and to a lesser extent, among transgender women (Parsons et al., 2018).

Transgender and gender nonconforming individuals reported greater PTEs exposure than cisgender sexual minority men and cisgender sexual minority women, highlighting the need for prevention and intervention efforts specifically targeting this population. Further, LGBTQ people of Color were more likely to report PTEs exposure, shame, loneliness, substance use, and sexual risk behavior than White LGBTQ people. These findings substantiate previous literature, asserting that LGBTQ people of Color, and in particular, racial and ethnic minorities who identify as transgender, face societal discrimination and victimization and may experience mental health challenges in ways distinct from White LGBTQ people (Singh & McKleroy, 2011).

Practice implications

The current findings expand our understanding of unique psychosocial determinants of sexual risk behavior (e.g., Parsons et al., 2017), and could inform clinical interventions targeting sexual health among LGBTQ individuals. For instance, based on the findings of the present study, exposure to PTEs may relate to sexual risk behavior through its association with substance use. As these findings broadly indicate, there may be a disruptive nature of PTEs exposure on sexual risk behavior among LGBTQ individuals through multiple modifiable psychosocial mechanisms. Thus, interventions targeting any of psychosocial mediators (i.e., shame, loneliness, substance use) may prove useful in buffering the association between PTEs exposure and sexual risk behavior among this vulnerable population.

When working with LGBTQ individuals with PTEs exposure, employing psychoeducational techniques may help to normalize the deleterious impact of PTEs and various minority stressors on their sexual health. Trauma-informed cognitive behavioral techniques (e.g., cognitive restructuring) could also be utilized to target shame among LGBTQ clients with PTEs exposure (Scheer & Poteat, 2018). Building on these findings, developing client-specific coping and emotion regulation techniques may not only improve the mental health of LGBTQ individuals exposed to PTEs, but may also reduce their engagement in sexual risk behavior. Similarly, social support interventions can alleviate LGBTQ clients' sense of loneliness (Weiss, Garvert, & Cloitre, 2015), and may reduce substance use and sexual risk behavior (Miranda-Díaz & Corcoran, 2012). These interventions should be implemented in LGBTQ community settings and organizations, as connectedness to the broader LGBTQ community serves as a protective factor against minority stress and victimization (Shilo et al., 2015). Lastly, interventions targeting substance use among LGBTQ individuals may also have a positive impact on lowering sexual risk behavior engagement (Jhanjee, 2014).

Limitations and directions for future research

Despite the novel findings of this study, it is not without limitations. Data analyzed in this study were cross-sectional, and therefore, causation cannot be inferred. Longitudinal studies are needed to lend further support to the path model found in this study. Also, this study did not account for type, severity, or frequency of PTEs exposure, which would be an important factor to consider in future research. Given the limited number of participants across each LGBTQ identity, and therefore, limited statistical power to detect possible differences, analyses grouped all populations together, which prevents us from identifying psychosocial

mediators that may be unique to LGBTQ subgroups. Future studies addressing this sample size limitation are warranted, especially among gay, bisexual and other men who have sex with men and transgender women, given their higher HIV and STI prevalence compared with other LGBTQ individuals (Beyrer et al., 2013). While several studies suggest that sexual minority women and transgender men report unprotected receptive vaginal/frontal sex with cisgender men (Bailey et al., 2003; Cochran et al., 1996; Friedman et al., 2003; Goodenow et al., 2008; Sevelius, 2009), future studies should examine additional indices of sexual risk behavior (e.g., multiple sex partners, using substances while having sex) to better understand the myriad social, behavioral, and biological factors that contribute to HIV and STI vulnerability for the broader LGBTQ population with trauma exposure. For instance, our measure of sexual risk behavior, condomless sex with casual partners without knowing the person's HIV or STI status, may not capture risky sex across all demographics of the LGBTQ community (e.g., cisgender women who only have sex with cisgender women).

Finally, not all LGBTQ individuals engaged in sexual risk behavior, although they were exposed to PTEs, which may be indicative of their resilience. Future studies examining individual- and community-level factors buffering the adverse effect of exposure to PTEs on sexual risk behavior in LGBTQ individuals are needed (Shilo et al., 2015; Wilson et al., 2016). This study adds to the burgeoning body of literature on the relationship between trauma and sexual risk behavior among LGBTQ individuals. Importantly, these findings shed light on new avenues for trauma-informed clinical interventions that may help reduce the prevalence of sexual risk behavior among this vulnerable population.

Acknowledgments

Funding

This work was supported by the American Psychological Association LGBT Dissertation Grant and the Boston College Lynch School of Education Dissertation Fellowship awarded to Jillian R. Scheer.

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Figure 1.

A path analysis of the association between potentially traumatic events exposure and sexual risk behavior among lesbian, gay, bisexual, transgender, and queer individuals. Note: Values are standardized coefficient estimates (β). Dashed lines represent non-significant paths. PTEs = potentially traumatic events. The model controls for age, gender identity, race/ethnicity, socioeconomic status, relationship status, and duration of service use. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 1.

Sample characteristics.

Variable	<i>n</i> (%)
Sexual orientation identity	
Lesbian	30 (14.5%)
Gay	38 (18.4%)
Bisexual	47 (22.7%)
Queer	48 (23.2%)
Other non-heterosexual identity	44 (21.2%)
Gender identity	
Cisgender woman	100 (48.3%)
Cisgender man	27 (13.0%)
Transgender and gender nonconforming	80 (38.7%)
Race/ethnicity	
People of Color	92 (44.4%)
White	115 (55.6%)
Socioeconomic status (current financial situation)	
I do not worry about paying for things I want and need	15 (7.5%)
I can easily pay my bills but need to be careful	50 (24.2%)
I can pay my regular bills, but a bill that was bigger than usual would cause hardship	89 (43.2%)
I have trouble paying my regular bills	39 (18.9%)
I simply can't pay my bills	14 (6.2%)
How long ago services were sought	
Less than a month ago	12 (6.2%)
Between 1 month and 6 months ago	35 (16.7%)
Between 6 months and one year ago	55 (26.9%)
More than one year ago	74 (36.1%)
More than 5 years ago	31 (14.1%)
Relationship status	
In a relationship	156 (75.4%)
Not in a relationship	51 (24.6%)
	Mean (SD)
Age in years	27.6 (9.7)

Table 2.

Bivariate associations between study variables and demographic covariates.

	1	2	3	4	5	6	7	8	9	10
1. PTEs	—									
2. Shame	.22 ***	—								
3. Loneliness	.15 *	.40 ***	—							
4. Substance use	.41 ***	.16 *	-.09	—						
5. Sexual risk behavior	.25 ***	.16 *	-.05	.54 ***	—					
6. Age	.20 **	-.15 *	.08	.02	.03	—				
7. Rel status	.07	.01	-.03	.01	.02	-.02	—			
8. Service duration	.17 *	-.13	-.07	-.02	.02	.27 ***	-.01	—		
9. Socioeconomic status	.04	.19 **	.11	.01	.11	-.01	.03	-.08	—	
10. Race/ethnicity	-.32 ***	-.17 *	-.05	-.39 ***	-.25 ***	.06	.01	.10	-.60	—
M (SD)	21.60 (5.40)	2.42 (.61)	2.67 (.63)	1.65 (.88)	1.48 (.87)	27.60 (9.50)	.75 (.43)	3.37 (1.12)	2.98 (1.10)	1.56 (.50)

Note: PTEs = potentially traumatic events; Rel status = relationship status; dichotomous (0 = not in a relationship, 1 = in a relationship); Race/ethnicity = dichotomous (0 = people of Color, 1 = White)

*
 $p < .05$

**
 $p < .01$

 $p < .001$.