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Health Consequences of Racist and Antigay Discrimination for Multiple Minority Adolescents

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Abstract

Individuals who belong to a marginalized group and who perceive discrimination based on that group membership suffer from a variety of poor health outcomes. Many people belong to more than one marginalized group, and much less is known about the influence of multiple forms of discrimination on health outcomes. Drawing on literature describing the influence of multiple stressors, three models of combined forms of discrimination are discussed: additive, prominence, and exacerbation. The current study examined the influence of multiple forms of discrimination in a sample of African American lesbian, gay, or bisexual (LGB) adolescents ages 14–19. Each of the three models of combined stressors were tested to determine which best describes how racist and antigay discrimination combine to predict depressive symptoms, suicidal ideation, and substance use. Participants were included in this analysis if they identified their ethnicity as either African American ($n = 156$) or African American mixed ($n = 120$). Mean age was 17.45 years ($SD = 1.36$). Results revealed both forms of mistreatment were associated with depressive symptoms and suicidal ideation among African American LGB adolescents. Racism was more strongly associated with substance use. Future intervention efforts should be targeted toward reducing discrimination and improving the social context of multiple minority adolescents, and future research with multiple minority individuals should be attuned to the multiple forms of discrimination experienced by these individuals within their environments.

Keywords

discrimination; African American; adolescents; mental health; lesbian; gay; bisexual (LGB)

Previous research has shown that perceived discrimination is associated with a wide range of physical and mental health problems (Gee, Spencer, Chen, & Takeuchi, 2007; Kessler, Mickelson, & Williams, 1999; Mays & Cochran, 2001; see Pascoe & Smart Richman, 2009, for review). These effects are consistent across discrimination based on virtually every stigmatized identity that has been explored (Pascoe & Smart Richman, 2009).

However, many individuals belong to more than one marginalized group (e.g., African American lesbians, Jewish women), and we know very little about how the intersection of multiple minority identities shapes these individuals' experiences with discrimination, and ultimately, their well-being. Given the profound impact even a single form of discrimination has been shown to have on individuals' health, multiple minority individuals could be at even higher risk for negative health outcomes as a result of the multiple forms of discrimination they experience. Alternatively, the life experiences of multiple minority individuals could provide unique opportunities to build resilience in the face of repeated social rejections.

African American Lesbian, Gay, or Bisexual Adolescents

The current study examines experiences of both racist and antigay discrimination among African American lesbian, gay, and bisexual (LGB) adolescents. This multiple minority group could constitute a particularly vulnerable population (Harper, Jernewall, & Zea, 2004). Adult racial minority LGB individuals experience the same amount of antigay prejudice as White LGB individuals, but they also experience significant amounts of racism (Meyer, Schwartz, & Frost, 2008). These two forms of discrimination may be especially salient when combined because this population often reports persistent experiences of racism within the LGB community in addition to antigay discrimination within their own cultural community (Nemoto et al., 2003). In other words, these multiple minority individuals often have no completely safe or stress-free social environment: sources of support for one kind of discrimination are often sources of another form of discrimination. African American LGB adolescents could be especially vulnerable to adverse outcomes, because they are only beginning to "come out" and integrate their sexual orientation into their larger identity.

Although little is known about the health outcomes of African American LGB adolescents, previous research has examined the health consequences of discrimination in separate samples of LGB adolescents and African American adolescents. It has been repeatedly demonstrated that LGB adolescents exhibit higher rates of depressive symptoms, suicidality, and substance use (see Marshal et al., 2011; Marshal et al., 2008, for reviews) than their heterosexual peers, making these important health outcomes to understand in this population. Moreover, theorists have suggested that these health disparities likely result from discrimination (Meyer, 2003). In addition, African American adolescents who experience racism are at increased risk for depressive symptoms (Brody et al., 2006; Greene, Way, & Pahl, 2006). Only one known study has examined concurrent experiences of racist and antigay discrimination. Using a largely heterosexual sample of African American adolescents and young adults, Grollman (2012) demonstrated that, in a model containing four forms of perceived discrimination, racist discrimination was associated with physical health outcomes while antigay discrimination was not. However, only 20% of the sample in this study reported experiencing antigay discrimination, and it was unclear how many of these youth were actually LGB. No previous study conducted with a sample of African American LGB adolescents has examined concurrent experiences of racist and antigay discrimination. The current study will add to our understanding of suicidality, depressive

symptoms, and substance use among African American LGB adolescents, emphasizing the role of discrimination on the health of this group.

Theoretical Framework for Understanding the Effects of Multiple Forms of Discrimination

Although the literature on the effects of multiple forms of discrimination is currently small, recent research has conceptualized three ways in which multiple forms of discrimination could affect health (Raver & Nishii, 2010). Specifically, Raver and Nishii (2010) posited that different forms of discrimination can combine in an additive, inuring, or exacerbating fashion. Although this conceptualization offers a useful starting point for understanding how multiple forms of discrimination can combine to influence health, it might not fully capture the variety of ways in which these phenomena operate. A more complete discussion follows.

Additive Models of Combined Forms of Discrimination

The theory of additive forms of discrimination implies that each form of discrimination influences health independently of other forms, and thus when modeled together, each form of discrimination is associated with health above and beyond all other forms (Holmes & Rahe, 1967; see Table 1). Additive or cumulative models of the effects of multiple forms of discrimination have been tested infrequently. In some studies, the cumulative effects of two or more forms of discrimination experienced by multiple minority individuals were no more predictive of psychological outcomes than just one kind of mistreatment (Bianchi, Zea, Poppen, Reisen, & Echeverry, 2004; Gold, 2004; Kessler et al., 1999; Moradi & Subich, 2003; Yoshikawa, Wilson, Chae, & Cheng, 2004). In contrast, other studies have shown support for an additive model of discrimination stress. In one study, levels of both socioeconomic status-based discrimination and racism were both independently predictive of self-perceived health status and depression when entered into the same multivariate model (Ren, Amick, & Williams, 1999). Furthermore, small additive effects were found for gender and ethnic harassment at work when predicting psychological and physical health outcomes (Raver & Nishii, 2010).

Prominence Models of Combined Forms of Discrimination

Another possible way in which distinct forms of discrimination could combine to influence outcomes is prominence. The idea of prominence is an extension of Raver and Nishii's (2010) inurement hypothesis: although one form of discrimination is independently damaging with regard to various health outcomes, the combination of two or more forms is not significantly worse than the effects of just one of the stressors (see Table 1).

Prominence might result from a number of underlying processes. Raver and Nishii (2010) hypothesized a process of inurement, derived from psychological adaptation theory, which posits that an organism will habituate to stimuli to which it is repeatedly exposed. Subsequently, the organism will not react as strongly to other stimuli it perceives as similar to previously habituated stimuli (Helson, 1964). However, this idea fails to describe why one form of discrimination would be impactful while others would not—presumably if an individual had adapted enough to early discrimination to make subsequent forms innocuous,

then the impact of the original form of discrimination should also have faded. Nevertheless, other processes could still result in the prominence of one form of discrimination over another, including improved coping skills developed over time (Zimmer-Gembeck & Skinner, 2011) and identity centrality (Crocker & Major, 1989).

From a conceptual standpoint, models of additivity and prominence are mutually exclusive and can be tested against each other in a single multivariate statistical model: if two forms of discrimination are entered together into a multivariate model, and only one is predictive of outcomes, this provides support for prominence. So although prominence is a relatively new idea, some previous research examining additive models of multiple forms of discrimination has tested the model indirectly (i.e., without any a priori discussion of what failure to find additivity would imply). Outcomes such as depression, psychological distress, job satisfaction, and health behaviors have been predicted by one prominent form of discrimination among multiple forms of discrimination (Bianchi et al., 2004; Moradi & Mezydlo Subich, 2002; Yoshikawa et al., 2004).

Exacerbation Models of Combined Forms of Discrimination

Multiple forms of discrimination could also interact such that each successive form exacerbates or multiplies the effects of previous forms. The exacerbation hypothesis emerges from energy theories that posit that an individual must tap into energy reserves in order to cope with stress (Robert & Hockey, 1997). Depleted energy reserves are subsequently unavailable to assist in adaptation to new stressors, exacerbating the influence of added stressors. Exacerbation of multiple forms of discrimination would be identified within multivariate models by a significant interaction of two forms of discrimination (see Table 1). Few known studies have reported interactions of multiple forms of discrimination. One study of the combined effects of gender harassment and ethnic harassment in the workplace found no support for exacerbation (Raver & Nishii, 2010). In a sample of African American women, no multiplicative effect of racism and sexism was found for psychological distress (Moradi & Mezydlo Subich, 2002). On the other hand, a significant interaction between experienced antigay discrimination and sexism predicted psychological distress in a sample of lesbians (Szymanski, 2005).

Multicollinearity in Models of Combined Forms of Discrimination

In addition to the above possibilities, if two stressors are independently associated with an outcome, but then only one stressor is predictive of the same outcome in a multivariate model, multicollinearity is a possible explanation. Multicollinearity occurs when two or more independent variables in the same multivariate model are highly correlated (Cohen, Cohen, West, & Aiken, 2002). This could be true of multiple forms of discrimination in the same model, and small changes in the model or the data can cause large changes in coefficient estimates (Cohen et al., 2002), which could cause one form to erroneously appear to predict variance in an outcome above and beyond others. Similarly, multiple forms of discrimination could predict the same variance in an outcome. In other words, if there is only a certain amount of discrimination-based variance in an outcome, two forms of discrimination could overlap in predicting this variance, leading to one form appearing to be

prominent above and beyond the other when the two forms actually predict a similar amount of variance.

Purpose and Hypotheses

The primary aim of this study was to examine all three models of combined forms of discrimination to determine which has the most validity in describing how racist and antigay discrimination combine to predict substance use, depressive symptoms, and suicidal ideation in a sample of African American LGB adolescents, a population whose sexual minority status potentially places them at high risk for these particular health challenges. Although these models have not been previously tested with a sample of African American LGB adolescents, drawing on studies of concurrent discrimination experiences among adults has provided the most evidence for the idea of prominence. Typically, racism has been the prominent stressor in the small handful of previous studies examining concurrent racist and antigay discrimination (Bianchi et al., 2004; Crawford, Allison, Zamboni, & Soto, 2002; Grollman, 2012; Yoshikawa et al., 2004). Thus, we hypothesized that racism will take prominence while antigay discrimination will not be predictive in multivariate tests of their associations with substance use, depressive symptoms, and suicidal ideation.

Method

Procedure

Data were collected as part of the Diverse Adolescents Sexual Health (DASH) study, a cross-sectional assessment of a variety of health behaviors and outcomes reported by an ethnically diverse sample of LGB adolescents. Adolescents were recruited from April 2007 to May 2010 through direct outreach at community centers serving LGB youth in four cities: Indianapolis, Indiana, Boston, Massachusetts, Philadelphia, Pennsylvania, and Oakland, California. Recruitment was also conducted through advertisements, including fliers and online social networking sites (MySpace and Facebook).

Adolescents who arrived at one of the community centers to attend services or to complete the DASH questionnaire were approached by a member of our study team. This member explained the DASH survey and assessed the adolescent's interest in participating. If an adolescent was interested in participating in the research, he or she was directed to an organization staff member who was not a member of the research study team. This additional step allowed all adolescents involved in the study to speak with an unbiased person whom could ensure that no harm would come from participating in the survey. If the adolescent then reported interest in participating, a study team member obtained his or her verbal assent to participate and brought the youth to a private room in the offices of the community center. To participate in the DASH study, only the adolescent's assent was required. A waiver of parental consent for participation was obtained to ensure participation in the study did not reveal adolescents' sexual orientation to their parents or caregivers.

All participating adolescents were then oriented to the Audio Computer Assisted Self-Interview (ACASI) program, which was used to complete the questionnaire. The ACASI program allows the interviewee to listen to questions through earphones and to enter their

responses into a laptop computer. The increased privacy of this data collection method has been found to elicit higher response rates from adolescents on potentially sensitive variables such as same-sex sexual behaviors, substance use, and depressive symptoms (Supple, Aquilino, & Wright, 1999; Turner, Ku, Sonen-stein, & Pleck, 1996). Participants were left alone to respond to the questionnaire, which was completed in 35–65 min. Finally, participants were compensated with a \$25 gift card on completion of any portion of the survey. The study was approved by the institutional review board of the University of Utah.

Participants

Inclusion criteria for the study included being between 14 and 19 years of age, and either (a) reporting a nonheterosexual (i.e., gay, lesbian, bisexual, queer, etc.) sexual orientation or (b) same-sex sexual behaviors involving genital contact within the past year.¹ Participants were included in the present analysis if they identified their ethnicity as either African American ($n = 156$) or African American mixed ($n = 120$). Thirty-three percent of this subsample identified their sex as female, 59% as male, and 8% of participants identified as transgender. Fifty-nine percent of the selected participants identified their sexual orientation as gay or lesbian, 27% as bisexual, and 14% identified as “queer” or with some other sexual orientation. Participants’ ages ranged from 14–19 years with a mean of 17.45 years ($SD = 1.36$).

Measures

Experiences of racist discrimination were assessed with 13 items adapted from the Schedule of Racist Events (Landrine & Klonoff, 1996). These items addressed racist discrimination during the past year in many contexts, including school, work, and community settings (e.g., “In the past year, how often have you been treated unfairly by teachers or professors because of your race or ethnicity?”). Participants reported how often they had experienced each form of racist discrimination using a 4-point scale (0 = *never*, 1 = *once or twice*, 2 = *a few times*, 3 = *many times*), and composite mean scores of all 13 items were calculated. This measure has strong internal consistency and has shown good predictive validity with measures of psychological distress (Landrine & Klonoff, 1996). The scale has previously been adapted for use with LGB populations (Huebner & Davis, 2007) and has strong reliability within adolescent samples (Brody et al., 2006).

Experiences of antigay discrimination were assessed with 10 questions that address antigay discrimination experienced at school. These items were adapted from a survey of mistreatment of sexual minority students in schools (Harris Interactive, 2005). Questions addressed mistreatment by both peers (e.g., “While at school, have you been picked on?”) and teachers and/or administrators (e.g., “While at school, have you been treated unfairly by teachers or administrators?”). For each item, participants were asked: “How often did this occur because people knew or assumed you were LGB?” Participants indicated how many

¹Six participants identified their current sexual orientation as heterosexual and reported recent same-sex sexual contact. These participants reported levels of perceived antigay discrimination comparable to other participants, and results were not substantively altered when excluding these participants. Because these youths were recruited from LGB networks and venues, they appeared to be sharing experiences common to LGB adolescents, they were involved in recent same-sex sexual behavior, and their inclusion did not alter results, they were retained in the sample.

times they had experienced each form of mistreatment because of their sexual orientation (0 = *never*, 1 = *once or twice*, 2 = *a few times*, 3 = *many times*), and one composite mean score of perceived antigay discrimination was calculated.

Substance use was measured with items from the National Longitudinal Study of Adolescent Health (Harris et al., 2009) and items recommended for use with youth by the Substance Abuse and Mental Health Services Administration (2006). Frequency of smoking cigarettes was operationalized as the number of days in the past month a participant had smoked (0 = 0 days, 1 = 1–5 days, 2 = 6–14 days, 3 = 15–29 days, 4 = 30 or more days). Marijuana use during the past month was also operationalized based on how many days participants reported using marijuana (0 = 0 days, 1 = 1–6 days, 2 = 7–25 days, 3 = 26 or more days). Frequency of alcohol use was assessed with one question: “During the past 12 months, on how many days did you drink?” This item was measured on a 7-point Likert scale, with response options ranging from *none* to *every day or almost every day*. Using the same Likert scale, binge drinking was assessed with one question: “During the past 12 months, on how many days did you drink five or more drinks in a row?”

Twenty items from the Center for Epidemiologic Studies Depression Scale were used to measure depressive symptoms (Radloff, 1977). These items addressed dysphoric mood, vegetative symptoms, irritability, and hopelessness (e.g., “In the past week I thought my life had been a failure.”) All items were answered on a 4-point Likert scale (0 = *never or rarely*, 1 = *sometimes*, 2 = *a lot of the time*, 3 = *most of the time or all of the time*). Composite mean scores of all 20 items were calculated. This measure has been shown to have strong internal consistency and reliability when used with adolescents (Roberts, Andrews, Lewinsohn, & Hops, 1990) and has good concurrent validity with clinical interviews assessing mood disorders among ethnic minority adolescents (Prescott et al., 1998).

Suicidal ideation was measured with one commonly used dichotomized item (Kann et al., 1998). Participants replied *yes* or *no* to: “During the past 12 months, have you ever seriously thought about committing suicide?”

An estimate of how many others to whom each participant had revealed their minority sexual identity was estimated for each case. This measure of “outness” was calculated from composite mean scores based on how many immediate family members, school peers, and friends knew that a participant identified as LGB.

Results

Covariate Associations

Table 2 presents descriptive statistics and associations between all continuous predictors, outcomes of interest, and potential demographic covariates. Gender was associated with marijuana use ($F = 4.57, p = .011$) and perceptions of antigay discrimination ($F = 15.11, p < .001$). City of recruitment was associated with cigarette smoking, ($F = 9.24, p < .001$), alcohol use during the past year ($F = 4.46, p = .005$), marijuana use ($F = 6.36, p < .001$), and perceptions of racist discrimination ($F = 3.38, p = .019$). Sexual orientation was associated with perceptions of antigay discrimination ($F = 8.01, p < .001$). Ethnicity (African American

vs. African American mixed) was not significantly associated with target outcomes or with levels of perceived racist or antigay discrimination. Therefore, ethnicity was not included as a covariate in subsequent analyses.

Effects of Racist and Antigay Discrimination in Separate Models

To determine whether racist and antigay discrimination separately predicted depressive symptoms and suicidal ideation, two sets of ordinary least squares (OLS) and logistic regression models (for each outcome, respectively) were estimated. In each set, antigay discrimination or racist discrimination were used to predict each outcome, controlling for age, gender, sexual orientation, outness, and city of recruitment. Results indicated that, when considered in separate models, both racist and antigay discrimination were independently associated with depressive symptoms and suicidal ideation above and beyond other covariates (see Table 3). In each case, greater levels of perceived discrimination were associated with increased depressive symptoms and suicidal ideation.

In predicting substance use, antigay and racist discrimination were entered into separate regression models along with demographic covariates (see Table 3). Independently, racist and antigay discrimination were both unassociated with frequency of smoking during the past month and frequency of drinking alcohol during the past year. Racist discrimination was marginally associated with binge drinking and positively associated with marijuana use; antigay discrimination was not associated with these outcomes.

Combined Models of Racist and Antigay Discrimination

To examine the combined effects of racist and antigay discrimination, both variables were entered as predictors together in a single regression model, along with their interaction and the above covariates. Separate models were calculated for depressive symptoms, suicidal ideation, and each substance use outcome (see Table 4 for results from all multivariate models). Prior to computing the interaction term, both racist and antigay discrimination were centered to reduce collinearity in the interaction (Aiken & West, 1990).

Results from OLS regression indicated that both antigay and racist discrimination uniquely predicted a significant amount of variance in levels of depressive symptoms. Although racist discrimination was a somewhat stronger predictor of depressive symptoms, there was an additive effect of antigay discrimination in the same multivariate model.

With regard to suicidal ideation, logistic regression models indicated that antigay discrimination, but not racist discrimination, was associated with suicidal ideation.

Neither racist nor antigay discrimination, together in the same multivariate model, were significantly associated with frequency of smoking cigarettes during the past month or frequency of drinking alcohol during the past year. In a multivariate OLS regression model, racist discrimination was significantly associated with binge drinking, while antigay discrimination was not associated above and beyond racism and other covariates.

Finally, an OLS regression model estimating marijuana use during the past month found a significant interaction between racist and antigay discrimination (see Figure 1). When

examining this interaction across varying levels of racist discrimination, results indicated that perceived antigay discrimination was a significant predictor of marijuana use only at levels of perceived racist discrimination 1 *SD* below the mean ($B = .233$, $SE B = .102$, $\beta = .202$, $p = .023$). In addition, there was a significant main effect of racist discrimination with marijuana use during the past month in the multivariate model. This effect persisted across levels of antigay discrimination.

Discussion

Similar to much previous research with minority individuals who have experienced various forms of discrimination, higher levels of both antigay and racist discrimination were independently associated with greater depressive symptoms and suicidal ideation. Only racist discrimination was independently associated with marijuana use during the past month. In addition, neither form of discrimination was independently associated with frequency of drinking alcohol, frequency of smoking cigarettes, or binge drinking.

When testing multivariate models including both racist and antigay discrimination, an additive effect was found in predicting depressive symptoms. This result aligns with previous research examining the associations between racist and antigay discrimination and psychological distress among adult Latino gay and bisexual men (Díaz, Ayala, Bein, Henne, & Marin, 2001). Taken together, results from previous research and the present study indicate that both racist and antigay discrimination are important factors in multiple-minority individuals' mental health outcomes, even when they co-occur. The present study extends this finding to a sample of African American LGB adolescents.

Despite both forms of discrimination being independently associated with suicidal ideation, only antigay discrimination was associated above and beyond all other covariates in a multivariate model predicting suicidal ideation. However, it is possible that multicollinearity was occurring within estimated multivariate models. Both forms of mistreatment were significantly associated with suicidal ideation, and the two forms of mistreatment correlated significantly ($r = .186$). Because the zero-order correlation of antigay discrimination with suicidal ideation was slightly stronger ($r = .126$) than the correlation between racist discrimination and suicidal ideation ($r = .120$), the overlap in variance between these two forms of mistreatment was assigned to antigay discrimination in the multivariate model. Thus, both racist and antigay discrimination are likely important with regard to African American LGB adolescents' suicidal ideation. Both forms of mistreatment could contribute to the same underlying risk for suicidality (e.g., hopelessness) rather than independently triggering unique processes. Previous research has strongly linked antigay discrimination, including in-school victimization, with suicidality among sexual minority adolescents (Almeida, Johnson, Corliss, Molnar, & Azrael, 2009; Hershberger, Pilkington, & D'Augelli, 1997; Marshal et al., 2011), but no known previous studies have examined associations between racism and suicidality among adolescents.

Results from the present study indicate that racist discrimination had more clear associations with substance use among African American LGB adolescents than did antigay discrimination. This was especially true of more serious drug use, including marijuana use

and binge drinking, compared to more “normative” substance use, such as smoking cigarettes and drinking alcohol, which had nonsignificant main effect associations with either form of discrimination. These results lend support to a previous hypothesis that prominence could be occurring in the prediction of substance use outcomes for multiple minority adolescents (Poteat, Aragon, Espelage, & Koenig, 2009). Results from Poteat et al.’s (2009) work revealed differences in substance use across racial groups within sexual minority adolescents. Although White LGB adolescents were found to be more likely to use substances than their heterosexual White peers, racial minority LGB adolescents were not more likely to use substances than their racial minority heterosexual peers (Poteat et al., 2009). The current study provides further evidence that prominence could be occurring in the prediction of substance use for racial minority LGB adolescents: African American LGB adolescents have experienced racism their entire lives, so additional stress as a result of more recent antigay discrimination does not have an additive influence on their substance use.

A significant interaction between racist and antigay discrimination was found in association with marijuana use during the past month. Although a significant interaction could support exacerbation, probing the interaction revealed that the presence of one form of discrimination did not increase the influence of another form of discrimination in predicting marijuana use. In this case, antigay discrimination was only associated with marijuana use at low levels of perceived racist discrimination. This result likely indicates prominence of racism in the prediction of marijuana use. Although racism predicted marijuana use across levels of antigay discrimination, antigay discrimination is only an important predictor of marijuana use in the relative absence of racism.

Although the current study sheds light on how concurrent racist and antigay discrimination influence substance use of African American LGB adolescents, the results also raise important questions, including: Why was racist discrimination associated with substance use outcomes while antigay discrimination was not? One possible explanation is that participants who reported more racist discrimination were more engaged with the LGB community as multiple minority individuals have reported experiencing racist discrimination when interacting with the LGB community (Nemoto et al., 2003). Engagement with the LGB community is a documented risk factor for substance use (Baiocco, D’Alessio, & Laghi, 2010; Hagman et al., 2009; Harawa et al., 2008). Thus, participation in the LGB community might be a third variable that predicts both experiences of antigay discrimination and substance use. Post hoc analyses revealed that perceptions of racist discrimination were correlated with attendance at LGB community events among participants in this sample ($r = .154$), and attendance at LGB community events was associated with reports of binge drinking ($r = .232$).

Another possibility is that antigay discrimination targets an identity that many adolescents feel ambivalent about, and may foster more internalizing problems as adolescents attempt to cope with minority stress that they feel they deserve. Internalized coping with regard to antigay discrimination could be heightened among LGB adolescents, because they are only beginning to integrate their minority sexual orientation into their larger identity, and it is possible that they do not yet have the skills or resources to cope with this stress in other

ways. In contrast, perceived racist discrimination could be less likely to be internalized because most African American adolescents understand that racism is unacceptable. Thus, anger associated with racist discrimination may lend itself more readily to externalizing problems, including substance use.

Study Limitations

The present study is limited by its cross-sectional design. Theoretical models have indicated that stress and discrimination likely predict health outcomes (Meyer, 2003), but it is possible that certain health outcomes could influence reports of perceived discrimination (e.g., depressed individuals interpreting others' behaviors as more negative or threatening and therefore reporting more perceived discrimination). However, experimental and longitudinal studies of perceived discrimination and health outcomes have supported the idea that stress and discrimination predict health outcomes (Pascoe & Smart Richman, 2009). In addition, to reach a hidden and specific population of adolescents, the current study relied on convenience sampling, which might have resulted in a nonrepresentative sample of African American LGB adolescents. This must be balanced by the strength of obtaining a large, diverse sample of LGB teens. We are aware of no larger samples of LGB-identified African American teens that has included a comprehensive assessment of psychological variables.

The present study is also limited by its dissimilar measures of mistreatment. Racist discrimination was measured over the past year within multiple contexts, and antigay discrimination was measured at any time participants were in school or on school property. Limiting the contexts in which antigay discrimination was measured could attenuate its associations with outcomes, particularly in multivariate models containing both forms of mistreatment. This measure leaves out experiences of antigay discrimination within other contexts, including antigay discrimination experienced at home, at work, at church, within the adolescent's neighborhood, and possibly on online social media websites (i.e., Facebook, etc.). Omitting these contexts from our measure of antigay discrimination could have limited the level of mistreatment reported by participants. In addition, associations between antigay discrimination and outcomes could be altered by measuring mistreatment in a wider range of contexts. For example, recent research has linked cyberbullying with suicidality (Hinduja & Patchin, 2010), so associations between antigay discrimination and suicidal ideation might have been stronger had our measure included questions about online aspects of participants' social context.

However, measuring antigay discrimination only within the school setting could carry potential benefits. Using only schoolspecific experiences of discrimination likely filters out potential antigay discrimination experienced at home (Ryan, Huebner, Diaz, & Sanchez, 2009), potentially creating a measure that is more easily comparable to the measure of racist discrimination. In addition, minority sexual orientation is a concealable stigmatized identity, and some social context is often required for others to know that one is a sexual minority. The school environment provides this social context, and previous research has shown that LGB adolescents experience more antigay discrimination at school than they do within other community (e.g., work, church) contexts (Pilkington & D'Augelli, 1995).

Finally, the present study only examined suicidal ideation; it did not include a more detailed inventory of self-harm intentions and behaviors (including ideation and behaviors with no suicidal intent). Previous research with LGB adolescents (Almeida et al., 2009) has documented elevated rates of self-harm behaviors, and future research should examine a full range of suicidal and self harm intentions and behaviors among LGB adolescents.

Conclusion

Results from the present study indicate that African American LGB adolescents' concurrent experiences of racist and antigay discrimination combine in different ways in the prediction of various outcomes. Both forms of mistreatment are important with regard to depressive symptoms and suicidality, and racist discrimination was more strongly associated with substance use outcomes on average. Most important is that the present study demonstrates that stress as a result of both perceived racist and antigay discrimination is associated with the health outcomes of African American LGB adolescents. Thus, one route to improving health outcomes of African American LGB adolescent is to address their experiences with both racist and antigay discrimination. The most appropriate interventions would be systemic and aimed at reducing the experiences of discrimination of this population. For instance, students in schools with inclusive antibullying policies report fewer experiences with antigay discrimination (GLSEN, 2010). In addition, interventions targeting protective factors that could attenuate the stress of perceived discrimination could also be helpful. One recent individualized and strengths-based intervention conducted with an ethnically diverse sample of sexual minority adolescents proved efficacious in increasing self-efficacy and self-esteem among participants (Craig, McInroy, Austin, Smith, & Engle, 2012). Future intervention efforts with this population should be targeted toward both reducing discrimination and increasing protective factors for adolescents, and, more generally, improving the social contexts in which these adolescents experience discrimination. These results also indicate that future research examining the health of multiple minority individuals should take into account the multiple ways in which these individuals could experience discrimination based on their multiple stigmatized identities.

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Figure 1.
Frequency of marijuana use as a function of levels of perceived racist and antigay discrimination

Table 1
Summary of Effects Implied by Various Models of Combined Stressors

Analyses	Stressor	Model or statistical phenomena			
		Additive	Prominence	Exacerbation	Multicollinearity
Discrimination examined separately	1	Significant	Significant ^a	?	Significant
	2	Significant	NS ^a	?	Significant
Discrimination examined simultaneously	1	Significant	Significant ^a	?	Significant ^a
	2	Significant	NS ^a	?	NS ^a
	Interaction	NS	?	Significant	NS

Note. NS = nonsignificant; ? = could be significant or nonsignificant.

^aWithin these models, either stressor 1 or 2 will be significant. The other stressor will not be significant.

Table 2

Intercorrelations Among Primary Study Variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Age	17.45	1.36	—	0.20**	0.06	0.08	-0.05	-0.03	0.16*	0.08	0.33**	0.32**
2. Outness	2.24	1.22		—	-0.01	0.20**	-0.08	-0.10	0.23**	0.03	0.09	0.08
3. Racist discrimination	0.50	0.48			—	0.19**	0.25**	0.12*	0.10	0.22**	-0.02	0.15
4. Antigay discrimination	1.20	0.81				—	0.10	0.13*	-0.01	0.00	0.05	0.08
5. Depression	0.97	0.56					—	0.35**	0.14*	0.17**	-0.03	0.19*
6. Suicidal ideation	0.23	0.42						—	0.04	0.19**	0.01	0.13
7. Smoking	1.15	1.52							—	0.39**	0.23**	0.16
8. Marijuana use	0.46	0.90								—	0.20*	0.28*
9. Alcohol frequency	2.58	1.57									—	0.47**
10. Binge drinking	1.23	1.73										—

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

Table 3
Independent Associations of Each Form of Mistreatment With Outcomes in Separate Multivariate Regression Model for Each Outcome

Form	Depression			Suicidal Ideation ^a			Frequency of smoking			Marijuana use			Frequency of alcohol use			Binge drinking		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Racist	0.309***	0.071	0.268	0.763*	0.313	0.124	0.194	0.040	0.334**	0.108	0.183	-0.144	0.243	-0.046	0.523 [†]	0.277	0.147	
Antigay	0.146**	0.049	0.206	0.752***	0.235	0.047	0.130	0.025	0.130	0.076	0.113	0.163	0.163	0.084	0.188	0.184	0.090	

^aLogistic regression used to estimate dichotomous outcome.

[†] $p = .061$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 4
Combined Models of Each Form of Mistreatment and Their Interaction in Separate Multivariate Regression Model for Each Outcome

Form	Depression			Suicidal Ideation ^a			Frequency of smoking			Marijuana use			Frequency of alcohol use			Binge drinking		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Racist	0.254***	0.079	0.221	0.561	0.363	0.363	0.125	0.214	0.040	0.339**	0.123	0.181	-0.216	0.254	0.071	0.700*	0.303	0.200
Antigay	0.103*	0.050	0.146	0.684**	0.241	0.241	0.029	0.134	0.015	0.076	0.078	0.065	0.184	0.171	0.095	0.125	0.190	0.060
Interaction	0.076	0.093	0.053	-0.287	0.417	0.417	-0.162	0.250	-0.043	-0.327s	0.146	-0.140	0.138	0.314	0.036	-0.566	0.360	-0.136

Note. For all models, interactions were initially included and then removed if not significant. Including nonsignificant interactions did not alter estimations of any model.

^a Logistic regression used to estimate dichotomous outcome.

* $p < .05$.

** $p < .01$.

*** $p < .001$.