Full length article

Structural equation modeling of the effects of racism, LGBTQ discrimination, and internalized oppression on illicit drug use in LGBTQ people of color

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ABSTRACT

Background: Experiences with lesbian, gay, bisexual, transgender, or queer (LGBTQ) discrimination and racism have both been associated with mental health problems and illicit drug use. However, the cumulative effects of both forms of discrimination—and resulting internalized oppression—on illicit drug use in LGBTQ people of color (POC) has not been examined in the research literature.
Methods: Using online questionnaires, this study collected self-report data from 200 LGBTQ POC about their experiences with racism, LGBTQ discrimination, internalized racism, internalized LGBTQ discrimination, and illicit drug use. Results: Two structural equation models yielded adequate fit indices in which experiences with racism and LGBTQ discrimination led to more internalized oppression, which then led to greater illicit drug use magnitude. LGBTQ discrimination was directly related to increased internalized oppression, which was positively associated with illicit drug use magnitude; the relationship between LGBTQ discrimination and illicit drug use magnitude was mediated by internalized oppression in both models. However, racism and the interaction between racism and LGBTQ discrimination did not show valid direct effects on internalized oppression or indirect effects on illicit drug use magnitude.
Conclusions: LGBTQ POC can be the targets of both racism and LGBTQ discrimination, although the current study found that the most psychologically damaging effects may come from LGBTQ discrimination. Interventions meant to decrease or prevent illicit drug use in LGBTQ POC may benefit from helping participants examine the links among LGBTQ discrimination, internalized oppression, and illicit drug use as a coping strategy, focusing on substituting more adaptive coping.

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1. Introduction

Illicit drug use is a risky health behavior related to negative outcomes such as increased rates of incarceration, homicide, hospital visits, specialty treatments, and premature death; and consequently, it is a costly social problem (National Drug Intelligence Center, 2011). Lesbian, gay, bisexual, transgender, and queer (LGBTQ) people of color (POC) are an understudied, but high-risk population for illicit drug use. Commonly, research conducted on minority populations has either focused on sexual, gender, or racial/ethnic minorities in relation to illicit drug use.

For example, while the majority of sexual minority individuals do not report substance use or dependence (McCabe et al., 2009),

illicit drug use and dependence has been found to be more prevalent among LGBTQ populations compared to heterosexual populations (Garofalo et al., 1998; Hughes and Eliason, 2002; King et al., 2008; Newcomb et al., 2014). Bisexual women appear at an especially increased risk for drug use (Corliss et al., 2010), whereas the findings for gay men have been mixed (Kelly et al., 2006; McCabe et al., 2009; Green and Feinstein, 2012). Less research has been conducted on substance use among transgender individuals, although illicit drug use appears to be prevalent (Benotsch et al., 2013; Rowe et al., 2015). When considering race/ethnicity, African Americans and Latinos in the general population have lower rates of illicit drug use than White individuals (Wallace et al., 2003; McCabe et al., 2007; Chen and Jacobson, 2012). However, some of negative associations with illicit drug use, such as rates of arrests and length of prison sentences, are disproportionally increased for POC (Mitchell and Caudy, 2015; Spohn, 2013). Further, the reduced rates of illicit

drug use by racial/ethnic minorities dissipate among bisexual and questioning individuals (Newcomb et al., 2014).

An attribution for the risk of illicit drug use in the LGBTQ and POC communities has been either specific LGBTQ discrimination (Mays and Cochran, 2001; Meyer, 2003; Mays et al., 2004) or racism (Choi et al., 2006; Borrell et al., 2007). Along with more blatant experiences of discrimination (e.g., being insulted, not given service, etc.), the effects of discrimination can be internalized. Internalized LGBTQ discrimination is the internalization of socially endorsed discrimination involving devaluation of oneself and low self-esteem among sexual and gender minority individuals (Meyer et al., 1998). Likewise, internalized racism is the personal adoption of racist societal views about one's own racial/ethnic group (Pettigrew, 1967). Internalized LGBTQ discrimination has been associated with less use of personal resources, which has been linked to lower self-esteem (Szymanski et al., 2001), more depression, anxiety, and substance use among LGB individuals (Nicholson and Long, 1990; Lehavot and Simoni, 2011). Evidence of internalized racism similarly points to adverse effects across many domains of functioning (Blascovich et al., 2001; Chambers et al., 2004; Dornbusch et al., 1991; Taylor and Jackson, 1990, 1991).

The dual minority status of LGBTQ POC has been implicated in the production of greater susceptibility to psychological consequences of discrimination (Cochran and Mays, 1994; Diaz et al., 2001, 2006; Wilson and Yoshikawa, 2004), as well as higher rates of illicit drug use (Wong et al., 2010). For LGBTQ POC, racial/ethnic minority protective factors may be overshadowed by LGBTQ discrimination (Bowleg et al., 2003; Matthews et al., 2014), which occurs within racial/ethnic minority communities (Hahm et al., 2008). In a national survey of LGB individuals in the United States, over two-thirds reported experiencing some form of discrimination within their lifetime (i.e., sexual orientation, race, and gender). LGB adults who reported experiences of all three types of discrimination had approximately four times the odds of reporting a past-year substance use disorder (McCabe et al., 2010), highlighting a possible multiplicative effect of different forms of discrimination on substance use.

This study aims to expand on previous work by further investigating the mechanisms by which LGBTQ POC are at increased risk of illicit drug use. Given the intersectionality of LGBTQ and race-based discrimination, research with LGBTQ POC can enlighten the general understanding, and the unique the effects, of overt discrimination on internalized oppression, and ultimately on illicit drug use. As such, the present study used structural equation modeling (SEM) with data from a sample of LGBTQ POC to test models of discrimination, internalized oppression, and illicit drug use. This work is based on previously theorized models of the associations between stressors and health (e.g., Meyer, 2003). It is hypothesized that increased experiences of LGBTQ discrimination and racism will result in increased susceptibility for illicit drug use via higher levels of internalized oppression. To determine if there are differences in the cumulative effects of LGBTQ discrimination and racism, as compared to their individual influences, their interaction was investigated testing both additive and multiplicative models. The study builds on the existing literature by focusing specifically on LGBTQ POC, including a large range of sexual and gender minority categories, including both external and internal sources of minority stress, as well as more sophisticated statistical methods to examine patterns of direct and indirect effects.

2. Material and methods

2.1. Participants

Participants (N = 200) were LGBTQ POC recruited as part of a national online survey. Data were automatically deleted from the survey software if there was an indication of false responding or responses from a computer program based on

Table 1
Sample demographics.

Demographic characteristic	% of sample
Gender	
Women	53.0
Men	32.0
Transgender	9.0
Genderqueer/fluid/nonbinary	6.0
Sexual orientation	
Gay or lesbian	40.0
Bisexual	27.5
Queer	25.5
Heterosexual and transgender or other gender identity	2.0
Other	5.0
Race/ethnicity	
Black/non-Latino	33.0
Asian/Pacific Islander	27.5
Latino	13
Native-American	4.5
Multiracial/multiethnic	19.0
Other	3.0
Education	
High school degree/GED or lower	8.0
Some college (no degree)	30.0
2-Year/technical degree	10.0
4-Year college degree	28.5
Master's degree	19.5
Doctorate degree	4.0
Employment status	
Full time	46.5
Part-time	14.0
College or university student	15.0
College or university student and employed	16.0
Unemployed	8.5

completion time, impossible response patterns, or if participants did not correctly respond to randomly inserted accuracy checks. This automatic deletion process was implemented because of the high probability of obtaining false responses when conducting online research involving participant incentives, and the requirement by the host university's information security officer to prevent fraudulent use of state funds. As a result, the exact number of deleted responses is unknown. Inclusion criteria for the study required that participants be at least 18 years old, identify as LGBTQ, and be a person of a racial/ethnic minority background. Refer to Table 1 for the sample's demographic characteristics. Participants had a mean age of 29.5 years (SD = 9.93).

2.2. Measures

Participants completed a series of questionnaires, followed by a researcher-created demographic questionnaire. Sexual orientation was assessed by using the following item, "Which sexual orientation *best* describes you?" to which the participant had to choose between the following options: heterosexual, bisexual, gay/lesbian, queer, and other (please specify).

2.2.1. Daily life experiences scale (DLE).
The frequency of discriminatory experiences due to race was assessed with the DLE; a subscale of the Racism and Life Experience Scale (RaLes; Harrell, 1994). The DLE assesses the frequency of "microaggressions" or daily hassles with a 6-point scale (0 = *never* to 5 = *once a week or more*). Respondents indicate how often experiences occurred in the past year "because of your race." An exploratory study assessing the reliability of the DLE (Evans, 2011) suggested four distinct components: Invisible/Outsider, Criminal, Harassed, and Unintelligent. For the purposes of this study, only the 13 items comprising these four dimensions were included. Total scores are calculated by averaging the item scores, with greater scores reflecting greater experiences of racism, with excellent internal consistency in the current sample (α = .94).

2.2.2. Internalized racism scale (IRS).
The IRS is an author-created scale that was used to assess the extent to which individuals experience internalized racist thoughts and attitudes about one's own race/ethnicity. The scale was constructed for the purpose of this study because current published internalized racism scales have all been written for a particular racial/ethnic group, and to the authors' knowledge, no scale exists that contains items general enough to be applicable to individuals from all racial/ethnic groups. This self-report measure is composed of 10 items that the authors identified from previously validated scales of internalized racism (Vandiver et al., 2002; Bailey et al., 2011). Items were chosen that only needed slight modification, if any, to apply for all racial/ethnic groups. Because no factor analysis has been performed on these items, they were treated as having only one dimension, with higher scores representing greater internalized racism. Participants

indicated the extent to which the statements accurately described their opinion of their own race/ethnicity on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*) with higher scores indicating higher levels of internalized racism. The internal consistency in the current sample was excellent (α = .92).

2.2.3. Heterosexist harassment, rejection, and discrimination scale (HHRDS). This 14-item scale measures the frequency with which sexual minorities report having experienced heterosexist harassment, rejection, and discrimination within the past year (Szymanski, 2006). For the current study, the word "LESBIAN" was replaced with the phrase "an LGBTQ individual" to be more inclusive of various forms of heterosexism and transgender discrimination. The scale assesses three factors, Harassment and Rejection, Workplace and School discrimination, and Other discrimination. Each item is assessed on a 6-point scale from 1 (*the event has NEVER happened to you*) to 6 (*the event happened ALMOST ALL OF THE TIME* [*more than 70% of the time*]). The total score and subscales have been validated (Szymanski et al., 2001) and found to be adequate in terms of internal consistency (Szymanski, 2006). In the current sample, Work/School (α = .85), Harassment/Rejection (α = .85), and Other discrimination (α = .85).

2.2.4. Short internalized homonegativity scale (SIHS). The SIHS is a 13-item scale that assesses the internalization of negative attitudes and discomfort toward an LGBTQ identity (Currie et al., 2004). Phrases such as "gay men" were replaced with "LGBTQ individuals" or "LGBTQ" to be more inclusive of the current sample. The scale assesses three factors: Public Identification as LGBTQ, Sexual Comfort with LGBTQ Individuals, and Social Comfort with LGBTQ Individuals. Participants responded to a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*) with greater scores indicating greater internalized heterosexism. The scale has demonstrated adequate internal consistency in past research (Currie et al., 2004), and in the current sample (α = .76).

2.2.5. Illicit drug use questionnaire.. Respondents indicated their use of marijuana, poppers, ecstasy, methamphetamine, cocaine/crack, ketamine, rohypnol, Gamma Hydroxybutyrate (GHB), and heroin in the past three months. Street names were included for several of the drugs. Drug use magnitude was measured on a 4-point scale: 1 (*never*) to 4 (*at least once a week*). This method of assessing illicit drug use has been used in prior research and is generally a conventional method of assessing these behaviors (Benotsch et al., 2011; Benotsch et al., 2013). In the current sample internal consistency was α = .81.

2.3. Procedure

Subjects were recruited to participate in an online confidential survey through a number of Internet forums and groups. National and regional LGBTQ organizations and online LGBTQ social and community groups were contacted via email with information regarding recruitment for a study assessing the health of LGBTQ POC. Similar information was posted to online social and community groups' message boards for groups that allowed such activity or was submitted to group moderators. If approved by the group moderator, study and contact information was posted to community message boards or sent out to the listserv. These organizations and groups were specifically targeted because they appeared to cater to LGBTQ individuals from ethnic/minority backgrounds.

Participants interested in the study were asked to email the study coordinator who screened participants through a response email asking those interested how they met criteria for the study. For those who seemed like eligible, real individuals, the study coordinator provided a link by email, as well as a unique code, to access the online survey. At the end of the survey, participants input an email address to which they wanted their $15 Amazon.com electronic gift card sent. Emails were sent to a financial administrator, who did not have access to any participant data, to compensate participants. All participants consented prior to participation in the IRB-approved study.

2.4. Data analysis

Correlations were used to examine the bivariate associations between racism, LGBTQ discrimination, internalized racism, internalized LGBTQ discrimination, and use of each of the illicit substances. These analyses were conducted using SPSS Version 21.0 (IBM Corp., 2012). Significance was established at an alpha level of .05, two-tailed. To further understand the bivariate results, two theoretically-driven SEMs were tested using AMOS 21.0 (Arbuckle, 2007). To illustrate the direct and mediation effects of a causal chain, a SEM allows for a whole theoretical process to be tested together instead of testing parts of the process separately. It was hypothesized that experiences of LGBTQ discrimination and racism would each have a positive indirect (mediational) effect on illicit drug use through internalized oppression. Further, to test if there were differences in the cumulative effects of LGBTQ discrimination and racism an interaction term was included in a multiplicative model, and compared to the initial additive model. It was hypothesized that the multiplicative model would be a better fit as it acknowledges the complexities between these variables.

Experiences with LGBTQ discrimination, racism, and their interaction were assessed with manifest variables. Internalized oppression was conceptualized as

a latent variable indicated by internalized LGBTQ discrimination and internalized racism. The latent variable of illicit drug use magnitude was created from the drug use manifest variables: marijuana, poppers, ecstasy, methamphetamine, cocaine/crack, ketamine, rohypnol, GHB, and heroin.

The following criteria were used to assess goodness of fit for the models: chi-square to degrees of freedom ratio less than 2.0; the root mean squared error of approximation (RMSEA) of .08 or less (Tabachnick and Fidell, 2001); and the comparative fit index (CFI), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), normed fit index (NFI), incremental fit index (IFI), and Tucker–Lewis index (TLI) with .90 set as the cutoff for adequate fit (Bentler, 1990; Byrne, 1994; Hu and Bentler, 1999).

3. Results

3.1. Drug use descriptives and correlations

The percentages of the reported past three month drug use are reported in Table 2, along with the means and standard deviations of all scales. To understand the relations between LGBTQ discrimination, internalized LGBTQ discrimination, racism, internalized racism, and drug use, bivariate correlations were conducted. Given that all of the substance use variables except for marijuana use were not normally distributed, as expected with illicit drug use, Spearman's rho was used with the results reported in Table 2. All illicit drug use variables, except for marijuana, were positively correlated with experiences of LGBTQ discrimination and internalized LGBTQ discrimination. All drug use variables except for marijuana and poppers were positively correlated with internalized racism. Finally, use of methamphetamine, cocaine/crack, ketamine, rohypnol, GHB, and heroin were all positively correlated with racism.

3.2. Structural equation models

Potential demographic covariates were not entered into the SEMs because doing so would artificially reduce the models' fit indices, and in effect, obscure inferences as to whether the theorized models fit well with patterns in the data, especially given the study's sample size. Instead, Spearman's rho correlations and chi-squared analyses between the various forms of illicit drug use and the primary demographic variables were investigated (see Table 3). As the vast majority of the associations were not statistically significant, and in general the effect sizes for significant relations were in the small range according to Cramer's V (.19–.26), with the exception of sexual orientation in relation to poppers (Cramer's V = .32, medium effect size), these demographics should not be seen as contributing substantially to the patterns of shared variance in the SEMs.

3.2.1. Additive model.
The additive SEM with factor loadings and fit indices appears in Fig. 1. The overall fit of the model was generally adequate. All observed variables were found to be good indicators of their latent factors (standardized path loadings from .37 to .95, ps < .001), with the exception of marijuana (.06, p = .386).

As hypothesized, LGBTQ discrimination positively predicted internalized oppression. Contrary to the hypotheses, racism negatively predicted internalized oppression. In turn, as hypothesized, internalized oppression positively predicted illicit drug use magnitude. Additionally, LGBTQ discrimination and racism were indirectly associated with illicit drug use magnitude through internalized oppression (β = .20, p < .001, β = −.08, p = .002, respectively; i.e., a significant mediation).

3.2.2. Multiplicative model.
The multiplicative SEM with factor loadings and fit indices appears in Fig. 2. The overall fit of the model was generally adequate. The results of chi-square difference testing found that the multiplicative model did not statistically improve the model fit (p = .449). Similar to the addi-

Table 2
Descriptive statistics, Spearman's *rank correlation*s, and percentage of specific illicit drug use in past 3 months.

| Drug use variable | LGBTQ discrimination | Internalized LGBTQ discrimination | Racism | Internalized racism | % of sample endorsing drug use | | | |
					Never	Once or twice	Several times	At least once a week
Marijuana	.09	−.06	.05	.04	57.5	24.5	9.0	9.0
Poppers	.19**	.21**	.11	.12	89.0	7.0	3.5	0.5
Ecstasy	.20**	.23**	.08	.20**	88.5	9.0	2.5	0.0
Methamphetamine	.27***	.33***	.15*	.24**	92.5	5.5	2.0	0.0
Cocaine/crack	.29***	.30***	.16*	.26***	87.5	9.5	2.5	0.5
Ketamine	.23**	.21**	.12	.23**	96.5	1.5	0.5	1.5
Rohypnol	.20**	.21**	.18*	.20**	97.5	1.0	0.5	1.0
GHB	.18*	.18**	.14*	.18*	98.0	0.5	1.5	0.0
Heroin	.22**	.26***	.15*	.27***	96.0	3.0	1.0	0.0
M	2.37	35.10	15.39	20.93	–	–	–	–
SD	0.91	10.61	14.16	8.95	–	–	–	–

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

tive model, LGBTQ discrimination positively predicted internalized oppression. Contrary to the hypotheses, racism and racism X LGBTQ discrimination were not significantly related to internalized oppression. Again, as hypothesized, internalized oppression positively predicted illicit drug use magnitude. Additionally, LGBTQ discrimination was indirectly associated with illicit drug use magnitude through internalized oppression ($\beta = .23$, $p < .001$), while racism was not ($\beta = −.04$, $p = .430$).

It is important to note that when the results of both models are considered it becomes clear that the effect of racism on internalized oppression in the additive model is likely error due to a suppressor effect. A suppressor effect occurs when a predictor variable is cor-related with another predictor, but is not correlated, or only weakly associated, with the criterion variable. In these situations the resulting coefficient, "may be diminished or enhanced and even reversed in sign" (Ludlow and Klein, 2014; p. 1). Given the multicollinearity of racism with LGBTQ discrimination ($r = .50$), when both variables were entered into the models as predictors, racism had no unique effect and the effect that remained in the additive model was most likely correlated error. Ludlow and Klein (2014) point out that suppressors, unless they are due to an experimental intervention designed to produce that effect or are theoretically justified, can be "a statistical effect potentially devoid of substantive interpretation" (p. 2). These findings suggest that only higher reports of experiences
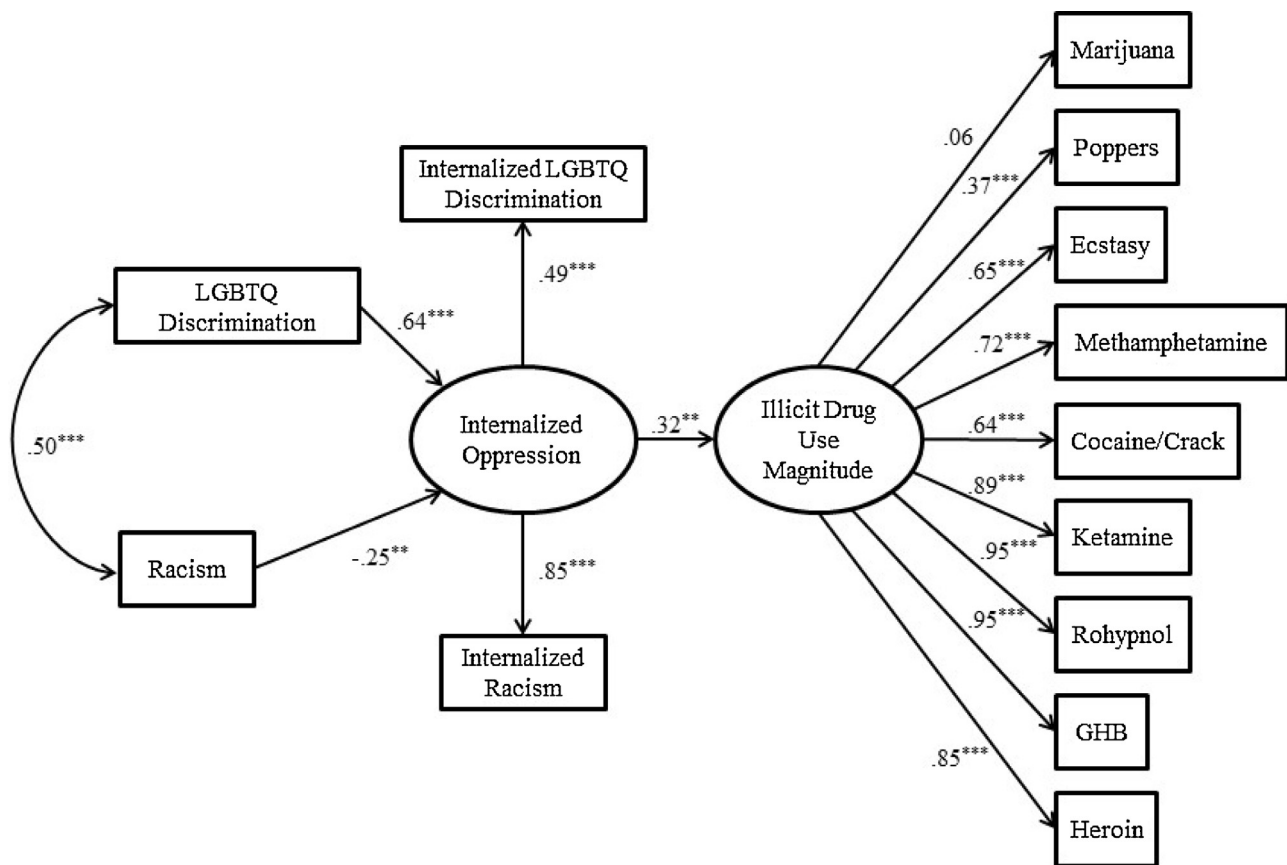
Fig. 1. Additive structural equation model. *Note:* The rectangles represent observed variables; the ovals represent unobserved latent variables. The values next to each arrow represents the value of the standardized regression weights; ** $p < .01$, *** $p < .001$. Model fit indicies: χ^2 (63) = 136.93, $p < .001$, χ^2/df = 2.17, CFI = .95, RMSEA = .08, GFI = .89, AGFI = .85, NFI = .91, IFI = .95, TLI = .94.
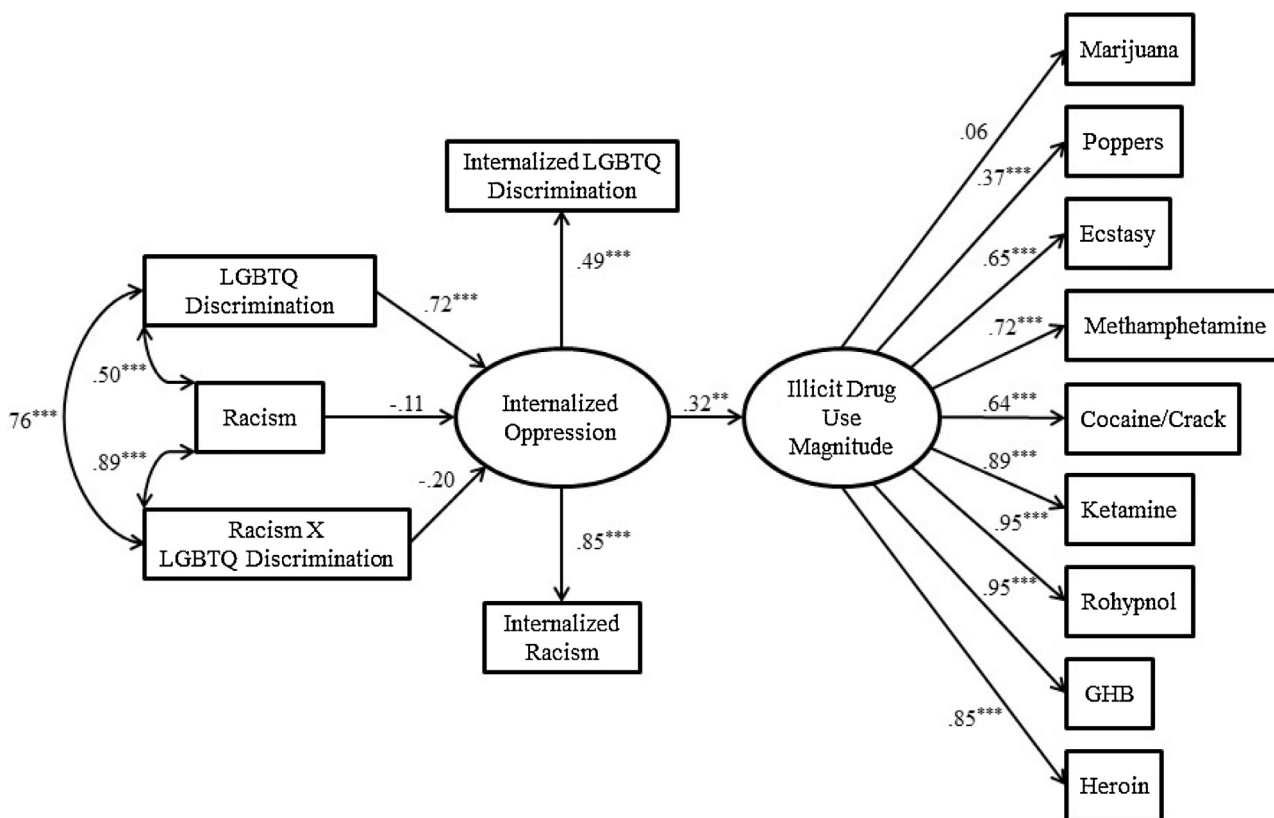
Fig. 2. Multiplicative structural equation model. *Note:* The rectangles represent observed variables; the ovals represent unobserved latent variables. The values next to each arrow represents the value of the standardized regression weights; ** $p < .01$, *** $p < .001$. Model fit indicies: χ^2 (73) = 146.83, $p < .001$, $\chi^2/df = 2.01$, CFI = .96, RMSEA = .07, GFI = .89, AGFI = .85, NFI = .93, IFI = .96, TLI = .95.

with LGBTQ discrimination, but not racism or their interaction, are uniquely related to more internalized oppression.

4. Discussion

This study investigated the cumulative effects of racism and LGBTQ discrimination—and resulting internalized oppression—on illicit drug use in a sample of LGBTQ POC. A comparison of SEMs yielded generally adequate fit indices, and experiences with racism and LGBTQ discrimination led to more internalized oppression, which then led to greater illicit drug use.

The finding that experiences with LGBTQ discrimination directly predicted internalized oppression and indirectly predicted illicit drug use illuminates a likely pathway for the increased rates of substance use found in the LGBTQ community (King et al., 2008) for LGBTQ POC. Indeed, previous research has found these paths are associated in a bivariate manner (Nicholson and Long, 1990; Meyer, 1995; Lehavot and Simoni, 2011), but this is the first study to find that the relationship between LGBTQ discrimination and illicit drug use is, in fact, mediated by internalized oppression. This finding leads credence to the interpretation that LGBTQ POC may be using illicit drugs as one way to cope with the internal stress and negative beliefs about their sexual minority identity that is derived from a larger system of heterosexist discrimination.

Interestingly, while racism had significant direct effects on internalized oppression and indirect effects on illicit drug use in the additive model, it did not in the multiplicative model, and were likely error due to suppressor effects. Further, the interaction between LGBTQ discrimination and racism did not yield unique direct effects on internalized oppression or unique indirect effects on illicit drug use when controlling for LGBTQ discrimination in the multiplicative model in our sample. However, both racism and internalized racism were positively associated with most forms of illicit drug use as expected in the bivariate correlations. The bivariate correlations are generally in line with previous findings that more experiences with racism are positively associated with substance use in the general population (Choi et al., 2006). In the current study, these effects of racism were eclipsed by those of LGBTQ discrimination. Further, there was no evidence that a multiplicative effect of racism and LGBTQ discrimination would be particularly detrimental as tested by the competing models. This is not to say that racism is not psychologically damaging to LGBTQ POC, but the most damaging form of oppression, as operationalized by illicit drug use, in the current sample was LGBTQ discrimination. This may be because LGBTQ discrimination occurs within communities of color potentially in overt ways (Hahm et al., 2008), so LGBTQ discrimination may result in LGBTQ POC feeling further ostracized, and result in internalized oppression. Protective factors against illicit drug use in racial/ethnic minority communities may be overshadowed when LGBTQ discrimination occurs within those communities (Bowleg et al., 2003).

Although racism was not related to internalized oppression or illicit drug use in meaningful ways in the SEMs, internalized racism was an important factor in the models. Both internalized racism and internalized LGBTQ discrimination significantly loaded onto internalized oppression, which then predicted greater illicit drug use. This suggests that internal sources of minority stress, both relating to race/ethnicity and sexual orientation, could put LGBTQ POC at increased the risk of illicit drug use. This finding supports theories that drug use is often used as one way to cope with low self-esteem and negative self-evaluations (e.g., Borrell et al., 2007) and supports the notion that multiple minority statuses yield cumulative effects on health behaviors (McCabe et al., 2010).

Table 3
Spearman's rank correlations and chi-squared analyses of demographic characteristics and illicit drug use.

Demographic Characteristic	Marijuana	Poppers	Ecstasy	Methamphetamine	Cocaine/crack	Ketamine	Rohypnol	GHB	Heroin
Age	$r = -.09$	$r = .06$	$r = -.02$	$r = .07$	$r = .07$	$r = .05$	$r = .09$	$r = .06$	$r = .08$
Gender	$\chi^2(6) = 7.92$	$\chi^2(6) = 22.80^{**}$	$\chi^2(4) = 3.95$	$\chi^2(4) = 3.70$	$\chi^2(6) = 11.87$	$\chi^2(6) = 14.03^{*}$	$\chi^2(6) = 7.02$	$\chi^2(4) = 7.33$	$\chi^2(4) = 5.93$
Sexual orientation	$\chi^2(12) = 13.83$	$\chi^2(12) = 61.73^{***}$	$\chi^2(8) = 18.38^{*}$	$\chi^2(8) = 12.25$	$\chi^2(12) = 20.30$	$\chi^2(12) = 13.67$	$\chi^2(12) = 9.16$	$\chi^2(8) = 9.51$	$\chi^2(8) = 8.74$
Race/ethnicity	$\chi^2(15) = 14.54$	$\chi^2(15) = 15.25$	$\chi^2(10) = 20.41^{*}$	$\chi^2(10) = 15.39$	$\chi^2(15) = 18.89$	$\chi^2(15) = 29.80^{*}$	$\chi^2(15) = 7.50$	$\chi^2(10) = 8.29$	$\chi^2(10) = 8.90$
Education	$\chi^2(18) = 21.22$	$\chi^2(18) = 13.60$	$\chi^2(12) = 27.63^{**}$	$\chi^2(12) = 20.33$	$\chi^2(18) = 13.11$	$\chi^2(18) = 24.84$	$\chi^2(18) = 14.18$	$\chi^2(12) = 16.66$	$\chi^2(12) = 13.57$
Employment status	$\chi^2(12) = 21.22^{*}$	$\chi^2(12) = 24.74^{*}$	$\chi^2(8) = 11.35$	$\chi^2(8) = 14.90$	$\chi^2(12) = 18.79$	$\chi^2(12) = 11.46$	$\chi^2(12) = 6.18$	$\chi^2(8) = 4.70$	$\chi^2(8) = 6.71$

Note: GHB = Gamma Hydroxybutyrate. $^{*} p < .05$, $^{**} p < .01$, $^{***} p < .001$.

It is also interesting to note that marijuana did not load significantly onto illicit drug use magnitude, nor was it correlated with any of the discrimination or internalized oppression indices. This finding may be the result of marijuana's increasing popularity, as it is the most commonly reported used illicit drug from national surveys (Substance Abuse and Mental Health Services Administration (SAMHSA), 2013). It may also reflect the changing public opinion that marijuana should not be considered an illicit drug because of lower perceived risk compared to other illicit substances (Johnston et al., 2014).

4.1. Limitations and future directions

The current study has a number of limitations, and as a result, directions for future research. The cross-sectional design of this study precludes any definitive answers about the casual pathways in the SEMs, despite the somewhat causal inferences that have been made in its construction. For instance, it is possible that LGBTQ POC who report higher levels of internalized oppression may, consequently, be more likely to report experiencing higher levels of discrimination. On the other hand, LGBTQ POC who use illicit drugs may also encounter more discrimination because they are conforming to negative stereotypes. Future research should use longitudinal designs to confirm the theorized direction of relations. Second, despite the nationwide sample of this study, participants were recruited through numerous online community groups. As is common with LGBTQ recruitment, participants choosing to participate may be more open about their sexual orientation and be more connected to LGBTQ online support communities, and therefore, may have lower levels of illicit drug use than sexual minorities in the general population. Indeed, this sample had an unusually high level of education. Because education, and other demographics such as socioeconomic status, can buffer the effects of discrimination, future research should be conducted using surveys that can be administered by agencies providing LGBTQ services to target a more diverse sample. Third, participants followed a rigorous process in order to participate, suggesting that only extremely motivated individuals may have completed the study. This process may have also reduced the sample size, and although the current sample of 200 participants was enough to run SEMs with the current amount of indictors, future studies with larger sample sizes would have more power to identify effects that went undetected in the current model, like testing for confounding variables (i.e., socioeconomic status, depression, etc.).

5. Conclusions

Although LGBTQ POC experience discrimination as a result of dual minority statuses, experiences with LGBTQ discrimination appeared to play a more prominent role than racism in internalized oppression and illicit drug use in our sample. Internalized racism was still a key factor in internalized oppression, which was positively associated with illicit drug use. Therefore, there is evidence that multiple minority statuses may put LGBTQ POC at greater risk for illicit drug use. Substance use interventions including LGBTQ POC may benefit from helping participants examine the links among LGBTQ discrimination, internalized oppression, and illicit drug use as a coping strategy, focusing on substituting more adaptive coping strategies.

Contributors

Tess K. Drazdowski, MS contributed to the conception and design for the current paper, analyzing and interpreting data,

drafting sections of the manuscript, and critically revising the manuscript.

Paul B. Perrin, PhD contributed to the data collection, design, analyzing and interpreting data, and critically revising the manuscript.

Michael Trujillo, BA contributed to drafting sections of the manuscript and critically revising the manuscript.

Megan Sutter, MS contributed to data collection, drafting sections of the manuscript, and critically revising the manuscript.

Eric G. Benotsch, PhD contributed to data collection and critically revising the manuscript.

Daniel J. Snipes, MS contributed to data collection and critically revising the manuscript.

All authors have approved the final article.

Conflict of interest

No conflict declared

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