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# Are Black Sexual Minority Adults More Likely to Report Higher Levels of Psychological Distress than White Sexual Minority Adults? Findings from the 2013–2017 National Health Interview Survey

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**Abstract:** This study examined whether the association between sexual minority status and psychological distress is different between Black adults and White adults. The intersectionality framework suggests that Black sexual minority adults are more likely to report psychological distress than White sexual minority adults. Using data from the 2013–2017 National Health Interview Survey, multinomial logistic regression was conducted to examine the associations among race, sexual orientation identity, and psychological distress in a large representative U.S. sample that included a large number of Black sexual minority adults and White sexual minority adults. Results indicated that the association between sexual minority status and psychological distress was not significantly different between Black adults and White adults. Future research should examine resources that may buffer risk for psychological distress among Black sexual minority adults.

**Keywords:** African American; Black; depression; intersectionality; minority stress; sexual minority; sexual orientation; psychological distress

## 1. Introduction

Studies on sexual orientation inequities in health have taken advantage of the large representative sample of sexual minority adults available from the National Health Interview Survey (NHIS). A couple of studies using the NHIS demonstrated that sexual minority adults are more likely to report significantly higher levels of psychological distress than heterosexual adults (Cochran et al. 2017; Gonzales et al. 2016). Using a large representative sample of Black sexual minority adults and White sexual minority adults from the NHIS, this study examined whether Black sexual minority adults were more likely to report higher levels of psychological distress than White sexual minority adults.

Two theoretical frameworks informed this study. The minority stress framework suggests that stressors associated with a minority sexual orientation such as discrimination and social rejection place sexual minorities at greater risk for health problems compared to heterosexuals (Meyer 1995; Meyer 2003). The intersectionality framework, which comes from Black feminist scholarship, calls for the consideration of multiple social statuses such as race, class, gender, and sexuality on how they collectively advantage or disadvantage individuals (Weber et al. 2018). Persons with multiple minority social statuses should experience more stressors than persons with fewer minority social statuses because of the unique stressors associated with each minority social status. Since persons with multiple minority social statuses are exposed to more stressors, they are at greater risk for health problems than persons with fewer minority social statuses.

The minority stress framework and the intersectionality framework would suggest that Black sexual minority adults are exposed to stressors associated with both their sexual minority status and

racial minority status, which would put Black sexual minority adults at greater risk for psychological distress compared to White sexual minority adults. However, recent studies suggest that Black sexual minority adults do not report significantly higher levels of psychological distress than White sexual minority adults. While previous research found that Black adults are more likely to report higher levels of psychological distress than White adults (Barnes and Bates 2017), a recent study using the NHIS found no significant difference in psychological distress between Black adults and White adults (Watkins and Johnson 2018). Using the minority stress framework, one study found that sexual minorities who are racial and ethnic minorities (REM) were just as likely to experience sexual orientation-related stressors such as heterosexist discrimination, expectations of stigma, and not coming out as sexual minorities who are White (Velez et al. 2017). On the other hand, using the intersectionality framework, many studies show that REM sexual minorities are more likely to experience stressors associated with their racial minority status compared to White sexual minorities. Those racial minority status stressors include discrimination experiences (Calabrese et al. 2015), sexual racism (Bhambhani et al. 2018), and victimization (Bostwick et al. 2018). Yet, in many of those studies, there was no difference in psychological distress between REM sexual minorities and White sexual minorities. The sexual orientation-related stressors and the racial minority-related stressors that REM sexual minorities experience did not lead them to a greater risk for psychological distress than White sexual minorities.

While recent research suggests a general finding that psychological distress is not different between Black sexual minority adults and White sexual minority adults, this current study provides important contributions to confirming or disconfirming that general finding. In using the NHIS, this analysis has two methodological strengths compared to previous studies on psychological distress among Black sexual minority adults and White sexual minority adults. The first methodological strength is that the NHIS has a nationally representative sample of Black sexual minority adults and White sexual minority adults in the U.S. The second methodological strength is that the large sample of Black sexual minority adults and White sexual minority adults yields reliable statistical estimates. In previous studies, findings of no racial difference in psychological distress among sexual minorities may be due to low statistical power from small samples of REM sexual minorities rather than an actual racial non-difference in the sexual minority population. The large sample of Black sexual minority adults and White sexual minority adults in the NHIS can provide reliable estimates, confirming whether there is an actual lack of difference in psychological distress between Black sexual minorities and White sexual minorities.

## 2. Methods

### 2.1. Data

The study of Black sexual minority adults and White sexual minority adults used publicly available data from the National Health Interview Survey from 2013 to 2017. The cross-sectional health survey of the U.S. civilian, non-institutionalized population is conducted yearly by the National Center for Health Statistics (NCHS) of the Centers for Disease Control and Prevention (National Center for Health Statistics 2018a). Since 2013, the NHIS has a survey question on sexual orientation identity given to adult participants. This study used a sample of around 165,000 adults who were asked the sexual orientation question in the five survey years between 2013 and 2017.

### 2.2. Variables

Women who chose the lesbian or gay category or the bisexual category and men who chose the gay category or bisexual category in the sexual orientation identity question were classified as sexual minority. *Sexual Minority Status* and *Heterosexual Status* were coded as dummy variables. A dummy variable of missing sexual orientation information was also created to be a control in the analysis. *Psychological Distress* was measured using the six-item Kessler (K-6) Nonspecific Distress Scale (Kessler

et al. 2002). Items were added together, creating a scale of 0 to 24, in which higher total scores indicate higher levels of distress. Using the scores, *Psychological Distress* was coded into three-category variable: low distress (total scores ranging from 0 to 4), moderate distress (total scores ranging from 5 to 12), and high distress (total scores of 13 or higher). The non-Latino *Black*, non-Latino *White*, and *Other Race and Ethnicity* variables were dummy coded. The *Women* and *Men* variables were dummy coded. The social statuses of age (coded as dummy variables of ages 18 to 25, ages 26 to 34, ages 35 to 49, and ages 50 and above), education level (coded as the dummy variables of less than high school, high school degree, some college, bachelor's degree, and some graduate school) and family poverty level (coded as dummy variables of the ratio of family income to less than the poverty line, the ratio of family income to 100% to 199% above the poverty line, the ratio of family income to 200% to 399% above the poverty line, and the ratio of family income to 400% or above the poverty line) were controls in the analysis. Multiple imputation was conducted using procedures recommended by the NCHS for missing data on the family poverty level dummy variables (National Center for Health Statistics 2018b). About 4% of the sample was dropped due to missing information on psychological distress and education. After missing data were dropped, the sample size was 158,014.

### 2.3. Statistical Analysis

Weights were incorporated in all statistical estimates. In some statistical analyses, some survey participants were dropped because some strata did not have Black adults. Sexual minority status was the main independent variable of interest. Heterosexual status is the reference category for the sexual minority variable. Psychological distress was the dependent variable, and multinomial logistic regression was conducted with low distress as the reference category. Following convention on previous sexual orientation and health research, estimates were produced separately for women and men. For each gender, regression equations were estimated separately for Black adults and White adults. Regression equations controlled for missing sexual orientation information, other race and ethnicity status, age, education level, and family poverty level. Relative risk ratios and confidence intervals of the sexual minority status variable were examined to see whether the associations between sexual minority status and psychological distress were statistically different between Black adults and White adults.

## 3. Results

Table 1 shows the weighted descriptive statistics of sexual orientation identity, race, gender, and psychological distress. In total, 2.8% of the sample was categorized as having sexual minority status; 95.9% of the sample was categorized as having heterosexual status; 11.2% of the sample was categorized as Black; 69.5% of the sample was categorized as White; 54.1% of the sample was categorized as women; 45.9% of the sample was categorized as men; 3.6% of the sample was categorized as having high psychological distress; 17.4% of the sample was categorized as having moderate psychological distress; 79% of the sample was categorized as having low psychological distress.

Table 2 displays the weighted results of the multinomial logistic regression models. Relative risk ratios, 95% confidence intervals, and *p*-values are presented. Among women, sexual minority status was associated with increased risk for high and moderate psychological distress for both Black adults and White adults. Yet, the strengths of the associations between sexual minority status and high and moderate psychological distress were not significantly different between Black women and White women. Among men, sexual minority status was associated with increased risk for high and moderate psychological distress for both Black adults and White adults. Yet, the strengths of the associations between sexual minority status and both high and moderate psychological distress were not significantly different between Black men and White men.

**Table 1.** Weighted percentages of sexual orientation identity, race and ethnicity, and psychological distress, 2013–2017 National Health Interview Survey.

| | Percentage |
|---|---|
| **Sexual Orientation Identity** | |
| Sexual Minority Status | 2.8% |
| Heterosexual Status | 95.9% |
| Missing | 1.3% |
| **Race and Ethnicity** | |
| Black | 11.2% |
| White | 69.5% |
| Other Race and Ethnicity | 19.4% |
| **Gender** | |
| Women | 54.1% |
| Men | 45.9% |
| **Psychological Distress** | |
| High | 3.6% |
| Moderate | 17.4% |
| Low | 79.0% |

Note: Number of Participants = 158,014.

**Table 2.** Weighted odds ratios and confidence intervals in the associations between sexual minority status and psychological distress for each gender and racial group, 2013–2017 National Health Interview Survey.

| | Odds Ratio (95% Confidence Interval) | |
|---|---|---|
| | **Black** | **White** |
| **Sexual Minority Status Predicting Psychological Distress Among Women** | | |
| Low (Reference) | 1.00 | 1.00 |
| Moderate | 1.82 *** (1.37, 2.41) | 2.03 *** (1.75, 2.35) |
| High | 2.92 *** (1.9, 4.49) | 3.14 *** (2.5, 3.93) |
| **Sexual Minority Status Predicting Psychological Distress Among Men** | | |
| Low (Reference) | 1.00 | 1.00 |
| Moderate | 1.66 * (1.08, 2.55) | 1.87 *** (1.6, 2.17) |
| High | 2.53 ** (1.27, 5.01) | 2.75 *** (1.95, 3.87) |

Notes: Models include controls (not shown) for missing information of sexual orientation identity, age, education, and family poverty level. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Two-tailed tests.

## 4. Discussion

The purpose of this study was to examine whether there was a Black and White difference in the association between sexual minority status and adult psychological distress using a large representative sample of Black sexual minority adults and White sexual minority adults from the National Health Interview Survey. The results showed that sexual minority status was associated with increased risk for psychological distress for both Black adults and White adults. However, the results did not indicate that Black sexual minority adults had significantly higher levels of psychological distress than White sexual minority adults, which is a similar finding in recent studies (Bostwick et al. 2018; Velez et al. 2017).

The minority stress framework was supported with the finding of higher risk for psychological distress among Black sexual minority adults and White sexual minority adults. In contrast, the intersectionality framework was not supported with the finding of a racial non-difference in psychological distress among sexual minority adults. The intersectionality framework has been supported by recent studies on REM sexual minorities that have identified unique stressors that affect

Black sexual minority adults such as discrimination experiences and social rejection (Bhambhani et al. 2018; Bostwick et al. 2018; Calabrese et al. 2015). The identified stressors in studies on REM sexual minorities can inform mental health practitioners of evidence-based risk factors that affect Black sexual minority adults.

While this study does not show a racial difference in psychological distress among sexual minority adults, perhaps race-based stressors do place Black sexual minority adults at greater risk for psychological distress than White sexual minority adults and resources for Black sexual minority adults could have buffering effects in preventing greater risk for psychological distress. A stereotype about Black communities is that those communities are homophobic toward lesbian and gay people and perhaps that homophobia stems from high religious involvement in Black communities. Yet, one study found that the percentages of persons of being out and finding social support from families and friends in Black communities are not significantly different from the percentages of persons of being out and finding social support from families and friends in other racial and ethnic minority communities (Battle et al. 2017). Friends, families, and religious institutions in Black communities could be sources of social support, and studies should examine on how those resources can have positive and buffering effects for the mental health of Black sexual minority adults.

The National Health Interview Survey provides a large representative sample of Black sexual minority adults and White sexual minority adults that help produce reliable estimates on the associations between sexual minority status and psychological distress within Black and White populations. Large-scale health surveys should incorporate more questions on risk and resiliency factors so reliable estimates can be made on the associations among social statuses, stressors, resources, and health in small populations such as sexual minority communities and racial and ethnic minority communities. Despite the availability of a large representative sample of Black sexual minority adults and White sexual minority adults, due to small sample size, this study did not further separate sexual minority status by sexual identity groups (e.g., lesbian or gay versus bisexual) within gender-stratified samples, which is usually conducted in many sexual orientation and health studies. A larger sexual minority sample from additional years of data from the NHIS would give the opportunity to examine sexual identity differences within racial and ethnic populations.

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