Discrimination, Mental Health, and Suicidal Ideation Among LGBTQ People of Color

Megan Sutter and Paul B. Perrin
Virginia Commonwealth University

Discrimination based on race/ethnicity, sexual orientation, and gender identity has been linked to many negative psychological and physical health outcomes in previous research, including increased suicidal ideation. Two hundred lesbian, gay, bisexual, transgender, and queer (LGBTQ) people of color (POC) were surveyed on their experiences of LGBTQ-based discrimination, racism, mental health (depression, anxiety, satisfaction with life), and suicidal ideation in a national online study based in the United States. A structural equation model (SEM) was created and found that LGBTQ-based discrimination exerted an indirect effect on suicidal ideation through mental health. Racism exerted a direct effect on mental health but was not associated with suicidal ideation in the SEM. The effects of LGBTQ-based discrimination on mental health may be a key area for interventions to reduce suicidal ideation in LGBTQ POC.

Keywords: discrimination, mental health, suicidal ideation, LGBTQ, racial/ethnic minorities

Suicide is the tenth leading cause of death in the United States, with over 40,000 deaths by suicide each year in the United States (CDC, 2014). The rates of suicidality (e.g., attempts and ideation) have consistently emerged as disparate based on sexual orientation and gender identity (Haas et al., 2010). Lesbian, gay, bisexual, transgender, and queer identified (LGBTQ) individuals are approximately twice as likely to report suicidal ideation (King et al., 2008; Gilman et al., 2001) and have higher rates of attempted suicide compared to their heterosexual and cisgender counterparts (5–32% vs. 2%, respectively; Clements-Nolle, Marx, & Katz, 2006; King et al., 2008; Paul et al., 2002; Silenzio, Pena, Duberstein, Cerel, & Knox, 2007).

Mental disorders have consistently been among the strongest predictors of suicide attempts and suicide deaths (Harris & Barraclough, 1997; Pokorny, 1983; Phillips et al., 2002). The presence of a lifetime mental disorder has been shown to increase one's risk of an initial suicide attempt by three to nearly nine times (Nock et al., 2009). This link between mental health and suicidality has been shown to be more pronounced among lesbian, gay, and bisexual (LGB) individuals (Fergusson et al., 2005). Moreover, LGB individuals have shown higher prevalence of anxiety, mood, and substance use disorders than heterosexual individuals (Cochran, Keenan, Schober, & Mays, 2000; Cochran, Sullivan, & Mays, 2003). One sample of transgender individuals reported 59% of their sample having clinically significant depression (Clements-Nolle et al., 2001).

Megan Sutter and Paul B. Perrin, Department of Psychology, Virginia Commonwealth University.

Correspondence concerning this article should be addressed to Paul B. Perrin, Department of Psychology, Virginia Commonwealth University, 808 West Franklin Street, Richmond, VA 23284-2018. E-mail: pperrin@vcu.edu

The cultural model of suicide posits that racial/ethnic minority individuals experience unique cultural factors that affect their reaction to stressors, which may in turn differentially lead to suicide compared to White individuals (Chu, Goldblum, Floyd, & Bongar, 2010). One study of LGB individuals found Whites to have higher rates of mood disorders compared to Black or Latino individuals (Meyer et al., 2008). In the same study, however, Black and Latino individuals had higher rates of attempted suicide during their lifetime (Meyer et al., 2008). Several studies have also found people of color (POC) to be at greater risk for depression and suicide compared to White individuals (Alegría et al., 2007; Kim & Choi, 2010). Further, Black individuals have reported their depression as more severe than Whites (Williams et al., 2007). The daily stressors associated with social oppression have been suggested to be driving this disparity in suicide attempts (Meyer et al., 2008; Haas et al., 2010).

Discrimination has been consistently implicated as a major stressor with adverse psychological effects (Meyer, 2003). According to the minority stress process model (Meyer, 2003), differential exposure to minority stressors among sexual minority individuals, such as prejudicial events (e.g., heterosexism) and expectations of rejection lead to poor mental health outcomes. LGBTQ individuals are particularly vulnerable to the daily experience of social stress resultant of LGBTQ-based discrimination (Krieger & Sidney, 1997; Mays, Cochran, & Rhue, 1993; Lombardi, Wilchins, Priesing, & Malouf, 2002). Experiences of heterosexism have been associated with reduced quality of life (Mays & Cochran, 2001), psychological distress (Herek & Berrill, 1992; Diaz, Ayala, Bein, Henne, & Marin, 2001), and depression (Herek et al., 1999; Lewis, Derlega, Griffin, & Krowinski, 2003). Moreover, LGB individuals who experienced more rejecting behaviors from their family had an eight-times higher risk for attempting suicide (Ryan et al., 2009).

Likewise, racial/ethnic discrimination toward POC is another pervasive psychosocial stressor (Krieger & Sidney, 1996; Pascoe & Smart Richman, 2009). POC are affected by racism from the

micro to macro levels (Brondolo, Gallo, & Myers, 2009). Racial discrimination has been shown to predict greater presence of other stressors such as daily negative events, which has been associated with increased psychological distress among Black individuals (Ong, Fuller-Rowel, & Burrow, 2009). Among Latinos, daily discrimination and racist events have predicted acculturative stress (Araujo Dawson & Panchanadeswaran, 2010), which has been, in turn, associated with decreased mental health (Moyerman & Forman, 1992; Williams & Berry, 1991). Both of these stressors, acculturative stress (Gomez, Miranda, & Polanco, 2011; Hovey & King, 1996; Joiner & Walker, 2002; Polanco-Roman & Miranda, 2013) and perceived discrimination (Cheng et al., 2010; Gomez et al., 2011), have been associated with increased suicidality.

Taken together, the research suggests that LGBTQ POC may be at particular risk for decreased mental health and increased suicidality (Alegría et al., 2007; Kim & Choi, 2010; Williams et al., 2007). The intersectional identities of sexual/gender minority and minority race/ethnicity have been linked to greater susceptibility to psychological consequences of discrimination (Cochran & Mays, 1994; Diaz et al., 2001; Wilson & Yoshikawa, 2004). However, no study to date has directly tested the potential simultaneous effects of both LGBTQ and race/ethnicity-based discrimination on mental health and suicidality among a diverse group of LGBTQ POC.

The Current Study

This study seeks to fill several gaps in the existing literature on discrimination, mental health, and suicidal ideation, as well as to increase the field's understanding of intersectionality of LGBTQ POC identities. As such, the current study aims to use structural equation modeling (SEM) to test a model of the effects of LGBTQ-based discrimination and racism on mental health, and suicidal ideation in a sample of LGBTQ POC. It is hypothesized that increased experiences of LGBTQ-based discrimination and racism will yield an indirect effect on suicidal ideation via reduced mental health.

Method

Participants

Participants ($N = 200$) were LGBTQ individuals who were recruited as part of an online survey based in the United States focusing on LGBTQ experiences of racial/ethnic minority groups. Recruitment was geared toward LGBTQ online groups, and it is noteworthy that many tended to be based in metropolitan areas (e.g., LGBTQ Center NYC, GLBT Chicago, and Seattle's bisexual network). To maximize the fidelity of the data, the online survey software (Redcap) automatically deleted participant data if there was an indication of false responding or responses from a computer program (i.e., completion time of less than 20 min or greater than 24 hr), impossible response patterns (e.g., selecting the first response for every single item on a scale), or if participants did not correctly respond to at least four of five randomly inserted accuracy checks (e.g., "Please select *strongly agree* for this item"). This automatic deletion process was implemented because of the high probably of obtaining false responses when conducting online research involving participant financial incentives, and the mandate by the host university's information security team that the

authors use this approach in order to prevent providing state funds as compensation for fraudulent responding. 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 racial/ethnic minority background.

Participants had an average age of 29.5 ($SD = 9.93$), and 53.0% identified their gender as women, 32.0% as men, 9.0% as transgender, and 6.0% as genderqueer/fluid/nonbinary. Participants identified their sexual orientation as either gay or lesbian (40.0%), bisexual (27.5%), queer (25.5%), heterosexual and transgender or other gender identity (2.0%), and other (5.0%). The sample had a self-reported race/ethnicity of 33.0% Black/African American (non-Latino), 27.5% Asian/Asian American/Pacific Islander, 13.0% Latino/Hispanic, 4.5% American-Indian/Native American, 19.0% multiracial/multiethnic, and 3.0% other. The majority of participants had more than a high school education: 30.0% some college, 10.0% 2-year/technical degree, 28.5% 4-year college degree, 19.5% master's degree, and 4.0% doctorate degree, with 8.0% having a high school degree/GED or lower. For current employment status, participants were employed full time (46.5%), part-time (14.0%), college or university student (15.0%), college or university student and employed (16.0%), and unemployed (8.5%).

Measures

Participants completed a series of questionnaires assessing experiences with LGBTQ-based discrimination, racism, mental health, and suicidal ideation. A researcher-created questionnaire was then used to collect demographic information.

Discrimination. The Daily Life Experiences Scale (DLE), a subscale of the Racism and Life Experience Scale (Harrell, 1994), assessed racial/ethnic discrimination. The DLE is a self-report measure that evaluates the frequency of daily hassles because of race/ethnicity in the past year with a 6-point Likert-type scale, ranging from 0 (*never*) to 5 (*once a week or more*). The DLE has demonstrated excellent internal validity ($\alpha = .94$; Sellers, Copeland-Linder, Martin, & L'Heureux Lewis, 2006). Participants report how often different incidents occurred in the past year "because of your race" (e.g., "Been ignored, overlooked, or not given service [in a restaurant, store, etc.] because of your race"). Evans (2011) conducted an exploratory study assessing the reliability of the DLE, which suggested four subscales, which have demonstrated good internal reliability in the current sample: Invisible/Outsider ($\alpha = .76$), Criminal ($\alpha = .86$), Harassed ($\alpha = .82$), and Unintelligent ($\alpha = .86$). Scores for each subscale were calculated by averaging the item scores, where higher scores reflect greater experiences of racial/ethnic discrimination.

LGBTQ-based discrimination was assessed with the Heterosexist Harassment, Rejection, and Discrimination Scale (HHRDS). The HHRDS is a 14-item scale that assesses the extent to which sexual and gender minorities report heterosexist harassment, rejection, and discrimination within the past year (Szymanski & Chung, 2001). For the current study, the word *lesbian* was replaced with the phrase "an LGBTQ individual" to be more comprehensive of the many forms of heterosexism and transgender discrimination. The HHRDS assesses three dimensions, harassment and rejection (e.g., "How many times have you been treated unfairly by family

members because you are an LGBTQ individual?"), workplace and school discrimination (e.g., "How many times have you been treated unfairly by your employer, boss, or supervisors because you are an LGBTQ individual?"), and other discrimination (e.g., "How many times have you been treated unfairly by strangers because you are an LGBTQ individual?"). Items are 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 HHRDS has demonstrated good internal consistency ($\alpha = .90$), as well as the subscales, Harassment and Rejection ($\alpha = .89$), Workplace ($\alpha = .84$), and Other ($\alpha = .78$; Szymanski, 2006). The HHRDS has also shown good validity through correlations with measures of loneliness, self-esteem, depression, social support, membership in a LGB group, and conflict concerning sexual orientation (Szymanski, Chung, & Balsam, 2001).

Mental health. The Hopkins Symptom Checklist-25 (HSCL-25) was used to assess depression and anxiety within the past week, including the day of administration (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). The HSCL is a symptom inventory with 25 items, the first part assessing anxiety (10 items), and the second part assessing depression (15 items). The item responses range from 1 (*not at all*) to 4 (*extremely*). To score the respective subscales, average scores are calculated, with a clinical cut-off of 1.75 (Mollica, Wyshak, de Marneffe, Khuon, & Lavelle, 1987). The HSCL-25 has shown good internal consistency for the total scale ($\alpha = .92–93$), as well as the anxiety ($\alpha = .79$) and depression subscales ($\alpha = .87–.88$; Einarsen & Nielsen, 2015). Concurrent validity has been shown through correlations with feelings of pressure in several life domains (Lazarus, DeLongis, Folkman, & Gruen, 1985).

The Satisfaction with Life Scale (SWLS) is a 5-item self-report scale used to measure global satisfaction with life (Pavot & Diener, 1993). Individuals respond to items such as "I am satisfied with life" with item responses ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Total score ranges from 5 to 35, where higher scores indicate higher life satisfaction. The SWLS has demonstrated good construct validity and internal consistency ($\alpha = .79-.89$; Pavot & Diener, 1993).

Suicidal ideation. Suicidal ideation was assessed with the Suicidal Behavior Questionnaire (SBQ-14; Linehan, 1996). For the purposes of the current study, the sixth item of the SBQ was used, which taps into the frequency of past-week suicidal ideation. Item responses range from 1 (*never*) to 5 (*very often*) to the question "How often have you thought about killing yourself in the last several days, including today?" (Linehan, 1996). Because of skewness, this item was dichotomized. Thirteen percent of the sample indicated experiencing some suicidal ideation over the last several days. The overall SBQ-14 has demonstrated good internal consistency ($\alpha = .73–92$; Linehan, 1996). In the current sample, the correlation between the single item assessing recent suicidal ideation and the multiple-item suicidal ideation score was $r = .63$.

Procedure

LGBTQ individuals of color were recruited to participant in an anonymous online survey though numerous Internet forums and groups. National and regional LGBTQ organizations (e.g., Na-

tional Gay Black Men's Advocacy Coalition, The Center Orlando) and online LGBTQ social and community groups (e.g., Women of Color Baltimore Facebook group, LGBT People of Color Yahoo group) were e-mailed about recruitment for a study assessing the health of LGBTQ individuals. Approved advertisements were posted to online social and community group message boards with permission of group moderators for those that did not allow nonmember posting. These organizations and groups were selected because they tended to focus on LGBTQ individuals from racial/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. Individuals who did not respond, provided nonsensical answers, did not meet the inclusion criteria, or appeared to be a computer program were not permitted to participate. For those who were likely eligible, real individuals, the study coordinator provided a link by email, as well 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 within approximately seven days of survey completion who compensated participants with the $15 electronic Amazon.com gift card. All participants fully consented prior to participation in the Institutional Review Board-approved study.

Data Analysis

Preliminary analyses. Normality of the data was assessed for univariate and multivariate outliers. Bivariate correlations were used to examine the associations between observed variables using SPSS Version 22.0 (IBM Corp., 2014).

Structural equation model. A structural equation model (SEM) was developed using Mplus version 7.0 using the defaults for fitting models to data derived from a data with categorical observed variables, namely the weighted least-square with mean and variance correction estimator (WLSMV) and delta parameterization for structural equation modeling (Muthén & Muthén, 2012; Muthén, 1984). For this analysis, racism and suicidal ideation were assessed with manifest variables. LGBTQ-based discrimination was conceptualized as a latent variable indicated by harassment/rejection, workplace, and other. The latent variable of mental health was created from measures of depression, anxiety, and satisfaction with life.

Prior to running this SEM, we examined the measurement model (Anderson & Gerbing, 1988). We then evaluated whether including direct effects from discrimination to suicidal ideation improved model fit by comparing nested models using a robust chi-square difference test for WLSMV estimation (Asparouhov & Muthén, 2006). Four indexes were used to assess the goodness of fit of the measurement and structural models: the comparative fit index (CFI; .95 or greater), the Tucker Lewis Index (TLI; .95 or greater; Hu & Bentler, 1999), the weighted root-mean-square residual (WRMR; 1.0 or less; Yu, 2002), and the root-mean-square error of approximation (RMSEA; .08 or less; Hu & Bentler, 1999).

Results

Preliminary Analyses

Outliers. To check for univariate outliers, z scores were calculated for each scale (Tabachnick & Fidell, 2001). For LGBTQ-based discrimination-work/school, two cases were removed ($zs =$ 3.90, $p < .001$), as well as one case for anxiety ($z = 3.73$, $p < .001$). Five cases were also found to exceed the criteria for multivariate outliers (Mahalanobis distance >18.46) and were dropped for subsequent analyses, leaving a final analytical sample of 192.

Correlations. Table 1 displays means, standard deviations, ranges, and correlations for all scales. Depression and anxiety were positively correlated with all forms of LGBTQ-based discrimination and racism. Past-week suicidal ideation was positively associated with LGBTQ-based discrimination— harassment/rejection and work/school. Satisfaction with life was negatively associated with LGBTQ-based discrimination— harassment/rejection.

Factor structure. CFAs for the three latent factors were tested first: (a) For mental health, the three-factor model (depression, anxiety, and SWL) significantly improved the fit of the model from a one-factor solution, $\Delta\chi^2(3 = 2) = 350.28$, $p < .001$, RMSEA $= .08$, CFI $= .83$, TLI $= .81$. (b) The three-factor structure of LGBTQ-based discrimination (harassment/rejection, work/school, and other) was not adequate. Modification indices were examined, and the three scale items representing discrimination by family members was then allowed to covary, which improved fit significantly, $\Delta\chi^2(3) = 212.58$, $p < .001$, RMSEA $= .11$, CFI $= .89$, TLI $= .86$. (c) Finally, an exploratory factor analysis revealed that racism was better fit as a one-factor solution; as such, the total score for racism was utilized in the subsequent analyses.

Measurement Model

Following recommendations by Anderson and Gerbing (1988), the measurement model was first developed. The initial test of the measurement model resulted in adequate fit to the data, $\chi^2(16, N = 192) = 35.37$, $p = .004$ (CFI $= .92$; TLI $= .85$; WRMR $= .57$; RMSEA $= .08$, 90% CI $= .04, .12$). To examine nested models, a robust chi-square difference test for WLSMV estimation (DIFFTEST) was conducted (Asparouhov & Muthén, 2006). The DIFFTEST indicated a significant decrease in fit when cor-

relations among variables were set to zero, $\Delta\chi^2(6) = 100.91$, $p < .001$, ΔCFI $= .03$, ΔTLI $= .06$, ΔRMSEA $= .09$, ΔWRMR $= 1.95$. The factor loadings of the latent variable indictor variables were all statistically significant (all $ps < .001$). In addition, the correlations among LGBTQ-based discrimination, racism, mental health, and suicidal ideation within the measurement model were statistically significant (all $ps < .03$).

SEM. It was hypothesized that experiences with LGBTQ-based discrimination and racism would exert a direct effect on mental health, mental health would exert a direct effect on suicidal ideation, and both forms of discrimination experiences would have an indirect effect on suicidal ideation (see Figure 1). The SEM used to test this hypothesis had adequate fit, $\chi^2(16, N = 192) = 35.37$, $p = .004$ (CFI $= .92$; TLI $= .85$; WRMR $= .57$; RMSEA $= .08$, 90% CI $= .04, .12$).

Then, we tested an alternative SEM by restricting the direct paths from LGBTQ-based discrimination and racism to zero (see Figure 2). The fit of this model was good, $\chi^2(18, N = 192) = 31.08$, $p = .028$ (CFI $= .94$; TLI $= .91$; WRMR $= .59$; RMSEA $= .06$, 90% CI $= .02, .10$). The DIFFTEST procedure indicated a statistically nonsignificant change in model fit as a consequence of including direct effects for discrimination to suicidal ideation, $\Delta\chi^2(2) = .75$, $p = .687$, ΔCFI $= .03$, ΔTLI $= .06$, ΔRMSEA $= .02$, ΔWRMR $= .02$. Therefore, the better fitting model does not include these direct paths.

Using bias-corrected bootstrapping with 1000 samples for tests of indirect effects, LGBTQ-based discrimination was significantly indirectly associated with suicidal ideation ($\beta = .30$, $p = .017$, 90% CI $= .11, .50$); however, racism was not ($p = .095$).

Discussion

The present study tested a structural model to examine the relationships among experiences discrimination, mental health, and suicidal ideation in a diverse sample of LGBTQ POC. It was hypothesized that experiences of LGBTQ-based discrimination and racism would be associated with suicidal ideation through mental health. Although racism and LGBTQ-based discrimination were associated with one another and both exerted a direct effect on mental health, only LGBTQ-based discrimination exerted a significant indirect effect on suicidal ideation through mental health in the SEM. This suggests that LGBTQ-based discrimina-

Table 1

Means, Standard Deviations, Ranges, and Bivariate Correlations Among LGBTQ-Based Discrimination, Racism, Mental Health, and Suicidal Ideation in LGBTQ Individuals of Color (n = 192)

| | LGBTQ-based discrimination | | | Racism | | |
Outcome variable	Harassment/rejection	Work/school	Other	Total	M (SD)	Range
Depression	.40**	.16*	.18*	.28**	.94 (.63)	.00–2.50
Anxiety	.39**	.27**	.31**	.27**	.79 (.55)	.00–2.50
Satisfaction with life	−.14*	−.07	.04	.01	19.82 (6.94)	5.00–35.00
Past-week Suicidal ideation[a]	.24**	.13	.13	.14		
M (SD)	2.60 (.94)	1.96 (.85)	2.37 (1.08)	21.21 (12.71)		
Range	1.00–5.71	1.00–5.00	1.00–5.67	.00–63.00		

Note. LGBTQ = lesbian, gay, bisexual, transsexual, and queer.
[a] Point biserial correlation.
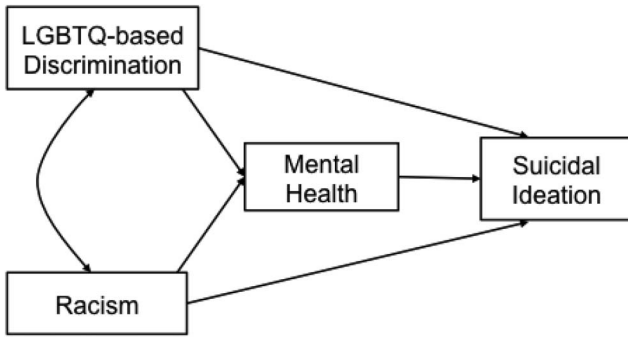* $p < .05$.   ** $p < .01$.

Figure 1. Hypothesized model.

tion may be an important link to predicting suicidal ideation through mental health among POC.

The current findings highlight the deleterious effect that LGBTQ-based discrimination has on the lives of sexual and gender minority POC, particularly for psychological functioning and their risk for suicidal ideation. Individuals who have been rejected by friends and are treated unfairly by employers and/or other important people, even strangers, may be at risk for increased mental health problems, such as depression, anxiety, and to a lesser extent, reduced satisfaction with life. It is well known that LGBTQ individuals have an increased risk for mental health problems as well as suicidal ideation, and that racism is associated with psychological distress. However, this is the first study to our knowledge to address the intersectionality of these identities, and the resulting additive effects of multiple forms of discrimination on mental health and suicidal ideation of LGBTQ POC. Although this model does not predict exactly who may complete suicide, nonfatal suicidal behaviors and suicidal ideation are some of the strongest predictors of subsequent suicide deaths (Brent et al., 1993; Fawcett et al., 1990) and can be distressing in their own right.

Experiencing LGBTQ-based discrimination has an additive effect in the presence of every day stressors, which impacts LGBTQ individuals' mental health and quality of life (Meyer, 2003; Mays & Cochran, 2001). The findings in the current study are consistent with previous research that have found LGBTQ-based discrimination to be associated with increased psychological distress (Mays

& Cochran, 2001; Herek & Berrill, 1992; Diaz et al., 2001), depression (Herek et al., 1999; Lewis et al., 2003), and likelihood for attempting suicide (Ryan et al., 2009). It is noteworthy that the findings do not indicate that LGBTQ-based discrimination is qualitatively "worse" than racism; rather, statistically the variance in suicidal ideation is better explained through the association between increased LGBTQ-based discrimination and mental health problems in the current sample. Meyer and colleagues (2008) found that in LGB POC, higher risk for mental disorders was not associated with increased hospitalization for suicide attempts. The authors suggested that increased hospitalization for attempts in LGB POC may be due to major stressful events (e.g., abuse, homelessness) rather than mood disorders (Meyer et al., 2008), although the current study found that mental health symptoms or problems (not diagnosed disorders) were predictive of past-week suicidal ideation (not necessarily hospitalization).

Racism was directly associated with mental health in the SEM, but not directly or indirectly associated with suicidal ideation. This is consistent with previous studies that have found racial discrimination to predict increased psychological distress in Black individuals (Ong et al., 2009), and more acculturative stress and mental health problems among Latinos (Araujo Dawson & Panchanadeswaran, 2010; Moyerman & Forman, 1992). Contrary to the current findings, perceived racism has been related to increased suicidality among Asian Americans (Cheng et al., 2010). Cochran, Mays, Alegria, Ortega, and Takeuchi (2007) found comparable rates of psychiatric disorders between Asian, Latino, and White LGB individuals, potentially indicating that additive minority identities may not worsen mental health. Although LGBTQ POC may not have increased rates of mental disorders compared to White LGBTQ individuals, the path to psychological distress, including suicidal ideation, is likely unique, highlighting the importance of studying this population to inform intervention efforts.

Racism may have not been associated with suicidal ideation due to the racial/ethnic diversity of the current sample. LGBTQ individuals from different racial/ethnic backgrounds may have very different experiences with racism, creating heterogeneity that the current model failed to capture. Also, LGBTQ-based discrimination may have statistically overshadowed racism with a larger standardized regression weight because LGBTQ POC can experience LGBTQ-based discrimination from their own racial/ethnic group, in addition to racism they may experience from individuals
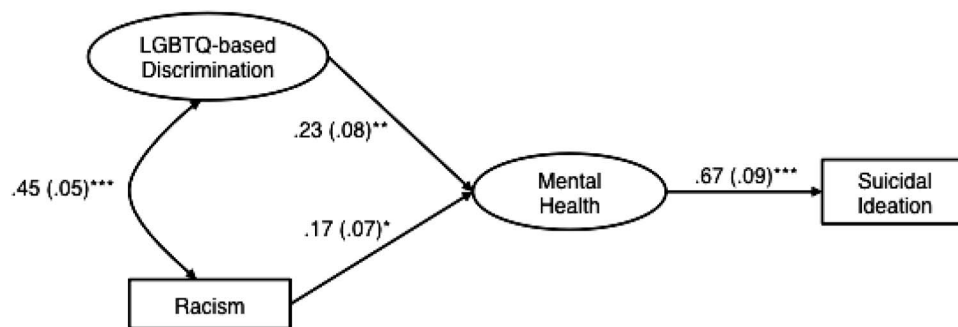

Figure 2. Structural equation model. The rectangles represent observed variables; the ovals represent unobserved latent variables. The values for direct effects represent the value of the standardized regression weights with the respective standard errors in parentheses. * $p < .05$. ** $p < .01$. *** $p < .001$.

inside and outside the LGBTQ community. As a result, LGBTQ POC may feel the need to conceal their sexual or gender identity to fit in with their racial/ethnic group and avoid physical harm (e.g., being attacked), being fired, or feeling shame or guilt. Chronically concealing one's identity is a cognitively and behaviorally taxing coping strategy that has serious psychological consequences (Pachankis, 2007). Because sexual orientation and gender identity, to a certain extent, are concealable (as opposed to race/ethnicity which is not often as concealable), this may explain the link between LGBTQ-based discrimination and suicidal ideation in comparison to racism.

Clinical Implications

The effect of LGBTQ-based discrimination on mental health in LGBTQ POC, and thereby suicidal ideation, is a potentially important area for intervention based on the current findings, as well as the effects of racism on mental health. Cognitive–behavioral stress management group interventions have been effective in improving cognitive coping strategies and social supports among HIV positive gay men (Lutgendorf et al., 1998), and may be adapted for LGBTQ POC to help members of this community cope effectively with heterosexism and cisgenderism. Cognitive–behavioral therapy has also been effective among diverse racial/ethnic groups in the treatment of mental health problems (Schraufnagel, Wagner, Miranda, & Roy-Byrne, 2006), but no research to date has tailored these types of strategies to target suicide reduce the risk among LGBTQ POC. The current findings suggest that counseling psychologists who work with this population experiencing suicidal ideation may benefit from focusing on how experiences with both LGBTQ-based discrimination and racism play into presenting mental health problems. And in particular, it may be beneficial to focus on how LGBTQ-based discrimination may lead to suicidal ideation, especially if this occurs in the context of one's own family or racial/ethnic group. Helping clients develop awareness of the system of connections identified in the current study, if it appears to be playing out in the life of a particular client, may be a first step in the client working in counseling to reduce or dissolve the direct effects of discrimination on mental health, and the indirect effects of LGBTQ-based discrimination on suicidal ideation.

Limitations and Future Directions

The heterogeneity of the sample—of sexual orientation, gender identity, and race/ethnicity—could have reduced the internal validity of the study. A benefit of this, however, is that the generalizability of the findings is greater, and intervention implications may apply to a wide range of LGBTQ POC. Future studies should parse out the differences between race/ethnicity as well as gender identity in experiences of discrimination and the effect on mental health and ultimately suicidal ideation. Similarly, because the sampling method was online recruitment via LGBTQ-oriented websites and groups, sampling bias may have occurred, and participants could have been less diverse (i.e., younger, better educated) than the national population of LGBTQ individuals of color. In addition, this is a cross-sectional study, and causality cannot be inferred. Future studies will need to assess experiences of discrimination longitudinally in order to infer causality. Response bias

may have artificially inflated reports of discrimination, mental health, and suicidal ideation, so future research may also benefit from using implicit measures of these constructs. Finally, the Redcap software and data screening approach used in the current study, and mandated by the university's information security officer to prevent fraudulent use of state funds, did not allow us to track how much data were screened for inaccurate responding or how many survey invitations were sent out that went uncompleted. As a result, this may have limited the generalizability of the findings because the retained responses may not be representative of the total group of participants who entered the survey or asked to participate in the survey, and there is no way to compare the two groups. Nonetheless, this method did indeed prevent fraudulent responses from being included in the sample, and the final data are very likely more valid as a result. Despite these limitations, the current findings add to a growing body of literature illustrating the deleterious effects of discrimination on mental health and suicidal ideation, and points to potential areas of intervention to prevent suicide in LGBTQ POC.

References

Alegría, M., Mulvaney-Day, N., Torres, M., Polo, A., Cao, Z., & Canino, G. (2007). Prevalence of psychiatric disorders across Latino subgroups in the United States. *American Journal of Public Health, 97,* 68–75. http://dx.doi.org/10.2105/AJPH.2006.087205

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103,* 411–423. http://dx.doi.org/10.1037/0033-2909.103.3.411

Araujo Dawson, B., & Panchanadeswaran, S. (2010). Discrimination and acculturative stress among first generation Dominicans. *Hispanic Journal of Behavioral Sciences, 32,* 216–231. http://dx.doi.org/10.1177/0739986310364750

Asparouhov, T., & Muthén, B. (2006). *Robust Chi square difference testing with mean and variance adjusted test statistics* (Mplus Web Notes: No. 10). Retrieved from http://www.statmodel.com/download/webnotes/webnote10.pdf

Brent, D. A., Perper, J. A., Moritz, G., Allman, C., Friend, A., Roth, C., . . . Baugher, M. (1993). Psychiatric risk factors for adolescent suicide: A case-control study. *Journal of the American Academy of Child and Adolescent Psychiatry, 32,* 521–529. http://dx.doi.org/10.1097/00004583-199305000-00006

Brondolo, E., Gallo, L. C., & Myers, H. F. (2009). Race, racism and health: Disparities, mechanisms, and interventions. *Journal of Behavioral Medicine, 32,* 1–8. http://dx.doi.org/10.1007/s10865-008-9190-3

CDC. (2014, July 14). *Deaths and mortality.* Retrieved from http://www.cdc.gov/nchs/fastats/deaths.htm

Cheng, J. K. Y., Fancher, T. L., Ratanasen, M., Conner, K. R., Duberstein, P. R., Sue, S., & Takeuchi, D. (2010). Lifetime suicidal ideation and suicide attempts in Asian Americans. *Asian American Journal of Psychology, 1,* 18–30. http://dx.doi.org/10.1037/a0018799

Chu, J. P., Goldblum, P., Floyd, R., & Bongar, B. (2010). The cultural theory and model of suicide. *Applied & Preventive Psychology, 14,* 25–40. http://dx.doi.org/10.1016/j.appsy.2011.11.001

Clements-Nolle, K., Marx, R., Guzman, R., & Katz, M. (2001). HIV prevalence, risk behaviors, health care use, and mental health status of transgender persons: Implications for public health intervention. *American Journal of Public Health, 91,* 915–921. http://dx.doi.org/10.2105/AJPH.91.6.915

Clements-Nolle, K., Marx, R., & Katz, M. (2006). Attempted suicide among transgender persons: The influence of gender-based discrimination and victimization. *Journal of Homosexuality, 51,* 53–69. http://dx.doi.org/10.1300/J082v51n03_04

Cochran, S. D., Keenan, C., Schober, C., & Mays, V. M. (2000). Estimates of alcohol use and clinical treatment needs among homosexually active men and women in the U.S. population. *Journal of Consulting and Clinical Psychology, 68,* 1062–1071. http://dx.doi.org/10.1037/0022-006X.68.6.1062

Cochran, S. D., & Mays, V. M. (1994). Depressive distress among homosexually active African American men and women. *The American Journal of Psychiatry, 151,* 524–529. http://dx.doi.org/10.1176/ajp.151.4.524

Cochran, S. D., Mays, V. M., Alegria, M., Ortega, A. N., & Takeuchi, D. (2007). Mental health and substance use disorders among Latino and Asian American lesbian, gay, and bisexual adults. *Journal of Consulting and Clinical Psychology, 75,* 785–794. http://dx.doi.org/10.1037/0022-006X.75.5.785

Cochran, S. D., Sullivan, J. G., & Mays, V. M. (2003). Prevalence of mental disorders, psychological distress, and mental health services use among lesbian, gay, and bisexual adults in the United States. *Journal of Consulting and Clinical Psychology, 71,* 53–61. http://dx.doi.org/10.1037/0022-006X.71.1.53

Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science, 19,* 1–15. http://dx.doi.org/10.1002/bs.3830190102

Díaz, R. M., Ayala, G., Bein, E., Henne, J., & Marin, B. V. (2001). The impact of homophobia, poverty, and racism on the mental health of gay and bisexual Latino men: Findings from 3 US cities. *American Journal of Public Health, 91,* 927–932. http://dx.doi.org/10.2105/AJPH.91.6.927

Einarsen, S., & Nielsen, M. B. (2015). Workplace bullying as an antecedent of mental health problems: A five-year prospective and representative study. *International Archives of Occupational and Environmental Health, 88,* 131–142. http://dx.doi.org/10.1007/s00420-014-0944-7

Evans, A. B. (2011). *The relation of gender to racial discrimination experiences and achievement among black college students.* Doctoral dissertation, University of Michigan, Ann Arbor.

Fawcett, J., Scheftner, W. A., Fogg, L., Clark, D. C., Young, M. A., Hedeker, D., & Gibbons, R. (1990). Time-related predictors of suicide in major affective disorder. *The American Journal of Psychiatry, 147,* 1189–1194. http://dx.doi.org/10.1176/ajp.147.9.1189

Fergusson, D. M., Horwood, L. J., Ridder, E. M., & Beautrais, A. L. (2005). Sexual orientation and mental health in a birth cohort of young adults. *Psychological Medicine, 35,* 971–981. http://dx.doi.org/10.1017/S0033291704004222

Gilman, S. E., Cochran, S. D., Mays, V. M., Hughes, M., Ostrow, D., & Kessler, R. C. (2001). Risk of psychiatric disorders among individuals reporting same-sex sexual partners in the National Comorbidity Survey. *American Journal of Public Health, 91,* 933–939. http://dx.doi.org/10.2105/AJPH.91.6.933

Gomez, J., Miranda, R., & Polanco, L. (2011). Acculturative stress, perceived discrimination, and vulnerability to suicide attempts among emerging adults. *Journal of Youth and Adolescence, 40,* 1465–1476. http://dx.doi.org/10.1007/s10964-011-9688-9

Haas, A. P., Eliason, M., Mays, V. M., Mathy, R. M., Cochran, S. D., D'Augelli, A. R., . . . Clayton, P. J. (2010). Suicide and suicide risk in lesbian, gay, bisexual, and transgender populations: Review and recommendations. *Journal of Homosexuality, 58,* 10–51. http://dx.doi.org/10.1080/00918369.2011.534038

Harrell, S. P. (1994). *The racism and life experience scales. Unpublished manuscript.*

Harris, E. C., & Barraclough, B. (1997). Suicide as an outcome for mental disorders. A meta-analysis. *The British Journal of Psychiatry, 170,* 205–228. http://dx.doi.org/10.1192/bjp.170.3.205

Herek, G. M., & Berrill, K. (1992). *Hate crimes: Confronting violence against lesbians and gay men.* Thousand Oaks, CA: Sage.

Herek, G. M., Gillis, J. R., & Cogan, J. C. (1999). Psychological sequelae of hate-crime victimization among lesbian, gay, and bisexual adults. *Journal of Consulting and Clinical Psychology, 67,* 945–951. http://dx.doi.org/10.1037/0022-006X.67.6.945

Hovey, J. D., & King, C. A. (1996). Acculturative stress, depression, and suicidal ideation among immigrant and second-generation Latino adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 35,* 1183–1192. http://dx.doi.org/10.1097/00004583-199609000-00016

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6,* 1–55. http://dx.doi.org/10.1080/10705519909540118

IBM Corp. (2014). *IBM SPSS Statistics for Mac, Version 22.0.* Armonk, NY: Author.

Joiner, T. E., Jr., & Walker, R. L. (2002). Construct validity of a measure of acculturative stress in African Americans. *Psychological Assessment, 14,* 462–466. http://dx.doi.org/10.1037/1040-3590.14.4.462

Kim, J., & Choi, N. G. (2010). Twelve-month prevalence of *DSM–IV* mental disorders among older Asian Americans: Comparison with younger groups. *Aging & Mental Health, 14,* 90–99. http://dx.doi.org/10.1080/13607860903046461

King, M., Semlyen, J., Tai, S. S., Killaspy, H., Osborn, D., Popelyuk, D., & Nazareth, I. (2008). A systematic review of mental disorder, suicide, and deliberate self harm in lesbian, gay and bisexual people. *BMC Psychiatry, 8,* 70. http://dx.doi.org/10.1186/1471-244X-8-70

Krieger, N., & Sidney, S. (1996). Racial discrimination and blood pressure: The CARDIA Study of young black and white adults. *American Journal of Public Health, 86,* 1370–1378. http://dx.doi.org/10.2105/AJPH.86.10.1370

Krieger, N., & Sidney, S. (1997). Prevalence and health implications of anti-gay discrimination: A study of black and white women and men in the CARDIA cohort. Coronary Artery Risk Development in Young Adults. *International Journal of Health Services, 27,* 157–176. http://dx.doi.org/10.2190/HPB8-5M2N-VK6X-0FWN

Lazarus, R. S., DeLongis, A., Folkman, S., & Gruen, R. (1985). Stress and adaptational outcomes. The problem of confounded measures. *American Psychologist, 40,* 770–779. http://dx.doi.org/10.1037/0003-066X.40.7.770

Lewis, R. J., Derlega, V. J., Griffin, J. L., & Krowinski, A. C. (2003). Stressors for gay men and lesbians: Life stress, gay-related stress, stigma consciousness, and depressive symptoms. *Journal of Social and Clinical Psychology, 22,* 716–729. http://dx.doi.org/10.1521/jscp.22.6.716.22932

Linehan, M. M. (1996). *Suicide Behaviors Questionnaire.* Seattle, WA: SBQ.

Lombardi, E. L., Wilchins, R. A., Priesing, D., & Malouf, D. (2002). Gender violence: Transgender experiences with violence and discrimination. *Journal of Homosexuality, 42,* 89–101. http://dx.doi.org/10.1300/J082v42n01_05

Lutgendorf, S. K., Antoni, M. H., Ironson, G., Starr, K., Costello, N., Zuckerman, M., . . . Schneiderman, N. (1998). Changes in cognitive coping skills and social support during cognitive behavioral stress management intervention and distress outcomes in symptomatic human immunodeficiency virus (HIV)-seropositive gay men. *Psychosomatic Medicine, 60,* 204–214. http://dx.doi.org/10.1097/00006842-199803000-00017

Mays, V. M., & Cochran, S. D. (2001). Mental health correlates of perceived discrimination among lesbian, gay, and bisexual adults in the United States. *American Journal of Public Health, 91,* 1869–1876. http://dx.doi.org/10.2105/AJPH.91.11.1869

Mays, V. M., Cochran, S. D., & Rhue, S. (1993). The impact of perceived discrimination on the intimate relationships of black lesbians. *Journal of Homosexuality, 25,* 1–14. http://dx.doi.org/10.1300/J082v25n04_01

Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129,* 674–697.

Meyer, I. H., Dietrich, J., & Schwartz, S. (2008). Lifetime prevalence of mental disorders and suicide attempts in diverse lesbian, gay, and bisexual populations. *American Journal of Public Health, 98,* 1004–1006. http://dx.doi.org/10.2105/AJPH.2006.096826

Mollica, R. F., Wyshak, G., de Marneffe, D., Khuon, F., & Lavelle, J. (1987). Indochinese versions of the Hopkins Symptom Checklist-25: A screening instrument for the psychiatric care of refugees. *American Journal of Psychiatry, 144,* 497–500. http://dx.doi.org/10.1176/ajp.144.4.497

Moyerman, D. R., & Forman, B. D. (1992). Acculturation and adjustment: A meta-analytic study. *Hispanic Journal of Behavioral Sciences, 14,* 163–200. http://dx.doi.org/10.1177/07399863920142001

Muthén, B. O. (1984). A general structural equation model with dichotomous, ordered categorical, and continuous latent variable indicators. *Psychometrika, 49,* 115–132. http://dx.doi.org/10.1007/BF02294210

Muthén, L. K., & Muthén, B. O. (1998–2012). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.

Nock, M., Hwang, I., Sampson, N., Kessler, R. C., Angermeyer, M., Beautrais, A., . . . Williams, D. R. (2009). Cross-national analysis of the associations among mental disorders and suicidal behavior: Findings from the WHO World Mental Health Surveys. *PLoS Medicine.* Advance online publication.

Ong, A. D., Fuller-Rowell, T., & Burrow, A. L. (2009). Racial discrimination and the stress process. *Journal of Personality and Social Psychology, 96,* 1259–1271. http://dx.doi.org/10.1037/a0015335

Pachankis, J. E. (2007). The psychological implications of concealing a stigma: A cognitive-affective-behavioral model. *Psychological Bulletin, 133,* 328–345. http://dx.doi.org/10.1037/0033-2909.133.2.328

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin, 135,* 531–554. http://dx.doi.org/10.1037/a0016059

Paul, J. P., Catania, J., Pollack, L., Moskowitz, J., Canchola, J., Mills, T., . . . Stall, R. (2002). Suicide attempts among gay and bisexual men: Lifetime prevalence and antecedents. *American Journal of Public Health, 92,* 1338–1345. http://dx.doi.org/10.2105/AJPH.92.8.1338

Pavot, L., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment, 5,* 164–172. http://dx.doi.org/10.1037/1040-3590.5.2.164

Phillips, M. R., Yang, G., Zhang, Y., Wang, L., Ji, H., & Zhou, M. (2002). Risk factors for suicide in China: A national case-control psychological autopsy study. *The Lancet, 360,* 1728–1736. http://dx.doi.org/10.1016/S0140-6736(02)11681-3

Pokorny, A. D. (1983). Prediction of suicide in psychiatric patients. Report of a prospective study. *Archives of General Psychiatry, 40,* 249–257. http://dx.doi.org/10.1001/archpsyc.1983.01790030019002

Polanco-Roman, L., & Miranda, R. (2013). Culturally related stress, hopelessness, and vulnerability to depressive symptoms and suicidal ideation in emerging adulthood. *Behavior Therapy, 44,* 75–87. http://dx.doi.org/10.1016/j.beth.2012.07.002

Ryan, C., Huebner, D., Diaz, R. M., & Sanchez, J. (2009). Family rejection as a predictor of negative health outcomes in White and Latino lesbian, gay, and bisexual young adults. *Pediatrics, 123,* 346–352. http://dx.doi.org/10.1542/peds.2007-3524

Schraufnagel, T. J., Wagner, A. W., Miranda, J., & Roy-Byrne, P. P. (2006). Treating minority patients with depression and anxiety: What does the evidence tell us? *General Hospital Psychiatry, 28,* 27–36. http://dx.doi.org/10.1016/j.genhosppsych.2005.07.002

Sellers, R. M., Copeland-Linder, N., Martin, P. P., & L'Heureux Lewis, R. (2006). Racial identity matters: The relationship between racial discrimination and psychological functioning in African American Adolescents. *Journal of Research on Adolescence, 16,* 187–216. http://dx.doi.org/10.1111/j.1532-7795.2006.00128.x

Silenzio, V. M. B., Pena, J. B., Duberstein, P. R., Cerel, J., & Knox, K. L. (2007). Sexual orientation and risk factors for suicidal ideation and suicide attempts among adolescents and young adults. *American Journal of Public Health, 97,* 2017–2019. http://dx.doi.org/10.2105/AJPH.2006.095943

Szymanski, D. M. (2006). Does internalized heterosexism moderate the link between heterosexist events and lesbians' psychological distress? *Sex Roles, 54,* 227–234. http://dx.doi.org/10.1007/s11199-006-9340-4

Szymanski, D. M., & Chung, Y. B. (2001). The Lesbian Internalized Homophobia Scale: A rational/theoretical approach. *Journal of Homosexuality, 41,* 37–52. http://dx.doi.org/10.1300/J082v41n02_03

Szymanski, D. M., Chung, Y. B., & Balsam, K. F. (2001). Psychosocial correlates of internalized homophobia in lesbians. *Measurement & Evaluation in Counseling & Development, 34,* 27–38.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Needham Heights, MA: Allyn & Bacon.

Williams, C. L., & Berry, J. W. (1991). Primary prevention of acculturative stress among refugees. Application of psychological theory and practice. *American Psychologist, 46,* 632–641. http://dx.doi.org/10.1037/0003-066X.46.6.632

Williams, D. R., González, H. M., Neighbors, H., Nesse, R., Abelson, J. M., Sweetman, J., & Jackson, J. S. (2007). Prevalence and distribution of major depressive disorder in African Americans, Caribbean blacks, and non-Hispanic whites: Results from the National Survey of American Life. *Archives of General Psychiatry, 64,* 305–315. http://dx.doi.org/10.1001/archpsyc.64.3.305

Wilson, P. A., & Yoshikawa, H. (2004). Experiences of and responses to social discrimination among Asian and Pacific Islander gay men: Their relationship to HIV risk. *AIDS Education and Prevention, 16,* 68–83. http://dx.doi.org/10.1521/aeap.16.1.68.27724

Yu, C. Y. (2002). *Evaluating cutoff criteria of model fit indices for latent variable models with binary and continuous outcomes.* Doctoral dissertation, University of California, Los Angeles.